The Completeness of Kant's Table of Judgments

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The Completeness of Kant's Table of Judgments was originally published as *Die Vollständigkeit der kantischen Urteilstafel* in Berlin in 1932. A revised edition was published in Berlin under license of the American Military Government in 1948. The revised edition was reissued in 1986 by Felix Meiner Verlag, ©1986 by Felix Meiner Verlag GmbH., Hamburg.

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Translators' Preface

All references to Kant's texts are to the Academy edition. When appropriate, we have relied on available English translations, but we have modified them where it was necessary to preserve nuances in the meaning of the original German for Reich's argument. We refer to the *Critique of Pure Reason* using the pagination of the first edition (the A edition) and the second edition (the B edition).

Reich's references and quotations are often incomplete and sometimes inaccurate. For example, he rarely supplies ellipses when he omits part of a quoted text, and sometimes he places quotation marks around his own paraphrases of the original text. We have supplied missing ellipses or the missing text, depending on what would better serve Reich's argument. We have also attemped to provide accurate references.

Our main purpose was to make Reich's argument accessible to the English scholar rather than to preserve the peculiarities of his style. For that reason we often provide brief transitional phrases not in Reich's text where we thought they would enhance the argument. Reich also makes extensive use of *Sperr-*

druck, bold print, and exclamation points. We tended to omit them except where we felt they really did help the reader.

We would like to thank Lewis White Beck for his encouragement and helpful advice.

J.K.
M.L.

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Foreword

Lewis White Beck

The publishing history of *Die Vollständigkeit der kantischen Urteilstafel* is not a happy one. Klaus Reich wrote it as his doctoral dissertation (Rostock University, 1932), and it was published in Berlin the same year, a year of political turmoil just preceding the destruction or *Gleichschaltung* of the philosophical periodicals that in normal times would have reviewed it. In fact, only *Kant-Studien* reviewed it, and that in a bare twenty-five lines. A revised version, taking issue with publications by H. J. Paton and H. J. de Vleeschauwer that had appeared after Reich's first edition, was published in Berlin under license of the American Military Government in 1948. This was a year of hard times in Germany, and the second edition was printed on cheap paper that is already crumbling. In 1948 most German learned journals had not yet resumed publication, and I have not found any review of the second edition. Only after the University of Marburg, in which Klaus Reich had become professor, regained its eminence as one of the leading institutions in the world for Kant scholarship did the book appear (1986) in a dignified and substantial format befitting its importance. But there were no

revisions in this edition, and by this time the book was so well known in Germany that its republication gave no occasion for scholarly reviewing or criticism. In consequence, there has never been a full-scale *Auseinandersetzung*[1] with a book that many regard as a minor classic in the history of Kantianism.

The fate of the book in the English-speaking world was no better than in Germany. Paton saw its importance and in various of his writings recommended it. (It was upon Paton's urging that I first read it and became personally acquainted with the author.) Few, I think, followed Paton's recommendation. The book was difficult to procure, and it was made difficult to manage by the disconcerting tendency of the flimsy book to fall to pieces in one's hands. Reich's unusually complex syntax and style put it beyond the reach of many readers, and strained even those with a good knowledge of German. Besides, to those who knew only the title, the book seemed to represent a lost cause, since the imperfections of the table of judgments had become dogma among Kant scholars.

The translation by Dr. Kneller and Dr. Losonsky now makes this difficult but important book available, both physically and intellectually, to English-speaking Kant scholars, and it can be expected that one of the most neglected and most impugned parts of the *Critique of Pure Reason* will finally get the attention it requires.

Reich's book should be read as a commentary on the Metaphysical Deduction of the Categories, and as an argument that its principal conclusion is correct even though Kant failed to establish it in the Metaphysical Deduction proper. Reich offers his own defense of the conclusion by using material far removed from the text of the Metaphysical Deduction, much of which was found in notes that were becoming available to Kant scholars only in the late 1920's and that remain even now untranslated into English.

The Metaphysical Deduction of the Categories—the very name is an afterthought introduced only in the second edition (B159) and used only for the nonce by Kant—is one of the

least esteemed parts of the *Critique*. Several eminent commentators have passed over it in polite silence, as if embarrassed by Kant's fatuity, and those who enjoy lording it over him are almost unanimous in their conviction that not only is its premise ungrounded, its argument incorrect, and its conclusion false, but also that, even if it were conclusive and correct, it would contribute nothing that is not better provided in other parts of the *Critique*.[2] Such objections were current even in Kant's own day; they were repeated by Hegel, and are commonplaces of Kant criticism today. All this in spite of Kant's insistence upon the necessity of the Metaphysical Deduction for the systematic and architectonic wholeness of the *Critique*.[3] Reich's book is the fullest and most skillful evaluation the Metaphysical Deduction has had.

I shall now give a simple and, I hope, uncontroversial exposition of the Metaphysical Deduction, in which Kant shows that a table of pure concepts of the understanding, or categories, can be derived in some sense from "the table of the functions of thought in judgments" (i.e., a table of judgments classified as to their logical form, a table that Kant regarded as the heritage of Aristotelian logic). The table of judgments provides the clue (*Leitfaden*, literally: guiding thread) to the discovery of the table of categories. A category is an a priori concept that serves as a rule for synthesizing intuitions and concepts into a complex representation of a phenomenal object, this complex representation being a judgment having, as regards its form, some quantity, some quality, some relation, and some modality. The categories are rules for the use, in knowledge, of each of the standard forms of judgment and/or for the use of specific categorial predicates. For instance, to assert the inherence of a property in a substance, the subject-predicate form of judgment is needed; to assert the dependence of one thing upon another, we need the categorial predicate "effect" or the hypothetical form of judgment. For each form of judgment or for each categorial predicate there is a category that serves as a rule for its employment. There being one underlying intel-

lectual function in knowledge (to wit, judging) and one table of all forms of judgment, Kant is enabled to claim that his set of categories has been constructed by adherence to one single principle, which insures completeness in the set of categories. It was Aristotle's casual collecting of important concepts without any single guiding principle that was responsible, Kant tells us, for Aristotle's table of categories being a mere aggregate, both incomplete and redundant (A81/B107; *Prol* §39).

The table of judgments belongs in what Kant calls general logic, a logic of the formal (syntactical) elements in judgment-functions, a formal logic indifferent to the meanings of the concepts or terms which are values of the variables in judgments. The table of categories, on the other hand, belongs in what Kant calls transcendental logic, a logic with semantical content,[4] namely, a priori intuitions, concepts, and principles applicable to, and presupposed in, our knowledge of objects of experience. The metaphysical deduction is the point of transition between general (formal) and transcendental logic—between a logic "that does not even know by name the problem of the possibility of synthetic judgments" (A154/B193) and a logic that consists wholly of a priori concepts and a priori synthetic judgments.

The most salient premise of the Metaphysical Deduction is the table of judgments, from which the table of categories is to be derived, or at least to be discovered. Kant's respect for the accomplishments of the science of logic is well known. In the Introduction to the *Critique*, he says that "Since Aristotle logic has not had to retrace a single step ... and also to the present day it has not been able to make one step in advance, so that to all appearances it may be considered complete and perfect" (Bviii). From the completeness of the table of judgments Kant infers the completeness of the "inventory of the powers of the understanding" (A79/B105). Clearly that would follow only if the table of judgments *is* complete and perfect, and this could be known only if it were shown to be necessary; but the history of logic since Kant's time (if not before) shows that, unless

Reich is correct, no such extravagant claim can be made for Kant's (or for anyone else's) classification of judgments. Kant himself seems somewhat ambivalent at this point. To escape the appearance of a *petitio principii*, he does not want to claim originality for his table of judgments, for this is supposed to be some kind of external control on the list of categories. So on the one hand, he takes the table of judgments as if it were obvious and ready-made by his predecessors; he takes it as a *Faktum der Vernunft*, as it were, upon the conditions of which he is to make a regress. On the other hand, he admits to having modified the traditional tables, presumably to make a table isomorphous with categories he must already have established in some way other than by use of this *Leitfaden*. So he says: "The labors of logicians were ready to hand," but he adds, "though not quite free from defects" (*Prol*:324), defects he corrects. Reich tacitly admits (p. 64) that the corrections he made arose from transcendental, not general, logic and this entails that to this extent the table of judgments is the *explanandum*, not the *explanans*. The completeness of the table of judgments, therefore, is not the premise of the Metaphysical Deduction but rather its conclusion.

It is not to be wondered at, then, that the vain researches of A. O. Lovejoy, H. J. de Vleeschauwer, G. Tonelli, H. Heimsoeth, and others[5] who have sought the historical origins of Kant's table in the writings of 18th-century logicians have rather confirmed Kant's own admission that he did not take the table of judgments "off the shelf" as an empirical, historically established, but unexamined fact. Their researches do arouse the suspicion, however, that Kant's chapter-title "The Clue (*Leitfaden*) to the Discovery of the Categories" may be deceptive, since he undoubtedly doctored up the received tables to conform to the set of categories, which, according to Heimsoeth, he had already developed on scholastic ontological grounds.

Still, not everything depends upon the intrinsic and self-contained completeness of the table of judgments. Kant's claim that it is complete (like similar claims he made for the table of

categories, the schemata, the a priori principles, the antinomies, the paralogisms, the *Reflexionsbegriffe*, the ideas of reason, the cognitive faculties, and so on) is a corollary to a more basic and pervasive completeness that Kant believed not only possible but necessary and actually achievable in metaphysics. Reich (pp. 6–7) collects passages from various writings in which Kant finds the foundation for completeness in "the necessity of the Idea of the whole," "the rational concept of the form of a whole," "the necessity of a common principle," and the like. Since topics (*topoi*) and problems of metaphysics are generated by the intellect, we can know a priori what articulations are to be found in the whole field of metaphysics; there are no surprises, anomalies, or paradoxes in metaphysics, and metaphysics generates no problems it cannot solve (*Prol, Ak* 4:349n). Reason produces a systematic whole in which all the parts are necessarily fixed and do not stand as a mere aggregate or flow like a rhapsody. To show that the table of judgments is complete, it does not suffice to show that generations of logicians have (if they have) treated it as complete and have not been found in error; rather, the forms of judgment must be derived from some higher unitary condition in the inescapable structure of the human mind. We must, however, always remember that the necessary systematic wholeness and unity of mind that are to explain everything else are themselves wholly inexplicable by us, and what is necessary for us human beings can be founded only on some specifiable (though inexplicable) peculiarities of the human mind. In the very midst of the Transcendental Deduction, Kant warns against expecting too much: "The peculiarity of our understanding, that it can produce a priori unity of apperception solely by means of the categories, and only *by such and so many*, is as little capable of further explanation as *why we have just these and no other functions of judgment*, or why space and time are the only forms of our possible intuition."[6]

This admission moves the question of the completeness of the table of judgments from formal to transcendental logic. It reverses the direction of inference (or discovery). Note that a

clue (*Leitfaden*) is not a premise; it is at most a suggestion or a conjecture. Without a knowledge of formal logic, of course, one would be foolhardy to undertake the arduous task of discovering a priori concepts that give rise to the syntax of formal logic; but the *reason* why we have the table of judgments that we do have is not to be found in textbooks of formal logic, Reich is saying, but in the synthetic acts whereby different representations or cognitions (sensations, images, intuitions, concepts) are given reference to a common object of experience, this reference being symbolized in the formulae of formal logic with bound (empirical) variables.

We must distinguish between a judgment as a rule-governed string of words or symbols having the forms exhibited in the table of judgments and judgment as a transcendental (a priori knowledge-enabling) act "by which given representations first become cognitions of an object."[7]

In the *Critique*, Kant defines the act of judgment as *the way of bringing given cognitions to the apperception of their objective unity*,[8] that is, their reference to a single common object. The putative completeness of the table of judgments (judgment in the first sense) follows from the completeness of the "inventory" of the a priori concepts governing the synthesis of the various representations into cognitions (*Erkenntnisse*) of an object. That the table of judgments is complete, and that it can be known for this reason to be complete, is the main thesis of Reich's book.

Having seen how Kant and Reich connect judgment as a symbolic entity to judgment as a transcendental act of making representations into cognitions of objects, one may now easily see an analogy between the table of judgments and the table of categories. So far, however, little has been done (i) to show the detailed articulation of the connection between a specific form of judgment and a specific mode of the act of judging, so that any one category is associated precisely with some one judgment-form; and (ii) to show the completeness of the two tables, so that one need no longer wonder why there are precisely twelve units in each table instead of, say, six or thirty-three, or why

there may not be as yet undiscovered and untried categories that the advance of knowledge will call into play.[9]

In reporting Reich's way of providing these two desiderata, the writer of a brief introductory Foreword to his book faces an almost insoluble problem of how to say something instructive without involving himself in the density of argumentation and plethora of documentation used by the author. To judge of the success or failure of his effort without testing the full and fair use of his armamentarium would be arrant prejudgment. But a look at Reich's own account of his argument at the beginning of Chapter 5 will show how unmanageably difficult it would be in a short space to do justice to the complexities of the final sections of his book:

> I have decided to deduce on my own the moments of judgment from Kant's premises, which I have presented in their entirety. Since this is just a preview, I will ignore, perhaps to a great degree, the details and only accent the points that are critical to the whole structure. After projecting this film, I will show on the basis of Kant's writings that although it is somewhat coarse-grained, it does give a correct picture of Kant's system of the moments of judgment. Then we will also have the opportunity to add some of the finer details stated by Kant (p. 48).

My purpose is not to repeat Reich's words, nor to rewrite his book, but to invite and encourage the reader to undertake the labor of a fruitful reading of the last three chapters. Instead of following *seriatim* Reich's meticulous two-step dissection of each category and judgment-form, I propose (i) to consider one single example of Reich's argument that a specific cognitive act requires a specific judgment-form, and (ii) to explain Reich's final claim that the two tables are complete (necessary and sufficient).

(i) The example I choose is the reconstruction of the cognitive act governed by the category of inherence and subsistence (pp. 49–51). Given concepts do not become cognitions of an object unless they are in some way related to each other by being related to the same objects. Concepts, *as such*, do not have synthetic relations to each other; they are analytically related

only as coordinate or subordinate. When referred to objects, the concepts must signify either coordinate or subordinate contents.

> Since a concept, by itself, does not have the function of being a cognition (in the strict sense), a concept has this cognitive function only if there is an additional *given condition* of its employment for the cognition of an object. The only material we have available to us prior to any judgment is concepts. Hence we must think of another concept [i.e., a category] as the condition of the employment of a concept for the cognition of an object. The concept that serves as this condition, we will say, has the function of the subject, and the other the function of the predicate. S is P: the relation [*Relation*] of one concept that has the function of a predicate to another that has the function of a subject is the relation [*Verhältnis*] of two concepts in their unity in judgment. ... The connection of two given concepts in this relation we will call the function of the categorical judgment (p. 50).

This account draws upon the previously elaborated definition of judgments as transcendental acts. Reich goes through the twelve categories in like fashion, tracing out the consequences of the definition of judgment; then he goes through the whole table again documenting each step of the dissection with a manifold of Kant's texts, chiefly from the lectures on logic, the *Duisburg Nachlaß*, and the *Reflections*.

(ii) At last we arrive at Reich's solution to the problem of completeness. His discussion is on two levels, the level of the four "Titles" and the level of the trichotomy of "Moments." The first follows as an expanded definition of judgment as transcendental act, wherein the Titles have been argued for in the step-by-step analysis found in Chapters 5 and 6. The expanded definition is: "A judgment is an objectively valid (Modality) relation of representations (Relation) of parts (Quality) as analytic grounds of cognition (Quantity)" (p. 102). This climactic assertion, however, can hardly be understood except through the gradual approach to it throughout Chapters 5 and 6.

For the completeness of the moments under each Title, Reich quotes Kant's *Reflection* 5854:

> There are thus three logical functions [elementary, not derived] under a particular heading, and so also three categories. For two of these show the unity of consciousness in two opposites, the third, however, in its turn combines the consciousness on both sides. Other kinds of unity of consciousness cannot be thought. For, if A is a consciousness that connects a manifold, and B is a consciousness that connects it in the opposite way, then C is the connection of A and B (p. 103)

This serves Reich as an argument for the tripartite structure of each category-title (B110).

I beg the reader not to judge Reich's book by my necessarily simplified Foreword; let it be, rather, an invitation to the labor necessary for passing an informed judgment on one of the most controversial issues in Kant scholarship.

Abbreviations and Translations of Kant's Works

Ak	*Kants gesammelte Schriften.* Edited by the Royal Prussian Academy of Sciences (Berlin, 1902–).
Anthr	*Anthropology from a Pragmatic Point of View.* Edited and translated by M. Gregor (The Hague, 1974).
	Correspondence with Beck. Translated by G. B. Kerferd and D. E. Walford (Manchester, 1968).
CJ	*Critique of Judgment.* Translated by J. H. Bernard (New York, 1951).
Corr	*Philosophical Correspondence, 1759–99.* Edited and translated by A. Zweig (Chicago, 1967).
CPR	*Critique of Pure Reason.* Translated by N. K. Smith (New York, 1965).
Disc	*The Kant-Eberhard Controversy: On a Discovery According to Which Any New Critique of Pure Reason is Rendered Superfluous by an Earlier One.* Translated by H. E. Allison. (Baltimore, 1973).

MFNS	*Metaphysical Foundations of Natural Science.* Translated by J. Ellington (Indianapolis, 1970).
Op	*Opus postumum.* Partly translated by Eckart Förster and Michael Rosen. In *Kant's Opus postumum: A Selection* (New York, 1993).
Progress	*What Real Progress Has Metaphysics Made in Germany since the Time of Leibniz and Wolff?* Translated by T. Humphrey (New York, 1983).
Prol	*Prologomena to any Future Metaphysics.* Translated by L. W. Beck (Indianapolis, 1950).
Reflections	Refer to Kant's notes from the *Nachlaß, Ak* 14–19.
	Eine Vorlesung Kants über Ethik. Edited by P. Menzer (Berlin, 1924); *Lectures on Ethics,* Translated by L. Infield (New York, 1930).

The Completeness of Kant's Table of Judgments

CHAPTER 1

The Problem and the Clue

In considering the fate of Kant's outline of general, pure logic underlying the *Critique of Pure Reason*, it is astonishing that there should be such a difference between critics' opinions of it and Kant's own. The table of categories, whose meaning and scope is the central issue of the *Critique of Pure Reason*, is derived from the table of the forms of judgment, which is ready at hand in the section of the Transcendental Logic called "The Clue to the Discovery of All Pure Concepts of the Understanding." The forms of judgment are supposed to represent as such the elementary functions of the understanding in general, but inevitably the modern reader, when confronting the derivation of the categories from them, will ask: How does one arrive at the table of the forms of judgment? What is achieved by this derivation? Kant's critics past and present have generally raised this question as an objection and answered it with derision.

Hegel comments, for example: "Kant, it is well known, did not put himself to much trouble in discovering the categories; . . . how are we to get at . . . the categories? Fortunately common logic offers an empirical classification of the kinds of *judgment*."

That is, in its "method for treating logic . . . the general forms of thought, the usual stock-in-trade of logicians, or the species of concepts, judgments, and syllogisms," were "taken merely from observation and so only empirically treated."[1] In a more detailed passage, Hegel writes:

> In other ordinary treatises about logic many divisions and species of concepts occur. [What is said here about concepts can, in accordance with the passage just quoted above, be applied also to the species and divisions of judgments.] Here one is immediately struck by the inconsistency with which the species are introduced, when it is said that "according to Quantity, or Quality, and so on, *there are* the following concepts [judgments]." "There are" expresses no other kind of justification except that said species are found and that they show themselves in experience. In this manner an empirical logic is obtained—a peculiar science, an irrational knowledge of the rational.[2]

For this reason, Hegel continues in the same passage, "it is not clear why Transcendental Logic troubles to borrow from such a science, and does not immediately help itself empirically."

Thus Kant is subjected indirectly to the same criticism that he levels at Aristotle, namely that Aristotle's classification has "arisen rhapsodically, as the result of a haphazard search after pure concepts, the complete enumeration of which, as based on induction only, could never be guaranteed. Nor could we, if this were our procedure, discover why just these concepts, and no others, have their seat in the pure understanding" (B106–7).

Kant, however, is apparently far from believing that his own criticism of Aristotle can be turned against himself, for in the same passage he contrasts his own division of the categories with that of Aristotle and extols his own as "developed systematically from a common principle, namely, the faculty of judgment (which is the same as the faculty of thought)." Indeed, he further remarks that the "logical functions in all possible judgments" given in the table of judgments "specify the understanding completely, and yield an exhaustive inventory of its powers" (B105). Still more naive, one is tempted to say, is his remark, before presenting the table of judgments, that "the

functions of the understanding can, therefore, be discovered if we can give an exhaustive statement of the functions of unity in judgments," and that "this can be quite easily done" and "will be shown" in the section entitled "The Logical Function of the Understanding in Judgments" (B94).

Kant's faith in the old method "of ordinary logic" is evidently quite strong. This is brought out clearly in the prefaces to the first *Critique*:

> I have to deal with nothing save reason itself and its pure thinking; and to obtain complete knowledge of these, there is no need to go far afield, since I come upon them in my own self. Common logic itself supplies an example of how all the simple acts of reason can be enumerated completely and systematically (Axiv).

The second preface also suggests that, like metaphysics, logic too (as the rational science of the form of thought in general) has this "singular advantage" of being "capable of acquiring exhaustive knowledge of its entire field, and thus can finish its work and bequeath it to posterity as a capital to which no addition can be made" (Bxxiii–xxiv). As we know, in the same preface (Bviii) Kant voices the opinion that since the time of its originator, Aristotle, logic essentially "has not had to retrace a single step" and "also to the present day this logic has not been able to advance a single step, and is thus to all appearances a closed and completed body of doctrine." To account for such a singular advantage, Kant simply points to the peculiar nature of this science:

> The sphere of logic is quite precisely delimited; its sole concern is to give an exhaustive exposition and a strict proof of the formal rules of all thought. . . That logic should have been thus successful is an advantage which it owes entirely to its limitations, whereby it is justified in abstracting—indeed, it is under obligation to do so—from all objects of knowledge and their differences, leaving the understanding nothing to deal with save itself and its form (Bix).

Accordingly, it is not really possible to speak of a prejudice on Kant's part in favor of ordinary logic, in the sense that

he, the "critical philosopher," simply accepted the state of the science of logic of his own time and earlier without further examination.[3] Rather his confidence and praise rests, by his own account, on his concept of "the peculiar nature of logical science" (Bviii). He admits, however, that, although the "labors of the logicians" preceding him were "ready at hand" and enabled him "to exhibit a complete table of the pure functions of the understanding, which are, however, undetermined with respect to any object," they were nevertheless "not yet quite free from defects" (*Prol* §39; *Ak* 4:323). That is, the treatment of logic prior to his own "resolves the whole formal procedure of the understanding and reason into its elements" (B84) and has already completely uncovered the formal conditions of judgments. But he, Kant, for the first time *classifies* these conditions (in a "logical table"), showing that "beyond the above mentioned formal conditions of all judgments in general (and hence of all rules in general) offered in logic, *no others are possible*" (*Prol* §23; *Ak* 4:306). Passages in the treatise on *What Real Progress Has Metaphysics Made in Germany since the Time of Leibniz and Wolff?* demonstrate that Kant sees his place in the history of logic in this way. In the first manuscript in the section "Of A Priori Concepts," Kant says that the categories "probably could have been presented in a systematically ordered table if what logic teaches concerning the manifold forms of judgments had previously been *presented with the coherence of a system*" (*Progress; Ak* 20:271). A few pages later he writes: "The neglect of this [what "this" refers to is irrelevant to us] proves that the metaphysician (of the Leibniz-Wolff era) did not even get clear about logic, as far as the completeness of the division is concerned" (*Progress; Ak* 20:278). Thus once again Kant asserts that he is the first to have solved the problem of the systematic presentation of the elementary functions of thought in a judgment despite the closedness and completeness of logic since Aristotle.

However, because it is closed and complete, this systematic presentation is, according to Kant, a necessary task of logic itself and not just of the scientific exposition of logic.[4] Only

the systematic character of the given functions of thought can prove their completeness. Kant writes:

> When we call a faculty of knowledge into play, then, as the occasioning circumstances differ, various concepts stand forth and make the faculty known, and allow of their being collected with more or less completeness, in proportion as observation has been made of them over a longer time or with greater acuteness. But when the enquiry is carried on in this mechanical fashion, we can never be sure when it has been brought to completion. Further, the concepts which we thus discover only as opportunity offers, exhibit no order and systematic unity, but are in the end merely arranged in pairs according to similarities, and in series according to the amount of their contents, from the simple on to the more composite—an arrangement which is anything but systematic, although to a certain extent methodically instituted (A66–67/B91–92).

But one can be sure of the completeness of the collected elements only by connecting these elements in a *system*. Kant explains this for the special case of the elementary concepts of transcendental philosophy several times (A64–65/B89–90, A67/B92, A80–81/B106–7) and for metaphysics in *Progress* (*Ak* 20:321–22). Also consider A67/B92, for example. Connection in a system "supplies us with a rule" according to which "we are enabled to assign its proper place to each pure concept of the understanding, and by which we can determine in an a priori manner their systematic completeness. Otherwise we should be dependent in these matters on our own discretionary judgment or merely chance." Of course, this observation is not limited only to transcendental philosophy and metaphysics,[5] but holds generally for the "treatment of such knowledge as lies within the province of reason," that is, for the treatment of knowledge in which "something . . . must be known a priori" (Bvii and ix). Thus the formal conditions of all judgments in general can also be known in their completeness only when one realizes that they constitute a logical system.

The purpose of our investigation will thus be to find out how Kant wanted the mutual connection in a system of the "general

and pure" or "formal" logical conditions of judgments (given by him in §9 of the *Critique*) to be understood.[6]

The very discussion in which Kant represents the systematic connection of the distinguishable parts of a rational science as a condition of our certainty about the completeness of the elements of a science of reason can set us on the path toward our goal. Of course, we must ask ourselves how the distinctive connection to be found in a system, as opposed to a mere aggregate, can, for its part, be possible. Concerning this question, the passages mentioned (A64–65/B89–90, A67/B92, A80–81/106–7, and *Progress, Ak* 20:321–22) all point to the necessity of an "idea of the totality"; to the necessity of "a common principle." The introductory paragraphs of the third chapter of The Doctrine of Method in the first *Critique*, "The Architectonic of Pure Reason" (A832–33/B860–61), offer ample and general observations:

> In accordance with the legislative prescriptions of reason, our diverse modes of knowledge must not be permitted to be a mere rhapsody, but must form a system . . . By a system I understand the unity of the many modes of knowledge under one idea. This idea is the concept provided by reason—of the form of a whole—insofar as the concept determines a priori not only the scope of its manifold content, but also the positions which the parts occupy relatively to one another. The scientific [with respect to our cognition] concept of reason contains, therefore, the end and the form of that whole which is congruent with this concept. The unity of the end to which all the parts relate and in the idea of which they all stand in relation to one another, makes it possible for us to know every missing part given our knowledge of the other parts, and to prevent any arbitrary addition.

Let us follow this train of thought further with Kant's *Reflection* on logic 2233 (end of the 1770's): "System cannot be produced through aggregation, but only through derivation," and also at A833–34/B861–62:

> That which we call science [a whole of knowledge, which is systematic and of apodictic certainty] . . . is not formed in . . . view of the similarity of its manifold of constituents . . . but . . . in view of the affinity of its

> parts and of their derivation from a single and supreme inner end, through which the whole is first made possible.

