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Kant on the possibility of empirical cognition

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The University of Rochester, 1991

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KANT ON THE POSSIBILITY OF EMPIRICAL COGNITION

by

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Submitted in Partial Fulfillment

of the

Requirements for the Degree

DOCTOR OF PHILOSOPHY

Supervised by

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Department of Philosophy

College of Arts and Science

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Rochester, New York

1991

DEDICATION

To my Parents,

Nada Cicovacki

and

Vojislav Cicovacki

CURRICULUM VITAE

Predrag Cicovacki was born on June 8, 1960 in Belgrade, Yugoslavia. He entered the University of Belgrade in September of 1979 and completed his Bachelor of Arts degree in philosophy in May of 1984. In September of 1986 he began graduate study of philosophy at the University of Rochester. He received his Master of Arts degree in philosophy in the spring of 1989. He taught philosophy at the University of Rochester during the summer of 1989. He was awarded a University of Rochester Fellowship from September 1986 until December 1990 and the Graduate Dean's Dissertation Fellowship in the Humanities in the summer of 1990. His work on the dissertation was supervised by Ralf Meerbote. His second reader was Robert Holmes.

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ABSTRACT

Kant's central goal in the Critique of Pure Reason is to investigate conditions of the possibility of cognition. He assumes that what is given to us by means of the senses is not sufficient for cognition. The senses yield us only the "raw material" for cognition. It is because of our conceptual apparatus that we are able to determine, or discriminate among, what is presented by the senses.

My main task in the dissertation is to examine Kant's account of the nature of concepts relevant for empirical cognition. Contrary to some recent commentators, like Walsh, and Guyer, I conclude that Kant's account is philosophically defensible and that it has relevance to issues of contemporary concern in epistemology.

Central to Kant's account of the possibility of empirical concepts is his understanding of concepts as rules. Even empirical concepts, like 'table' and 'book', function as rules because of their multiple instantiability. By means of such rules we identify and re-identify items of perceptual encounters and ascribe

to them various properties and relations. However, the employment of such concepts yields cognition only if they are not formed and applied arbitrarily. Instead, those concepts have to be formed and employed in accordance with some rules. Kant argues that categorial concepts, like 'substance' and 'cause', function as meta-rules for the formation and cognitive application of empirical concepts.

Kant further argues that categories are not arbitrary rules. I attempt to clarify and defend Kant's view by comparing categories with Searlean constitutive rules. By means of categories we construct cognizable properties for items of perceptual encounters; they must conform to categories for the reason that only by means of the application of categories can any of them become objects of cognition. It is, thus, the role of constitutive rules of cognition which proves the legitimate right of categories to be employed in cognition.

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CHAPTER I

INTRODUCTION

I.1 Placing Kant's Critique of Pure Reason in the Proper Perspective

"It still remains a scandal to philosophy," wrote Kant, "...that the existence of things outside us... must be accepted merely on faith, and that if anyone thinks good to doubt their existence, we are unable to counter his doubts by any satisfactory proof."¹ These words, quoted from a footnote added at the last moment to the Preface of the second edition of the Critique of Pure Reason, are nowadays better known and more often discussed than what Kant thought are some of the central claims of his work.

The contribution of Kant's Critique to the issues of contemporary concern in epistemology are nowadays often seen through the prism of his answer to the challenge of skepticism. From the time of Moore's famous "Proof of an External World"² there is, one can say, a tendency to regard Kant's endeavor in the Critique as an explicit attempt to refute epistemic skepticism, be it Cartesian, Humean, or both.

What is more, there is a tendency to conclude, together with Strawson³ Bennett,⁴ Wolff,⁵ Stroud,⁶ and Guyer,⁷ that Kant failed to offer a satisfactory solution to the skeptical arguments raised by Descartes and Hume. According to a recent book by Guyer, for instance, Kant is not able to answer successfully the skeptical challenge since he assumes what has to be proved, namely that we do actually have some forms of knowledge.⁸ And if so, Kant fails to refute skepticism even before he begins to develop his complex arguments in the central section of the Critique, the so-called "Transcendental Deduction of the Pure Concepts of the Understanding."

I believe that the approach just outlined prevents us from fairly evaluating and appreciating Kant's contribution by placing his work in a wrong philosophical perspective. This is not to say that the problem of skepticism was not important for Kant; it would certainly be mistaken to claim that. But it is also mistaken, I argue, to maintain that an answer to the skeptical challenge was the central problem of Kant's major work. Let me mention several reasons in defense of my conviction.

To begin with, the centrality of the problem of skepticism in the period from Descartes to Kant was not as high as many philosophers think today.⁹ What we regard nowadays as the skeptical challenge of the Meditations

was treated by Descartes only as part of a more general problem. That is, the skeptical challenge, together with the problem of the origin of our ideas, are for Descartes parts of the problem of (what can roughly be called) the foundations of human knowledge. We neglect or overlook that Descartes himself claimed that his method of doubt has only an instrumental value, rather than having a philosophical significance of its own. As Descartes stated, the method of doubt is designed only as a methodological device which would stimulate further thorough examinations of the foundations of human knowledge.¹⁰

We similarly regard Hume as a skeptic and treat the statements like the one that "all the philosophy ...will never carry us beyond the usual course of experience"¹¹ to support our view. Hume himself, however, thought that the quoted principle is very important for undermining "the foundations of abstruse philosophy, which seems to have hitherto served only as a shelter to superstition, and a cover to obscurity and error." As such, this principle fulfills essentially the negative task of limiting the sphere of the traditional metaphysics and of liberating us from "religious fears and prejudices."¹²

However, even if our reasoning is inadequate to prove or sufficiently justify our beliefs about the existence of external bodies and induction, Hume refuses

to concede skepticism. Nature gives us no choice with respect to such beliefs, argues Hume; we simply have to believe in the existence of bodies and (the validity of) induction. Accordingly, so concludes Hume, it is in vain to raise the question whether or not bodies exist.¹³

I argue that Kant also failed to be preoccupied with the issue of skepticism. In the same manner as his predecessors, Kant often talks about skepticism in terms of a methodological attitude. As an attitude, skepticism is compared with dogmatism and criticism. Kant writes, for instance, that the "skeptic is thus the taskmaster who constrains the dogmatic reasoner to develop a sound critique of the understanding and reason" (A769/B797). He adds at the same place that, although the skeptical procedure has some "preparatory" value, it "cannot of itself yield any satisfying answers to the questions of reason."