If the task is to guarantee the discovery of the complete set of the functions of the understanding in general (for the functions of unity in judgments are supposed to contain all of them), then we are permitted to apply to their completeness what Kant has said about the completeness of the elements of the pure knowledge yielded by the understanding: *It is possible only by means of an idea of the totality of the knowledge yielded by understanding in general.*[7] Such an idea can furnish a classification of the "concepts" that compose that knowledge (compare A64–65/B89). Moreover, logic, when seeking for its concepts, has the advantage and also the duty of proceeding according to a single principle, because these concepts spring, pure and unmixed, out of the understanding, which is an absolute unity. The concepts of logic themselves must therefore be connected with each other according to one concept or idea (compare A67/B92).

Apart from the distinction made in the introduction to transcendental logic between a merely formal, that is, logical, employment "wherein the understanding abstracts from all content of knowledge" and that of a real employment "since it contains within itself the source of certain concepts and principles" (B355), we find in the *Critique* the most general concept of "knowledge yielded by the understanding" precisely in the idea of the "clue to the discovery of the categories" (see above p. 1). This idea is expressed most succinctly in §10 in the passage preceding the table of categories:

> The same function which gives unity to the various representations *in a judgment* also gives unity to the mere synthesis of representations *in an intuition*; and this latter unity, in its most general expression, we call the pure concept of the understanding. The same understanding, through the same operations by which in concepts, by means of analytical unity, it produced the logical form of a judgment, also introduces a transcendental content into its representations, by means of the synthetic unity of the manifold in intuition in general. On this account we are entitled to call these representations pure concepts of the understanding, and

to regard them as applying a priori to objects—a conclusion which general logic is not in a position to establish (A79/B104–5).

However it may stand with the proof of the reality of this idea, we must first, in accordance with our plan, try to understand the idea itself better, for its sense is far from obvious. Although this idea in the *Critique of Pure Reason* and its consequence, namely, the deduction of the categories from the "manifold in the form of judgments," has been scorned by Hegel and J. F. Herbart, historians and systematizers have repeatedly shown an awareness of its importance. Let us take a look at the common interpretations of this block that bars the approach to the idea or principle of the system of Kant's doctrine of judgment, and with it to his logic in general.

In his book *Mathematische Existenz* (Halle, 1927), Oskar Becker discusses this issue while investigating Kant's position on Leibniz's projected "Universal Mathematics" (pp. 299–301). He wonders what takes the place of this project in Kant, and considers "pure analysis," which "has to do with the mere form of thought," and "pure conceptual synthesis." Both of these are "in their modifications, analogous in a peculiarly formal way," and it is through this "noteworthy" analogy that we reach the clue to the discovery of the pure concepts of the understanding, "namely the transition from the logic of the forms of judgment to the table of categories." Becker continues by citing Kant's text at B104–5, especially italicizing "analytic unity" and "synthetic unity" and placing an exclamation mark after "analytic." He then writes:

> What is being discussed here are the functions giving "analytic" and "synthetic" unity, which are formally analogous. . . . Hence the most general formal principle of unity must go beyond the analytic-synthetic distinction; [it is] the representation of the synthetic unity of the manifold in a most general sense.

Let us put this inference aside for the time being (until the last paragraph of this chapter), and first ask whether Kant really

discusses functions giving analytic and synthetic unity that are supposed to be formally analogous.

Is it there? Kant's own italics show that what he is comparing and identifying in B105 is the act of giving unity to different representations *in one judgment* and the act of giving unity to the mere synthesis of representations *in one intuition* (Kant's italics). So the unity of different representations *in one judgment* and the unity of the mere synthesis of representations *in one intuition* are products of the *same* function, not of formally analogous functions. The second sentence says the same thing. It does not say that the same understanding through the very same actions produces both analytic unity and synthetic unity of the manifold in intuition in general. Rather, it says that the understanding both produces the logical form of a judgment and also introduces a transcendental content into its representations. It accomplishes the former in concepts *by means of* analytic unity, and the latter *by means of* the synthetic unity of the manifold in intuition in general.

Does it follow that the logical form of a judgment or the unity of various representations in a judgment in general is as such an analytic unity, which must be subordinated to some other synthetic unity of the manifold "in a most general sense"? It certainly cannot be drawn from the passage cited in Kant's text. What can be immediately drawn from this passage is that the products of the same acts of the understanding are not an analytic as well as a synthetic unity of any representations, but are, rather, the logical form of a judgment (the unity of various representations in a judgment) as well as the transcendental content of its representations (the unity of the mere synthesis of different representations in one intuition in general). Moreover, the real problem this passage raises is how the means employed by the understanding in the making of its products are related to the product itself. What is the relationship between the analytic unity and the logical form of a judgment, and between the synthetic unity of the manifold in intuition in general and the transcendental content of its representations? Strictly speaking,

the context (B102–4) of our passage says of analytic unity only that given representations are "transform[ed] into concepts by a process of analysis" (B102); that "as regards *content* no concepts can first arise by way of analysis" (B103)—which means that the first remark refers to the *form* of a concept in general—and that the bringing of "different representations . . . under one concept . . . by means of analysis [is] a procedure treated of in general logic" (B104). We can infer from this that analytic unity belongs essentially (or "according to its form") to the concept, but there is no trace that could lead us to suppose that the unity of the *judgment* is analytic in any sense, regardless of whether or not there is any synthetic unity in a most general sense standing above it.

One and the same necessity rules in a judgment and in an intuition. This is the claim that is "noteworthy" about the clue and, roughly speaking, also paradoxical; not the claim that there is a formal analogy between a function giving analytic and one giving synthetic unity.

We have seen that the claim that the unity of given representations in a judgment as such (that is, the logical form of a judgment whose "moments" are contained in the table of judgments) is an analytic unity of representations is certainly not contained in the idea of the clue to the discovery of the categories. Nevertheless, in the Kant literature this is the claim that is constantly attributed to this idea.

The Marburger Kantians almost popularized it. In *Theorie der Erfahrung* (Berlin, 1871), Hermann Cohen argues forcefully that

> The forms of thought [he is referring to the basic concepts involved when thinking about an object in general, namely the categories] *cannot* just be taken from the kinds of judgments that formal or general logic distinguishes because all that figures in these kinds of judgments are mere products of thought; the judgments are analytic. What we are looking for, however, are the forms of thought as forms of the synthetic judgment. The unity of consciousness, which has to have thought as its means, is a "synthetic unity of consciousness." Therefore, the forms of this synthetic thought cannot be derived from the species of analytic thought (p. 242).

This is short and to the point. One may presume that if the assumptions of this argument were indeed Kant's, then he would have argued in this way.[8]

This, as well as other literature, shows that this misunderstanding of Kant's clue, which is part of the established stock in the literature on Kant, rests, astonishingly enough, on a confusion. Kant's claim that general logic contains *analytic cognitions* about the forms of thought because they are all based on the principle of noncontradiction, insofar as they are only about cognitions as such, irrespective of their content (B190), is being confounded with the imprecisely formulated view that general logic in Kant's sense *is concerned* only with analytic cognitions "in the narrowest sense of the analytic as containment [*Ineinanderenthaltensein*]."[9]

Even Alois Riehl, who has restored to its proper place much that has been ignored, has not presented a penetrating view of the situation. He believes that the basic idea of deducing the categories from the forms of judgments is worthwhile.[10] But the careful reader will not be able to see why this should be so, given his presentation of the metaphysical deduction. In *Der Philosophische Kritizismus*, he argues against Herbart that "the metaphysical deduction of the categories," namely the clue, consists in "the proof that the concepts of pure understanding coincide with the ways in which the unity of concepts is thought in judgments; that in its logical essence the analytic unity of concepts connected into propositions agrees with the unification of perceptions in objective judgments."[11] But a few pages earlier, he said of the "unifying concepts of representations in a judgment" that they "merely express the syntheses of consciousness in judgments, that is, the types and the bases of these syntheses" (p. 376). Similarly, he writes on p. 389,

> The logical function itself arises from the general synthesis of consciousness. . . . The unifying concepts rest on the unity of consciousness. . . . Thinking is made possible by the synthetic unity of its function. . . . According to Kant, the unifying function is synthetic.

It may very well be that the analytic unity of consciousness, wherever it may be found, presupposes some kind of synthetic unity. Nevertheless, one would still like to know why the unity of a concept in a judgment as such (the logical form of a judgment) could be called an analytic unity. Riehl's answer may be found in his discussion of the problem of the *Critique of Pure Reason* as the problem of the possibility of synthetic judgments a priori, where he first directs his "attention to Kant's views about judgment" (pp. 416–17). There he offers the following statements:

> The predicate is . . . the proper principle of a judgment (p. 416).

> What is the basic relation [of representations] in judgments as such? . . . The relation of representations in a judgment is the relation of their conceptual unity, namely *their unity in the concept of the predicate* (p. 417).

These statements about the nature (or definition) of a judgment are supposed to be identical with Kant's own explanation that "all judgments are functions of unity among our representations" (B93–94). This explanation occurs in section I of the "Clue," called "The Logical Employment of the Understanding" (B92–94). Let us take a closer look at Kant's text.

In this section, the claim that all judgments are functions of unity among our representations is deduced from the claim that judging is a way of "knowing by means of concepts," and that a concept in general originates in "the unity of the act of ordering various representations under one common representation" (B93). Clearly these distinct representations subordinated under a *conceptus communis* are not represented in the judgment itself. The representations contained in a judgment, which constitute the matter combined by the judgment into a unity, of which it must be doubted that it may be called analytic in Kant's sense, are *in themselves* (certainly at least in the case of the predicate) representations that "hold of many representations." In this section, judgments are introduced as functions of the unity among our representations just because to judge

means "to make use of concepts." Furthermore, since the use of concepts for cognition occurs only in judgments, and since judgments necessarily have concepts as their matter, we can find all of the functions of the understanding, understood as the faculty of knowledge through concepts, "if we can give an exhaustive statement of the functions of unity in judgments" (B94).

However, these "functions of unity in judgments" are not those functions that were described earlier as the functions of unity among our representations, because all judgments, taken individually, are functions of the latter kind. But now our concern is with the logical form of a judgment in general. We are, therefore, not concerned with what any conceivable judgment is, that is, with what some logical content together with this form is as a whole in itself in regard to our representations in general. We have said earlier that all judgments are functions of unity among our representations, and our concern now is with "the functions of unity" in those "functions of unity among our representations."[12] The earlier unity is nothing but the analytic unity that every concept as such has, but the latter unity is the logical form of a judgment, admittedly relating concepts, i.e., *by means of* the analytic unity. But why should this latter unity also be an analytic unity?[13]

On the contrary, Kant himself says (of the logical form of a judgment) that the judgment is the way in which given representations are brought to the objective unity of consciousness, as Riehl correctly notes on p. 418 after he cites the passage from Kant just discussed. But we see that Riehl does not unite the two accounts of the nature of the judgment that he attributes to Kant. He only says that this is another essential issue that has so far been ignored (p. 417). Of course, we are saying that as well. But this essential issue thus far ignored defines first and foremost the logical form of a judgment (B140–41). Consequently, the definition of the logical form of a judgment was really not being discussed, but Riehl writes as if this were the issue that had already been addressed. He writes that it is necessary to consider the nature of judgments as such, and that the

customary exposition is too narrow as a definition (p. 416). His concern is with the proper principle of judgments, and he asks: What is the fundamental relation that obtains in judgments in general (p. 417)? His answer is that it is the relation of unity of representations in the concept of the predicate, and he supports this answer with the quotation from the section preceding the table of judgments. Here we see how the snarl in which the analytic and the objective unity of consciousness (the logical form of a judgment) are intertwined is either left tangled, or is undone in one deft stroke by declaring that the two unities are identical. Both come to the same thing.

This same obscurity has consequences for Riehl's discussion of the metaphysical deduction of the categories proper (pp. 484–85). Here he relates the distinction between pure logical, that is, analytic, propositions and "judgments of experience" to our starting point, viz. the correspondence between the logical form of a judgment and the synthetic unity of different representations in an intuition in general. Considering Riehl's other and better insights into this distinction, the relation is better overlooked. It is easy to see that this confusion rests on the obscurity discussed above.

So even if it is hidden and occasionally brushed aside, we also find in Riehl the view that Kant's general pure logic is a doctrine of analytic judgments. Riehl, like Cohen, seems to be under the spell of the views of the previous philosophical generation, including A. Trendelenburg and F. Ueberweg, although the latter support their views with assumptions that are obviously quite senseless when compared to the relevant passages in Kant. In his *System der Logik und Geschichte der logischen Lehren* (Bonn, 1857), Ueberweg says quite openly that Kant ties the distinction between formal logic, which supposedly only sets up the norms of analytic knowledge, and transcendental logic to the distinction between analytic and synthetic formation of judgment (§2). In the introduction to the Transcendental Logic (A50–64/B74–88), Kant already develops the idea of general pure logic just as an analytic theory of thought in general.

Ueberweg, however, attributes this sort of project to Aristotle's logic, and distinguishes it from Kant's project, which, he says, is intended to be a theory of analytic thought in the Kantian sense.

Statements of Kant's that explicitly run counter to Ueberweg's view are easy to produce. One need only read those passages that introduce the distinction between analytic and synthetic judgments. The best of these is in *Prol* §2, "But whatever be ... their logical form, there is a distinction in judgments, as to their content, according to which they are either ... *analytical* [or] ... *synthetical* judgments" (*Ak* 4:266). That this distinction refers to the grounds for the connection of concepts in judgments, and not to their form, also follows clearly from what is said in introducing this distinction in the different introductions to the two editions of the *Critique*. This is made especially clear in the second paragraph of Kant's response to J. A. Eberhard, "Logic can only say that ... in order for a judgment to be a proposition it must not only be possible (problematic), but must also be represented as grounded (whether analytically or synthetically is immaterial)" (*Disc*; *Ak* 8:239).

Are we to believe that Ueberweg understood the first sentence that follows the *Critique*'s treatment of the principle of noncontradiction to be implying that general logic is only a theory of analytic judgments? "The explanation of the possibility of synthetic judgments is a problem with which general logic has nothing to do. It need not even so much as know their name" (A154/B193). Although the principle of noncontradiction belongs to logic because it holds of cognitions as such irrespective of *their content* (A151/B190), it is admittedly at the same time the general and fully sufficient principle of all analytic knowledge. This is because the ground of the connection between concepts in such a judgment is the identity of the concepts. But this is a special case, and general logic is not limited to it. Rather, general logic abstracts from it in specifying the elements and principles of thought in general according to its form, because, for the purposes of specifying these elements

and principles, general logic must abstract from all content of cognition. Mere general logic may be sufficient for explaining the possibility of analytic judgments; however, it does not know either synthetic or analytic judgments by name, nor is it called upon to explain the possibility of either synthetic or analytic judgments. Ueberweg's misunderstanding also carries over into the third volume of his *Grundriß der Geschichte der Philosophie*. Compare especially the chapter in this volume on Herbart and the section on his logic:

> According to Aristotle logic is the analysis (analytic separation into form and content) of thought in general; but according to Kant . . . it is a doctrine of analyzing thought and through analysis elucidating or clarifying thought.

This primitive error in both these widely read volumes has been unquestioningly repeated and reprinted innumerable times, and thus has acquired the look of established fact.

Ueberweg depends in large measure on Trendelenburg's *Logische Untersuchungen* for his views on the object of logic and the fate of its treatment.[14] It is easy for Trendelenburg to polemicize against Kant when he attributes to Kant's general pure logic the aim of

> grasping the forms of thought in and for themselves, without looking at the content in which these forms appear. It tries to understand concept, judgment, and syllogism solely on the basis of thought's self-referential activity (*Logische Untersuchungen*, p. 16).

According to Kant, logic understands the form of a concept, judgment, or syllogism in general by analyzing acts of thought into their moments (A131/B170). Logic "considers only the logical form in the relation of any knowledge to other knowledge, that is, it treats of the form of thought in general," and "abstracts from all relation of knowledge to the object" (A55/B79). Logic is completely indifferent to the referent of thought, but could one sensibly maintain that logic seeks to understand thought through its self-referential activity? It is true that Kant does say

already in the Preface to the first *Critique*, (Bix) that in logic the understanding has to deal with nothing but itself and its form, since logic must abstract from all objects of knowledge and their differences. The activity of the logician is thus directed only to thought as such, but it is in no way directed only to a self-referential activity of thought. Trendelenburg's claims make sense only if they are supposed to be about analytic knowledge. Trendelenburg thereby advances the host of interpreters already mentioned, whose cardinal mistake in grasping Kant's general logic was just their opinion that it is supposed to be the *theory* of analytic knowledge.

It must be added that Kant's immediate followers[15] had already obscured Kant's idea of general logic. For instance, in J. G. C. Kiesewetter's *Logik*[16] we can find places that show that Kant's point of view or idea is lost on him. I choose a quite simple but decisive example: On pages A58–59 Kiesewetter is concerned to argue that the determination of a judgment according to one of the aspects of Quantity, Quality, Relation, or Modality can have a certain necessary consequence with respect to one of the other of these aspects, and says in this connection, "Negative judgments cannot be problematic; general negative assertoric judgments are apodictic." And on page B206 he writes, "Negative categorical judgments cannot be problematic. They express: a predicate contradicts the subject."[17] On the other hand, if we listen to Kant, we already hear in the 1771 *Reflection* 4401, "In every negative judgment it is thought that the subject is not contained under the predicate; whether because of a contradiction or not is not established." And the same thing still appears later in the *Reflections* on logic 3063 (end of the 1770's or early 1780's), "The negative proposition shows that something is not contained under the sphere of a given concept." And in 3068, "In the *iudicio negativo* the subject is set outside the extension of a predicate."

If this alone is the meaning of negation, why shouldn't negative judgments also be capable of being problematic? Kiesewetter's attempt to explain Kant's words shows that he evidently

fails to understand the general viewpoint of logic, and its indifference towards the different grounds of a judgment, whether analytic (through identity and contradiction) or synthetic. And the same observation can be made with respect to his claim that every hypothetical and disjunctive judgment is apodictic.[18] When men who carried on extended personal exchanges with Kant made such mistakes, how can we be surprised by the errors of later interpreters and critics of Kant's formal logic, especially since we lack an authentic presentation of formal logic from Kant himself?

Even a favorable review of the handbook of Kant's logic, prepared by G. B. Jäsche and published in 1800, must admit that the handbook is without clarity about principles and precision. This book not only provides plenty of glowing examples of vagueness, but also of contradictions that Jäsche let stand in editing Kant's half-century-old notes for his lectures.[19]

But apart from this, opinion of this "compendious handbook" must be shaped by the fact that, as Jäsche points out in the preface, Kant had given him the task of preparing the logic for publication "as he [Kant] had presented it to his listeners in public lectures." Consequently, the *Auszüge aus der Vernunftlehre* (1752), by Georg Friedrich Meier, was used as the basis for Jäsche's handbook. So although Jäsche cannot be blamed, it is regrettable that he did not use Kant's remarks, especially those scattered in the *Critique of Pure Reason* on the idea of general pure logic, as a guiding thread for constructing a logic that would have corresponded to Kant's original plan. It is also understandable that this book, because of its purpose, to a large extent lacks a guiding principle. Kant made public the purpose of his lectures in logic in his "announcement of his lectures in the Winter Semester 1765–66," and this purpose had not changed. He never lectured on mere pure logic ("concise and dry," as he writes at B78), but always together with applied logic. If one wishes to gain insight into Kant's lectures on logic, the lecture notes of Count L. E. F. Dohna (the only ones published before 1948) are decisively preferable to Jäsche's handbook. They ac-

tually contain Kant's final theory and not just an aggregate of remarks written throughout more than forty years which the compiler could not order. Take, for example, Dohna's remarks on certainty and compare them with Jäsche. Of course, given its origins, this volume also provides us with very little on the system of general pure logic and its ground.[20]

Our task, however, is to seize the highest point to which the entire doctrine of human knowledge yielded by the understanding must be attached, thereby securing a grasp of the concept of knowledge of the understanding in general. To this end, we have investigated the idea of the clue and have glanced at its interpretation in the literature. We have established that interpreters either chose to read Kant as himself understanding logic to be a doctrine of the analytic unity of cognitions (representations), or slid into this view unawares in the course of interpreting his doctrine of logic.[21] The necessary consequence of this view is that it makes the idea of the clue appear extremeley dubious. We may express this "dubiousness" as follows: How could the modifications of judgment, if they were forms of analytic unity (as such), conform to forms that determine the synthetic unity of the manifold of intuition as such? That is, how can they be the same forms? Kant's claim, which may indeed at first seem strange but is "easily observed," namely, "that analysis, which appears to be the opposite of synthesis, nevertheless always presupposes it," would not even be possible on this view. It would be simply impossible that the natures of analysis and synthesis are distinct, which of course cannot be the case if the former always presupposes the latter. The idea of the clue according to this view is caught in a contradiction. However, we have also seen in the selected examples that the explicit or implicit identification of the logical form of a judgment with the analytic unity, never found proper support in Kant himself.

CHAPTER 2

The Highest Point: The Objective Unity of Self-Consciousness

Let us turn once again to Kant himself. Before we looked at the literature, we covered in detail the problem of how to understand the passage on the identity of the function of unity, that is, on the identity of the understanding with respect to the logical form of a judgment and the transcendental content of representations (A78–79/B104–5). However, we cannot expect to obtain a complete clarification of Kant's concept of the "knowledge yielded by the understanding" from the section in which this passage occurs. For Kant, "only the idea," that is, the "clue" as such, is stated and used in this section. This is easily shown. The introduction preceding the Transcendental Logic ("Idea of a Transcendental Logic") states:

> In the expectation [which may always turn out to be false] . . . that there may perhaps be concepts that relate a priori to objects . . . we form for ourselves by anticipation the idea of a science of the knowledge which belongs to pure understanding and reason, whereby we think objects entirely a priori. Such a science . . . would have to be called transcendental logic (A57/B81).

Accordingly, what follows will first explain the logical use of the understanding and then treat of the logical function of the understanding in judgments (§9).

The third section itself (§10; A76–77/B102–3), however, which contains the passage we cited, begins with a comparison of general and transcendental logic, where the latter can still be "only an idea" for the reader. The idea is elucidated and clarified in this section, and this elucidation culminates in our two sentences. What is asserted in these two sentences is at best an unsupported claim. Statements of the following sort certainly do not guarantee the reality of the idea of transcendental logic: "The spontaneity of our thought requires that this manifold [of pure intuition] be gone through in a certain way, taken up, and connected" (A77/B102). That this idea is justified and is not mere fantasy is shown in the chapter in the Transcendental Analytic of Concepts following the "Clue to the Discovery of all Pure Concepts of the Understanding," namely in the "Deduction of the Pure Concepts of Understanding." To confirm this claim compare the conclusion of the A Deduction (A126–28), particularly A127, with our passage:

> The unity of apperception is thus the transcendental ground of the necessary conformity to law of all appearances in one experience. This same unity of apperception in respect to a manifold of representations (determining it out of a single one) acts as the rule, and the faculty of these rules is the understanding. All appearances . . . thus lie a priori in the understanding, and receive from it their formal possibility, just as, in so far as they are mere intuitions, they lie in the sensibility, and are, as regards their form, only possible through it (A127).

Compare also §20 of the second-edition (B) Deduction,[1] where Kant begins (according to §21) a deduction of the pure concepts of the understanding, the first step of which is nevertheless there completed. (The first edition does not distinguish these two steps.) Thus the proof of what is initiated in the "Clue" is carried out here. Our task compels us to examine what is put forth in this proof as the "ground containing the possibility of the understanding [in general, i.e., in its logical and real use]" (B131).

We now need to state why the observation made in the next two chapters is significant for our overall discussion, so that

the reader will not lose sight of the fact that the relative breadth demanded by the material discussed is only a means to our end. That is, the reader should not forget that our goal requires an insight into the function of the definition of a *judgment* in general, within a systematic theory of the form of thought. (This will be discussed in Chapter 4.)

In the Transcendental Deduction, Kant shows immediately that he is inclined to hold talk of the understanding as a nonsensible faculty of knowledge (A67/B92), or as the spontaneity of the faculty of representation (B130), to be capable of further clarification. Justification of these claims rests on this: I am conscious of myself. More precisely, the justification rests on a moment of self-consciousness: the "logical I," or on the "pure" (in contrast to empirical) or "original" self-consciousness.[2]

Kant describes this pure or original self–consciousness (apperception) as the consciousness "I think" that "must be capable of accompanying all my representations" (§16). If it were not necessary that the "I think" be able to accompany all my representations, then "something would be represented in me which could not be thought at all, and that is equivalent to saying that the representation would be impossible, or at least would be nothing to me." This is obvious, since if it were possible that the "I think" was *not* capable of accompanying some representations (data for a possible cognition), then "I would not even be able to know that I have them, consequently for me, as a knowing being, they would be absolutely nothing."[3] Kant adds, "They could still . . . carry on their play in an orderly fashion, as representations connected according to an empirical law of association, and thus even have an influence on my feeling and desire, without my being aware of them." Clearly the basic principle is *not* a claim about the nature (actuality) of something that may have to occur in the knowing subject independently of its thinking, and upon which its knowledge may depend.

Following the train of thought in §16 of the second Deduction, let us examine the content of this consciousness as a consciousness of all of my representations. It says that all

my representations "as my representations . . . necessarily must conform to the condition under which alone they *can* stand together in one universal self-consciousness" (B132). The pure or original consciousness of myself is therefore that unity in which all possible representations given me are themselves possibly united. Indeed, the representation "I think," as self-consciousness, is that representation in which I represent to myself (think) the possible thoroughgoing unity of all my representations. However, we should bear in mind Kant's claim at A117 that neither the clarity nor obscurity of this representation, indeed not even the actuality of this consciousness, is important, but only its necessary possibility.

Now the representation "I think" is obviously a "simple, and in itself completely empty representation" (A346/B404), that is, through it nothing manifold is given to me, much less would the entire manifold of representations, of which it nevertheless speaks, be given to me through it. Because, on the one hand, I have this consciousness, and, on the other, I am given nothing to think through it, I cannot say that the representations given me would have, *as given*, a thoroughgoing unity in my possible consciousness of them with respect to the representation "I think." Rather, I must say that the consciousness of this unity "indicates" a *principle* of its own to which the representations are subject, but not as they are *given*. That means that when I think the "I think," that is, when I think of myself as conscious of myself in pure original apperception, I must think of myself as spontaneity, as self-activity. The "I think" expresses an "act of spontaneity."