Aside from this general reason for not treating Kant's endeavor as being primarily concerned with the issue of skepticism, let me also mention some more specific points which will help us understand what Kant's philosophical perspective really is.

Kant is accused by Guyer, for instance, of trying to refute skeptical arguments by assuming that we do have some forms of knowledge. But does Kant really make this assumption? I argue that an affirmative answer to this

question is based on a fundamental misconception of Kant's philosophical project. One reason for this misconception is partially due to a misunderstanding of Kant's usage of the term 'Erkenntnis'. Kemp Smith, and many after him, has translated this term as 'knowledge'. The problem with this translation in the case which is under consideration here consists in the fact that yet another term, 'Wissen', is also translated as 'knowledge', and that Kant distinguishes between the two.

It is clear that 'Erkenntnis' has a broader meaning than 'Wissen'. 'Erkenntnis' for Kant "consists in the determinate reference of given representations to an object" (B137). 'Wissen', on the other hand, is defined as the highest degree of certainty in 'Erkenntnissen'; it is both subjectively (*i.e.*, for myself) and objectively (*i.e.*, for everyone) sufficient holding-to-be-true (Fürwahrhalten) (A822/B850). The term 'Erkenntnis', although object directed, is neutral in regard to any such qualitative characteristic of certainty. Further, the ground of its holding-to-be-true is simply unspecified or undetermined.¹⁴

The correlate for Kant's 'Wissen' is the English term 'knowledge', insofar as it is understood in the strict sense, *i.e.*, to refer to a true and sufficiently justified belief.¹⁵ The correlate for Kant's 'Erkenntnis' is the English term 'cognition', understood in the

broader sense than 'knowledge'. More specifically, I suggest that Kant's word 'Erkenntnis' be translated as 'cognition', understood to refer to any cognitive belief in general, with no success grammar attached. That is, 'cognition' will be understood as a cognitive belief, be it true or false, sufficiently justified or not. I propose, then, to use 'cognition' for any belief which has a cognitive value.

If this proposal is correct, what Kant really assumes when he claims that we have 'Erkenntnisse' is that we have beliefs with a certain cognitive value. Presumably a more Kantian way to put it is to say that having 'Erkenntnisse' or 'cognitions' amounts to having cognitive judgments. Cognitive judgments are understood here as judgments by means of which we express our cognitive experiences. No skeptic will deny that we actually form and have such cognitive judgments, since merely having them in no way excludes that they all might be false or unjustified or insufficiently justified to count for knowledge. Hence, to assume that all of us have cognitive judgments, as Kant does, is not to assume that we have some knowledge about the world and, a fortiori, is not to beg the skeptical challenge in any way.

I further argue that, what Kant sets as the central goal of the Critique, is to investigate how such

cognitive judgments are possible. Thus, I argue that what Kant sees as the fundamental problem of his project is the problem of how it is possible for us to have cognitions (Erkenntnisse) about the world. Another way to put it is to say that Kant's fundamental problem is to investigate the conditions of the possibility of cognitive judgments.¹⁶ Kant describes the transcendental deduction as a search for the "a priori conditions of the possibility of [cognitive] experience." As Kant also puts it in a more metaphorical manner, the transcendental deduction is a search for the "underlying grounds" of cognitive experience (A95). It is only when Kant thinks that he is able to understand and explain those underlying grounds that he turns to the issue of skepticism. Kant believes that he would be able to show in that way not only that skepticism is mistaken but also to explain why it is mistaken.

The correct interpretation of Kant's central goal in the Critique, then, is not to refute the skeptical challenge but rather to account for the conditions of the possibility of human cognition. But one further remark is required here. Kant explicitly declares that he is primarily interested in the problem of synthetic a priori cognition. However, Kant's conclusions about synthetic a priori cognition have very relevant consequences for his account of empirical cognition. What is more, according

to Kant, the two accounts cannot and should not be entirely separated. Nor is this something that I shall attempt to do. But, unlike Kant, I shall focus my investigation here on his account of the possibility of empirical cognition; thus the title of the dissertation.

I.2 Some Fundamental Assumptions of Kant's Account of Empirical Cognition

The purpose of this section is to introduce some of the basic assumptions of Kant's project in the Critique of Pure Reason and offer a preliminary justification of them. Those basic assumptions are at the same time the basic assumptions of Kant's account of the possibility of empirical cognition. This preliminary consideration will help us to specify the main problem of this essay even more precisely.

The best way of introducing Kant's basic assumptions in the Critique is, I believe, to quote the opening paragraphs of the Introduction of the second edition. There Kant maintains that,

There is no doubt that all our cognition begins with experience, for how should the faculty of cognition be awakened to [its] exercise, were it not through objects which touch our senses and on the one hand on their own produce representations and on the other hand move our capacity of the understanding to compare these representations, to combine or to

separate them, thereby working up the raw stuff of sensory impressions into that cognition of objects which is called Experience? In the order to time, therefore, there is no cognition in us prior to experience, and with experience all our cognition begins.

But even though all our cognition begins with experience, not all [cognition] arises out of experience. For it may well be that even our empirical cognition is a composite of that which we receive through impressions and of that which our own cognitive capacity (merely occasioned by sensory impressions) supplies from itself. Such an addition we do not distinguish from the raw stuff until extended practice has called our attention to it and has made us adept in separating it out.¹⁷

Let me first provide some terminological clarifications. The word 'representation' is here used in a broad sense, to refer both to sensory impressions as well as concepts, even though Kant does not explicitly mention concepts in the quoted passages. Further, by 'manifold of representations' in general Kant understands any variety of perceived, remembered, imagined, or conceptualized data.

Consider now the contrast between sensibility and understanding in the quoted text. Sensibility is for Kant passive or receptive; "it is a capacity of receiving representations" (A51/B75). Understanding is used here in a very generic sense, to refer to all our cognitive capacities which stand in opposition to the receptivity of the senses.¹⁸ Understanding is conceived of as being self-active or spontaneous; it is "the mind's capacity of producing representations from itself" (A51/B75).

It is one of Kant's intentions in the quoted passages to indicate that sensibility is insufficient for cognition; in order for us to have cognition, sensibility and understanding should "work together." These two capacities, claims Kant, "cannot exchange their function. The understanding can intuit nothing, the senses can think nothing. Only through their union can cognition arise" (A51/B75).

Kant introduces the notion of intuition as follows: "In whatever manner and by whatever means a cognition may be related to objects, intuition is that through which it is in immediate relation to them" (A19/B33). He further argues that we are so constituted that our intuition can never be other than sensible. Our understanding cannot intuit and can "merely" think; this is why Kant calls it "discursive" (A68/B93). I shall draw some further contrast between intuitions and concepts in the next chapter, section II.2.

Let us now be more specific about the respective functions or roles which sensibility and understanding play in empirical cognition. Kant defines sensibility as the capacity for passively receiving sense impressions through the mode in which we are affected by objects. There are two important points to be mentioned in connection to this view.

The first point is that Kant argues that objects can

be given to us only if our senses are affected by them. This leads him to the view that by means of the senses we can represent objects only as they appear to us in accordance with the peculiar constitution of our sensibility. Such objects, which Kant accordingly calls appearances, cannot appear to us as they are (considered) in themselves, apart from the conditions of our sensibility (cf. A19-20/B33-34).

The second important point is that what is given to us by means of the senses is, according to Kant, only a passively received "raw stuff" of unrelated and unconnected representations. This raw stuff is conceivably no more than a stream of discrete and single impressions which lack any connection. Kant thus holds that, although indispensability and temporal priority of our sense impressions cannot be denied, such sense impressions have no cognitive value. In order to have empirical cognition, our fragmentary sensible representations have to be taken up and connected. As Kant puts it in a later part of the Critique, combination (conjunctio) of a manifold of representations in general can never be given to us through the senses (B130). Thus, although affection of the senses is necessary for our empirical cognition, it is by no means sufficient.

But affection of the senses occasions the employment of our cognitive capacities. Kant maintains that all

cognition requires thinking, that is, combination of the raw material of the senses. As Kant puts it, all combination is an act of the understanding (B130).

The act of combining a manifold of representations in general Kant calls 'synthesis'. He describes synthesis in general as "an act of the self-activity of the subject" (B130), and also as "the act of putting together, and grasping what is manifold in them in one [act of] cognition" (A77/B103). What Kant wants to explain in the transcendental deduction is how cognitive synthesis is possible and what it consists of. As a preliminary description we can say here that cognitive synthesis is a synthesis conducive towards cognition; it is a kind of synthesis which gathers the elements for cognition and combines them to form a certain content (A78/B103). Another important feature of cognitive synthesis is that it combines the elements for cognition into a concept of an object; "we cannot represent anything to ourselves as combined in the object," claims Kant, "which we have not ourselves previously combined" (B130).¹⁹

It is only in the next two chapters that I shall be able to offer a full support for Kant's views exposed here. However, I shall offer a partial support for Kant's views with a few historical remarks. Even Locke would admit that in cognizing an idea of, say, a simple

qualitative property, a cognitive subject is not completely passive. He has to notice that a number of sense representations are alike in some respect and to decide to classify some further, or future, sense representations according to whether they resemble the original ones in that particular respect.²⁰

Hume noted that in our cognitive judgments of objects something is involved different from merely comparing and classifying sense representations in the way Locke describes. Our comparing and classifying sense representations does not simply reveal the order which would be given to us.²¹ It is rather that in comparing and classifying we have to supplement what is given to us with contents of memory and with acts of imagination. Although we, for instance, 'perceive' ordinary objects as being permanent and as being causally connected, we cannot find any sense representation which is an impression of substance or of the necessary connection between cause and effect. No such combination, argued Hume, is given to us in an act of sense perception. It is rather that the given manifold occasions our faculties to associate various representations together in a certain particular manner.²²

Following Hume, Kant claims that, in order to have empirical cognition, the raw stuff of sensory impressions has to move and arouse our cognitive capacities to bring

together, compare, and combine various representations (B130). Although Hume and Kant concede to Locke that, in order to have empirical cognition, we must be pathologically affected, it is not the case that we are thereby pathologically necessitated in our perceiving of, and judging about, the state of affairs. It is rather that our cognitive judgments are at least partially independent of the impulses of the senses.²³ It is the nature of this independence, as well as some important differences in Hume's and Kant's views, that will be considered in detail in the next two chapters.

I.3 Concepts and Their Role in Empirical Cognition

In order to describe the central problem of this essay even more precisely, let me return to Kant's claim that all cognition requires and involves thinking. When, for instance, we sense a colored patch and recognize it as red, we are already supplementing our sense impression by an intellectual activity. To put it somewhat differently, what we are presented with by means of the senses are mere appearances, which Kant defines as undetermined objects of empirical intuition. It is due to our conceptual apparatus that we are able to determine, or discriminate among, between what is presented to the senses. 'Determination', as the specific

contribution which our cognitive faculties make to cognition, will be explained in the next chapter, section II.6.

It is not the nature and role of intuition in empirical cognition which will be my primary concern here. Instead, I shall focus on the nature and function or role of concepts relevant for empirical cognition. But before I begin with the consideration of this subject, let me make a few remarks about what I think are some of the implicit underlying assumptions in Kant's discussion of the role of concepts in empirical cognition.