There is no question that Kant uses the categories, the predicaments, and the predicables (§10; A81–82/B107–8) in this manner of speaking, exactly as he uses the terminology of receptivity and affection at the beginning of the Transcendental Aesthetic. But how? Is it in contradiction to the rule derived in the very same Transcendental Deduction, that "the categories, as yielding knowledge of *things*, have no kind of application, save only in regard to things which may be objects of possible experience"

(B147–48)? Is it in contradiction to this "proposition . . . [which is] of the greatest importance; for it determines the limits of the employment of the pure concepts of understanding in regard to objects" (B148)? One can easily see that precisely here (§§22–25) the considerations can be found that must be used in answering this question. Moreover, in the chapter on the Paralogisms, these considerations are explicitly applied to pure apperception. Immediately following the title of §22 ("The category has no other application in knowledge than to objects of experience"), Kant states that "to *think* an object and to *know* an object are thus by no means the same thing," continuing the line of thought of §21: "The concept through which an object in general is thought (the category)" is only one *condition* of knowledge. §23 repeats this. §25 explains, however, that I am not conscious in pure original apperception—a simple and in itself completely empty representation—of *what* I am, but only *that* I am. In view of this it needs to be emphasized that through the representation "I think," being [*Dasein*] is already given, but taken in itself it does not "express" or "represent" the mode of my being. It represents only consciousness of myself, only that I think of myself. Now if I represent to myself this pure original consciousness of myself, if I think it, I am so far removed from any "knowledge" of my being that I can only "revolve in a perpetual circle" around it (A346/B404). I can only *analyze* the consciousness of myself in the thought "I think" without "knowledge" of myself as an object.

In the consciousness of myself, or, more precisely, in the fact that I am conscious of myself as thinking, we thus find: (1) that in thought I distinguish the "I," as belonging to thought in general, from all that it is possible to think in a particular way; (2) that I am the subject of thought, that is, that in thinking of myself I must always use myself as subject of the judgment; (3) that the representation "I think" is an absolutely simple representation that cannot be divided into a manifold out of which it could be composed; and (4) that the consciousness "I think" is identical (one and the same) in all the manifolds of

which I am conscious. These are four points that determine the quadrants of the circle.[4]

Following the lead of the argument of the second edited version of the Paralogisms, I maintain that the talk of act, faculty, and spontaneity is simply an extension of precisely this logical analysis of the consciousness of myself in the thought "I think" (the *cogito*). I maintain that the pure concepts of the understanding are in this talk used only to *designate* the content of the consciousness of my thought in general, but that they are not used as categories, that is, as "concepts of an object in general, by means of which the intuition of an object is regarded as determined in respect of one of the logical functions of judgment."[5] I prove this simply as follows: to say that I use them as categories would lead to a contradiction, because in the mere consciousness of my thinking in general *I abstract from any kind of intuition* of myself. Understood in this way, the *consciousness* of my spontaneity certainly does not mean a knowledge of the activity of an *ens noumenon* (*intelligentia*). Indeed, the entire doctrine of inner sense can be summarized by the claim that knowledge about the effectiveness of our "power of thought" can only be gained empirically (in psychology). Independent of all experience, all that is possible for me as a thinking being is to become conscious of my mere thinking as such, that is, only to know: "I think." Now, calling this consciousness the consciousness of an activity (act of spontaneity) only means that a consciousness is contained in this consciousness "I think" that at any time may be brought to clarity, namely that my representations, as given, do not have the character of thoroughgoing unity with respect to the representation "I think" in the consciousness of them. Rather I can become conscious of this character of the unity of all my representations as independent of their givenness, simply by thinking "I think." This only expresses a consequence of the consciousness named in number (2) above, namely, that in thinking of myself I must always think myself as subject. For this very reason, my consciousness of an act only means that I must think this subject, myself, as "ground" of thought, that is,

I must think that all my thoughts are thought "by" me. Which is to say that this statement about the spontaneity of my thought also belongs only to the analysis of the "I think": it is an analytic claim. Certainly the act "I think" could not occur without an empirical representation, but this analysis is not about the conditions of the actual occurrence of the consciousness of "I think." Rather, the analysis abstracts from reality, in order only to consider mere possibility.[6]

It is in this sense that Kant speaks of spontaneity and action in the logical analysis of the consciousness of "I think." We must dwell a while on this last predicable of the predicament of the ground. Action can be considered not only in relation to activity and force,[7] that is, not only with reference to a "subject" of the causality, but can also be taken in a pure, inward sense as a mere possibility ("faculty"). If I represent to myself merely the unity or identity of the action as such, abstracted from the conditions under which alone it may be performed, I consider the action merely as "function."[8] Therefore, if one wants, one can designate the function as the "law" of the action or operation. This way of expressing it makes the agreement of this concept with the mathematical concept of function obvious. In mathematics, a "function" is the law of an operation that combines different (variable) quantities and coordinates them. The physiologist uses the senses mentioned above when speaking of the function of an organ in abstraction from the conditions of performing the "action." This last example may be very well suited for clarifying this predicable of the category of causality. Accordingly, we must say "Thought, taken by itself, is merely the logical function" (B428). In the case where a manifold can still be distinguished in the unity of a certain action, that is, in the function, Kant calls these "parts of the ground" (of the unity of the action) "moments."[9]

We have just considered the second quadrant—that of "relation," if I may so call it—of our table and the four points that establish the quadrants of the circle, around which our examination of the "I" has moved. There is not much to say

about quadrants 3 and 4. I call these the quadrants of quality and quantity, that is, the simplicity and identity of the consciousness of myself that characterize it *internally* (in itself, not according to its relation to thought). Number 1, however, is still of interest to us. I would like to say that it designates the quadrant of modality that, like number 2, represents the "I think" in general in relation to my possible thoughts. So far, we have considered the "I" in relation to the general possibility of determinations ("thoughts")—the "I" as a subject of relation [*subiectum relationis*]. Now let us turn, conversely, to thoughts and the necessity that, in our consciousness of them, they harmonize with the thoroughgoing unity of self-consciousness—thoughts as the subject of relation [*subiectum relationis*]. The *I-think consciousness* expresses this necessity.

So far we know that the "I think" is the consciousness of an act of bringing given representations under the unity of the original pure self-consciousness, of uniting them in it. Insofar as I am to be able to be conscious of the thoroughgoing identity of myself as the being that is conscious of its representations, this unity is necessary for these representations. Now, what do we call the possibility that the consciousness of *given* representations determines *in a certain way* the thoroughgoing unity of self-consciousness in the consciousness of my representations? Answer: "I think this or that." Only thus do I have a determinate thought. The "this or that" of the determinate thought is an object "in the logical sense," that is, regardless of whether it is actual or merely imagined. The necessity that representations be related to objects is thus expressed in the consciousness "I think." As it is necessary that the "I think" be able to accompany all my representations, so it is necessary that it be possible to relate all my representations to objects. As Kant points out: "It is the unity of consciousness alone that constitutes the relation of representations to an object, and therefore their objective validity and their becoming cognitions" (B137). The *determinate* relation of given representations to an "object," the "objective validity" of these representations, and also that

they are "cognitions," are all different expressions for the same thing.

Let us direct our attention once again to the reflections that have provided us with the transition to the concept of an object. It was the reflection on the possibility that along with the consciousness of myself (not through it) something distinct from the mere thought "I" is given to me. This possibility—so much is implied in the original pure consciousness of myself as "I think"—necessarily requires a going beyond the mere "I think." It is an analytic proposition that this possibility cannot be actualized analytically, as could, for example, the consciousness of my spontaneity. It could only be actualized through a *special* act—that of synthesis. "Synthesis" is only a special name for the particular *act* whose consciousness is the consciousness that the "I think" must be capable of accompanying all of my representations. That means that the concept of the object that alone has sense for me rests on the fact that, although I am conscious of myself in the "I think" as spontaneity, I am also conscious of myself as nonproductive, that is, if you will, as finite. I could only be productive as pure "I" if a determinate content of consciousness was given through my pure apperception. I, therefore, depend on a *given* manifold and must "think" this, that is, I must unite [*syntithenai*] this given manifold in a consciousness that is conditioned by the thoroughgoing unity of all consciousness. The fundamental principle that all representations given me must be capable of being accompanied by the "I think" therefore implies the necessity of the possibility of uniting the entire manifold of representations given me "in a concept of an object."

For this reason, the unity of original pure self-consciousness is also called the *objective* unity of self-consciousness.[10]

CHAPTER 3

The Analytic Unity of Consciousness

Now, here is the place at which to secure a concept of the analytic unity of consciousness distinct from the concept of the objective unity of self-consciousness, which Kant, for the reason indicated above, called the *synthetic* unity of self-consciousness.

We can and must do so by means of the same fact, viz. that through the pure consciousness of myself in the representation "I," nothing manifold is given to me. It is a completely simple representation, empty of all content. In our earlier discussion of the possibility of determinate thought something necessarily remained obscure. For how can it be possible to unite a given manifold of representations in "one consciousness" that is supposed to be able to be a consciousness, "I think a determinate thought"? What does "determinate thought" in general mean regardless of how and why it is supposed to be possible? At this point, we know only the thought "I think." How can something (a thought) be a determination of the "I think" and yet have a content that is distinct from the "I"? This means that although we certainly cannot deduce this possibility (that "something" can be so qualified), we can yet ask what in general such a

consciousness is that has a particular content and yet belongs to the "I think." Obviously, the form of the "I" must already be contained in the form of such a thought. But what does this mean? Naturally, it cannot mean that such a thought, like the "I," must be a simple representation (point (3) above). For we already know that even if there be a simple thought distinguishable from the "I," a manifold of given representations must in any case be capable of being united in such thoughts.[1] What is mentioned in numbers (1) and (2) falls out because it is concerned only with the relation of the "I" to representations. All that remains as the "inner" of the "I" is identity: to be the same "I" in (possibly) differentiated consciousness.

The "I think" is itself[2] the "analytic" unity of all my consciousness: the "I" is that which is *one and the same, in all* possible different thoughts. Through it I think something in general that can be combined with all thoughts. It is a (the) "representation" that is thought to be common to different representations.

Accordingly, we can now say that should a representation be formally a determination of the "I think," then it also must be an "analytic unity of consciousness," that is, an *identical* consciousness in (indeterminately) many possible distinct modes of consciousness. A representation can be a direct[3] determination of the "I think" as such, and still have a determinate content, only if this formal moment of the "I think," i.e., to be the same consciousness in possible distinct modes of consciousness, also belongs to the form of that representation. Such a representation is a concept. Thus the consciousness of the determinate relation of given representations to an object is the "concept" in which the manifold of given representations is united. This was indeed mentioned before, but was not explained.

In order to ground this *aperçu*, let us look at the *Critique of Pure Reason*. At the beginning of the "Clue" at A67–68/B92–93, as is to be expected, we are simply introduced to the claim that because for us all possible intuition is sensible, the understanding as nonsensible faculty of knowledge is not a mode of knowing through intuition, but rather through "concepts." In other

words, the understanding knows discursively, not intuitively. The "function" of representation by means of a concept is "the unity of the act" of ordering various representations under one common representation.[4] The third section of the "Clue," §10, explains, as we have already stated, that transforming given representations into concepts is an *analytic* operation. The form of a concept originates analytically, so that the specific unity of representations that is thought in the concept as such is "the analytic unity."

Then, in the second edition of the Transcendental Deduction, we find the "I think" characterized in §16 as a consciousness that is in all consciousness one and the same, that is, "the thoroughgoing identity of apperception." In explicating the analytic proposition that the relation of given representations to the thoroughgoing unity of apperception presupposes (i) the possibility of a particular act of spontaneity (a "synthesis of representations," to use Kant's terminology) and (ii) the possibility of the consciousness of this "synthesis," Kant writes:

> Only insofar, therefore, as I can unite a manifold of given representations in *one consciousness*, is it possible for me to represent to myself the *identity of the consciousness itself in these representations*. In other words, the *analytic* unity of apperception is possible only under the presupposition of a certain *synthetic* unity (B133).

Kant adds this footnote:

> The analytic unity of consciousness belongs to all general concepts, as such. If, for instance, I think red in general, I thereby represent to myself a property that (as a characteristic) can be found in something, or can be combined with other representations; that is, only by means of a presupposed possible synthetic unity can I represent to myself the analytic unity. A representation that is to be thought as common to *different* representations is regarded as belonging to such as have, in addition to it, also something *different*. Consequently, it must previously be thought in synthetic unity with other (though, it may be, only possible) representations, before I can think in it the analytic unity of consciousness, which makes it a *conceptus communis* (B133–34).

If we recall our discussion, the main idea of this passage will not be a mystery. The consciousness "I think" as necessarily capable of accompanying all my representations includes the consciousness of myself as spontaneity, in the sense discussed, and this means that it would be a contradiction to say that the representations as given already had this relation to the "I think" in common. The passage in the body of the quoted text gives only a summary in catchwords of this analytic relationship, and the footnote only gives a special case thereof. What is interesting about the question of the logical possibility of a concept as such, however, is that we can infer from this passage that every concept is, in a restricted way, what the "I think" is unconditionally. Therefore, the "I" is the only condition that accompanies all thought. Properly understood, it is the "formal condition" or logical unity of every thought. The concept of an object in general is the correlate of this condition: that is, it is this same condition, only viewed in another respect, as I argued earlier (p. 28–29). Insofar as we view the concept not simply as that of an object in general, of which, strictly speaking, it can no more be said that it has a content than does the "I think," the concept is always a condition of the determinate thought that agrees in form with the "I think" as condition of all thought, except that it is "a particular condition."

This, however, requires further explanation.

If we pay close attention to Kant's text, we see that the footnote, which is supposed to present us with the essence, or form, of a concept in general, is not about any concept whatsoever, but rather about "all *common* [*gemeinsamen*] concepts"; it is not just about the *conceptus*, but about the *conceptus communis*. We may put this observation to good use by adducing the Transcendental Aesthetic, §§2 and 4, (i.e., the "metaphysical expositions" of space and time). In §2.3 and in §4.4 and 4.5, the original representation of space and time is characterized as intuition rather than concept, and the obscure phrase: "discursive or, what is called a general [*allgemeiner*] concept" is used twice. If we interpret this passage, simply because it

is so stereotypical, as saying that "discursive concept" designates our concepts, i.e., those "belonging to the 'I think'," better than the traditional characterization, then "common concept" is identical to "*conceptus communis*" (which according to the remark at §16 is the concept belonging to the "I think"), and "common concept" would mean something other than "general concept" in any possible sense of the term. The concept that would have to be contrasted with the *conceptus communis* could only be, according to §16, a concept that was not bound up with the analytic unity of consciousness. In order to make this contrast, therefore, we must assume an "understanding" in the most general sense of a nonsensible faculty of knowledge, whose "concepts" or "*conceptus*" in the most general sense are not *communes*. If we want to have a concept of the "universality" ["*Allgemeinheit*"] of this understanding's concepts, it could not be analytic, but would have to be synthetic universality. However, the concept of universality thought as the condition of synthesis in general is the concept of the whole.[5] An understanding that we would have to contrast with our own would be an understanding whose "concept" is the representation of a whole. If the term "discursive" is to designate precisely the "common [*gemeinsamen*] concept" in contrast to the "universal concept," then the "concept" that is to be contrasted with it must be intuitive, since according to the section preceding §9, "The Logical Employment of the Understanding," "intuitive" is the opposite of "discursive." This questionable "concept" must therefore be the *intuition of a whole*. If one were to ask about the "ground" of such a "concept" (that which would be the analogue to our "I think" in such an understanding), then, according to what has been said so far, it must be answered that the representation of itself that would belong to such a faculty would have as a necessary correlate not the concept of an object in general (as a simple and completely empty representation), but the intuition of the whole of "objects."

We see that for such an understanding it is impossible that

nothing manifold be given through the consciousness of itself. And our understanding as a faculty of the "I think" necessarily is a faculty of knowledge through *conceptus communes*, that is, through representations with which the analytic unity of consciousness is bound up. The opposite assumption contains, as was just shown, a contradiction. Necessity of "synthesis" as a particular act of thought (obviously not present in an intuitive understanding) and the concept of knowledge through *conceptus communes* are interchangeable concepts. Both concepts mean that in knowing, insofar as it depends on the understanding, one is not originally (in the consciousness of oneself) related to the whole of the manifold of representation (the totality of objects taken) collectively, but only to the object in general, that is, to the totality of objects taken distributively. In that understanding that was contrasted with our own, the distinction between *conceptus* and *intuitus* collapses. A faculty of knowledge in which they can be distinguished is necessarily a faculty of knowledge through *conceptus communes*. Thus in the explanation of the modes of representation at the end of the section "The Ideas in General" (A320–21/B376–77), Kant can omit the "*communis*" just as he does at the beginning of the first section of the "Clue" at A67-68/B92–93. And for this reason, it is tautologous to speak of a *conceptus communis* with respect to me since I have the "I think" in my consciousness.[6]

All the confirmation we could ask for this observation (alongside the *Reflections* on metaphysics 6174 and 6178, from the 1780's) is provided in §77 of the *Critique of Judgment*. Here we see that what is missing in the formula "universal [*allgemeiner*] concept" as a designation of our concept (implying the "I think") is the declaration that this representation is "universal" in the sense of being a "representation of the analytically-universal" in contrast to being a representation of the "synthetically-universal." This characterization also makes clear that the concept as *conceptus communis* is only sufficiently characterized when I say that it is both a representation of a

universal and at the same time a representation of a *part*. It is not, *as* a representation of a universal, a "representation of a whole." All concepts *qua conceptus communes* are thus "characteristics" [*Merkmale*][7], or, more precisely, representations of parts that as such are analytic "grounds of knowledge."

I say "more precisely," because if I want to characterize the concept as *conceptus communis* by reference to the concept of a characteristic, I must add the word "general," to the latter and only then the concept is characterized sufficiently. This is because "characteristic" means merely a representation of a part as ground of knowledge of the entire representation.[8] Thus an intuitive understanding does not represent through characteristics. On the other hand, however, knowing something through characteristics is not necessarily knowledge through concepts. This determination [through characteristics] does not preclude that such a representation and such a use of it as merely sensible, that is, intuitive, can be possible. It must be added that, in order to have a definition of *conceptus communis*, I am restricting the discussion to characteristics of general application. Then, however, it follows from the definition itself that common concepts are representations of parts as *analytic* grounds of knowledge.

Thus, just as it is true that through the mere "I think" nothing manifold is given to me, it is necessary that the mode of knowledge that is thinking (knowledge through representations with which the "I think" is bound up) is knowledge through concepts in the sense of a mode of knowledge that stands in contrast to intuition. That is, it is knowledge through concepts in the sense of representations of the analytically-universal.

In anticipation of what follows, we need to insert at this point some observations about the relations of distinct concepts.

Distinct concepts as representations to which the analytic unity of consciousness is linked, that is, representations that are to be thought as common to different representations through which the same consciousness is represented, or representations as contained in many representations, are necessarily

determined in *relation to each other* with respect to their form, or their analytic unity. That is, according to the same principle (the analytic unity of consciousness) that first makes possible the form of a concept in general, it is necessary that different concepts are determined in relation to one another with respect to the identity or nonidentity of consciousness in them. A concept can be thought as a representation of a part of other concepts, and it then must eo ipso be thought as their analytic ground of knowledge. And if several concepts are given, the determinate nature of their mutual relation as partial representations and as grounds of knowledge follows from their essence as concepts. This belongs merely to the analytic unity of consciousness. Of course, it can only be represented on the presupposition of a synthetic unity, but this relation is itself purely analytic. It rests only on the identity and nonidentity of the concepts.

I call this relation of concepts, which they have simply in virtue of their form, the relation of superordination and subordination of concepts.

I will briefly elaborate. To say that the concept has a content means that the concept is a representation of a part. That it is an analytic ground of knowledge is what is meant when it is said that it has an extension [*sphaera*].[9] The relation of subordination in view of the content or extension of the concepts gives rise to the well-known distinctions between simpler and more compound, or higher and lower concepts. The highest and at the same time simplest concept is the concept "object in general." Any concept that differs from it is a determination of it. In it something is thought in addition to "object in general." In the concept of an object in general one determines nothing; in every other, something is superadded to "object in general": "as regards *content* concepts arise synthetically" (cf. A77/B103).

Logical subordination of given concepts, constituted by these formal (analytic) relations and viewed in itself as a mere form to which given concepts as such conform, leaves completely open

whether and how concepts can be used for *knowledge* of an object. It has to do only with the logical (analytic) relationship among concepts in virtue of their form as concepts. Moreover, when I develop points of view for the comparison of given concepts, I naturally do not presuppose that there really are other comparable objects for every possible object.

CHAPTER 4

The Definition of Judgment

We now have all the premises necessary for arriving at the goal of our examination of the Transcendental Deduction's trains of thought: an insight into the relation of Kant's explanation of the logical form of a judgment to his concept of the understanding's knowledge in general.

We know what objective unity of self-consciousness is, what a concept is, and what the analytic unity of consciousness is. Now, according to §19 of the *Critique*'s B Deduction, a judgment is this and nothing else: "the manner in which given cognitions are brought to the objective unity of apperception" (B141). As strange as it sounds, these given "cognitions" (*representationes* or better *perceptiones* [*representationes quarum conscius sum*] *ad cognitionem pertinentes*) are, according to the first paragraph of this section, not only concepts, but also judgments. It may always be that concepts as they are related to each other when they are brought under the objective unity of apperception, that is, the various conceptual *relations* in the form of judgments, can or must themselves again be brought to the objective unity of apperception. This will differ from the primitive way in which

mere concepts are brought to the objective unity of apperception, but it will be similar in that it will be a way of bringing representations that are bound up with the analytic unity of consciousness to the objective unity of apperception in general. The relation of "given cognitions" in this sense in a judgment is an objectively valid relation, that is, the given representations are united in an object. Thus, the "logical form of all judgments" consists in "the objective unity of apperception of the concepts it contains," because the logical form of all judgments is the specific character of the relation of given cognitions insofar as they constitute a judgment.

This character distinguishes relations of concepts from the relation of thoughts merely associated by subjective laws of representation; likewise it distinguishes these relations of concepts from mere comparisons of concepts, which rest on the *analytic* unity of consciousness.[1] This account of the nature of judgment is not stated explicitly in this form in the first edition of the *Critique*. It appears in print for the first time in the long footnote in the preface to the *MFNS* (*Ak* 4:474–75). There Kant states that the problem, whose solution in the A Deduction he takes to be too difficult and unclear[2], "is quite easy, inasmuch as it can be solved almost by a single conclusion from the precisely determined definition of a judgment in general (an act by which given representations first become cognitions of an object)" (p. 475).

Here "cognition" is used in its proper sense, namely, as not equivalent to "*ad cognitionem pertinens*." We have already pointed out on page 29 above that the phrases "determinate relation of given representations to an object," "their objective validity," and that they are "cognition" all have the same meaning. (See the fourth from final paragraph of the preface of the *Critique of Practical Reason*: "the objective validity of a judgment, i.e., its validity as cognition" (*Ak* 5:12–13).)

In accordance with the promise made in this suggestion (1786) Kant took the earliest opportunity, namely, the second edition of the *Critique of Pure Reason*, to "remedy this defect

(which concerns only the manner of presentation and not the ground of explanation, which is already given correctly there" (*Ak* 4:476).[3]

If Adickes is correct in assigning the date 1783/84 to *Reflection* 5923 on metaphysics (entitled "Deduction of pure knowledge a priori"), then this may very well be the first record of the decisive insight. Kant writes:

> If we consult *logic* in order to find out what cognition as such is, a concept turns out to be a representation (or a collection thereof) that has been related to and denotes an object. By connecting (or separating) concepts in a judgment we are thinking something about the object that is denoted by a given concept, that is, we recognize [*erkennen*] it by making a judgment about it. Accordingly, all cognition ... consists of judgments. The form of every judgment consists in the objective unity of the consciousness of the given concepts, namely, in the consciousness that these concepts *necessarily* belong together. It is in this way that they necessarily refer to an object in the complete representation of which these concepts are always found together. But the necessity of this connection is not a representation that has an empirical source, rather it presupposes a rule that must be given a priori, that is, unity of consciousness that is a priori. This unity of consciousness is contained in the moments of the understanding while it is judging, and only that something is an object in relation to which unity of consciousness of the manifold of representations is thought a priori.

Through *Reflection* 5934 we can find many variations on this same theme during the 1780's. Let me quote *Reflection* 5927:

> The relation of representations to the universality of consciousness, and consequently the conversion of the empirical and particular unity of consciousness that is merely subjective into a consciousness that is universal and objective *is in the domain of logic.*

In the *Nachlaß* on logic from *Reflection* 3032 through 3061, we can follow the gradual progress of Kant's explanation of judgment. Kant approximates the above definition in earlier passages. The final definitive formulation appears in the 1780's and 1790's. In *Reflection* 3051 he writes:

A judgment is the representation of the manner in which various concepts as such belong with universal necessity (empirical or *a priori*) to one consciousness in general (not just to my consciousness). They belong to one consciousness, in part according to the laws of the imagination, that is, subjectively, or according to laws of the understanding, that is, they are objectively valid for every being that has understanding.

In *Reflection* 3052 he writes:

Judgment is the representation of objective unity (in the cognition of an object) in the consciousness of various concepts.[4] The objective unity of consciousness is universally valid and necessary.

In 3055:

Judgment: the representation of the manner in which various concepts belong to one consciousness objectively, that is, in order to constitute a cognition (for everyone) of the object.[5]

I deliberately cite these *Reflections* that are not in the *Critique* in order to make very evident that Kant believed that the definition of judgment *belongs to logic*. Contrary to what is often said and what follows from the views we criticized in Chapter 1, the definition does not break with his views about formal logic occurring in transcendental philosophy, views that are allegedly oriented toward analytic judgments or the form of the analysis of given cognitions.[6]

Is this account of the nature of judgment original—something Kant first discovered? If we take into account Kant's views on logic and its history, we cannot claim this to be the case. This account of the nature of judgment is in itself no different from what is agreed to by all logicians from Aristotle to today's so-called mathematical logicians, namely, that a judgment (statement) is a thought (or complex of thoughts) that can be said to be true or false. For "objective validity ... is, truth" (A788/B816).[7] Nothing could be more misguided than the assumption that this definition of judgment makes Kant into a

reformer in philosophy. This definition, as such, contains nothing new. Its importance for the *Critique* lies in the fact that it is a means for providing a distinct answer to the question of "how experience is possible by means and only by means of these categories" (*Ak* 4:475).

What is its significance for logic as a science, that is, as a system? Clearly, Kant's definition makes evident how the concept of judgment is related to the concept of the faculty of knowledge yielded by the understanding in general. It relates judgment to the original synthetic unity of self-consciousness, which is absolutely necessary and is with a priori certainty "the Supreme Principle of all Employment of the Understanding" (B136), that is, to *the "highest point ... [of] philosophy"* (B134). This, of course, remains hidden from Aristotle as well as contemporary so-called mathematical logic.

Guided by Kant, we have sought to understand the systematic nature of the moments of thought in judgment, and with this in mind, we have had to locate Kant's idea of knowledge yielded by the understanding in general. We can now add that in textual asides Kant himself maintains that this route is necessary if we are to present systematically the logical form of a judgment. This is true in both the A and B Deduction. Consider the footnote on A117:

But it must not be forgotten ... that the bare representation "I" in relation to all other representations (the collective unity of which it makes possible) is transcendental consciousness. Whether this representation is clear (empirical consciousness) or obscure, or even whether it ever actually occurs, does not concern us. But the possibility of the logical form of all knowledge is *necessarily* [emphasis added] conditioned by relation to this apperception as *a faculty*.

The second edition concludes the already cited footnote, explaining that the analytic unity of apperception (which belongs to all common concepts as such) is possible only if there is a certain synthetic unity of apperception, with a similar remark:

The synthetic unity of apperception is therefore that highest point, to which we *must* [emphasis added] ascribe [*heften*] all employment of the

understanding, even the whole of logic, and conformably therewith, transcendental philosophy.[8] Indeed this faculty of apperception is the understanding itself (B134).