Roughly, it is on the basis on one's ability to recognize and classify items of perceptual encounters, and being able to report, describe, and reason about them, that we attribute to that person possession of the concept of the item. For instance, a person who possesses the concept of redness must be taken to know how to use the word 'red'.²⁴

Further, we do not possess isolated concepts; possession of one concept usually requires possession of some other concepts. To have the concept of redness requires, for instance, to have a concept of color in general. The ability to apply 'red' to all and only red surfaces and items is connected with an ability to withhold 'red' in the presence of surfaces and items

which are of some different color, as well as in cases of something not possessing any color at all. The ability to know when it is appropriate to apply a certain concept involves the ability to know when it is not appropriate to apply that concept. Another way to put it is to say that a person's manifest possession of a particular concept entitles us to ascribe possession of further concepts to the same person. A person's manifest possession of the concept of redness, for instance, entitles us to ascribe possession of other color concepts, different from redness, as well as some non-color concepts.

We do not only possess a cluster of related concepts. Rather, our concepts constitute a certain hierarchy in which various priorities are established. One such priority obtains in terms of relations of dependence and consequence which hold between various concepts. A person's manifest possession of several concepts requires that that person has at least a certain grasp of some of these relations. According to the logical order between our concepts, they can be classified into different kinds of concepts. For instance, our concepts can be classified according to the degree of their generality.²⁵

I shall not consider in this essay all kinds of concepts, but only those which play a role in empirical

cognition. Thus, I shall not consider concepts like 'good' and 'beautiful', which are relevant for ethical and aesthetical discourses which Kant takes to be non-cognitive. But I shall treat extensively Kant's views of empirical and categorial concepts. It is self-evident that empirical concepts should be a part of an account of the possibility of empirical cognition. But it is much less clear that categorial concepts have also a very important role in cognition. Let me for that reason add a few explanatory remarks here.

Generally speaking, for Kant categories are non-empirical concepts, some examples of which are 'substance' and 'cause'. In the history of philosophy one can find many discussions about the origin and significance of these and similar concepts. For instance, the word 'category' is Aristotelian in origin, and Kant refers at several places to Aristotle.²⁶ But it is Plato to whom Kant should also refer; Plato pointed out in the Theaetetus that there are some 'common notions' which are not grasped or given to us by any of our senses. They are apprehended by the "soul acting by itself," and Plato's examples of these common notions are 'being' and 'not being', 'sameness' and 'difference', and some others.²⁷ Plato's consideration of common notions is interesting because he thought that without the application of some of these concepts there can be no judgment and knowledge.

But it was neither Plato nor Aristotle who woke up Kant from his "dogmatic slumber;" it was Hume's criticism of the causal principle. According to Kant, Hume challenged reason

to answer him by what right she thinks anything could be so constituted that if that thing be posited, something else also must be necessary posited; for this is the meaning of the concept of cause.²⁸

Kant adds that Hume concluded that the concept of cause

was nothing but a bastard of imagination, impregnated by experience, which subsumed certain representations under the law of association and mistook a subjective necessity (habit) for an objective necessity arising from insight. Hence he inferred that reason had no power to think such combinations, even in general, because her concepts would then be purely fictitious and all of her pretended [synthetic] a priori cognitions nothing²⁹ but common experiences marked with a false stamp.

Kant extends Hume's criticism to all other concepts which he considers to be categorial,³⁰ and states that categories have "pure a priori employment and their right to be so employed always demands a deduction" (A85/B117). This is so, thinks Kant, because these concepts do not originate in experience and, thus, we are faced by the problem of how these concepts can relate to objects. Notice that, although Kant's solution of this problem has significant consequences for his refutation of skepticism, the problem with which Kant deals is not by itself the problem of skepticism.

The explanation of the manner in which concepts can be related a priori to objects Kant calls their 'transcendental deduction' (A85/B117). Deduction of the categories is called 'transcendental', as opposed to 'empirical', because it is not concerned with the way in which we acquire these concepts; instead, it is concerned with their functioning as an a priori ground of cognition (cf. A56/B80-81).³¹ What Kant attempts to demonstrate in the transcendental deduction is that categorial concepts have a very significant unifying function with respect to the cognitive synthesis of the manifold given in intuition.

I shall argue that this view of the function of categories, which is one of the most controversial parts of Kant's doctrine, is at the same time Kant's most important contribution to the subject. I shall, therefore, attempt to show that Kant is correct in ascribing such an important role to categorial concepts. Moreover, I shall also argue that Kant's overall account of the possibility of empirical cognition is philosophically both defensible and interesting. After defending Kant's account of the possibility of empirical cognition in chapters II and III, I shall in chapter IV briefly outline the relevance of Kant's account to some issues of contemporary concern in epistemology and ontology.

I.4 Endnotes for Chapter I

1. I. Kant, Critique of Pure Reason, Bxxx. All subsequent references to the Critique will be given in the text in accordance with the standard pagination, where 'A' refers to the first and 'B' to the second edition. Unless otherwise noted, all quotations from the first Critique will be given in accordance with Norman Kemp Smith's translation. However, I shall everywhere translate 'Erkenntnis' as 'cognition' and not as 'knowledge', as Kemp Smith does. Some reasons for it will be given in I.1.

The reference to all other works by Kant will be given in accordance with the Academy edition of Kant's collected works. Where a standard English translation is available, a reference will be given to it as well.

2. George E. Moore, Philosophical Papers, pp. 127-50.

3. Peter F. Strawson, The Bounds of Sense, chs. I and IV, passim.

4. Jonathan Bennett, Kant's Analytic, pp. 101ff.

5. Robert P. Wolff, Kant's Theory of Mental Activity, pp. 84-104.

6. Barry Stroud, The Significance of Philosophical Scepticism, chs. I and IV.

7. Paul Guyer, Kant and the Claims of Knowledge, chs. 3-5.

8. Guyer, op. cit., pp. 79, 91.

9. This thesis has been convincingly defended by Louis Loeb; see his From Descartes to Hume, pp. 25ff.

10. Descartes claims, for instance, that "although the utility of a doubt which is so general does not at the first appear, it is at the same time very great, inasmuch as it delivers us from every kind of prejudice, and sets out for us a very simple way by which the mind may detach itself from the senses;" The Philosophical Works of Descartes, eds. E.S. Haldane and G.R.T. Ross, vol. 1, p. 140.