The phrase "therefore" in this passage directs us to the concluding sentence of §15, according to which

we must . . . look . . . for this unity [which precedes all categories] . . . in that which contains even the ground of the unity of diverse concepts in judgment, and therefore of the possibility of the understanding, even as regards its logical employment (B131).

Should this account of judgment qualify as a definition, especially one that is exact, then the value of Kant for the development of the logical theory of judgment must lie in his having recognized which representation of judgment *must be placed at the very top* of its formal logical discussion proper (if it is to be systematic). Unlike Kant, the logicians of the Wolffian school and even Aristotle were happy to put something arbitrarily chosen at the top. The point of a definition, even a philosophical one, is to give an initial delineation of the concept of an object so that this representation of the thing is capable of standing at the head of *all* judgments regarding this object.[9]

Whether or not this presumptive "definition" fulfills its task will have to be decided in what follows.

CHAPTER 5

Outline of the Systematization of the Primary Functions

We now have the same task before us that Kant had in §9 of the *Critique,* namely, to present all the functions of unity in judgments. The difference is that we have assumed the responsibility for showing why and how (by what route) "this can quite easily be done" (A69/B94).

Our only available resource is the "definition" of judgment developed from the highest point of philosophy. It alone should help us solve our task of deducing what belongs to the form of judgments. But what a nest of problems this task conceals! Why are quantitative differences in judgments also formal differences? Why does Quantity belong to the form of a judgment at all? Many logicians before and after Kant (for example, the Wolffians and R. H. Lotze) have taught that these distinctions refer to the subjects of judgments, and so are material. How do we decide who is right? Modern so-called mathematical logic teaches that the honor bestowed upon the subject-predicate relation by traditional logic is an error caused in part by contingent grammatical forms and in part by a prejudice that arises from an exclusive regard for judgments based on data derived

from sensation, which can only represent "quality" [*Beschaffenheit*], not "relation." Should such an objection be rejected or defended? We must also remember the 19th-century controversies over negation and the crisis concerning problematic and apodictic judgments (Christoph Sigwart). How are these to be decided and put to rest?

Our task presents us with a certain technical difficulty. We want to recognize how Kant actually understood the systematic nature of the moments of judgment, that is (according to our account), how he thought they are to be deduced from the principle that is "exactly determined" in the "definition" of judgment. I fear that if we were to present the nature of this deduction as well as every step from all the relevant observations in his published and posthumous works, then we would obscure what we are concerned with, namely, the systematic nature of what we are deducing. This would be a consequence of the need to anticipate, on the basis of textual analysis, concepts whose proper place occurs much later. Consequently, I have decided to deduce on my own the moments of judgment from Kant's premises, which I have presented in their entirety. Since this is just a preview, I will ignore, perhaps to a great degree, the details and only accent the points that are critical to the whole structure. After projecting this film, I will show on the basis of Kant's writings that although it is somewhat coarse-grained, it does give a correct picture of Kant's system of the moments of judgment. Then we will also have the opportunity to add some of the finer details stated by Kant.

Our procedure has to be analytic. We take for granted that the judgment as such implies the objective validity, that is, the objective unity of the apperception of the concepts contained in the judgment. In other words, judgments include truth, or more precisely, in the possibility of judgment there is the possibility of truth. We, therefore, take for granted the modality of judgment, as we maintained in the last three paragraphs of Chapter 2. We begin with this "logical actuality," and we will analyze wherein and whereby it is given, and from the

manner in which it is thought we will deduce what belongs to a judgment as such.

§1. Derivation of Categorical Judgments

Concepts, as we know, are the simplest things given in general pure logic that can have the distinction of being related to the objective unity of apperception. By stating that in judgment concepts are related to the original pure apperception and its necessary unity, the definition of judgment specifies the characteristic manner in which given concepts are united (belong together). Clearly, it follows from the assumption that there is such a relation (which concepts do not have on their own) that the relation among concepts that together are considered to belong to the representation of an object[1] necessarily has a specific character. The relation *among* concepts (and later also the relation among given judgments) insofar as together they are considered to belong to the representation of an object, we will call, following Kant, Relation of judgment in general.

We already know that concepts as such are essentially determined in their analytic relation they have to each other, namely, in their relation of subordination. The actual determination of this relation depends on the concepts' content. That there has to be some such relation among given concepts follows from the form of a concept, that is, the form of the matter of judgment. So, necessarily, there is some such relation whenever there is a judgment. However, this relation as such does not constitute that relation which given concepts have to each other in a judgment. Insofar as concepts are thought to belong to the representation of an object, they must be subordinated to each other *in a specific manner*.

Now, all concepts are in themselves "thoughts" through which I represent something that is thought to be common to various possible representations. But these various representations, which are just an infinite set of various possible representations, are not given by the concept in their variety. Judgment,

however, by definition, is the *employment* of concepts for the cognition of objects. Precisely in this "employing of concepts for the cognition of objects" lies the form of judgment. Since a concept, by itself, does not have the function of being a cognition (in the strict sense), a concept has this cognitive function only if there is an additional *given condition* of its employment for the cognition of an object. The only material we have available to us prior to any judgment is concepts. Hence we must think of another concept as the condition of the employment of a concept for the cognition of an object. The concept that serves as this condition, we will say, has the function of the subject, and the other the function of the predicate. S is P: the relation [*Relation*] of one concept that has the function of a predicate to another that has the function of a subject is the relation [*Verhältnis*] of two concepts in their unity in judgment. The concept of the relation [*Beziehung*]:[2] predicate of a subject or subject of a predicate, is the concept of this relation [*Verhältnis*] between two concepts insofar as they constitute a cognition of an object. The connection of two given concepts in this relation we will call the function of the categorical judgment.[3]

Let us reconsider the concepts used in our argument in order to assure ourselves of its formal logical character. "To employ a concept (for the cognition of an object)": this possibility follows from our assumption that the given concepts are to be related to the objective unity of apperception. This is the assumption of the formal unity of a judgment as such as that of the objective unity of consciousness. But where did the concept of the "condition" of the employment of a concept for cognition come from? What did we introduce with this concept? It was necessary to introduce this concept because in itself a concept is just an *analytic* unity in the consciousness of my representations, and, consequently, it is not in itself determined with respect to the *objective* unity of the consciousness of my representations. The same fact, namely, that the "I think" does not give our thinking a manifold or content, is expressed in the form of a concept: a concept by itself does not have objective

validity, that is, truth. If a concept is to have objective validity, it is necessary to add to it another "thought," namely, one that gives the concept this function. The concept of this additional something is the concept of the condition of a judgment. We know *analytically* on the basis of the concepts of the objective validity (the form of a judgment) of a concept and of the nature of a concept in general that a concept in itself does not have objective validity or truth. This justifies the inclusion of the concept of the condition of a judgment as such in general pure logic.

We know analytically that in virtue of its form a judgment is necessarily a relation [*Verhältnis*] between concepts. The concept of this relation in judgments is the concept of the unity of the condition and the conditioned with respect to the employment of concepts for the cognition of an object. A concept functions as predicate or as subject, and this difference cannot be merely a matter of the relation of subordination among concepts as such; rather, this difference is a specific determination of the subordination relation that flows from the *objective unity* of the consciousness of the concepts. As far as the analytic unity of consciousness is concerned, the subject in fact is subordinated to the predicate with respect to extension because the subject is an instance that satisfies the predicate. But as far as the objective unity of consciousness is concerned, the predicate is conditioned by the subject, and so, if you will, the predicate is subordinated to the subject.

We have extracted analytically the function of the categorical judgment, namely, the function of the subject in relation to the predicate (or vice versa), from our assumption of the objective unity of apperception of given concepts (from the definition of the judgment's form).

§2. Derivation of Hypothetical Judgments

If the only matter of judgment we consider is two given concepts, then obviously we cannot extract anything else concerning their Relation because the necessary and sufficient condition

that the relation of concepts accords with the form "consciousness of an object" was discovered analytically. However, from now on, we can take for granted the existence of one such relation and another such relation as a given matter, and we need to ask if it must be the case that the relation between two such relations of concepts can be related [*in Beziehung stehen*] to the form "objective unity of apperception." That is, must it be possible to think of this relation between relations as constituting a cognition of an object?

If not, then we would only have categorical judgments. We need to ask if the form of truth, namely, the objective unity of apperception, would be possible if there were only categorical judgments, that is, if the relation between categorical judgments were indifferent to the objective unity of consciousness. Evidently there would be many "truths" (objectively valid categorical judgments), but wherein would lie their relation [*Beziehung*] to the *thoroughgoing objective* unity of apperception in the consciousness of my representations? If the form of truth is nothing but this relation of given representations to the *thoroughgoing* unity of pure apperception, and this unity is possible only if I can become conscious of the identity of the function by means of which I can combine the given representations in one consciousness, that is, only as *original synthetic* unity, then, on the assumption that the relation among categorical judgments is indifferent, even the form of truth is obviously impossible. But this original synthetic unity is the highest point to which we must attach the whole of logic. Here we can clearly see the consequences of our attaching logic to this highest point. So it must in general be possible to think of distinct categorical judgments as combined in one objective unity of their consciousness.

Again, according to the supreme principle of logic, namely, the principle of the original *synthetic* unity of apperception (which follows analytically from the "I think" as a representation given a priori) such a representation has to be attributed *wholly* to spontaneity: we cannot represent anything as com-

bined in the object without having combined it *first* ourselves. It follows that the necessarily thinkable connection between categorical judgments must be thought in such a way that the thoughts of the distinct categorical judgments are *first* related to the objective unity of the consciousness of the representations they contain (judgment: "an act by which given representations first become cognitions of an object" [*Ak* 4:475]). In order to think that the relation of categorical judgments, which we have recognized as necessary, is merely due to the form of truth or to the objective unity of consciousness, we must abstract from the fact that the material of this relation of judgments is itself related to the objective unity of apperception of the concepts the judgments contain, leave undecided the truth of the two judgments serving as material, and think the relation to possible truth to be *established* only by the connection of both "judgments," which from now on are only thought to be material for a judgment in its proper sense. We then find ourselves in a situation analogous to that when we extracted the subject-predicate relation of concepts out of the demand for the constitution of possible truth. The one "thought" has to be the condition for using the other for a (possible) cognition, that is, the condition of the actual (valid) reference of the other thought to an object.

We will call the connection in one judgment of two categorical judgments by this relation *the function of the hypothetical judgment*: "If . . ., then." In this connection, thoughts, which have already a relation of concepts for their content but which in themselves are not determined to be objectively valid, can initially acquire the form of consciousness of an object or state of affairs. The thought that serves as the condition has, we say, the function of the *antecedens* (ground) and the other the function of the consequence. The concept of the ground-consequence relation belongs, like the subject-predicate relation, under the heading of the Relation of judgment because it is the concept of the unity of a condition and the conditioned with respect to the employment of thoughts for the cognition of an object.

§3. Derivation of Disjunctive and Modal Judgments

If we pay attention to our chain of reasoning, we will realize that we not only extracted the form of the hypothetical judgment, but also, in deducing this form and proceeding from the categorical to the hypothetical judgment, that we extracted the form of *leaving undecided* [*Unausgemachtlassens*] whether a relation of concepts that is thought in the categorical judgment is logically "actual" or true, that is, objectively valid. For indirectly the thought of leaving this undecided was also necessary for the form of truth. The objective validity of a relation of concepts was our cardinal assumption. From it followed not only the necessity of a concept of a relation of concepts, but also of "judgments." This relation, however, had the special characteristic of itself first making the consciousness of an object possible. But this implied the necessity of the possibility of leaving undecided the truth of a categorical judgment. A categorical judgment thought in this form we will call a *problematic judgment*.

But this moment, which we have deduced to belong to the judgment as such, presents us with a new problem. "Problematic judgment" seems to be a contradiction in terms because judgment by definition should be a relation of thoughts that are objectively valid. But because by its form the objective validity of the relation of concepts is left undecided in the problematic judgment, this is not even a case of "judging." The combination of its concepts has only the value of an "arbitrary assumption," as compared to a real statement or assertion (proposition). Thus problematic validity contrasts with truth or "assertoric validity." On the other hand, this moment, as we have seen, necessarily belongs to the form of the objective unity of my thoughts (the thoroughgoing connection of my representations to the original synthetic unity of apperception). Consequently, the relation between the problematic validity of a thought and the objective validity (assertion) in general must be necessarily determined in the form of judging.

In itself the problematic judgment essentially leaves truth undecided. By combining two judgments according to the function of the hypothetical judgment nothing is decided about the relation to truth or falsehood of the individual problematic judgments that serve as material. Consequently, we have to be able to think of problematic judgments in another connection that determines the relation of the individual problematic judgment to truth or falsehood. Since arbitrary problematic judgments in themselves do not have this function, this requires a special condition. What must it be? We cannot postulate something that lies outside of given problematic judgments because the relation of given problematic judgments *as such* (that is, as *merely* given problematic judgments) to the objective unity of apperception first has to be given through this connection (the highest point—the definition of judgment). Therefore, the given problematic judgments must themselves constitute this condition. Thus they must "as a whole" ("in community") determine the true cognition. Since no part of this whole is in itself given as objectively valid, they have to determine each other *reciprocally* so that through this the true cognition of an object is determined.[4]

This function of problematic judgments in relation to each other, and at the same time in relation to the consciousness of truth, is thought through "either . . . or." This is *the function of the disjunctive judgment*.[5] In this relation, the conditioned are the parts that determine the cognition as a whole. The condition is the sum, the totality that is determined by the parts. The concept of the part-whole relation, as well as the subject-predicate and ground-consequence relations, belong under the heading of the Relation of judgment.

We can represent the form of the disjunctive judgment as follows: its material are problematic judgments that are thought to complement each other to form a whole so that taken together they thereby determine the true cognition. In other words, some "truth" or objectively valid judgment is determined by this connection of merely problematic judgments. In view of

the fact that we think in this manner, we can see that, having deduced that the form of the disjunctive judgment belongs to the function of thought in judgment in general, we have also extracted another moment that belongs to it: the "necessity" of a judgment. What is logical *necessity* or *apodicticity*? Exactly what we had to deduce in the first place, namely, that under certain conditions the truth of a thought is determined merely by problematic validity. It is the objective validity that under certain conditions is determined by mere problematic validity, in this case: one of the members of the disjunction *must* be true.

Clearly, this new moment, apodicticity, and assertoric and problematic validity belong to one aspect. All three are concerned with the relation of the interrelation of given thoughts, insofar as they are related to the objective unity of apperception, to thinking in general. We call this aspect the Modality or value of a judgment. All three moments acquire their sense and meaning from the concept of the objective validity of a relation of thoughts.

We have assumed the "logical actuality," that is, the act of the understanding that brings about the objective validity of a relation of concepts in this very function, and have examined its conditions, as is proper if logic is just the analysis of the acts of the understanding into their moments. Considering thoughts in this way, we have deduced differences in the interrelation of thoughts (Relation: categorical, hypothetical, and disjunctive) and differences in the value of the connection of thoughts with respect to thinking in general (Modality: problematic, assertoric, and apodictic validity). We have deduced that these differences belong to the form of judgment as such. They could be ascertained only in their connection to each other; that is how Relation and Modality are intertwined. What connects them is the concept of the condition of the employment of certain given representations for cognition.

Can other distinctions be made? How can we find out?

§4. Derivation of the Quality and Quantity of Judgments

If we view judgments only under the aspect of Modality and of the relations that Modality necessitates, there is nothing more to be said. We are not inherently faced with a further *necessary* problem.[6] In a certain way, here we really have reached our goal. In order to examine whether this conclusion is perhaps in fact only a preliminary pause, we have to return to our point of departure, which is the definition of judgment. The logical form of all judgments consists in the objective unity of apperception of the concepts contained therein. What can still concern us, in the words of the clue, is that through certain acts in concepts, by means of analytic unity, the understanding brings about the logical form of a judgment.

So far we considered exclusively those possibilities of differentiating judgments that apply only to the extent that their material stands in a relation that was characterized as the connection of "given cognitions" to the original apperception and its objective unity. The definition of judgment now leads us to consider the "interior" of judgments, that is, to consider the concepts they contain as such (namely, as representations that have the analytic unity of consciousness), particularly with respect to how the inner form of this material is determined by the unity of judgment, characterized by Modality and Relation.

In considering the interior of a judgment and its form, we will take for granted the culmination of our analysis so far: the form of the disjunctive judgment (together with the moment of apodicticity). How is it possible to think that in concepts, by means of the analytic unity, problematic judgments (with the same subject[7]) are thought as mutually determining each other so that through this an objectively valid judgment about the object is made necessary?

The analytic unity in the relation of given concepts consisted in the determinate way in which they are subordinated to each

other, which can be characterized in terms of the extension (*sphaera*) and the content of concepts.[8] What follows for our characterization of disjunction if this relation is taken into account? Disjunction is supposed to be the mutual determination of problematic judgments. That means that the concepts B, B', B", etc., as predicates of the same subject A cannot be subordinated to each other with respect to their extension, because then the truth or falsehood of one of the predicates of A deductively determines the truth or falsehood of the others, which would make the determination unilateral. So what does it mean to say that with respect to the subject that is possibly thought through them, concepts stand to each other in the relation of *coordination*, so that combined with the subject, taken together and through their mutual relation, they determine the true cognition? How is this expressed in concepts by means of their analytic unity?

If we pay attention to the formal relation of concepts according to their content, then, clearly, according to our account so far, the relation of the concepts in the disjunctive judgment is that of "opposition" in this sense: if one predicate holds for the subject, the others necessarily do not hold. Consequently, if we think one predicate of the subject, as posited as an assertion, then eo ipso we think that the others are "canceled" [*aufgehoben*], and vice versa. This difference, which we recognize as belonging necessarily to objective validity (truth) by means of the form of the disjunctive judgment, we will call that of the *Quality of judgment*. We will say that affirmation and negation are kinds of judgment in general under the heading Quality. The fact that this distinction is contained within the form of a disjunctive judgment, which in turn can be shown to belong immediately to the form of truth, demonstrates that this distinction is relevant to truth as such (the form of truth).

Analogously, if we pay attention to how the "community" of given cognitions (by means of the relation of opposition) is expressed in concepts by means of analytic unity, we will recognize that in the disjunctive judgment (as follows from what has been said in the case of Quality) we think of the extension of

each part as complementing the extension of all the other parts to make up the complete extension of the proper cognition of the subject. In other words, in a disjunctive judgment "the use" of one thought under a certain condition (namely, that of the subject), is thought in "its complete extension," while "the use" of the predicates in the problematic judgments contained in this disjunction is thought under the same condition "in a limited extension."[9]

The distinction just characterized constitutes the distinction between the universality and particularity of a judgment, the distinction concerning its Quantity. The form of the disjunctive judgment in which it is thought shows the significance of this distinction for the form of the objective validity of a relation of concepts, as was true of the distinction of Quality.

Needless to say, it follows that the distinctions of Quality and Quantity are concerned with the form of judgment as such, not restricted to the distinctions thought in a disjunctive judgment.

CHAPTER 6

Textual Justification

Let us pause here. We are aware that we have rushed through the functions of thought in judgment without the precision necessary if they are to be discussed for their own sake. Our intention, however, was not to clear the path, but rather to map out its course. Now we want to secure those concepts in Kant's work and *Nachlaß*, which show that our path is indeed Kant's own.

§1. The Entire Path and the Direction of Its Course

To begin, let us attend, not to the signposts that point the way from station to station, but rather to the entire course.

The *Critique* numbers the functions of judgment in the following order: Quantity, Quality, Relation, and Modality. We have ordered them the other way around, from Modality to Quantity. In terms of the concepts of the *Critique*, which method does our sequence express? Let me state the result right at the outset, namely, that our sequence expresses nothing other than the following of the analytic procedure (B418) in the representation of the moments of thought in judgment and of their original relationship in the form of thought in general.

To make this clear, let us consider the discussion of the claims of rational psychology in the chapter on "The Paralogisms of Pure Reason" in the Transcendental Dialectic. According to

B402, these claims are developed under the guidance of the categories. B418–19 draws out the consequences of "proceed[ing] *analytically*" in the exposition of these claims, in explicit contrast to an observation made earlier about them "in *synthetic* connection" (B416). Indeed, this earlier observation runs through the sequence backwards, beginning with Relation, because for reasons given at B402, it begins with the representation of the mode of existence of the object being discussed as substance. This explanation would unnecessarily complicate the comparison of the analytic and synthetic procedure. However, on B418 Kant writes quite simply "we should proceed *analytically*" without any special qualifications, as was the case earlier when he proceeded synthetically. Therefore we will only pay attention to what is here presented as essential to the analytic procedure in the exposition of the principles of a rational science.

It consists in "starting from . . . a proposition, as given, that already . . . includes an existence . . . , and therefore Modality," or, in other words, the account will "begin . . . with a reality" (B418). On this foundation, the analytic procedure will analyze the proposition "in order to ascertain its content," and "we should infer from the manner in which this reality is thought, after everything empirical in it has been removed, what it is that belongs to a thinking being in general" (B418–19). What follows in Kant's text is the "table" of rational knowledge secured by the analytic treatment of the object of the knowledge of reason, which contains the principles of all cognitions about the object. If we use the headings of the table of categories, the table is ordered as follows:

(1) Modality
(2) Relation (3) Quality
(4) Quantity [1]

The table of categories in §10 of the *Critique* is arranged in such a way that its headings present the thought of an object in general in the *synthetic* manner (namely, forwards, not backwards, and without any qualifications). Our first piece of

evidence is Kant's comment in the last paragraph of the Introduction to the *Prolegomena*, namely, that the *Critique* is and had to be composed according to the synthetic method (*Ak* 4:263). This certainly applies to the Transcendental Logic. But according to A135/B174, it has "as its peculiar task the correcting and securing of judgment, by means of determinate rules, in the use of the pure understanding." The Transcendental Aesthetic and the Analytic of the pure *Concepts* of the understanding only prepare the ground and provide the elementary concepts required for this task, which is actually accomplished in the Analytic of Principles of the pure understanding, that is, in the Doctrine of Judgment.[2] The table of categories, however, is "the natural and safe guide" (A148/B187), "the quite natural instruction" (A161/B200), for ordering the synthetic principles of pure reason presented there. Since the systematic representation of said principles must be presented throughout according to the synthetic method, the table of categories is therefore of necessity ordered in synthetic connection. Quantity, Quality, Relation, and Modality are the headings of thought of an object in general *in synthetic order*.

Thus it is clear from the mere concepts, that, for instance, the concept of the substance-accident relation presupposes that of reality (Quality) and further, that the thought of the existence of an object (Modality) presupposes a concept of what the object is, which is given through the three prior headings of Quantity, Quality, and Relation. In conformity to this, the mere definitions of matter in the *Metaphysical Foundations of Natural Science* (at the beginning of every chapter), which accord with the table of categories, are ordered so that each definition presupposes the previous ones, and not the principles about matter, which in itself would not prove anything for our purposes.

Consequently, it is clear that the basis for the ordering "Quantity, Quality, Relation, Modality" of the headings of the functions of thought in a judgment in general in §9 consists in the function of this table as the clue to the discovery of the categories. That the use of the table of judgments as a clue for this

discovery can have a special influence on the presentation of the moments of thought in judgment is explicitly confirmed by Kant. He says that only in a transcendental table of judgments, that is, in a table that is to serve as the clue for the discovery of the pure concepts of the understanding, is it necessary to specifically list the (singular and) the infinite judgments, which do not have a special place in the division within general logic (§9).[3]

If the *Critique of Pure Reason* has to be written throughout according to the synthetic method, so that "the science [of the pure knowledge of the understanding and of reason] may present all its articulations, as the structure of a particular cognitive faculty, in its natural combination" (*Prol; Ak* 4:263), then for that very reason precisely the opposite is true with general pure logic, the science of the rules of the understanding in general—of the "general use of the understanding." First of all, it follows from its calling that pure general logic

> is a *canon of understanding* and of reason [that is, the sum-total of the a priori principles of the correct employment of the same, according to A796/B824], but only in respect of what is formal in their employment, be the content what it may (A53/B77).

> For since general logic abstracts from all content of knowledge, the sole task that remains to it is to give an analytical exposition of the form of knowledge [as expressed] in concepts, in judgments, and in inferences, and so to obtain formal rules for all employment of understanding (A132–33/B171–72).

According to A131/B169–70, the analytic[4] part of pure general logic contains the canon for the faculties of concepts, judgments, and inferences:

> For the form of reason possesses its established rules, which can be discovered a priori, simply by analyzing the actions [or functions] of reason into their moments, without requiring to take account of the special nature of the knowledge involved (B170).

This is how the general method of general pure logic is characterized. Applied to the central part of formal logic, the

doctrine of judgment, this merely means that logic has to analyze the act of judging into its moments, and that these moments are ascertained through this analysis. But we are making an even stronger claim, namely, that the *relationship between the moments* ascertained by analyzing the functions of thought in a judgment in general are such that the analytic method, which is essential to formal logic, can even be used *to order these moments*. That is, if I begin with a determinate moment, I can draw the others out of it analytically.

Evidence that this too is necessary can be found in the introductory observations of the first chapter of this book: we have to be able to give a complete list of all the functions of thought in judgment because in this task reason deals only with itself (see pp. 3–4, above). Kant maintains that his table of the functions of judgment is complete. But the completeness of these moments is possible only by their presentation within the context of a system. This, however, *is itself only possible by means of a principle* and by the *deduction* of the manifold from it. The following is thus decisive: *the principium and the principiatum are identical.* What is being sought already lies "given" in us, even though we are not clearly aware of it. The principle cannot be anything other than "thought itself according to its form" and those moments constitute *its* distinguishable manifold. The "I think" (the original synthetic unity of apperception) is the highest point to which we must attach all of logic, that is, basically, the formal doctrine of judgment. But the judgment according to its form is nothing other than this objective unity of apperception—in concepts by means of analytic unity. Therefore, the deduction of the manifold, which necessarily belongs to the system, is concerned with the interrelation between the moments. It is a requirement that is realized immanently.

The table of categories represents synthetically these moments of the function of judgment, but represented as "concepts of an object in general, by means of which the intuition of an object is regarded as determined" (B128). On the other hand, to consider the principles of a rational science according

to the clue of the functions of the understanding that begins with Modality and proceeds to Relation, Quality, and finally Quantity is to represent these principles analytically (i.e., in the course of the analytical procedure). If this is indeed the case, then given what has just been said, it follows unavoidably that the systematic presentation of the functions of thought in pure general logic that meets the requirement of deduction immanently has to proceed from Modality to Quantity.

In order to underscore the need for beginning with "logical actuality," or, more generally, the foundational role of Modality in still another respect, we point once again to the definition of the judgment in general at §19, which is the highest of all judgments about an object (in this case the object is the judgment in general). The definition presents the "mode" of the relation of concepts in a judgment, namely, that relation which distinguishes it from all other relations of concepts (or thoughts).[5] Or, to use an expression of G. F. Meier's, the definition at §19 presents the "formal mode" of the relation.[6] This mode is the "form" of the judgment. The "given cognitions" (concepts, problematic judgments) are the "material." (Cf. A266/B322, Refl. 3046.) According to Kant, to reflect on something in light of the distinction between its form and matter is to reflect on it from the perspective of Modality. Compare the ordering of the headings of all logical reflection in the chapter "The Amphiboly of Concepts of Reflection" (A260–61/B316–17), and the remark at §39 of the *Prolegomena* that the concepts of reflection are tabulated in accordance with the clue of the categories.

Wherein lies the formal mode of a judgment? In the objective validity of the relation of its concepts, or, which comes to the same thing, in its truth, or "logical actuality."[7] From this it is evident that the highest description of the judgment is so with respect to the Modality of judgments. The logical reflection on judgment in general has to begin with Modality:

> The *Modality* of judgments is a quite peculiar function. Its distinguishing characteristic is that it contributes nothing to the content of the judgment . . . but concerns only the value of the copula [of the relation of the given cognitions] in relation to thought in general (A74/B100).

It is therefore certain that Modality is the foundation for logical reflection on judgment in general. On this foundation, however, the systematic presentation of the moments of thought in judgment can only proceed analytically. *The systematic presentation of the moments must therefore move from Modality to Relation, and from Relation to Quality, and finally to Quantity.*[8]

§2. The Individual Sections of the Path

Even if we find the forms of judgment in the *Critique of Pure Reason* in the order: Quantity, Quality, Relation, Modality, for the reasons given, a closer look at Kant's *Reflections* on logic will soon reveal other accents, assuming that we ignore the order of the table of judgments in §9 of the *Critique* when we turn to the passage on judgments in particular.[9]

Prelude: Quaeitas

In *Reflection* 3035 (latter half of the 1760's), this remark: "Logic does not look to content but rather to form (relation)" is followed by the striking claim "*Quaeitas* is the relation of the predicate to the subject." What is "*quaeitas*"?

We find the expression once more. In *Reflection* 3084 (likewise end of the 1760's), Kant analyzes the judgment in general: "According to Quality affirmative and negative. According to position problematic and dogmatic or assertoric. According to Quantity . . . etc." This is then summarized: "*Quaeitas, Qualitas, Quantitas . . . Quaeity* concerns the copula as the relation of a ground of cognition to the subject and the energy, that is, the degree, of this ground and of the relation, for instance, God is necessarily just."

Thus "*Quaeitas*" in *Reflection* 3035 characterizes the relation of predicate to subject, and later it is used to designate at once both the relation and modal distinctions.

What is the meaning of "*quaeitas*" in school logic? E. Adickes has made it easy for us to answer this by providing passages from the contemporary literature. If we look it up in Joachim Georg Darjes's *Via ad Veritatem* (1755), with which Kant was familiar[10], we find in chapter III (*De iudiciis et propositionibus*) in §civ–cv this division of judgments: (1) with respect to truth and falsity, (2) universality and particularity, (3) affirmation and negation, and, finally (4) with respect to *quaeitas*. Darjes claims in §cxv:

> This mode of propositions, which are either composites or simples, is, if I may speak with the scholastics, *propositionum quaetitas*.[11]

Under *quaeity* in §§cxvi through cxxxi, he enumerates, among others, three sorts of judgment: disjunctive, hypothetical, and modal. Modal judgments are those that are necessarily true or false or accidentally true or false (the "marks" are necessary, impossible, contingent, possible).

Again, following Adickes, let us look in Johann Heinrich Zedler's *Großes Vollständiges Universallexicon*, vol. 30 (Halle and Leipzig, 1741). There *quaeitas propositionum* and *quidditas propositionum* have the same definitions. Looking further under *quaeitas* and *quidditas*, we find: "A scholastic word, which for the scholastics roughly had the same meaning as *essentia*, or the essence of a thing, either because through its very essence it is just this something and no other, or because one must answer the question 'What is it?' with its definition, and must explain its essence."

Thus we find that *quaeitas* refers to the essence of an object, given by its definition, and that Kant, in the second half of the 1760's, under the heading *quaeitas*, sets Relation (at least that between predicate and subject) and Modality over against Quality and Quantity. We say Relation (predicate to subject) and Modality *simpliciter*, since it must be noted immediately that already here (in *Reflection* 3084) Kant groups problematic, dogmatic (that is, apodictic), and assertoric judgments under a single aspect, departing from the standard practice of the Wolf-

fian school of separating truth and falsehood, on the one hand, from "modal affections" of judgment on the other, which are the very four singled out by Darjes. Kant is here in agreement with Johann Friedrich Lambert's *Novum Organon*.[12] His terminology is original, but the terms "problematic" and "dogmatic" (later "apodictic") adhere to the then standard modal distinctions. The term "assertoric," however, is probably used in this sense for the first time by Kant.

With these opening notes from the *Reflections* as prelude, let us attempt to work through the later *Reflections* more vigorously.

The Form of Judgment and Relation in General

The letter to Marcus Herz of February 21, 1772, is a turning point after which Kant already had the essential aims of the *Critique of Pure Reason* in sharp focus. He had this insight into the pure concepts of the understanding and their system: "to arrange them according to the way they classify themselves following a few fundamental laws of the understanding" (*Ak* 10:132). The *Reflections* on metaphysics 4476, 4629, 4646, 4685, 4689, and 4715, written at this time, can show us how this insight was worked out, because here the aspects of *quaeitas* (or *quidditas*), *qualitas*, and *quantitas* are carried over into the "real" use of the understanding. From around 1772 on, Kant must have had a special interest in the principles of formal logic due to their importance for the analytic of the "concepts of the pure understanding."[13] Only after this date do we find the categorical, hypothetical, and disjunctive judgments summarized under one aspect in *Reflection* 3039. The somewhat earlier *Reflections* on metaphysics, 4493 and 4496, can serve to illustrate the same point.[14]

In the *Reflections* on logic we read at 3039: "The material of judgment: terms. The form or the relation: expon[ent]: copula, if, either-or ...." The very special importance of precisely this division[15] may be seen in *Reflection* 3040 (1773–75): "The form of judgment considered logically (ignoring its matter). In it there are Quality, Quantity, Relation, Modality." However,

Kant numbers these forms 2, 3, 1, 4, so that he would have them read instead: "*relatio, qualitas, quantitas, modalitas.*" Then he continues: "*Relatio est vel subiecti, vel principii, vel oppositi.* Relation constitutes content. The agreement of the judgment with the rules of Relation . . . ."

Here it is very clear that Kant is granting the role of Relation priority over Quality and Quantity. Kant later (in the 1780's) justifies this preference in the *Reflection* on metaphysics 5854: "The category of Relation (of the unity of consciousness) is the most important [*vornehmste*] of all, for unity properly concerns only Relation; thus Relation constitutes the content of judgments in general—and [this deals now with its role in transcendental philosophy] Relation alone can be thought as a priori determined." The fact that the concept of the unity of consciousness is a presupposition suggests the reason for Kant's preference for the heading of Relation over that of Quality and Quantity. Analogously, Kant says in *Reflection* 3058 (1790's): "Logical relation is the relation of concepts *under the condition* of the unity of consciousness of the manifold in general."

Section 15 of the first *Critique* is relevant to this explanation. Here, before beginning the actual transcendental deduction, Kant takes the "highest point" in the field to be surveyed by analyzing the concept of combination (*conjunctio*) of a manifold of our representations in general, "be it a combination of the manifold of intuition or of various concepts." Combination, which rests on an activity of the understanding (synthesis),

> is the representation of the *synthetic* unity of the manifold [namely, of our representations]. The representation of this unity cannot, therefore, arise out of the combination. On the contrary, it is what, by being added to the representation of the manifold, first makes possible the concept of the combination. This unity [qualitative or formal[16]], which precedes a priori all concepts of combination [because in all judgments] combination, and therefore the unity of given concepts is already thought . . . itself contains the ground of the unity of diverse concepts in judgment, and therefore of the possibility of the understanding, even as regards its logical employment (B131).

We recall this paragraph because it states clearly that unity is analytically prior to the concept of combination. *Reflection* 5182 concurs: "a and b are combined when their position constitutes a unity." In order to bridge the gap to the concept of relation, we cite *Reflection* 5750 (1780's): "The relation of many to one another, insofar as they are contained in a unity, is combination." Similarly, the definition of judgment at §19 of the first *Critique*, which presents the formal mode of the combination of concepts in a judgment, also allows us to make our crucial point:

> *The Logical Form of all Judgments consists in the Objective Unity of the Apperception of the Concepts which they contain* . . . . A judgment is nothing but the manner [*Modus*] in which given cognitions are brought to the objective unity of apperception (B140–41).

As we have seen, however, this determination belongs to the Modality of a judgment.

Now let us return to *Reflection* 5854: "The category of Relation is the most important of all, for unity properly concerns only relation; thus Relation constitutes the content of judgments in general." That is, Relation is the most important due to its special relation to Modality, itself a very special function of judgments characterized by the fact that it adds no content to judgments. Thus, at one and the same time, we find the ground for giving priority to Relation over Quality and Quantity and for the necessity of placing Modality (of the formal mode of judgment) even prior to Relation.

Condition of Assertion

The next step we are obliged to take is to show that the concept we used in deriving the functions of Modality and Relation, namely, the concept of the "condition," is contained in Kant's concept of a judgment. In order to discuss the concept of the "condition" and its relation to Kant's doctrine of judgment, we must, however, take a detour, for a direct path cannot be found. Kant claims that the basis of the explanation stated in the first transcendental deduction of the categories is correct, but allows

that it is presented in an unnecessarily complicated form.[17] What then, we ask ourselves, is it in the first transcendental deduction of the categories that has the function assigned to the form of judgment in the second deduction? The answer has to be: the concept of a rule. This is easy to see.

The concept of a rule is explained in the first-edition Transcendental Deduction at A113: "The representation of a universal condition according to which a certain manifold can be posited in uniform fashion is called a *rule*." At A126, the understanding in general is designated as a faculty of rules. Then, at A127, Kant says:

> The unity of apperception is the transcendental ground of the necessary conformity to law [laws are a priori rules] of all appearances in one experience. This same unity of apperception in respect to a manifold of representations (determining it out of one representation) is the rule, and the faculty of these rules is the understanding. All appearances, as possible experiences, thus lie a priori in the understanding, and receive from it their formal possibility.

The same thing is expressed at §20 in the second edition, where "the logical function of judgments" corresponds to the "rule" in the first edition.[18]

Having established this, let us cast about for a general explanation of the relation between rule and judgment. The first sentence of *Prol* §23 comes quickly to mind: "Judgments, when considered merely as the condition of the union of given representations in one consciousness, are rules." We know, however, that logic considers judgments in general and treats them only in this latter respect. *Thus all judgments, as judgments in general, are rules.* This shows that it is possible that the rule in the first deduction of the categories plays the role of judgment in general.

The following *Reflection* on logic (3199) concerning the inferences of reason, dating from the same period as the *Critique*, may serve to confirm this: "All rules (judgments) contain objective unity of consciousness of the manifold of cognition" (Modality!). The *Reflections* on metaphysics are natural sources

of confirmation as well. Here are just a few of these passages: "The rule is the validity [*Gültigkeit*] of a concept for bringing the manifold to unity in a universal way" (*Reflection* 4811, 1775/76). "Of the rule in general: It is the objective unity of consciousness of the manifold of representations (and consequently that which holds universally)" (3708, 1780's). "A rule is . . . the determination of a concept insofar as it is at the same time universally valid" (5750, also 1780's). In R. Reicke's *Lose Blätter aus Kants Nachlaß*, in the preliminary studies to the *Metaphysics of Morals*[19] Kant says: "A rule is the relation of a concept to all that is contained under it (that is, through which it is determined)."

In any case, judgments, as judgments in general, are rules. Having established this point, we now turn to the Transcendental Dialectic. We might expect to find material for our observation about the meaning of Relation as distinct from Quantity, Quality, and Modality here, since the introduction and first book, as the clue to the discovery of the pure concepts of reason (transcendental ideas), again make use of the logical form of cognition. Indeed, they use the forms of the inferences of reason, that is, of syllogisms.[20] As Kant says in *Reflection* 5555 (end of the 1780's): "The universality of Relation is the logical form of the syllogism."[21] In the introduction to the Transcendental Dialectic at A304/B360, we find:

> In every syllogism I first think a rule (the major premise) through the understanding. Second, I subsume a cognition under the condition of the rule by means of judgment (the minor premise). Finally, I determine my cognition through the predicate of the rule, and so a priori through reason (the conclusion).

Hereafter, therefore, in discussing a rule or judgment in general, we will distinguish the predicate from the condition of the rule.

Kant gives this same explanation of the logical use of reason in several passages of this introduction, including the paragraph immediately following the passage above ("The Pure Employment of Reason") and then again in the first book of the Dialectic, the second section ("The Transcendental Ideas"). An

addendum to the latter passage at A321–22/B378 is important for us: "The function of reason in its inferences consists in the universality of knowledge according to concepts, the syllogism being itself a judgment that is determined a priori in the whole extent of its condition."

After Kant gives an example with a categorical proposition as the major premise, he continues:

> But I am in pursuit of a concept ... that contains the condition under which the predicate (assertion in general) of this judgment is given; and after I have subsumed under this condition taken in its whole extension ... I proceed, in accordance therewith, to determine the knowledge of my object.

"Assertion in general" is evidently added to make the presentation more general than it would be if (with respect to the categorical) merely the concept of the "giving of the predicate" were used. Assertion refers to the propositional character, namely, "that the judgment is to be viewed as real (true)" (A75/B100). It is the substantively expressed concept of the form of an assertoric judgment in general, whether it is categorical (giving the predicate), hypothetical, or disjunctive.[22]

The last formulation of the function of inference, towards the end of the section at A330–31/B386–87, is the most focused, and we shall take advantage of it:

> Reason, considered as the faculty of a certain logical form of knowledge, is the faculty of inferring, i.e., judging mediately (by the subsumption of the condition of a possible judgment under the condition of a given judgment). The given judgment is the universal rule (major premise). The subsumption of the condition of another possible judgment under the condition of the rule is the minor premise. The actual judgment which applies the assertion of the rule to the *subsumed case* is the conclusion.

I would add that we can now designate this actual judgment a special rule.

This entails what is maintained in *Reflection* 3203 (1790's) "A rule is an assertion under a universal condition." In accordance

with the relationship shown to exist between judgment in general and a rule, we can say that *judgment in general is an assertion under a condition.*

What can we say now about the concept of a condition? Kant leaves no doubt that it is contained analytically in the concept of a rule, and thereby of a judgment in general: "All rules (judgments) contain objective unity of consciousness of the manifold of cognition [(Modality, assertion!)], and therefore, contain a condition under which a cognition belongs, with the other cognition, to one consciousness" (*Reflection* 3199). This proposition is here evidently represented as one to be achieved analytically, so that with respect to the familiar principle of duality that flows from the idea of the clue we can say that transcendental logic gives a priori a condition under which its pure concepts can be used for the cognition of objects (schematism). However, this is an analytic proposition of pure general logic: the form "condition of belonging together to one consciousness" is the formal condition that belongs to the use of concepts in general for cognition (judgment).

The Relation of the Particular Moments of Relation to the modus formalis

If we are now interested in the particular forms of the logical condition of the use of concepts for the cognition of an object, we can take instruction from the oft-cited *Reflection* 3199, which takes as its theme the essence of the syllogism: "There are only three conditions of this unity: The subject of inherence of the characteristics, the ground of the dependence of one cognition upon another, the combination of parts in a whole (logical division)."

This very same explanation of the essence of the syllogism, to which this citation belongs, is given at *Reflection* 3202 (1790's) with the following phrases: "A rule is an assertion under a universal condition. The relation of the condition to the assertion, that is, how the latter stands under the former, is the *exponent* of the rule."

We have already come across the striking term "exponent" in *Reflection* 3039 (beginning of the 1770's): "The form or the relation: expon(ent): copula, if, either-or." We meet it also in *Reflection* 3063 (end of the 1770's):

The relation of concepts. (Exponent) :

subject to predicate
ground–consequence
whole–part
} Form of Judgments

categorical, hypothetical, disjunctive.

Obviously, the concept of an exponent is here supposed to represent the moments of the relation of the judgment in their *original* logical relation to the formal unity of the judgment in general, that is, to that which makes the relation of thought an objectively valid one (the relation to the objective unity of apperception). A closer look at the concept of an exponent will serve to enlighten us about the role of the moments of Relation in the form of the judgment.

We must first ask how Kant came to use this term in this context. The answer is straightforward (which we will shortly see justified), and has to do with its meaning in mathematics. We should not, of course, think of the term in connection with our concept of a number that indicates the degree of a power, but rather in relation to Euclid's treatment of the doctrine of proportions (Book V–VI), which had become popular in 18th-century mathematics textbooks. The concept of the "relation" (λόγος, ratio), "of a certain relation of two homogeneous quantities to each other with respect to their quantity" is presupposed. An exponent is then explained as "the number that the first term of a ratio is to be multiplied by in order to obtain the second term (or the second term itself, when the first is or can be reduced to 1)." On the other hand, it is also described as "the quotient of the division of the first term by the second." (Thus the exponent of the ratio 3:12 would be either 4 or 1/4).[23]

The concept of an exponent generally, that is, if we do not confine it to relationships of quantities, already presupposes, as

we can see from its mathematical meaning, the definition of a certain relation (for instance, the quantitative relation of the so-called geometric progression of natural numbers, or the relation of concepts with respect to the objective unity of apperception). It is a general concept of the relation of a term in general—of a defined relation to another form in general. Thus concepts or thoughts that themselves are already (problematic) judgments stand in a particular relation to each other in the judgment. Insofar as thoughts stand in the relation whose formal mode is "to be combined in an objectively valid way," the exponents of this relation are concepts of the relation of one thought in general to another one in general. In the mere concepts of relation in a judgment—subject-predicate, ground-consequent, divisible whole-members of the division—I think only the unity *in general* of both members of the relation (the condition and the conditioned).

Compare *Reflection* 5553 (*Ak* 18:222): "Relational concepts express nothing other than the unity of the conditioned and its condition." In the concept of an exponent, however, I think of a general representation of the relation of one element (a concept or judgment), which may be represented in many ways, to another such element, insofar as these elements stand in a characteristic relation. I bear this relation in mind precisely in its special meaning, in this case, in that the elements constitute one thing with respect to the objective unity of apperception. In the concepts of the different relations in judgment themselves I abstract from the formal mode. These concepts do not contain the consciousness of what distinguishes the relation, of which they think the distinctions, from other relations. Through the concept of an exponent, we think the concepts of different relations of the judgment in general in connection with that unity which is supervenient on the various concepts, and that thereby makes possible the objectively valid relation of those concepts.

The reliably dated *Reflections* of the main section of the *Duisburg Nachlaß* (1773–75, 4674–4684; *Ak* 17:643–73) provide insight

into the meaning of the concept of an exponent in Kant's terminology. It is true that this material deals with the relation of the manifold given in sensible intuition to the objective unity of apperception, but we are only interested in the formal aspect of this account that, as we have already seen, is also part of formal logic. The following selected appropriate passages speak for themselves:

I am the original of all objects. It is thus the conjugation [that is, synthesis, that is, act of the understanding] as a function that constitutes the exponent of a rule (*Ak* 17:646).

Apperception is the consciousness of thought, that is, of the representations as they are posited in the mind. There are three exponents: (1) of the relation to the subject, (2) of the relation of the consequents among one another, (3) of the relation of composition [*Zusammennehmung*]. The determination of A [according to *Ak* 17:643, this is a general concept of a sensible datum] in these moments of apperception is the subsumption under one of these acts of thought. One recognizes it as in itself determinable and thus as objective, namely, the concept A, when one brings it under one of these universal acts of thought, by means of which it comes under a rule. This sort of proposition is a principle of the rule (*Ak* 17:647).

I am, I think, thoughts are in me . . . the "I" is the substrate for a rule in general . . . . There are three things required for rule formation: (1) X, the datum for a rule (. . . sensible, real representation) [this requirement does not concern us because according to pp. 645, 654, and 662, it does not apply to analytic propositions in any case. We are not concerned with the distinction between analytic and synthetic judgments, and so this is irrelevant.]; (2) A, being appropriate for a rule, or the condition in virtue of which it can even be related to a rule [this is the first requirement that interests us: it is the concept of X. We take it to be some given concept.]; (3) B, the exponent of the rule . . . , B [is] an act of apperception: that is, the consciousness of the subject that apperceives . . . is necessarily combined with it [the given representation] (*Ak* 17:656).

B [signifies] the mind's general function of determining the place of the A [in the mind], therefore [!] it signifies the exponent of the relations of [given representations] hence determination of their place according to a rule (*Ak* 17:655).

"Place" is not a concept that necessarily presupposes the concepts of space or time, but can be taken to be purely intellectual: compare A. G. Baumgarten's *Metaphysica* under the section "Ordo" of the Ontology (section 85): "The relation of a thing which is determined by its connection with other things is place."[24] It is a predicable of the understanding's pure concept of Relation.

From this we see that B, the exponent, belongs to the nature of a rule or of the judgment in general (that is, of the objective unity of consciousness in concepts as originally synthetic unity). We further see that this is the concept that represents the unity of the formal mode of the judgment (Assertion) and of the "relations of thought in judgments" (A73/B98), that is, it represents the connection of Modality and Relation. Moreover, these passages also shed light on the agreement of Kant's concept of an exponent with the mathematical concept of the exponent of a relation: the exponent is the number that determines the "place" of one term of a relation when the other is given.

The concept of an exponent has the same function in the *Critique of Pure Reason* as in the *Duisburg Nachlaß*. There are four passages: A331/B387 and A414/B441 have to do with the special case where the relation of what is given involves a series.[25] The other two passages are at B198

The laws of nature, indeed, one and all, without exception, stand under higher principles of understanding. They simply apply the latter to special cases [in the field] of appearance. These principles alone supply the concept that contains the condition and, as it were, the exponent of a rule in general.

and at A216/B263, where Kant says that the three "Analogies of Experience," that is, the principles of Relation,

really portray the unity of nature in the connection of all appearances under certain exponents which express nothing save the relation of time (insofar as time comprehends all existence) to the unity of apperception—such unity being possible only in synthesis according to rules.

Following the principle of duality provided by the idea of the clue, we can say, by analogy, that the three concepts of the relation of thoughts in judgments in general, in their original logical meaning, "really" portray the objective unity of apperception in the connection of thoughts (concepts, judgments) under certain "exponents." These express nothing save the relation of thoughts (representations with which the analytic unity of consciousness is bound up) to the objective unity of apperception. They are the general functions that determine the "place" of thoughts in the objective unity of apperception. Again, we see clearly that the concept of an exponent is used with a view to the logical unity of Modality and the moments of Relation.

It is the concept of exponent, or of the condition of assertion, that first made it possible for Kant to bring categorical, hypothetical, and disjunctive judgments under one aspect. Traditionally, judgments that represent the relation of concepts as a subject-predicate relation are generally classified as simple judgments, as opposed to complex ones. The latter are at best limited to conjunctions, hypotheticals, and disjunctions. This is the case in Meier's *Auszug aus der Vernunftlehre*[26] and in Lambert's *Novum Organon.*[27] However, a large number of types of compound judgments were presented from quite divergent perspectives, as in Friedrich Baumeister's *Institutiones Philosophiae Rationalis* and Darjes's *Via ad Veritatem.*[28] Darjes's chapter on propositions cited earlier, lists under the heading of compound judgments (in addition to the listed modal determinations, and besides disjunctive and hypothetical judgments) also conjunctive, adversative, discrete, comparative, reduplicative, restrictive, and exceptive judgments.

The perspective that allows Kant to view only categorical, hypothetical, and disjunctive judgments as belonging to pure general logic, and which is at the same time the criterion for determining whether they are differences in judgments as such, is the view that they must be differences in that relation of concepts or problematic judgments in which such thoughts in

general (apart from their specific content) "first become cognitions of an object."[29] This is what we mean when we say that they are related to the objective unity of apperception. It can easily be seen from this perspective that thoughts that are not given as true, but rather as some thought or other that one could assume, are, for the first time, related to possible truth in the combination ("Combination is the relation of the many insofar as they constitute a unity" [cf. *Reflection* 5750]) of inherence, consequence and disjunction.[30] In these ways, thoughts that in themselves are not given with the consciousness of objective validity first acquire this form. On the other hand, in a conjunction (to consider just this kind of complex judgment, and we can do this without investigating the conditions for using "and"), it is essential that the individual terms should be true in order that the combined content be true. The so-called primary logical connectives of contemporary mathematical logic are similarly defined in terms of the truth or falsity of the individual terms.[31] They are thus nothing other than concepts of connection [*Kopulation*] of true and false judgments in general. For this reason, they do not, on the one hand, compete with a general logical theory of statements as such (according to their form), but, on the other hand, it is incorrect to describe them as *primary* connectives.

As will become clear, this perspective, according to which categorical, hypothetical, and disjunctive judgments belong together under one heading of the form of judgments in general, is no other than that of the exponent or the condition of an assertion in general.

Thus we have shown the connection of the concepts of Relation with the primary concept of Modality, namely, the concept of logical actuality, which Kant reveals in his use of the concept of the condition of objective unity or of the exponent.

In the context of this discussion, we saw the concepts of Relation presented in this way: subject-predicate, ground-consequent, and divisible whole-members. The subject, ground, and whole, on the side of the condition, are placed over against

the others [as the conditioned]. This, it will be recalled, was precisely the result of our account in Chapter 5. Compare once again *Reflections* 3063 and 3199. However, in the first *Critique*, §9.3, Kant writes:

> All relations of thought in judgments are (a) of the predicate to the subject, (b) of the ground to its consequent, (c) of the divided knowledge and of the members of the division, taken together, to each other (A73/B98).

Following this, one is inclined to place predicate, ground, and divided knowledge together on one side. In *Reflection* 3060, written in the 1790's, we also read:

> Judgment is the representation of the unity of given concepts insofar as one is subordinated to another, (1) as under the extension of the other, (2) as consequence to the ground, (3) as member of the division to the divided concept.

Of course it is possible to present and order the relations in this way. But then I represent the relations in the judgment insofar as they are relations "in concepts by means of analytic unity" and with an eye to this unity. That is, I represent them with respect to the subordination of concepts under one another in the unity of the judgment.

The proof that the concepts of Relation must in our context be ordered as is done in *Reflections* 3063 and 3199 (placing subject, ground, and divided knowledge on the side of the condition) is to be found in the first *Critique* itself. As is to be expected, we find it in the first book of the Dialectic. The passage as A330/B386ff that has already been cited continues (at A330/B387):

> Reason arrives at knowledge by means of acts of the understanding which constitute a series of conditions .... Now every series the exponent of which is given (in categorical or hypothetical judgment) can be continued; consequently this same activity of reason leads to *ratiocinatio polysyllogistica* which is a series of inferences that can be prolonged indefinitely on the side either of the conditions (*per prosyllogismos*) or of the conditioned (*per episyllogismos*).

The preceding passage at A323/B379–80 maintains that there are three kinds of syllogism,

> each of which advances through prosyllogisms to the unconditioned: first, to the subject, which is never itself a predicate; second, to the presupposition, which itself presupposes nothing further: third, to such an aggregate of the members of the division of a concept as requires nothing further to complete the division.

Once more, we see that subject, presupposition, and aggregate of the members of the division are the conditions, while predicate, consequent, and the individual members are the conditioned.[32]

With this we have, for our purposes, shed sufficient light on the Kantian concept of the condition under which a "cognition" together with others belongs to an objective consciousness, and also its particular forms.