11. David Hume, An Inquiry Concerning Human

Understanding, p. 17.

12. Hume, op. cit., ibid. See also Manfred Kuehn's article "Kant's Transcendental Deduction: A Limited Defense of Hume," New Essays on Kant, ed. Bernard den Ouden pp. 47-72, for an account of how Kant understood Hume's alleged skepticism.

13. Hume, A Treatise on Human Nature, book I, part IV, pp. 180-86.

14. The distinction between 'Erkenntnis' and 'Wissen' is clarified by Wolfgang Schwarz; see the glossary added to his translation of the Critique of Pure Reason, p. 263. The thesis that Kant makes a significant distinction between 'Erkenntnis' and 'Wissen' is also supported by Kant's making a distinction between several "degrees" of cognition; cf. Lectures on Logic, Ak. IX, pp. 64-65 (Intro. VIII).

15. By saying that knowledge is a true and a sufficiently justified belief, I intend to avoid some problems for the traditional understanding of knowledge which arise as a consequence of Gettier's counterexamples.

16. Kant's usage of the word 'condition' is a source of many controversies. What is especially troublesome about it is that Kant presumably does not use that word in the way we usually do nowadays. As Gordon Brittan has convincingly shown, by 'conditions' of cognition Kant means neither necessary nor sufficient conditions. I believe that Brittan has captured Kant's idea by interpreting 'conditions' of cognition as 'presuppositions' of cognition; for more details see his Kant's Theory of Science, pp. 30ff.

17. The quoted passages are translated by Ralf Meerbote; the emphasis is also his. By 'Experience' (with the capital 'E') he refers to cognitive experience, i.e., experience which results from a cognitive process, as opposed to 'experience' which is not a result but only the initial stage of the cognitive process.

18. We know from other parts of the Critique that, for instance, imagination (cf. A78/B103), faculty of judgment (Urteilkraft; cf. A132-34/B171-73), and reason (cf. A299-302/B355-59) have to be taken into consideration as well.

19. For an attempt to define the notion of synthesis

see Patricia Kitcher's "Kant on Self-Identity," Philosophical Review 91 (1982), pp. 53-54. For a more detailed account of Kant's notion of synthesis see chapters 2 and 3 of her Kant's Transcendental Psychology.

20. John Locke, An Essay Concerning Human Understanding, book II, chapter 11, section 9.

21. Hume, Inquiry, p. 44.

22. Op. cit., loc. cit.

23. Kant claims, for instance, "When an appearance is given to us, we are still quite free as to how we should judge the matter;" Prolegomena, Ak. IV, p. 290; Beck, p. 38.

24. My account of concepts in this and two next passages is mostly based on A.C. Grayling's The Refutation of Scepticism, pp. 51ff, and Peter Geach's Mental Activity, par. 5.

25. See Kant's Lectures on Logic, Ak. IX, pp. 96-98 (sections 9-13).

26. Cf. A79-81/B105-07; Prolegomena to Any Future Metaphysics, Ak. IV, p. 322 (sec. 39); Beck, p. 70; Letter to Markus Herz, February 21, 1772, Ak. X, p. 132, Zweig, p. 73.

27. Plato, Theaetetus, 184-86. For an explanation of the significance of Plato's view for Kant, see W.H. Walsh, Reason and Experience, pp. 107-08.

28. Kant, Prolegomena, Ak. IV, 260; Beck, p. 8.

29. Op. cit., Ak. IV, 257-58; Beck, pp. 5-6.

30. Kant's "table of categories" contains twelve categories which are classified under four headings:

- (1) categories of quantity: unity, plurality, totality;
- (2) categories of quality: reality, negation, limitation;
- (3) categories of relation: of inherence and subsistence (substantia et accidens), of causality and dependence (cause and effect), of community (reciprocity between agent and patient);
- (4) categories of modality: possibility - impossibility, existence - nonexistence, necessity - contingency.

This table includes the list of all original pure concepts of understanding that, in turn, have their pure derivative concepts which Kant calls "predicables" (A80-

82/B106-108).

31. For some other and more detailed accounts of the transcendental deduction as it is stated in section 13, see Hans Vaihinger, "The Transcendental Deduction of the Categories in the First Edition of the Critique of Pure Reason," in Kant: Disputed Questions, ed. Moltke S. Gram, pp. 25-63; H.J. Paton, "Is the Transcendental Deduction a Patchwork?," also in Gram, pp. 64-93; Norman Kemp Smith, A Commentary to Kant's "Critique of Pure Reason", pp. 220-221; H.J. Paton, Kant's Metaphysics of Experience, vol. 1, pp. 313-335.

CHAPTER II

KANT ON EMPIRICAL AND CATEGORIAL CONCEPTS

II.1 Introduction

Kant argues that categorial concepts, i.e., concepts like 'cause' and 'substance', play a very significant role in empirical cognition. More specifically, categorial concepts have a significant unifying function with respect to the cognitive synthesis of the manifold given in intuition. This thesis has often been questioned and criticized by commentators. One of them, W.H. Walsh, claims in his famous paper, "Categories," that he cannot find any successful argument in Kant which will demonstrate that the function assigned to categories with respect to the cognitive synthesis of the manifold given in intuition cannot be performed by empirical concepts alone.¹ And since in empirical cognition, discursive empirical concepts such as 'tree' and 'red', have to be employed, Kant simply cannot defend his view. That is, Walsh claims that Kant cannot demonstrate the necessity of the use of categorial concepts for the cognitive synthesis of the manifold given in intuition.