The Moments of Relation and of Modality

The connection of Relation and Modality expressed in the concept of an exponent yields the possibility of understanding how, by means of the moments of Relation, the moments of Modality can at the same time be derived. They are to be derived via the distinction between mere problematic judgments and objectively valid (assertoric) ones by means of the step from categorical to hypothetical, and by characterizing apodictic validity in connection with the disjunctive judgment. Kant's handling of the so-called logical principles is proof that he was aware of this connection. I do not want to investigate this separately. For my purpose it suffices to point to a few facts about Kant's treatment of this topic.

Except for the principle of contradiction, fundamental remarks from the critical period about logical principles first appear on the occasion of the controversy with Eberhard. In *On a Discovery* (the beginning of section I–A), we read that "the logical principles ... concern merely the formal conditions of judgments."[33] For example, "Every proposition must have a

ground" is "a formal and logical . . . principle of cognition, that already [has] its place in logic (like every principle that rests on the principle of contradiction)." It follows from the principle of contradiction insofar as it merely indicates what distinguishes the concept of an assertoric judgment (a "proposition") from that of a mere problematic judgment.

The letters to K. L. Reinhold that deal with his controversy with Eberhard further elucidate this special treatment of the logical principles. A passage from the letter of May 19, 1789, is especially decisive for our discussion:

> The principle of sufficient reason, so far as Mr. Eberhard has proved it, is thus still only a logical principle and analytic. Viewed from this perspective, there are not two but three principles of knowledge: (1) the principle of contradiction, for categorical judgments, (2) the principle of logical ground, for hypothetical judgments, and (3) the principle of division (excluded middle between two mutually contradictory judgments) for disjunctive judgments. All judgments must first, as *problematic* (as mere judgments) according to their *possibility*, conform to the first principle; second, as *assertoric* (*qua* propositions) according to their logical *actuality*, that is, *truth*, they must conform to the principle of sufficient reason; third, as *apodictic* (as certain knowledge), they must conform to the principle of excluded middle. The reason for the last point is that holding of a thing to be true apodictically can only be thought by negating its opposite, that is, by dividing the representation of a predicate into two contradictory predicates and excluding one of them.[34]

We now need to consider the treatise *What Real Progress . . .*, written around 1793:

> Should the putative metaphysician want to add the equally logical law of [sufficient] reason to the law of contradiction, he would still not have completely enumerated the Modality of judgments, because he would still have to add the law of excluded middle between two contradictory judgments. Then he would have established the logical principles of the possibility, truth or logical actuality, and the necessity of judgments as problematic, assertoric, and apodictic judgments, so far as all of these stand under a single principle, namely the principle of analytic judgments [that is, the principle of contradiction].[35]

(Given what has already been discussed in our first chapter, we do not need to worry about a possible misunderstanding of "analytic judgments.")

In the *Reflections* on logic the perspective of Modality governs the enumeration of the logical principles. *Reflections* 2107–2185, especially those written around 1780 (from 2149 on), are particularly relevant. Consider *Reflection* 2154:

> (1) Quantity [of cognition so far as it rests, in its formal aspect, on the understanding]: logical universality (*Allgemeinheit*), (2) Quality: distinctness (*Deutlichkeit*), (3) Relation: truth . . . truth can belong to Relation, but also to Modality; according to the latter, the Relation is possible, actual, or necessary.[36]

In the *Reflections* on metaphysics (e.g., 6317a) are likewise scattered many observations on the logical principles. We will look only at those that permit us to see the connection between Relation and Modality.

Reflection 5562 (around 1780): "The three formal principles of all judgments: the principle of contradiction, of sufficient reason, and of the determinability of [a thing in general] with respect to all possible predicates (categorical, hypothetical, and disjunctive judgments)."

Reflection 6209 (1780's): "The principle of excluded middle says only that of two opposed predicates, both cannot apply or be removed from an object . . . , it is logical and designates only the nature of disjunctive judgments, which contain the contradictory opposition."

In the representation of the so-called logical principles we clearly see the connection of the moments of Relation and those of Modality in the fact that the same principle deals with the formal conditions of judgments according to both a moment of Relation and a moment of Modality.

A letter to Reinhold on May 12, 1789, may give us an even better understanding of Kant's awareness of this connection. Let us begin with the modal perspective in *On a Discovery* (against Eberhard). In the third footnote, Kant writes that an *assertoric*

judgment is a "proposition" [*Satz*] (*Ak* 8:193–94). The assertoric judgment says more than the mere problematic judgment (the thought that it may or may not be the case). The universal logical principle of propositions, which follows from the principle of contradiction (because it merely formulates the distinction between an assertoric judgment and a merely possible one), states: "Every proposition must be grounded (and not merely a possible judgment)." The difference is indicated by the concept of being grounded. The letter to Reinhold explains the "ground" and "groundedness":

> A ground is (in general) that whereby something else (distinct from it) is determinately posited (through the positing of which something else is posited determinately*). A consequent (*rationatum*) is that which is not posited unless something else has been posited.
>
> *This expression must never be left out of the definition of "ground." For a *consequent*, too, is something through which, if I posit it, I must at the same time think something else as posited, that is, a consequent always belongs to something or other that is its ground. But when I think something as consequent, I merely posit some ground or other; *which* ground is undetermined. (Therefore the hypothetical judgment is based on the rule, Conclusion from the positing of the consequent to the positing of the antecedent is not valid.[37]) On the other hand, if the ground is posited, the consequent is determined.

What is the connection between assertoric judgments (Modality) and hypothetical ones (Relation)? It is the concept of the "ground," that is, the concept of that which in a hypothetical judgment is the condition of the assertion, namely, the exponent. Thus the logical principle, viewed from the perspective of Modality, states that logical grounds are necessary, given the condition that a judgment be objectively valid. The hypothetical judgment is the form in which a logical "ground," in relation to its consequent (that which is grounded), is thought in a judgment (as objectively valid).

An analogous connection between apodictic and disjunctive judgments can easily be recognized from *Reflection* 6209, quoted above. Connecting problematic and categorical judgments by

way of the principle of contradiction is more complicated. One has still to consider the distinction between logical possibility, whose principle is the principle of contradiction (which basically is concerned with the logical possibility of a concept) and the form of the problematic judgment. The problematic judgment may in itself also be contradictory, given what Kant has said in the third footnote of *On a Discovery* . . . , and I do not want to pursue this. All that is important to us is that Kant was aware of this sort of connection between the moments of Modality and Relation, and this has been shown.

The Division Between Modality-Relation and Quality-Quantity as a Problem: Preliminary Attempt at a Solution

The internal relatedness of Modality and Relation is made clear by the self-contained nature of the foregoing considerations. Together they constitute the "quaeity" of the judgment, to refer to our "prelude," and also to justify it. Precisely for this reason, however, a division between them, on the one side, and Quality and Quantity, on the other, is apparent. If we seek explicit indications in Kant, then the best passages are the "neat observations" that "may be made about the table of categories" and that "are of great use."[38] In a footnote at §39 of the *Prolegomena*, we read for the first time that the categories of Quantity and Quality are "without *correlata* or *opposita*, whereas those of Relation and of Modality have them." Still more properties of the table of categories are named, always with the remark "as in logic."

In *Reflections* 5697 and 5859 from the 1780's, we find reasons for the division of the categories into two groups. Also in the second edition of the first *Critique*, §11 (B110) we read: "The first group is concerned with objects of intuition . . . the second is concerned with the existence of these objects." And again,

> [The members of the first group] have no correlates; these are to be met with only in the second group. This distinction must have some ground in the nature of the understanding.

We are therefore justified in saying that the distinction must also be discernible in the logical employment (not only in the "real" use) of the understanding. The table of categories must be arranged in two groups, "as in logic." That this is necessary is implied in Kant's claim.[39]

Let us look more closely at how this distinction arises.

An analogous observation may also be found in the second edition of the first *Critique* at A162/B201. The table of principles is advanced as the systematic representation of all synthetic principles of pure understanding, according to the natural guide of the categories. In a footnote to this passage, the concept of the combination (*coniunctio*) of a manifold in general, the possibility of which is discussed in §15, is divided into

> either composition (*compositio*) or connection (*nexus*). The former is the synthesis of the manifold where its constituents *do not necessarily belong to one another* ... and such is the synthesis of the *homogeneous* .... The second mode of combination, (*nexus*), is the synthesis of the manifold so far as its constituents *necessarily belong to one another*.[40]

We now know from the definition of a judgment and the discussion of it with respect to Modality and Relation that a judgment is a combination of concepts (or judgments) so far as they are represented as necessarily belonging to one another. This just means that they stand in (or, in the case of problematic judgments, pay heed to) a relation that is objectively valid. Necessity in this sense and objective validity are interchangeable concepts (see p. 29 above). The judgment is thus a connection [*Verknüpfung*] (*nexus*) of given concepts. Further, it is clear that if Quality and Quantity designate functions of judgment in general, the fact that the elements of the manifold (even insofar as it is determined according to Quality and Quantity) are represented as necessarily belonging to each other is preserved. It is one thing to say that the manifold, i.e., the concepts of a judgment are thought as necessarily belonging to one another. So far as the moments of Quality and Quantity can add something

to the form of a judgment in general beyond the contribution of the moments of Modality and Relation, they are of course moments of the connection (*nexus*) of concepts. But it is quite another thing to ask whether it is nevertheless meaningful to say that the moments of Quality and Quantity take the unique properties that they bring to the judgment in general from a relation of concepts that holds insofar as they are thought *not* to belong to one another necessarily. Perhaps this relation is one in respect of which all concepts are the same.

So we need to ask, what, according to the first *Critique*, is the logical counterpart to logical connection? (The real counterpart to real connection is composition [*Zusammensetzung*].) The first sentence of this work tells us: "The activity of our understanding ... compare[s] these [representations] ... *connects* or *separates* them."[41] The chapter "The Amphiboly of Concepts of Reflection" at A260–61/B316–17 further states:

> Prior to all further treatment of our representations, this question must first be asked: In which of our cognitive faculties are our representations connected together? Is it the understanding, or is it the senses, by which they are *connected or compared*? [emphasis added.]

Again, at A261/B317 we find:

> All judgments, however, and indeed all *comparisons*, require reflection, i.e., distinction of the cognitive faculty to which the given concepts belong [emphasis added].
>
> Before constructing any objective judgment we compare the concepts.

In addition, consider *Reflection* 5275 (end of 1770's): "The logical relation is (also) either *comparison*—identity and diversity, or *connection*—universal and particular." Already in 1769, we read at *Reflection* 3933:

> In all identity of concepts two concepts agree in one concept, that is, one concept applies to two; in all judgment two concepts apply to one thing. The very same thing that I think through the concept A, I also think through the concept B: this is a judgment of connection.

The concept that I think in A, I also think in B: this is a judgment of comparison.

Kant speaks of judgments of comparison as well as of connection because, naturally, the actual comparison is a judgment. Nevertheless, we can still distinguish the possibility of the comparison of concepts from the possibility of thinking them as connected in a judgment.

We are speaking here always of a logical relation of concepts that is not a relation of these concepts in the judgment. We already are familiar with such a relation: the logical relation of concepts that they have in general and as such, namely, the relation of *subordination* (Chapter 3). Let us look again at Kant's *Reflection* 3051 (around 1780):

The representation of the way in which different *concepts as such* belong universally and necessarily (either empirically or a priori) to one consciousness* in general (and not simply to my consciousness), is the judgment.

The footnote to this passage states, "Concepts belong to one consciousness only by being thought as subordinated to each other [*untereinander*] and not associated with each other [*nebeneinander*] (as are sensations)."

Reflection 3053 clarifies the meaning of this relation:

Judgment is the consciousness, that *a concept is contained under another.* Either as contained under its[42] predicate, or under its ground or as a member of its division. *This is the material [!] of judgments in general.* The form of Quantity, Quality, Relation, Modality.

Thus it may be said, with Kant, that the fact that concepts belong to a consciousness only in virtue of their being thought as subordinated is by no means to say that they belong to a consciousness in general (not just to my own consciousness) or belong to it "objectively." With respect to the judgment in general, subordination is in itself a merely subjective condition of the possibility of cognition.

On the other hand, it is obviously a condition that is relevant to the possibility of the *comparison* of concepts: "in all subsumptions of an object under a concept." (For our logical point of view this object can only be given through a concept, so that for us all that matters is distinguishing "the concepts through which the object is thought generally, from those which represent it in concreto.")

The representation of the object must be *homogeneous* with the concept, that is, the concept must contain something that is represented in the object that is to be subsumed under it. This is what is meant by the expression, "an object is contained under a concept." Thus the empirical concept of a plate is homogeneous with the pure geometrical concept of a circle (A137/A176).

Compare A305/B362:

[A] faculty for imposing on given cognitions a certain form, called logical—a faculty through which cognitions of the understanding[43] are subordinated to each other, lower rules being brought under higher (namely, those the condition of which includes in its own extension the condition of the lower), as far as this can be done through [processes of] comparison.

Multiplicity of rules and unity of principles . . . is merely a subjective law for the orderly management of the household of our understanding, that by comparison of its concepts it may reduce them to the smallest possible number (A305–6/B362).

Thus the subordination of given concepts rests on comparison. Concepts, however, only belong to one consciousness in virtue of being thought as subordinated one under another. The law of subordination and comparison of concepts is, as such, precisely not the sort in which concepts are combined with respect to the objective unity of apperception, and hence are "connected" [*verknüpft*]. If, therefore, the relation of subordination and comparison of concepts is still one that brings something to the manifold of the form of judgment in general, then the grounds for this must first be shown.

With that, our argument has reached a point at which it has to prove itself to be Kantian in two ways. First, it has to show that the source of the different moments of Quantity and Quality of judgments (as they are regarded in pure general logic) is the relation of subordination of concepts as such. The division between the moments of Modality and Relation, on the one hand, and those of Quality and Quantity, on the other, would thus be explained. The different moments of the latter headings would rest on a relation of concepts that in itself is not a relation of "connection" [*Verknüpfung*] of these concepts, and is also but a relation of "the homogeneous." It is a relation that concepts have due to their form, hence due to that by which all are necessarily homogeneous. Second, however, it must be shown that Kant had in mind a particular ground that makes the differences of judgments that rest on this relation of mere comparison of given concepts into those of a judgment in general.

Quality, Quantity, and Comparison

We take the proof of the first thesis from the chapter on the "Amphiboly of Concepts of Reflection" at A260–92/B316–49. Here, Kant can speak for himself: "Now the relations in which concepts in a state of mind can stand to one another are those of *identity* and *difference*, of *agreement* and *opposition*, of the *inner* and the *outer*, and finally of the *determinable* and the *determination* (matter and form)" (A261/B317).[44] He continues a bit later, "Before constructing any objective judgment we compare the concepts to find in them *identity* (of many representations under one concept) . . . *difference* . . . *agreement* . . . and *opposition* . . . etc." (A262/B317–18).

If it is a question only of logical form, then the headings of Identity, Difference, etc., may properly be called comparative concepts (*conceptus comparationis*). Whether the concepts are identical or different, in agreement or opposition, etc., can be decided from the concepts themselves simply by comparison (A262/B318). In such "logical reflections" we are dealing with

"a mere comparison." The given representations (the concepts) are "so far as their place in the mind is concerned, all homogeneous" (A262/B318–19). That is, they are taken as concepts in general, and the only differences that are relevant are those whose possibility rests simply on the logical form of a concept in general (relation of the extension of concepts, being a representation of the part of some other representation). Let us look once again at A279/B335:

> If we reflect in a merely logical fashion, we are only comparing our concepts with each other in the understanding, to find whether both have the same content, whether they are contradictory or not, whether something is contained within the concept or is an addition from outside, and which of the two is given and which should serve only as a mode of thinking what is given.

The last point, about the "givenness" of the concepts, concerns the fact that when I think two concepts merely as concepts in general, the decision as to which will function as the given concept is, logically speaking, arbitrary. I can assign the function to the one or the other concept as I please.[45] The third decision, whether something is contained within a concept or added to it, is involved in the first, namely, the comparison of contents of the concepts in question as to this identity or difference.[46] That leaves the headings that, of those given, must have a special function: identity and difference, and agreement and opposition.

In presenting the concepts of comparison (in their application to given concepts), Kant gives prominence to these headings. Referring to both the headings of identity and difference and of agreement and opposition, Kant says at A261–62/B317–18:

> Before making any objective judgments we compare the concepts for identity (of many representations under one concept) *with a view to universal judgments*, difference with a view to *particular judgments*, agreement with a view to *affirmative* judgments, opposition with a view to *negative* judgments, etc. [emphasis added].

We can easily see that the "etc." cannot be meaningfully completed as follows: "the inner with a view to categorical judgments and the outer with a view to hypothetical, that which is supposed to be given with a view to problematic judgments and that which should serve only as a mode of thinking what is given with a view to assertoric judgments." These phrases are meaningless. Whether "something is contained within the concept or is an addition from outside" (A279/B335) is a reflection that can never indicate a difference between a categorical and a hypothetical judgment. Moreover, which concept should count as given and which as a mode of thinking about what is given certainly does not decide whether a judgment is problematic or assertoric. Certainly, when a concept B is contained in another concept A, then if judgments are at all possible, a categorical judgment "A is B" is possible. And if A is to function as given, then the judgment "A is B" is indeed necessary (an apodictic judgment). Certainly, if the possibility of a judgment is presupposed, the possibility of distinguishing categorical judgments is given through reflection upon whether something is contained in the concept A or is supervenient on it. This is just the distinction between analytic and synthetic categorial judgments.

Therefore the situation is as follows: If I think the possibility of the judgment in general (the formal conditions of judgments) as given, and also the concepts of comparison and distinction of given concepts in general, then I can distinguish the relation between analytic and synthetic categorial judgments and with respect to modality analytic and synthetic apodictic judgments. These are, however, distinctions that do not belong to pure general logic, because they concern the contingent [*eventuelle*] grounds of the truth of judgments. With respect to these, logic only provides the analytic proposition with guarantees that all assertoric judgments in general must have a ground.[47]

But according to Kant, the moments themselves under the headings of Quality and Quantity of the form of judgment are distinguished on the basis of the corresponding concepts of comparison. Suggested in the headings of identity and difference, agreement and opposition—which refer to the mere comparison of given concepts—is a direct relation to the moments of Quantity and Quality of a judgment: universality and particularity, affirmation and negation. That is, certain relations of concepts as such (which they have merely because of their form) are supposed to be directly related to the distinctions under the headings of Quality and Quantity of the form of judgment. Naturally, that does not mean that whether a connection of concepts holds universally or in particular, or is affirmative or negative, always rests on the identity or difference, or on the agreement or opposition of the concepts contained in the judgment. But we can describe the situation as follows: If I reflect upon the possibility of judgments in general and in so doing recognize the moments of Modality and Relation as formal conditions of judgments in general, then I can, by taking into account the analytic unity of the concepts contained in a judgment, secure the distinction between affirmative and negative, universal and particular judgments.

To guard against a possible misunderstanding, it should be emphasized that the titles of Inner and Outer, and of Matter and Form are certainly connected, as titles of logical reflection, with the titles of the division of the form of judgment. Inner and Outer belong to Relation, Matter and Form to Modality.[48] But they do not in any way (whichever may be the particular circumstances) make it possible to think of the moments of judgment that stand under these titles, unless I already assume the concepts of these moments. (But I may afterwards apply them to these distinctions.) Identity and difference, agreement and opposition, however, as concepts of reflection upon (that is, comparison of) given concepts may be applied to concepts that are given as related in a judgment, principally of subject and predicate. That is, identity and difference, and agreement and opposition make it possible to distinguish between affirmative and negative relations of subject and predicate, and between universal and particular affirmations or negations of a predicate of a subject.

Quality, Quantity, and Relation

So much for justification from the Kantian texts of the thesis that the source of the different moments of Quantity and Quality of judgments is the relation of subordination of concepts as such.

This raises the (second) problem already mentioned of whether these distinctions belong to general pure logic. (One may also become suspicious of this, because of the irrelevance of the difference between analytic and synthetic judgments to general pure logic.) The question arises: Do these distinctions really concern judgment in general? Are affirmation, negation, universality, and particularity *formal* conditions of the judgment in general, or are they distinctions that are made with respect to judgments, but do not concern the concepts so far as they are related to the *objective* unity of apperception? Even if one were to suppose that they are indeed conditions of possibility for judgments, they could still be purely subjective, having nothing at all to do with the truth of cognitions with respect to their form. In our own investigation we found that the criterion for deciding between these alternatives lies in the disjunctive form of judgment. It is a consequence of the universal proposition that the logical reflection on the formal conditions of judgments have to proceed from Modality to Relation, and from Relation to Quality, and then to Quantity. That the form of the disjunction does belong to the objective unity of apperception (as to its form) has been proved in the foregoing discussion, by an argument that proceeded without appeal to the *distinctions* within Quality and Quantity of judgments, and this has been shown to be Kantian.

Is it also true that for Kant the different moments of Quality (which we have directly linked with the moments of Relation) are *subordinated* to the functions of Modality and Relation? And in particular, are they subordinated to the disjunctive judgment?

In the *Reflection* on logic 3063 (end of the 1770's), we read:

> The negative proposition signifies that something is not contained in

> the extension of a given concept . . . (this) happens in accordance with the principle of the excluded middle (between "A" and "non-A" there is no third), etc., etc. [It] is the principle of determination: between two opposed judgments one is true. (It says only that the *proposition* "The soul is not mortal" is in opposition to the *proposition* "The soul is mortal." [Emphasis added.])

Also in *Reflection* 3066 (around 1780):

> Every negative proposition is preceded by a division of concepts: "learned persons"—"not learned." Now the proposition "Some persons are not learned" says that the one member of the division does not apply to a subject.

(The use of a particular judgment here is not essential, and has to do with the subject matter of the example used.) Next we find, in *Reflection* 3072 (1790's), "According to the principle of the excluded middle the extension of a concept either excludes or includes the extension of another."

But the principle of excluded middle, as we have already seen in the letter to Reinhold of May 19, 1789, and in *Reflections* 5562 and 6209 (see pp. 84 and 85 above) designates "the nature of disjunctive judgments." It is also the principle of all logical division. Compare the identification of form of a disjunctive judgment and division in the third consideration in §11 of the first *Critique* (B111–12). Thus the relation of the moments of Quality (affirmation and negation) to the objective unity of apperception (possible *truth* according to its form) is at once subordinated to the form of disjunction and guaranteed by it.

That, in general, the moments of Quality presuppose those of Relation is already clear from the fact that affirmation and negation simply mean to either attribute or oppose a predicate to a subject (and, derivatively, also to either posit or cancel a consequence or disjunction). "[General] logic inquires [from the perspective of the Quality of judgment] whether the predicate be ascribed to the subject or opposed to it" (A72/B97). I can think affirmation and negation in no other way. On the other hand, I can very well think "relation of a predicate to the

subject" (of a consequent to its ground, or of the members of a division to the divided concept), without having in mind the difference between *modus ponens* and *modus tollens* in these relations, as is made clear earlier in this chapter (pp. 67–87). Kant also expressly states at A574/B602: "Logical negation, which is indicated simply through the small word 'not,' does not properly refer to a concept, but only to its relation to another concept in a judgment." That is, I must first have a concept of relation of concepts in a judgment, before I can think the negation. *Reflection* 6324 (end of the 1790's) remarks generally: "Being and not-being are the simplest concepts, if they express the logical relation of the subject to the predicate in a categorical judgment."

Only because the nature of Quality presupposes Relation can Kant write "Problematic judgments are those in which affirmation or negation is taken as merely possible (optional)" (A74/B100) after having just defined Modality generally as having to do with the value of the copula in relation to thought in general. The copula, or, according to B141–42, the "little relation word" [*Verhältniswörtchen*], originally "serves to posit the predicate in its relation to the subject" (A599/B626–27). We can generalize this and maintain that it serves to designate "inherence," consequence and disjunction taken together. Compare *Reflection* 3061 (1790's), where Kant writes of the term "copula": "Division into categorical, hypothetical, and disjunctive judgments." Recall also *Reflection* 2154 (referred to on p. 85 above): "According to Modality, Relation is possible, actual, or necessary." This is therefore the simplest way of putting the point: I can, but need not, use the difference in the Quality of judgments in order to represent the different moments of Modality. This is because the concept of a moment of Quality includes the concept of Relation.

Reflection 3071 (1790's) should probably also be understood in this way, "A negative judgment is different from a judgment that affirms a negative concept of the subject. The difference lies in the *relation*." In the first case, the relation of the predicate

to the subject is that of *modus tollens*, and in the second case, that of *modus ponens*.

To quickly finish the last point: Kant argues explicitly that in the disjunctive judgment a relation of the entire extension of a concept to its parts is thought. In the example of the disjunctive judgment at A73/B99, Kant speaks of the "part[s] of the extension of the possible knowledge concerning the existence of a world in general" and of the whole extension of this possible knowledge (A74/B99). In this, he formulates the relation of the concepts of contingency, "inner necessity," and "necessity in relation to an external cause," on the one hand, and "modality of existence in general," on the other, with respect to the existence of a world. Once again, let us look at the third consideration at §11 of the first *Critique* (also the *Reflections* on disjunctive judgment 3090–3109) and the *Reflections* 3053, 3060, and above all 3045 (see p. 90 and note 42, p. 130). These passages bring home the fact that the relation of the parts of the extension under the entire extension of a concept is a disjunctive one, thought, by means of analytic unity, as actual. The disjunctive relation is thus the form in which the relation of the parts of the extension of a concept to its entire extension is thought in relation to the objective unity of apperception. That is, however, it is also the principle under which the forms of universal and particular judgments as formal conditions of logical actuality (that is, truth) are subordinated:

> In the universal judgment the extension of a concept is completely included within the extension of another; in the particular judgment a part of the first is included under the extension of the other (*Reflection* 3068, around 1780).

Thus, the logical reality of the distinction universality-particularity, that is, the function of this distinction as a function of the unity of given concepts so far as they are related to the objective unity of apperception, is also guaranteed by the form of the disjunctive judgment.

That the mere thought of the universality and particularity of

a judgment presupposes the thought of the relation of the judgments, however, follows from the definition of universality and particularity. A definition of the former is given at A322/B379:

> Accordingly, in the conclusion of a syllogism we restrict a predicate to a certain object, after having first thought it in the major premise in its whole extension under a given condition, [that is, as we now know, in relation to a subject]. This complete quantity of the extension in relation to such a condition is called *universality* (*universalitas*).

What is opposed to universality? *Reflection* 4490 (1772) says: "Universality [is set] against particularity (*exception*)," and in the first *Critique* at A71/B96 Kant describes particular judgments[49] as those in which "the predicate ...relate[s] to part only of that which is contained under the concept of the subject, and [is] excluded from the rest." Thus it is clear that the thought of the relation (Subject-Predicate) is presupposed by these thoughts. On the other hand, however, I can think the relation of subject and predicate without therefore having to think the moments of this relation.

It is further clear that the thought of negation lies in the original logical meaning of particularity. Particularity contains the thought of exclusion, which, according to *Reflection* 3072 (see p. 97 above), is the thought of negation.[50] The moments of Quantity therefore presuppose the moments of Quality. But not the other way around: attributing or opposing (excluding) a predicate to (from) a subject can be thought without having to think the moments of universality and particularity (namely of attribution or opposition).