This line of criticism has often been raised against

Kant, and it deserves serious attention for two reasons. First, although Kant argues that categorial concepts are necessary for the possibility of cognitive experience, he hardly ever says anything explicit on the mutual relationship of empirical and categorial concepts. Kant neglects this issue and develops his main arguments in different terms. Second, Walsh's criticism attacks the very heart of Kant's view; if Walsh is correct, Kant would have to accept a version of empiricism or, perhaps, a version of skepticism.

Answering this criticism of Kant will be our main concern in this chapter. In order to show that the objection is not correct, I shall first consider Kant's general view on the nature of discursive concepts and then concentrate on Kant's view on the mutual relationship of empirical and categorial concepts. To anticipate, it will turn out that we have to account for the formation, as well as cognitive application of empirical concepts. The employment of empirical concepts can yield cognition only if they are formed and applied in a non-arbitrary manner, in accordance with some rules. It will also turn out that categorial concepts are those rules required for the formation and cognitive application of empirical concepts. If correct, this conclusion will demonstrate that categorial concepts do play an important role in empirical cognition and, eo

ipso, that Walsh's objection to Kant is not justified.

II.2 Kant on the Nature of Empirical Concepts

Let us first consider Kant's view on the nature of discursive concepts, paying a special attention to empirical concepts. A good way to approach Kant's general view on concepts is to contrast concepts with empirical intuitions. Roughly speaking, for Kant empirical intuition is not very different from affection and is not cognitive; empirical intuition consists in the mode in which we are affected by objects.

What is common for intuitions and concepts is that both are claimed to be species of representations (A320/B376-7). However, unlike some of his predecessors who thought that the difference between intuitions and concepts consists in a degree of, say, distinctness (Leibniz) or vividness (Hume), Kant attempts to show that they are different in kind.

One of the major differences consists in the fact that intuitions are singular representations, representations of a particular object, and concepts are general or universal representations, representations of what is common to many (different) objects.² All concepts share the feature of being multiply instantiable, and this generality of concepts is what Kant calls the

logical form of concepts (A239/B298; A320/B377).

Another difference to emphasize between intuitions and concepts is that the former relate to their objects directly or immediately (A19/ B33), while the latter relate to their objects mediately.³ Concepts can relate to their objects only by means of properties or characteristics which are also predicable of other objects falling under concepts. Concepts do not involve or contain all the characteristics of the objects that fall under them, that is, they omit some particular characteristics with respect to which the objects may still differ from each other. (A68/B93). For this reason concepts are always mediately related to their objects, no matter how specific concepts become; even an infinitely specific concept, if there were such, would still relate to an object only mediately.⁴ Kant expresses this idea by pointing out that every genus requires diversity of species, and every species in turn requires diversity of subspecies. However, continues Kant, although there must be the highest concept(s),

there is no lowest concept or lowest species in the series of species and genera under which yet another would not be contained, because it is impossible to determine such a concept. For even if we have a concept that we apply immediately to individuals, there may still be present in respect of it specific differences which we either do not notice or disregard.⁵

Our concepts, thus, have lesser or greater

generality, or extension, and, by means of their generality, range over kinds of objects. That is, our concepts are concepts of kinds. I shall return to this point in the following sections.

Further, whereas all empirical intuitions are based on the receptivity of impressions, that is, whereas they "rest on [the] affection" of our senses, Kant maintains that concepts are based on the activity of thought or, as he puts it, they "rest on functions" (A68/B93). By "function" Kant means "the unity of the act of bringing various representations under one common representation" (A68/B93). Kant adds that concepts as functions are designed to serve a certain end, which is not the case with empirical intuitions. One of Kant's ideas here is that there is a fundamental difference between our intuitions and concepts in that that, while intuitions are "given to us," concepts are made with respect to their generality. Kant states that the generality feature of concepts is not simply given but is to be made by the activity of thought.⁶

Another very important statement that Kant makes with respect to concepts is that concepts function as rules. With respect to its logical form or generality, claims Kant, "every concept is something universal which serves as a rule" (A106). Every concept functions as a rule for an intellectual combination and organization of

the manifold given in intuition into one unity. Kant illustrates this thesis by saying that "the concept of a body as the unity of manifold which is thought through it, serves as a rule of our cognition of outer appearances" (A106).

Yet another common feature of concepts is that, according to Kant, cognitive application of concepts (if they are capable of having any cognitive application) is to be viewed as their application in cognitive judgments. He conceives of concepts as "predicates of possible judgments" (A69/B94). Kant even claims that "the only use which the understanding can make of these concepts is to judge by means of them" (A68/B93). While intuitions provide the sensible material for judgments, concepts provides rules in accordance with which this material is combined and united in judgments.

These are, then, the common features which all concepts share because of their form. To summarize, concepts are representations which are multiply instantiable, which relate mediately to objects, and which are all made with respect to their logical form or generality. Furthermore, they are representations which function as rules for the unification of some given manifold, and which find their application in judgments.

This view on concepts, which emphasizes that concept functions as rules, already indicates that Kant radically

departs both from his empiricist and rationalist predecessors. For Kant concepts are not regarded as, for instance, "faint copies" of some previous sensory impressions of objects. Neither are concepts conceived of as somehow "more distinct" ideas, although still in the same continuum as sense ideas.⁷ These differences will be more fully discussed in the later sections, when we address the problem of the formation of empirical concepts.

Kant maintains that in every concept we have to distinguish between 'logical form' and 'matter'. In the Lectures on Logic Kant simply states that the matter of a concept is "its object,"⁸ without clarifying what he means by that. What Kant makes clear, however, is that, unlike logical form or generality of concepts which is always made, with respect to their matter concepts can be either given or made. In the Critique Kant does not discuss concepts made with respect to their matter at any great length. It is clear, nonetheless, that Kant believes that mathematical concepts are good examples of concepts made with respect to their matter. Kant argues that objects of mathematical concepts are constructed in pure intuition (cf. A729/B757).

In the Transcendental Analytic Kant is more interested in concepts given with respect to their matter. He makes it clear that matter of concepts can be

given either a priori or a posteriori. In the former case, the material for concepts "has its origin in the understanding alone" (A320/B377). Concepts which have (or: are made of) a priori given matter are called by Kant 'pure concepts'. In the latter case, concepts are "made out of given appearances as their matter."⁹ That is, their matter is the manifoldness of objects, the undetermined and raw stuff, given in empirical intuition (A20/B34; cf. A359, A234/B286). Concepts made of such material are empirical concepts.

Let me make here an additional remark about Kant's claim that the matter of a concept is its object. Kant obviously maintains that the matter of empirical concepts is the raw material of cognition provided by sensation. Since he also says that it is "the real in appearance" (A581/B609), I take this to mean that an object Kant talks about in connection with the matter of empirical concepts is not an intentional object. As the real corresponding to sensation, such an object provides a significant existential import. However, although I believe that the above sketched interpretation of the matter of empirical concepts might be on the right track, we do not have to conclude that this is all Kant means by 'matter'. My reason for caution is based on some of Kant's claims in the "Anticipations of Perception," where Kant sometimes treats 'matter' as being intentional or,

perhaps more precisely, as having an intentional element (cf. A166-76/B207-18).

There is a dispute among Kant commentators whether matter of empirical concepts has an intentional element or is wholly non-intentional.¹⁰ It is not so relevant for my endeavor here how this dispute is to be solved and I shall not attempt to do so. What is important for us here is to understand that by matter of empirical concepts Kant means an undetermined and raw material given by means of the senses, be it intentional or not.

Besides talking about 'generality' and 'matter' of concepts, Kant also discusses 'content' of concepts. Content is defined in terms of intension of concepts, i.e., as that which is thought in a concept. Thus, the content of a concept is that which we think, or that which we conceive in it (A654/B683).

Kant maintains that objects are given to us in intuitions, and that they are thought in concepts. By 'object' which is thought in a concept, Kant means an object to which that concept is applicable and which we are able to individuate and identify as given to us in intuition by means of various characteristics or properties.¹¹ It is for this reason that Kant often talks of 'content of a concept' in terms of characteristics or properties that are thought in the concept (A8/B12).¹² For instance, 'extension', 'impenetrability', and

'figure' are among the properties which we think in the concept of 'body'. A property is defined by Kant as

that in a thing which makes up part of its cognition, or - which is the same - a partial representation so far as it is considered¹³ as cognitive ground of the whole representation.

A property of a concept is conceived of (i) as a representation itself, and (ii) as belonging qua partial concept to the whole representation of an object (thing). The concept of 'body' is "a concept solely by virtue of its comprehending other representations by means of which it can relate to objects" (A69/B94). Moreover, a property is conceived as (iii) a ground of cognition of that thing.¹⁴ Kant's idea is that we cognize things only by means of common properties; our cognition takes place through representations which are common to several objects.¹⁵ It is by means of properties, for example, that we can identify and re-identify a certain object, and also discriminate it from any other object.

In the case of empirical concepts there are (infinitely) many properties, which are changeable and cannot serve as a ground for a complete definition of those concepts. Thus Kant says that,

[I]n the concept of gold one may think, in addition to its weight, color, malleability, also its property of resisting rust, while another will perhaps know nothing of this quality. We make use of certain characteristics only so long as they are adequate for the purpose of making distinctions; new observations remove some properties and add others (A728/B756).

From the quoted passage we see that Kant believes that properties are that which makes it possible for various subjects to understand each other when they use a word which stands for a particular concept. Properties provide a convenient way of organizing and classifying our cognition. Let us also mention that properties can be of various kinds and quality; Kant mentions analytic and synthetic, coordinate and subordinate, affirmative and negative, important and unimportant, as well as sufficient and necessary or insufficient and contingent properties.¹⁶

Having made some preliminary distinctions between 'generality', 'matter', and 'content', let us now consider briefly the mutual relationships of these various aspects of on the case of empirical concepts. By contrasting logical form of empirical concepts with empirical intuitions we have already outlined the relation between the generality and the matter of empirical concepts. It is clear that Kant insists on a gap between the singularity and immediacy of passively received empirical intuitions and the generality and mediacy of actively made representations which serve as rules for the unification of manifold given in empirical intuition. It remains to be seen how this gap is to be closed.

Another important issue for an account of Kant's theory of empirical concepts is to explain the relation between matter and content of those concepts. What is prima facie troublesome here is how to explain Kant's usage of these terms. While at several places in the first Critique and Lectures on Logic Kant uses the terms 'matter' and 'content' synonymously,¹⁷ at the others he clearly does not.¹⁸

I argue that Kant should not have used these terms synonymously for the following reason. If matter and content of concepts were synonymous, it would follow that, for instance, empirical concepts (such as 'red' and 'tree') are given with respect to their content (and that they are made only with respect to their logical form). And although Kant sometimes gives the impression that this is what he wants to maintain,¹⁹ this implication is unacceptable.

It is Kant's critical view that a mere having a raw material of the senses does not amount to having an empirical concept; the raw material, that is, the matter, has first to be appropriately combined. Intuition of objects is not 'responsible' for any such combination and, thus, cannot be 'responsible' for the content of empirical concepts. The act of bringing together and combining some manifold given in intuition Kant calls 'synthesis'. (A77/B103, B129-30). Synthesis is an

intellectual activity of a subject and it is by means of synthesis that various sensible elements are combined into a certain content; synthesis is responsible for all content (cf. A77/B103). In the same spirit Kant maintains even in the Lectures on Logic that properties are not simply given, but have to be obtained by means of synthesis.²⁰

Thus, I suggest a departure from the practice of several commentators of using 'content' and 'matter' of concepts interchangeably,²¹ and recommend instead that we consider all empirical concepts to be made with respect to their content, in contrast to their raw material, or their matter, which is given by means of the senses. In order to avoid some possible misunderstandings, in the following I shall refer to the content of empirical concepts obtained by means of synthesis as discursive content.