CHAPTER 7

Completeness

We have now shown systematically and in detail how, according to Kant, the understanding brings about the logical form of a judgment through certain actions (functions) in concepts by means of analytic unity. We have properly recognized that the moments

> problematic, assertoric, apodictic;
> categorical, hypothetical, disjunctive;
> affirmative, negative;
> universal, particular

are necessary to "objective unity of consciousness in concepts by means of analytic unity."

However, the cardinal question remains: Is the enumeration of these moments complete? After all, it was in order to answer this question that we uncovered (with Kant's guidance) the systematic connection between these moments, according to its principle.

The systematic manner of presentation itself should prove completeness. However, what is there in this structure to prove that the elements cannot be increased, and that beyond them

no others are possible? That is, what proves that they are really not "taken merely from observation and so only empirically treated," as Hegel (and Herbart) claimed?[1]

The tetrachotomy of the functions of judgment according to the headings Quantity, Quality, Relation, and Modality can only be defended as complete if first of all the key to the systematic connection of the moments of judgment is in our possession. In the first section of the preceding chapter, we showed where the key must lie. The formal mode given in the definition of judgment is the first moment, and itself the key to all of the other moments: it is the formal mode that opens the door to the others. And, in fact, Modality, through its original moment of "objective validity" ("assertion"), makes Relation necessary, and Relation in virtue of the moment, disjunction, which contains the others, necessitates Quality and Quantity.

Can there be more headings? This question is answered by the "division" in the table of judgments. Modality and Relation belong fundamentally together. Quality and Quantity follow, when it is taken into account that judgment is an objectively valid (Modality) relation of concepts (Relation) by means of analytic unity. Quality and Quantity are concerned with distinctions that follow from the two distinguishable formal aspects of their concepts. The form of the concept as such consists in being a representation of a part as an analytic ground of cognition. Considered in this respect, namely of "content" and "extension" of the concept, Modality and Relation determine the logical places of Quality and Quantity of judgment.

However, with that the definition of the judgment is exhausted. A judgment is an objectively valid (Modality) relation of representations (Relation) which are representations of parts (consequence: Quality) as analytic grounds of cognition (consequence: Quantity).

Our claim about the division between Modality and Relation, on the one side, and Quality and Quantity, on the other, is essential to the proof of the completeness of the table of judgments.

The completeness of the *moments* under the headings of judgment remains to be shown.

Kant himself briefly and forcefully formulated the principle of the proof[2] in *Reflection* 5854 on metaphysics (1780's):

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

Let us apply this principle of the completeness of moments of judgment to the moments of Modality.

From what perspective are problematic and assertoric validity opposed to each other? "Problematic judgments are those in which affirmation or negation [or more simply the relation of the judgment] is taken as merely possible (optional)," that is, "which it is possible to assume." It "expresses. . . a free choice of admitting such a proposition, and a purely optional admission of it into the understanding." It is, Kant says in the footnote to these comments in §9 (A75/B100), "just as if thought were in the problematic a function of the understanding." That is, it is as if it were a function of the faculty of concepts and not of judgment. Concepts are the elementary material of judgment. Thus the validity of the problematic judgment is a validity merely of the "material" for judgments. Unlike problematic validity, the assertoric, i.e., the objective validity is the validity of a judgment with respect to that which comprises the logical "form" of a judgment in general. That is, the concepts contained in the assertoric judgment are related to the original apperception and the necessary unity of this apperception. Apodictic validity connects both: it is assertoric validity that is determined through mere problematic validity under given conditions.

How is the principle of completeness to be applied under the heading of Relation? How is an opposition between categorical and hypothetical judgment to be characterized? I suggest that

in the first an internal and in the second an external relation of thoughts is being thought. The predicate is thought as belonging to the thought that serves as subject itself, the subject being the condition of the concept of the predicate's being related to the objective unity of consciousness in the representation of an object.

The relation of antecedent to consequent is an external relation. I think both as belonging to one another in one objective unity of consciousness, but the unity of both thoughts in the thought of the consequence is essentially not the consciousness of the actual relation of *one* of these thoughts to an object and of the other thought with it. The extrinsic nature of the relation of antecedent and consequent, so far as they are united by relation to the objective unity of consciousness, can be seen in the fact that the antecedent can be false, without the consequent necessarily being false, and the consequent can be true, without the antecedent necessarily being true.

The disjunctive judgment, however, *connects both* members of the pair of opposites. Singular problematic judgments stand in the external relation: If A is B, then it is not B′, B″, etc.; if A is not B, then it is B′, B″, etc.[3] A disjunction signifies that this (external) relation of problematic judgments is such that it constitutes the true cognition of A in its entirety. That is, it constitutes that thought that belongs to the objective consciousness of A itself.

For the proof of the completeness of the moments presented under the headings of Modality and Relation, we are making use of the concepts of reflection: Matter-Form, Inner-Outer. But it must be kept in mind that we are not committing an error denounced earlier (p. 94). The error was to wish to know the *moments* of Modality and Relation of judgment as given by the *concepts of reflection* of Modality and Relation (that is, of Matter-Form and Inner-Outer). We are presupposing the moments of judgment, of Modality and Relation, as given (through the preceding derivation), and now apply the concepts of reflection to them as given. The latter are—in merely logical application (to concepts and judgments, not to "things")—the

headings of all comparison and distinction of given concepts, arranged according to the headings Quantity, Quality, Relation, and Modality. We compare and distinguish given moments of judgment according to them only to see to what extent any two moments are combined in opposing ways. We then find that two of the moments of judgment under Modality are opposed to one another according to the concepts of reflection of Modality (Matter-Form), and two of the moments of judgment under Relation are opposed to one another according to the concepts of reflection of Relation (Inner-Outer).

If we turn to the headings of Quality and Quantity, then, due to the already indicated connection between the concepts of reflection (agreement and opposition, identity and difference) and the quality and quantity of a judgment, we will see clearly that there are relations analogous to those presented under the moments of Modality and Relation. In the affirmative judgment, we think that which is thought in the concept of the predicate as in agreement with that which is thought in the concept of the subject. In the negative judgment, we think it as in opposition. In the universal judgment, we think that which falls under the concept of the subject as identical in respect with that which falls under the concept of the predicate. In particular judgments we think it as different. At most, we must guard against the misunderstanding that all of this amounts to saying that the opposition of concepts in a negative judgment is an analytic opposition of concepts as such, or that the identity that is thought in every universal judgment is an identity of concepts as such.

We now present the following of Kant's *Reflections* as arguments for the completeness of the two moments of Quality and Quantity, respectively. The comprehensive treatment of Quality in *Reflection* 3063 (end of the 1770's) closes with, "Logic looks not to the content, that is, to the determination of the concept [against the inclusion of the limitative judgment in general logic], but only to the form of the relation: agreement or opposition." Again, in *Reflection* 3072 (1790's): "According to the

principle of the excluded middle, the extension of one concept relative to another is either exclusive or inclusive." On the other hand, *Reflection* 3084 (around 1770) says: "With respect to Quantity, there are only universal and particular [judgments], because the subject is either completely included in, or excluded from, the notion of the predicate, or partly included and partly excluded."

It still remains to bring the proof of completeness for the moments of Quality and Quantity into harmony with the general ideas of the proof of completeness, "There are thus three logical functions under a particular heading . . . , for two of these show the unity of consciousness in two opposites, the third, however, in its form combines the consciousness on both sides" [*Reflection* 5854]. That is, the oppositional and the combinatory character of the moments guarantee the completeness of this enumeration. Quality and Quantity for Kant have to do with the statement of opposites, with the presentation of an analytic opposition between two moments. What can we add to this?

First, our claim about the "division" of the forms of judgment makes it plausible that the relations may be different in Quality and Quantity from those in Relation and Modality. The question naturally remains, however, whether a connection of the opposites like that given in Relation and Modality can be thought in Quality and Quantity. Within pure general logic, however, this thought necessarily remains empty. For Quality and Quantity are different from Modality and Relation in that in their original logical sense, as we have seen, they refer to the mere analytic unity that is attached to every concept as such. Indeed, they refer to the analytic unity in the relation of distinct concepts as such.[4] So the question remains of whether it is even possible that we could find two distinct thoughts belonging to thought in general that are specific and original acts of thinking if we were to consider thinking under some other aspect than the one given by pure general logic.

After all, the first *Critique* (§9; A71–72/B96–97) maintains that in a transcendental table of all moments of thought in

judgments, infinite and singular judgments constitute separate members of the division under the titles Quality and Quantity (compare pp. 63–64), and so perhaps there is another aspect. But in order to determine this, we must develop our discussion of the objective unity of apperception further than we have done. We broke off at the place (pp. 45–46) that permitted us to join pure general logic with the highest point of philosophy.

Our analysis of the conditions of thought in judgment merely was concerned with the conditions of thought by means of the analytic unity. However, Kant says at §9 that in contrast to general judgments, I evaluate the singular judgment according to its validity as knowledge in general (A71/B96), and that in contrast to affirmative judgments, I evaluate the infinite judgment according to how much it adds to our total knowledge, or according to the content of knowledge in general (A72/B97). And of course intuition as well as concepts belong to knowledge in general. Therefore, among other things, we would have to consider the relation between concept and intuition as it is relevant to knowledge in general, and moreover, we would have to consider the relation of analytic and synthetic unity in representations given or taken merely as *parts* of knowledge (*repraesentationes ad cognitionem pertinentes*). And we must also recognize what is necessary about this relation in order to see what is necessary about the additional qualitative and quantitative forms of judgment, namely, infinity (infinitatio) and singularity.

With that, we would certainly step beyond the realm of general pure or formal logic.[5] Furthermore, given the source of our expectations of additional moments, the proof that the moments of infinity and singularity are functions of thought in general must show that the singular judgment is, in some respect that we are unable to explain, a combination of the thoughts of universality and particularity. Similarly, it must show that the infinite judgment is in some particular thought a combination of the thoughts of affirmation and negation. In general pure logic, however, such possibilities are as much puzzles as they

are questions. The universality that is thought in the singular judgment would have to be such that it could not be described as a relationship of the extensions of concepts, and the affirmation in an infinite judgment could not be described as a determinate partial representation (characteristic).

Therefore, within general pure logic, affirmation and negation, universality and particularity exhaust the functions of Quality and Quantity. Moreover, within general pure logic, the table of logical functions is not capable of further enlargement. The elementary functions of thought in a judgment with concepts by means of analytic unity are exhausted, so that beyond them no more are possible. That is, the table of general pure logical function of unity in judgments given in §9 of the *Critique of Pure Reason* is seen to be complete.

Thus it can be shown that this section of the clue to the discovery of the categories really is a complete presentation of these functions that is "effectively demonstrated" (A69/B94). Why then, we must still, in the end, ask, did Kant not present this demonstration that alone proves the completeness of the moments of judgment "shown" in the *Critique of Pure Reason*? The reason is that Kant had presented a critique of pure reason, and not a transcendental philosophy, because the latter is "at this stage too large an undertaking" (B25).

At A13/B27, Kant says, "If this critique is not itself to be entitled a transcendental philosophy, it is solely because, to be a complete system, it would also have to contain an exhaustive analysis of the whole of a priori human knowledge." That is, it would also have to contain that which could be developed in logic. Earlier, at A12/B25, we read: "Such a science [transcendental philosophy] must contain, with completeness, both kinds of a priori knowledge, the analytic no less than the synthetic." Later he writes

> Our critique must, indeed, supply a complete enumeration of all the fundamental concepts that go to constitute such pure knowledge. But it is not required to give an exhaustive analysis itself of these concepts [which, according to the idea of the clue, is *preceded* by the exhaustive

> analysis of the logical moments of judgment], nor a complete review of those that can be derived from them. Such a demand would be unreasonable, partly because this analysis would not be appropriate to our main purpose, inasmuch as there is no such uncertainty in regard to analysis as we encounter in the case of synthesis, for the sake of which alone our whole critique is undertaken; and partly because it would be inconsistent with the unity of our plan to assume responsibility for the completeness of such an analysis and derivation, when in view of our purpose ["complete examination of a priori synthetic knowledge," that is, determining their possibility and limits] we can be excused from doing so. The analysis of these a priori concepts . . . and the derivation of other concepts from them, can easily, however, be made complete when once they have been established as exhausting the principles of synthesis, and if in this essential respect nothing be lacking in them (A13/B27f).

It is not the *Critique of Pure Reason*, which can be satisfied with simple "presentation," but rather transcendental philosophy that requires that "the whole of logic," that is, the comprehensive analysis of the moments of thought, be "attach[ed] to the highest point," that is, to "the original synthetic unity of apperception" (B134n). Only then can transcendental philosophy be done.

Notes

FOREWORD

1. Hans Lenk's *Kritik der logischen Konstanten* (Berlin, 1968) is the fullest treatment of the problem of logical form and logical constants, beginning with Kant and coming down to the present. Chapter 2, on Kant, is perhaps the nearest thing we have to a commentary on Reich. Reinhard Brandt's *Die Urteilstafel* (1991) was published too recently for me to have been able to use it.

2. A good survey of these attitudes is given by R. P. Horstmann, "Die metaphysische Deduktion in Kants Kritik der reinen Vernuft," in the Reich-*Festschrift, Probleme der Kritik der reinen Vernunft*, ed. Burkhard Tuschling (Berlin, 1984), pp. 15–33.

3. Kant's fullest defense of the Metaphysical Deduction is in the long note to the *MFNS Ak* 4:474–76, written against his critic J. A. H. Ulrich. But even Kant's faithful disciple G. S. A. Mellin, in a letter to Kant, April 12, 1794 (*Ak* 11:498), raised much the same question of how Kant could establish the completeness of the table of judgments. Kant's answer to Mellin is not extant.

4. Kant calls it "transcendental content," without which the categories are "mere forms of thought [i.e., judgmental functions as in the table of judgments] without objective reality" (B128).

5. A. O. Lovejoy, "Kant's Classification of the Forms of Judgment," *Philosophical Review* 16 (1907), 588–603; Giorgio Tonelli, "Die Voraussetzungen zur kantischen Urteilstafel in der Logik des 18. Jahrhunderts," in *Kritik und Metaphysik* (Heimsoeth-*Festschrift*, 1966), pp. 134–58; Heinz Heimsoeth, "Zur Herkunft und Entwicklung von Kants Kategorientafel," *Kant-Studien* 54 (1963): 376–403; H. J. de Vleeschauwer, *La*

déduction transcendentale dans l'oeuvre de Kant, vol. 1, 244–48; vol. 2, Chapter 1. Reich reviewed the first volume of de Vleeschauwer and pointed out his agreements and disagreements with it (*Kant-Studien* 40 (1935): 309–13).

6. B145, italics added. Kant's emphasis upon the given factuality of the peculiarities of human cognition is found in many places, the most notable being *CJ*§§76–77, *Prol* §36, *Grundlegung*, penultimate paragraph, and B121. This passage is quoted by Lorenz Krüger ("Wollte Kant die Vollständigkeit seiner Urteilstafel beweisen?", *Kant-Studien* 59 (1968), 333–56) as evidence that Kant did not try to prove the completeness and uniqueness of the table.

7. *MFNS Ak* 4:475–76; Reich, this volume p. 29.

8. The italicized words are almost, but not quite, a translation of Kant's words at the end of B141. Kant there says that a judgment is nothing other than "die Art, gegebene Erkenntnisse zur *objectiven* Einheit der Apperception zu bringen," and Kemp Smith properly translated the last phrase as a *genitivus objectivus*: "to the objective unity of apperception." But the expression *objective unity of apperception* is ambiguous. It might mean the unity belonging to apperception, or it might mean the apperception of some unitary object (*genitivus subjectivus*). In the reading given in the text above, I have attempted to direct attention to the latter meaning by reading the phrase as a subjective genitive. This enables me to shorten and simplify Kant's argument for my present expository purpose, but this is not the place for a full examination of this phase of the Transcendental Deduction. It should, however, be noted that this ambiguity of genitives is a pervasive problem in Kant-exegesis. The absence of the word *einheitlich* from Kant's vocabulary makes him repeatedly use the expression *die Einheit* + genitive, with the ambiguity referred to. See H. H. Reichert, "On Genitive Sequences in Kant . . ." *Proceedings of the Third International Kant Congress* (1970; Dordrecht 1972), pp. 665–75. Suffice it to say that Kant argues that the reading with an objective genitive involves the reading with a subjective genitive, and conversely. Reich correctly says: "The necessity that representations be related to objects is thus expressed in the consciousness 'I think.' . . . The fundamental principle that all representations given me must be capable of being accompanied by the 'I think' therefore implies the necessity of the possibility of uniting the entire manifold of representations given me 'in a concept of an object'" (p. 28–29). Then he gives the converse, quoting Kant's *Reflection* 5923:

> The form of every judgment consists in the objective unity of the consciousness of the given concepts, namely, in the consciousness that these concepts necessarily belong together. It is in this way that they necessarily refer to an object in the complete representation of which these concepts are always found together (p. 43).

9. Some contemporary philosophers have identified categories with deep-linguistic structures, symbolic forms, axioms of alternative logics, paradigms, and the like. By these moves, which have some affinity with Kant's Copernican Revolution, a variety of alternative categorial systems has been postulated. This has little to do with the question of the necessity, uniqueness, or contingency of the Kantian table of categories and judgments, because those would-be "categories" are on a far lower level of generality and formality than the Kantian categories; in comparison with the Kantian categories, they are only loosely a priori, and may even be empirical. Indeed, W. H. Walsh, in *Kant's Criticism of Metaphysics* (1975) p. 57, argues that the a priori necessity *for* categories does not entail that the categories are themselves a priori necessary. Reich is wholly justified in not dealing with such alternative categorial frameworks claimed by their authors to constitute alternatives to formal transcendental (Kantian) categories. Only Stephan Körner has argued for alternative categories on an appropriate transcendental level. See his "The Impossibility of Transcendental Deductions," in *Kant-Studies Today*, ed. L. W. Beck (Open Court, 1969), pp. 230–44. But Eva Schaper ("Are Transcendental Deductions Impossible?" *Proceedings of the Third International Kant Congress* (1970), pp. 488–98) has argued, in a way which I believe Klaus Reich would applaud, that the Körnerian alternative categorial systems presuppose, and are parasitic upon, genuine categories derivable from the transcendental unity of apperception and the logical forms of the "I think." By another line of argument, Thomas M. Seebohm ("Über die unmögliche Möglichkeit, andere Kategorien zu denken als die unseren," in *Kants transzendentale Deduktion und die Möglichkeit der Transzendentalphilosophie*, ed. Siegfried Blasche, Wolfgang Köhler, Wolfgang Kuhlmann, and Peter Rohs (Suhrkamp, 1988), pp. 11–31 has reached conclusions similar to Ms. Schaper's. While claiming that our (and Kant's) categorial system underlies putative alternative systems and thus retains transcendental priority over them, Seebohm admits that Kant's categorial scheme may well permit (perhaps require) *Erweiterungen* (p. 20).

CHAPTER 1

1. *Hegel's Logic* (Encyclopedia, vol. 1), trans. W. Wallace (Oxford, 1975), §42, pp. 68–69. Also see Johann Friedrich Herbart, *Schriften zur Metaphysik*, in *Sämmtliche Werke*, vol. III, ed. G. Hartenstein (Hamburg, 1883–93), pp. 121–22.

2. *Science of Logic*, vol. II, trans. W. A. Johnston and L. G. Struthers (New York, 1966), p. 247.

3. Hegel comments: "If logic has undergone no change since Aristotle ... what is rather to be inferred from that is, that logic is all the more in need of a thorough overhaul; for when Spirit has worked on for two thousand years, it must have reached a better reflective consciousness of its own thought and its own unadulterated essence." (*Science of Logic*, p. 62.)

4. Kant says in *Reflection* 2232 on logic (end of the 1770's): "Many imagine that system belongs only to exposition, but it belongs to the object of cognition and to thought."

5. See the quotation below from the first *Critique*, the chapter on the architectonic (A832–33/B860–61).

6. In 1936 H. J. Paton notes: "Are the forms of judgments universal and necessary? ... The crucial question for us is why this ultimate form of all thought should be supposed to differentiate itself, independently of the given matter, into twelve forms of judgment, no more and no less ... The question is clearly in need of discussion, and so far as I am aware, it is never even discussed." (*Kant's Metaphysics of Experience* New York, 1970, vol. I, Chapter X, §2, pp. 206–8.)

7. This reference to knowledge yielded by the understanding does not contradict Kant's claim that understanding and sensibility are necessary for a cognition in general. Kant himself says in the *Progress* (*Ak* 20:325): "By contrast, so far as what concerns human beings, all cognition consists of concept and intuition. Each of these is indeed representation, but not yet Cognition. To represent something through concepts, that is, to represent it in general, is called thinking, and the capacity for thought is the understanding. The immediate representation of the particular is intuition. Knowledge by means of *concepts* is called *discursive*, by means of intuition, *intuitive*; in fact, knowledge requires the conjunction of the two, but each is named according to the ground of determination to which I am primarily attending." Accordingly, knowledge yielded by the understanding should be understood to mean our knowledge *in general*, insofar as I "attend" to it solely as based in the understanding. Compare *Reflection* 2836, which divides the representation that with consciousness refers to an object, *cognitio*, into *intuitus* and *conceptus*, and then subsequently changes "*cognitio*" to "*ad cognitionem pertinens*." (Cf. also A320/B376–77.)

8. The impact of Cohen's position for the interpretation of general pure or formal logic (as opposed to transcendental logic) can be seen very easily in his follower Walter Kinkel's introduction to Jäsche's edition of Kant's *Logic*: The relationship of formal to transcendental logic

as developed by Kant is an impossible one; transcendental logic is the only logic; *within* it the formalism of general logic has an unspecified and insignificant place.

9. See Emil Lask, *Lehre vom Urteil* (Tübingen, 1912), pp. 122–23; also see p. 116.

10. Alois Riehl, *Der Philosophische Kritizismus*, vol. I, 2nd ed. (Leipzig, 1908–26), p. 491.

11. *Ibid.*, p. 387. On Herbart, see note 1 above.

12. Compare the following interpretations of the passage under discussion: H. J. Paton, *Kant's Metaphysics of Experience*, vol. I, Chapter XII, §2; and H. J. de Vleeschauwer, *La déduction transcendentale dans l'oeuvre de Kant* (Paris, 1936), vol. II, pp. 41–47.

13. See Riehl, *Der Philosophische Kritizismus*, p. 387.

14. Friedrich Adolf Trendelenburg, *Logische Untersuchungen*, 2nd ed. (Leipzig, 1862). He also depends on Friedrich Schleiermacher's *Dialektik* (Berlin, 1811 and 1814) and Friedrich Eduard Beneke's *Lehrbuch der Logik als Kunstlehre ides Denkens* (Berlin, 1832).

15. With respect to his views on logic, Herbart may also be identified with this school. Compare the remark in the first and second editions of his textbook introduction to philosophy (1813 and 1821), the beginning of the section on logic, *Sämmtliche Werke*, vol. I, p. 77, where he refers to J. C. Hoffbauer, W. T. Krug, and J. F. Fries. In section 58, he refers to Kiesewetter.

16. Johann Gottfried Christian Kiesewetter, *Grundriß einer allgemeinen Logik nach Kantischen Grundsätzen*, 4th ed. (Leipzig, 1824–25).

17. *Ibid.*, vol. I: "Allgemeine Reine Logik."

18. Already Johann Christoph Hoffbauer, in his *Anfangsgründe der Logik* (Halle, 1794), pointed out the absurdity of this claim. Cf. sections 228 and 239n.

19. According to the original title and to the preface, Jäsche's edition of Kant's Logic lectures (*Ak* 16) is "in part" a reworking of Kant's logic. Therefore, it is properly a part of the literature on Kant and not of Kant's works. I will take this opportunity to dispute in passing the correctness of this work's presentation of Kant's logic. The nature of the material compels me to use examples that are peripheral to our topic.

Section IX, for example, addresses certainty. It declares that the relation between a judgment and a particular understanding is a subjective relation, namely, the relation of *holding something to be true*. Holding something to be certainly true, or certainty, is coupled with the consciousness of necessity. Moreover, certainty or knowledge is a way of taking something to be true that is both subjectively and objectively

sufficient. Then we read that "knowing something is judging apodictically" (not *holding something to be true*, as one would expect from what was said earlier). The reason given for this is that, "What I know I consciously judge to be apodictically certain, that is, universally and objectively necessary (valid for all)." This entails that, more precisely, (1) the explanation of certainty is that it is supposed to involve holding something to be true together with consciousness of the objective necessity of the judgment, and (2) certainty and apodictic certainty have the same meaning.

However, Jäsche's reason continues, "even if assuming that what is held to be true with certainty is an empirical truth." But if the proposition can be an empirical truth, then it is impossible to consider as objective the necessity that we are conscious of when we are certain of something. Instead, it must be held to be again a subjective necessity, namely, the subjective necessity of holding something to be true. Concerning point (2), about the relation between certainty and apodictic certainty, we need to notice that after a few paragraphs in section 3, called "Knowledge," Jäsche distinguishes between empirical and rational certainty and writes, "Rational certainty differs from empirical certainty in that the former is associated with a consciousness of necessity. Consequently rational certainty is apodictic while empirical certainty is only assertoric."

If earlier we had to identify certainty and apodictic certainty, then now we have to separate them. How contradictory! What knowledge, certainty, and apodictic certainty are must remain unclear.

However, if we examine certainty in Kant's *Reflections* on logic, especially those from the 1780's and 1790's (that is, 2473 through 2504), as well as Count Dohna's lecture notes, we see that holding something to be true is a relationship to my understanding, that is, to a particular subject. Holding something to be true, insofar as it is associated with consciousness of *subjective necessity*, is called "certainty" (2473). Holding something to be true on cognitive grounds that are subjectively as well as objectively sufficient is knowledge (2477). So knowledge is "logical certainty." The reason is that the objective sufficiency of holding something to be true is clearly logically equivalent to the consciousness of subjective necessity. From a purely logical point of view, only what is really grounded can necessitate my holding it to be true. Also compare the section "Opining, Knowing, and Believing" in the Doctrine of Method of the *Critique of Pure Reason*, where (logical) certainty is explicitly explained as the objective sufficiency of holding something to be true (A822/B850). (Kant then adds that "there is no call for me to spend further time on the explanation of such easily

understood terms.") As far as its origins are concerned, knowledge is either empirical or rational, that is, speaking from the point of view of general logic, either assertoric or apodictic. Consequently, one can say:

> When I have knowledge I judge what I hold to be true consciously as apodictic according to the laws of the understanding. Even though the truth is empirical, my taking it to be true (namely its relation to the foundation of this knowledge) is apodictic, that is, universally necessary (valid for all).

And

> In my judgment of experience . . . my holding it to be true is apodictic, though the proposition itself is contingent (*Reflection* 2474).

These passages from the *Reflections* were used but not understood by Jäsche.

Section 60, note 2, and Section 75, notes 1 and 2, also contradict each other. Section 60 states that categorical and the so-called hypothetical and disjunctive syllogisms are "products of equally correct but essentially different functions of reason," so that the view, held by many logicians, that only categorical syllogisms are regular while the others are exceptions is "groundless and false." Section 75, on the other hand, contradicts this in stating that the hypothetical inference really is not a syllogism, but an immediate inference because it does not have a middle term. Granted, in a hypothetical and disjunctive inference the conclusion follows not on account of a middle term, but only because a judgment that is represented as problematic in the major premise and as assertoric in the minor premise is subsumed. But I really subsume something. I do not merely analyze the given concepts or the form of the given hypothetical judgment and draw an immediate inference from this, but I posit a logically new premise and recognize that the conclusion follows from the major premise via a mediating proposition. Thus the hypothetical and disjunctive syllogism do not involve an inference based on a middle term (*per medium conceptum*), but they do involve an inference based on an intermediate proposition (*per indicium intermedium*). This is what is crucial, especially if we take seriously Jäsche's treatment of the syllogism in sections 56–60.

Here, in section 75, Jäsche is probably paying the penalty for not introducing clearly in section 42 the distinction between mediate and immediate inferences. This is how he develops the distinction:

> All inferences are either immediate or mediate. An immediate inference is the deduction of one judgment from another without a mediating judgment. An inference is mediate if in order to infer

a cognition from a judgment one needs other concepts beside the ones contained in the judgment.

But contrary to the first sentence of this passage, strictly speaking this is not a complete disjunction. According to the first and second sentences of this passage, a mediate inference is one that requires another *judgment* in addition to the given premise and that mediates the inference, but not other *concepts* besides the ones contained in the premise.

In section 75, Jäsche uses *Reflections* 3263 through 3265 (from 1769–70), but he fails to realize that the claim in section 60 that the three kinds of syllogisms are all on an equal footing, which is based on *Reflection* 3199 (from the end of the 1770's or the 1780's), subverts Kant's earlier denial of this (that is now to be found in section 75). Kant (naturally) thought through carefully the claims of the later *Reflections*, especially *Reflections* 3197–3202. This is shown not only in *Loses Blatt* 3266 and the *Reflection* on metaphysics 5553 (p. i), but also in the Introduction and the first book of the Transcendental Dialectic in the *Critique of Pure Reason*. It is incomprehensible how someone who reads these passages from the *Critique* can print *Reflections* 3263–3265 in Kant's copy of Meier's *Logic* as Kant's authentic doctrine, especially when this contradicts an earlier accurate explanation of the matter.

These facts certainly do not warrant the praise that Jäsche's treatment of Kant's logic is correct because it is a presentation of "a canon for the adjudication of the formal correctness of our knowledge" (Introduction, p. ii), which is "useful and indispensable" for "making reason correct and consistent with itself" (*ibid.*).

20. Its value for the study of Kant's logic consists in its being an excellent guide for the study of Kant's *Reflections* on logic (*Ak* 16). Naturally, it cannot by itself serve as evidence for the point being made.

21. Paton points out precisely this misinterpretation in the commentaries of Edward Caird, H. A. Prichard, and Norman Kemp Smith. For example, see Kemp Smith, *Kant's Metaphysics of Experience* (London, 1923), Chapter X, §§6–8, and Chapter XIV, §10. In the same place Paton refers to an article of his own published in *Mind* (July 1931), of which, however, he writes that "even after I had succeeded in freeing myself from the main errors in regard to analytic judgments, I was still unable to break away from the view that Kant was referring in this passage to the difference between analytic and synthetic judgments" (p. 301n).

CHAPTER 2

1. §15 only repeats the claim of the "Clue."

2. To present the "logical I," we use "The Transcendental Deduction of the Pure Concepts of the Understanding," especially that of the second edition, and the closely related chapter "The Paralogisms of Pure Reason" in the second edition. Also worth considering are *Progress*, *Ak* 20: 270–71; *Anthr*, §4, Observation, and §6; *Op*, VIIth Fascicle (1800), passim, XXII 3–131; and Kant's letters, in which he often discusses this point, because already his contemporaries (even his supporters) could not grasp this highest principle (upon which the possibility of all synthetic knowledge a priori depended).

3. Here I use Kant's words in his letter to Marcus Herz of May 26, 1789 (*Ak* 11:48–55; *Corr*, p. 153), although I am aware that they were expressed in a somewhat different context.

4. Here I make use of the Topics of the Paralogisms and proceed analytically (cf. B418). In addition, however, I abstract from my existence, which is included in the "I think" as act, but is expressed by a perception.

5. Cf. A95/B128, where Kant defines the categories. Also see B143, §20. Here I agree with Erich Adickes, *Kant und das Ding an sich* (Berlin, 1924), 52–53.

6. To verify the correctness of my representation of the meaning of the categories in the discussion of the "I," consult the Paralogisms: B404, B406–7 (the "general remark"), B421 ("From all this it is evident,"), and the "General Note on the Transition from Rational Psychology to Cosmology" B428–29 ("Thought, taken by itself.").

7. Cf. *CPR* A204/B250: "Wherever there is action—and therefore activity and force."

8. Cf. *CPR* B93: Kant gives a specific explanation of the function upon which the concepts rest: "Whereas all intuitions, as sensible, rest on affections, concepts rest on functions. By 'function' I mean the unitary act [*Einheit der Handlung*] of bringing various representations under one common representation." This interpretation avoids the inconsistencies other interpreters see between this passage and Kant's usual terminology. For example, see Paton, *Kant's Metaphysics of Experience*, vol. I, 434–35, and de Vleeschauwer, *La déduction transcendentale dans l'oeuvre de Kant*, vol. II, pp. 35–36.

9. Cf. the *Lectures on Ethics*, trans. L. Infield, p. 58: "In the case of *imputatio facti* we have to notice the *momenta facti*, that is to say, the manifold in the deed which is the ground of imputation. These *momenta* are elements of the ground, parts of the sufficient reason." Compare the *Critique*, A131/B170: "analyzing the *actions* of reason into their moments." The description at A208/B254 of a "continuous action of causality, so far as it is uniform" as a "moment" is first derived from

this general meaning. Apart from the case just considered, instances of the use of this original concept in reference to logical relations occur quite frequently in the precritical and critical writings (moments of the ground of proof, the actual moment of the difficulty, deciding moment of the question). The possibility of this use being carried over is first evident when taken in what I have suggested is the word's original meaning, rather than in the already temporal sense of "moment" in mechanics. Naturally, by narrowing our point of view, the "moments" of a function can themselves be characterized as "functions." See, for instance, the first and the last sentences of §9 of the first *Critique* (A70/B95 and A76/B101). The discussion of a possible manifold in the logical function, by the way, naturally does not contradict the claim that the consciousness of myself in the "I think" is a simple representation, because the logical function is thereby only rendered imaginable under various aspects that constitute the thinking of something in general. It is not thereby thought to be analyzable into a manifold out of which the logical function could be composed.

10. [Translators' note: Cf. L. W. Beck's Foreword, p. xvii, and n. 8 (pp. 114–15), for a brief discussion of the equivalence that holds for Kant between the relations: representation to object and representation to unity of apperception.]

CHAPTER 3

1. According to "quality."

2. When I consider it only in this respect, i.e., "quantity."

3. In contrast to sensible intuition, which is indirectly a determination of the "I think," that is, requires a particular act to be represented as belonging to the "I." It does not lie in intuition. To think intuition as belonging to the "I" is a necessary act prior to all knowledge via intuition.

4. Compare p. 121, n. 8, above.

5. Compare Kant's derivation of the concept of the whole or totality [*Allheit*] from the universal judgment, A322/B379. A scholar of Kant's remarks on logic will object that Kant carefully distinguishes between the *communitas* of a concept and *universalitas*, retaining the latter expression to refer to the relation to analytic unity of consciousness. After the discussion of the Quantity distinction in judgment, it will be clear why Kant's careful distinction plays no role for us here.

6. *Reflection* 2866 (circa 1770)—"*conceptus communis: tautologia*"—is to be interpreted in this way.

7. They [concepts] may, depending on the subject matter, represent properties or relations. This distinction lies in a different realm than

that of general pure logic.

8. Compare the *Reflections* on logic 2275–2288, especially those from the 1780's and 1790's, from 2280 on.

9. [Translators' note: The German word is "*Umfang*." Kemp Smith's translation of this term in key passages of the *Critique of Pure Reason* is inconsistent. Earlier in the *Critique*, he tends to use "sphere" (e.g., A74/B99), and later he uses "extension" (e.g., A322/B379), although it is clear that Kant is using "*Umfang*" in exactly the same sense.]

CHAPTER 4

1. Kant repeats this explanation in §20 in the following way: the logical function of judgment is "the act of the understanding by which the manifold of given representation . . . is brought under one apperception in general" (B143). It must be said that this clearly distinguishes judgments from complex concepts. In response to Beck on this subject, Kant writes on July 3, 1792:

> The difference between a combination of representations in a concept and one in a judgment, for example, 'the black man [*Mensch*]' and 'the man is black' (in other words, 'the man who is black' and 'the man is black'), lies, I think, in this: in the first one thinks of a concept as *determined*; in the second, one thinks of the *determining activity* of this concept. Therefore, you are quite right to say that in the *combined* concept, the unity of consciousness should be subjectively given, whereas in the combining of concepts the unity of consciousness should be *objectively* made, that is, in the first, the human should be merely *thought* as black (problematically represented), and in the second, he should be *recognized* [erkannt] as black (*Ak* 11:347).

2. Also compare the Preface to the first edition of the *Critique* and the appendix to the *Prolegomena*.

3. In his discussion of §§19 and 20, de Vleeschauwer maintains that in the second edition of the *Critique* Kant has two wholly distinct theories of judgment: one in §19, and the old one that is the basis for the deduction of the categories from the forms of judgment. Consequently, he writes "we find before us (§19) a new metaphysical deduction [of the categories]," de Vleeschauwer, *La déduction transcendentale dans l'oeuvre de Kant*, vol. III, pp. 141–42. In order to show that it is not possible to make this interpretation plausible, it is probably sufficient to refer to the above passage. In contrast to the first edition of the *Critique*, §19 offers a precise definition of the judgment in general, but this does not mean that it is offering a new theory of judgment. The first and second editions of the *Critique* differ in the clarity and ease of

the presentation of this issue, but not in their substance. After all, we can assume that if this were not the case, Kant would have noticed the incongruity.

4. *Iudicium est repraesentatio unitatis obiectivae in conscientia variorum conceptuum.*

5. Count Dohna's transcripts from the summer semester in 1792 define judgment as follows: "Judgment is the representation of the relation among concepts through which a *cognition* becomes distinct" (p. 96).

6. If the relation of "given cognitions" to the objective unity of apperception, that is, as we know, to the original *synthetic* unity of apperception, defines judgment in general and belongs to logic, how can Kant make the following comment in *Progress*? "Judgments . . . are nothing but the unity of consciousness in the relation of concepts in general, regardless of whether this unity is analytic or synthetic" (*Ak*20:271–72).

If we want to reconcile these claims, we have to say that this comment is concerned with the difference in the *content* of judgments Kant makes in §2 of the *Prolegomena*: "But whatever be . . . their logical form, there is a distinction in judgments, as to their content, according to which they are either . . . *analytical* [or] . . . *synthetical* judgments" (*Ak* 4:266). We can infer that this is indeed the case from §15 of the Transcendental Deduction of the second edition, which focuses on the highest point and precedes the deduction proper. It contains an analysis of the concept of combination in general. All combination (*conjunctio*) of a manifold of our representations in general, "be it a combination of the manifold of intuition . . . or of various concepts," rests on an act of the understanding (synthesis). This means that "we cannot represent to ourselves anything as combined in the object which we have not previously combined. It will be easily observed that this action is originally one and is equipollent [*gleichgeltend*] for all combination" (B130). That I really have to think this way of the possibility of a combination of the manifold of my representations in general is, according to §16 of the Transcendental Deduction, contained analytically in the pure representation "I think," namely, the a priori representation of the thoroughgoing unity of apperception. After all, this has been our concern. Now, "in judgments we think of a combination of given concepts." But "to combine is to represent the *synthetic* unity of the manifold" (B130–31). Consequently,

> Whether the representations are themselves identical, and whether, therefore, one can be analytically thought through the other, is not a question that arises here. The consciousness of the one, when a manifold is under consideration, must always be distinguished from the consciousness of the other; and it is with the synthesis of this . . . consciousness that we are here alone concerned (B131n).

In this footnote to §15 Kant is not concerned just with concepts, but with representations in general, as accords with his earlier general observation that he is concerned with "all combination . . . be it a combination of the manifold of intuition . . . or of various concepts" (B130). So it truly is the case that as far as its content is concerned, it is here not determined whether the unity of a judgment is analytic or synthetic. As to its logical form, the unity of a judgment consists in the original synthetic unity of apperception.

7. See A125, where Kant also identifies objective validity and truth. [Translators' note: Although we have supplied the ellipses, this is how Reich quotes Kant and he takes it to mean that for Kant truth is identical with objective validity.]

8. So, *first* all of logic and then transcendental philosophy. Consequently, it is not necessary for us to continue elucidating Kant's concept of knowledge by the understanding in general, that is, to proceed to the "real" employment of the understanding and to the claim that all sensible intuition is "*determined* in respect of one of the logical functions of judgment" (§20 of the Deduction). The logician is first concerned with concepts and their employment. Only then can the conditions of the possibility of the "reality" of concepts and the relation of these conditions to intuition in general be investigated in a philosophical system.

9. See the footnote on A728/B755 in the Transcendental Doctrine of Method.

CHAPTER 5

1. That is, they are related to the necessary unity of apperception.

2. [Translators' note: We use the following conventions in translating the terms Relation, Beziehung, and Verhältnis in Reich: where Reich uses the term "Relation" referring to the title of Relation in the table of categories, we capitalize the English (Relation); *Beziehung* and *Verhältnis* are generally used synonymously and hence we have translated both as "relation." Where Reich may want to suggest a difference, we provide the German in brackets.]

3. As to its substance, the given analysis contains nothing that we could not also find in Christian Wolff, or even Aristotle.

4. If we notice that the given problematic judgments are categorical, we will easily recognize that in the simplest case part of the condition is that the given problematic categorical judgments have one and the

same condition, namely, the same subject. This will be relevant later.

5. The sense of a disjunction is that without thinking that any one particular assumption is valid, we think that one of them is valid.

6. Of course, we can raise various other questions and set up other connections between moments: for example, that hypothetical and disjunctive judgments can also be problematic or apodictic.

7. See note 4, p. 125–26.

8. See Chapter 3.

9. It is obvious that the thought of the "use" with a "limited extension" of a predicate of a subject presupposes the thought of negation. "The predicate . . . relate[s] to part only of that which is contained under the concept of the subject, and . . . [is] excluded from the rest" (A71/B96). Thus we weren't being arbitrary when we discussed Quality before Quantity.

CHAPTER 6

1. Compare our analogous table of the moments of the logical (analytic) account of the "I think," pp. 25–26.

2. See the final comment of the B Deduction.

3. As far as the infinite judgment is concerned, the text is unambiguous. As far as the singular judgment is concerned, he might only mean that it does not belong to general pure logic. He does not say explicitly in which theory it should be distinguished from generally valid judgments (*judicia communia*).

4. The predicate "analytic" as opposed to "dialectic" does not imply that the science to which it applies is a sum of analytic knowledge. See *Prol* §5, footnote, *Ak* 4:276.

5. Compare *Reflection* 4064: "That in the composition, through which it is distinguished from all others, is the *modus compositionis*." This is a comment on A. G. Baumgarten, *Metaphysica* (Halle and Magdeburg, 1739), §226, where the *modus compositionis* is placed within the *interna possibilitas et compositorum essentia*. By contrast, compare especially *Reflection* 3788: "*Modus compositionis non est essentia compositi, sed compositionis. Compositio est forma. Partes materia.*"

6. See Meier, *Auszug aus der Vernunftlehre* (Halle, 1752), sec. 309. He is thereby referring to the impure, that is, modal, judgments in contrast to the pure judgments. See Kant, *Reflection* 3063 (end of the 1770's): "the mode [of the judgment in general] problematic, assertoric, apodictic."

7. [Translators' note: Reich has identified objective validity and truth on page 44. See also page 125, note 7.]

8. A noteworthy analogy to the fact that the original general pure logical table of the forms of judgment has been turned upside down in order to serve as the clue to the table of categories, is the necessity of reversing the order of the logical moments of quantity in order to produce the corresponding transcendental elements (unity, plurality, totality). Cf. especially *Prol*, *Ak* 4:302n.

9. The Dohna lecture notes say, following the definition of judgment already cited, "Judgment is the representation of the relationship of concepts whereby a cognition becomes clear":

> A great error in this logic is that the author [Meier] begins in speaking of subject and predicate, before the necessary preliminaries are laid down. This is the case in almost every logic. Our author's definition of the judgment fits only categorical ones. But there is not merely one kind of judgment—there are also hypothetical, problematic . . .. All judgments can be brought under three heads: 1. categorical . . ., 2. hypothetical . . ., 3. disjunctive . . . . These judgments are of a quite different sort.

Only then does Kant turn first to the categorical judgment. In the following division of the judgments, he follows the ordering of the author: 1. quality, 2. quantity, 3. relation ("simple and composite judgments"), 4. Modality ("determination of the connecting concept [*Verbindungsbegriff*], *modus formalis*").

10. Cf. *Reflection* 3305 and Adickes's comment on it.

11. *Haec propositionum affectio, qua sunt aut compositae aut simplices, est, ut cum scholasticis dicam, propositionum quaeitas.*

12. J. F. Lambert, "Diaonoiologie," *Neues Organon* (Leipzig, 1764), sec. 137.

13. In my review of de Vleeschauwer's *La déduction transcendentale* (*Kant Studien* 40 [1935]:309–13), I laid out the consequences for the reconstruction of the development of Kant's thought during the decisive silent decade between 1770 and 1780 of the observations made here in Chapter 6, part II, secs. 1 and 2.

14. *Reflection* 4276 from the year 1770 might also come to mind because of the phrase "in mere categorical as well as in all three types of judgments," but this could also refer to a quite different division of judgments, namely, into thesis, synthesis, and analysis (compare *Reflection* 4279).

15. Compare the passage cited above (p .127, note 9) from the Dohna lecture notes, and also §19 of the first *Critique*.

16. Cf. the Kiesewetter essay on formal and material meaning of some words, *Reflection* 5663.

17. *MFNS*, *Ak* 4:476.)

18. Already at A106, before the definition of the concept of a rule mentioned above, Kant says that a concept (demanded by all knowledge) "is always, as regards its form, something universal that serves as a rule." (In the preceding paragraph, the concept of an object was represented in its analytic connection to the unity of the rule in the synthesis of the manifold of representations.) Kant cites the concept of body to further elucidate how the concept "as to the unity of the manifold which is thought through it, serves as a rule in our knowledge of outer appearances." Kant also simply calls a concept a rule at those times when he is not concerned with the distinction between them. (The understanding is after all both "the faculty of rules" and "the faculty of concepts.") In view of what has already been said, however, I want to maintain that, precisely put, the concept is that which only serves as a rule; it is only "a condition through which a given representation in general is related to a rule" (*Reflection* 4676, *Ak* 17:656).

19. R. Reicke, *Lose Blätter aus Kant's Nachlaß* (Königsberg, 1889), vol. 2, p. 279.

20. See *CPR* A323–24/B379–80.

21. Compare *CPR* A304/B361.

22. Compare the Kant-Eberhard controversy, note 3. *Disc* VIII, p. 194n.

23. Compare A. G. Kästner's *Anfangsgründe der Arithmetik, Geometrie, ebene und sphärische Trigonometrie* (Göttingen, 1758), Chapter V, p. 26, as well as G. S. Klügel's *Mathematisches Wörterbuch*, division I, part II. Or see the extensive discussion in Leonhard Euler's *Vollständige Anleitung zur Algebra* (St. Petersburg, 1770), part I, sec. 3, Chapters 1 and 6.

24. *Respectus entis ex coniunctione cum aliis determinatus est positus.*

25. The *Reflection* on anthropology 326 (from the 1770's) also deals with this special case.

26. 1752, secs. 304–308, following Christian Wolff, *Philosophia rationalis sive Logica* (Leipzig, 1728), secs. 216–26 and 315–16 (somewhat modified).

27. Lambert's *Novum Organum*, sec. 131–32 on "Dianoiologie."

28. Friedrich Baumeister, "Logica theoretica," in *Institutiones Philosophiae Rationalis* (Wittenberg, 1735), secs. 196–206; Darjes, *Via ad Veritatem*.

29. *MFNS*, *Ak* 4:476.

30. For example, I can think that two given straight lines may be parallel, and also, that opposite angles formed by a third line intersecting the two straight lines may be equal. Both thoughts are in themselves only taken as problematically valid. In the form "If two straight lines

are parallel, then the opposite angles formed by the intersection of these lines by a third straight line are equal" both thoughts are united originally in the form of a thought of an objective fact, without their material having been altered in the least. Similarly, it may be that I exist after my death, and it may be that after my death I am annihilated. But: "Either I exist after my death or I am annihilated after my death" is a form in which both thoughts "first become a cognition of an object" although in themselves they were not cognitions. So also is the relation of concepts constituted in a categorical judgment—which until Kant has never been misunderstood.

31. Compare, for example, the presentation in D. Hilbert and W. Ackermann, *Principles of Mathematical Logic*, trans. L. M. Hammond, G. G. Leckie, and F. Steinhardt (New York, 1950), Chapter 1, sec. 1.

32. The continuation of the observation on the *ratiocinatio polysyllogistica* at B388–89 offers a good indirect confirmation that the distinction condition/conditioned, is not to be taken for an arbitrary one. If the claim of formal necessity is elucidated in the individual cases of *ratiocinatio polysyllogistica*, as they are distinguished by the relation of judgments, then the logical priority of subject, presupposition, and aggregate of members of the division as conditions of judgment, over predicate, consequent, and individual members as conditioned, can be made quite clear. Of course, "with respect to the mere logical employment of the understanding" it remains "undetermined to which of the two concepts the function of subject, and to which the function of predicate, is to be assigned." Instead of "All bodies are divisible," I can say "Some divisible thing is a body" (B128–29). Indeed, our concern is only with the fact that if one represents one concept as a subject and another as a predicate, one ought to distinguish in thought the function of the subject from the function of the predicate in a determinate manner.

33. *Ak* 8:194.

34. *Corr*, pp. 147–48, *Ak* 11:40–48.

35. *Progress*, *Ak* 20:278. The fourth paragraph of the first section of the Kant-Eberhard controversy (*Ak* 8:193) that precedes the remarks cited earlier should be interpreted in light of this. The phrase "the principles of the form of cognition, which are supposed to be the principles of contradiction and of sufficient reason" suggests that the principle of excluded middle has to be brought in if these principles are to be enumerated from a unified perspective. For our purposes, the main contribution of the preliminary draft for the controversy and the prize essay on "Progress in Metaphysics" is the remark "First are the logical rules of the condition of thought in judgment, hence of

possibility, actuality, and of necessity" (*Ak* 20:365).

36. The perspective of modality also rules in the Dohna lecture notes, in the section on the truth of the scholarly [*gelehrten*] cognition (*Ak* 24.2: 519 and 709–10).

37. *A positione consequentis ad positionem antecedentis non valet consequentia.*

38. *Prol, Ak* 4:325.

39. de Vleeschauwer, *La déduction transcendentale dans l'oeuvre de Kant*, vol. III, 47, believes otherwise. He suggests in a note on the same page that my own attempt to defend this thesis in Chapter 6, sec. II, part 6, of this work does not quite succeed. I would point out that part 7 is also an essential part of my defense. [Translators' note: de Vleeschauwer was referring to the first edition of Reich's book. This and the following note were added in the second edition.]

40. One consequence of de Vleeschauwer's position is that for him the moment of "synthesis of the homogeneous" in the category of Quantity that Kant establishes becomes quite problematic. (*La déduction transcendentale dans l'oeuvre de Kant*, vol. III, pp. 255–56.) He holds that the motif for this distinction of synthesis comes from the Dialectic. In that case, however, Kant's use of this distinction as a principle for the solution of the cosmological Dialectic begs the question.

41. Separating is evidently not coordinated with comparing and connecting. It obviously designates the same sort of relation as connection, only in *modus tollens*, not *modus ponens*. Had Kant wanted to preserve the parallel, he could have said, "compares or distinguishes these [representations] . . . connects or separates them."

42. In the *Akademie* edition, "*sein.*" But in comparing this with *Reflections* 3045 and 3060, where the same material is presented, there can be no doubt that this must be read in the dative, "*seinem*": To judge is to represent a concept as contained under the other: (1) subject under predicate, (2) consequent under ground, (3) part of the extension under the whole (3045). For *Reflection* 3060, see page 82 above.

43. That is, judgments. See *Reflection* 5553.

44. The order presented here follows the clue of the headings of the categories. See p. 67 above.

45. Compare the analogous remark at B128–29, p. 129, note 32, above.

46. Compare the definition of analytic judgment in the introduction to the first *Critique*, part IV (A7/B11).

> In all judgments in which the relation of a subject to the predicate is thought . . . this relation is possible in two different ways. Either the predicate B belongs to the subject A, as something which is (covertly) contained in this concept A; or B lies outside the concept A, although it does indeed stand in connection with it. In the one case I entitle the judgment analytic, in the other synthetic. Analytic judgments . . . are therefore those in which the connection of the predicate with the subject is thought *through identity*; those in which this connection is thought *without identity* should be entitled synthetic [emphasis added].

47. Cf. *Disc, Ak* 8:238.

48. Cf. *Prol* §39, last paragraph, *Ak* 4:326.

49. [Translators' note: Kant is actually describing singular [*einzelne*] judgments in this passage. Reich is extrapolating a description of particular judgments from it.]

50. N.B.: That does not mean that all particular judgments say that only some A is B, and some A is therefore not B. In the *particular* judgment, however, the B is referred only to some and excluded from the rest without saying anything about whether this exclusion could not still be canceled [*aufgehoben*] and whether the predicate could be referred to all. See also *Prol* §20, note 2, *Ak* 4:302.

CHAPTER 7

1. Cf. above, p. 2. Towards the end of the 19th and the beginning of the 20th century this attitude was even stronger. Cf. Wilhelm Windelband, "Die Prinzipien der Logik," in the *Enzyklopädie der philosophischen Wissenschaften* (Tübingen, 1912), p. 34, note: "The error of the transcendental analytic, in my view, is only that the table of judgments is simply snatched up from history. The quartet is in no way derived or capable of being derived from the essence of judgment, but is taken empirically from school logic and is symmetrically adapted into trichotomies." Hegel and Herbart grant Kant at least the possibility of having reflected himself upon the division of the four headings, and if they accuse him of "empiricism," they thereby at least think of an observation of the matter in question and do not charge him with grabbing things from history, that is, of pulling material from schoolbooks. The view that Kant's mistake only lies in this is an excellent illustration of the standards a historian of philosophy can get away with today when treating a philosopher.

2. Compare also *Reflections* on logic 3030, 3031, 3067, and *Reflection* on metaphysics 5655, as well as the introduction to the *CJ, Ak* 5:197n.

3. The situation is complicated by the fact that these hypothetically formulated judgments are about the truth and falsehood of the given problematic judgments themselves.

4. According to *CJ*, last footnote in the Introduction (*Ak* 5: 197n), the division into three parts is necessary: "according to what is required

for *synthetic* unity in general" [emphasis added].

5. The standard critique of Kant's treatment and application of singular and infinite judgments, as it is found in de Vleeschauwer, vol. I, pp. 231 and 244, and vol. II, pp. 53–57, ignores the possibility that there may be a problem here whose treatment belongs in a completed theory of the transition from logic to transcendental philosophy.