It will turn out that the difference between the matter and the discursive content of an empirical concept is a difference between an unconceptualized object and a conceptualized object or, to put it in another way, between an undetermined object of empirical intuition and a determined object of cognition. There are many places in the first Critique which support this reading, and I shall argue in the following that this is the correct interpretation to adopt. Moreover, I believe that this

distinction is another major point in which Kant significantly differs from his predecessors.

Finally, we are left with the relationship between discursive content and generality or logical form of empirical concepts. In the following sections we shall discuss it in more details; here I shall only briefly mention some main points. It has already been said that discursive content of empirical concepts is made by means of synthesis, that is, that synthesis is responsible for all discursive content (A77/B103). The synthesis in question can never come to us through senses, nor can it be contained in the pure form of intuition (B130). Such synthesis is a reflective activity of a subject which is performed in accordance with certain rules (A121-22; B134-35).

Kant believes that generality of concepts is one of the species of form (required for the cognitive synthesis of the given manifold) and that, moreover, this generality is introduced by a subject to help guide the cognitive synthesis of the manifold given in intuition (A86/B118). According to this view, then, the discursive content of an empirical concept is a result of the cognitive synthesis of the raw material given in intuition, i.e., the matter, by means of some form which guides the synthesis of the given matter. It is in connection with this notion of form relevant for

cognitive synthesis that categorial concepts are brought into consideration.

II.3 Kant on the Nature of Categorial Concepts

Let us now present briefly Kant's view on the nature of categorial concepts. Kant clearly maintains that categories are non-empirical concepts, i.e., concepts which do not have empirical origin. He further holds that categorial concepts are not innate either. However, when Kant has to say what their origin is, his language is highly metaphorical. Kant says that categories "spring, pure and unmixed, out of the understanding" (A67/B92), and that the understanding is "their birthplace" (A66/B90-91). The understanding "contains within itself" categories (A80/B106), where "they lie prepared, till, at last, on the occasion of experience, they developed, and by the same understanding are exhibited in their purity, freed from the empirical conditions" (A66/B90-91).

Some of the mystery concerning the origin of categories is supposed to be removed in the so-called metaphysical deduction. In Kant's own words, there "the a priori origin of the categories has been proved through their complete agreement with the general-logical functions of thought" (B159).²² (More will be said of the metaphysical deduction in the next chapter, section

III.2.) However, even the account in the metaphysical deduction is not without its own serious problems and there are places where Kant clearly indicates that some questions about the origin of categories resist further explanations (cf. B145-46).

And yet Kant's failure to explain the origin of categories need not be an important obstacle for his overall position, since the problem of their origin is not his primary interest. It becomes clear in the introduction to the transcendental deduction, in section 13 of the Critique of Pure Reason, that the question of origin, or derivation, of categories is not at all the central problem of the status of categorial concepts. What is central is the question of the role or function which they play in cognition. Kant introduces this shift by praising and criticizing Locke at the same time. We are indebted to Locke for opening out a new line of enquiry of how the understanding "advances from particular perceptions to universal concepts" (A86/B119). However, although such an enquiry is important for empirical concepts, Locke did not pay sufficient attention to the peculiar nature of categorial concepts.

What we said about the logical form of empirical concepts holds for categorial concepts as well, except that categorial concepts are always of higher generality than empirical concepts. Kant asserts that categorial

concepts are universal;²³ unlike empirical concepts, however, categories are not concepts of this or that kind of things or objects, but, we can say, formal concepts. That is, categories are initially introduced as rules of the pure thought of an object (A55/B80). As Kant also puts it, categories are concepts which contain only the form of thought of an object (A51/B75).²⁴

Understood in a generic sense, and not only in the narrow sense in which it is understood as generality or logical form, 'form' is for Kant that which brings about that the manifoldness of objects, is organized and ordered in particular relations. While the manifold which is to be ordered is always given a posteriori, that which orders the manifold given in intuition, i.e., form, cannot itself be so given and is a priori (cf. A20/B34).

Categories are for Kant concepts which serve as a priori rules for combination and unification of the raw material given in intuition. As we shall attempt to demonstrate later, categorial concepts function as rules for non-arbitrary and law-like synthesis of the raw material given in intuition. They function as rules by means of which such raw material is determined in respect of its quality, quantity, relation, and modality.

Since categories are, as we have said, formal concepts, it would not be quite appropriate to distinguish in respect of categories between 'logical

form', 'matter', and 'content', at least not in the same sense in which these terms were described and distinguished in case of empirical concepts. No manifoldness of objects given in empirical intuition serves as the matter of categorial concepts; categories are not derived from experience.

Kant presumably holds that the matter of categorial concepts is given a priori. In spite of that, some manifoldness of objects given in intuition is needed, according to Kant, to stimulate and occasion their production. The manifoldness of objects occasions the application of what are said to be "rules of pure thought of objects." These rules of pure thought have to be applied as rules for the cognitive synthesis of some manifold given in intuition. Kant's point, as we shall see, is that it is by means of such application of categories that we can explain how empirical concepts (like 'book' and 'tree') can get both their discursive content and their generality. As rules of cognitive synthesis of some given manifold, categories make possible "a transition" from undetermined objects of empirical intuition to fully determined and discriminated objects, i.e. objects of cognition. It is for this reason that (schematized) categories are concepts of 'objects of cognition'. (This phrase will be clarified in some of the later sections, section II.6, and this

feature of categorial concepts will turn out to be important for the resolution of Walsh's objection.)

Thus, the central question with respect to categories is not: Can we discover in the understanding the "birthplace" of categories where they lie prior to any experience? It is rather the question: Can we demonstrate that an employment of categorial concepts is necessary for the cognitive synthesis of the manifold given in intuition?²⁵ This is what Kant claims to be able to demonstrate, and what Walsh denies.

II.4 Problem of the Formation of Empirical Concepts

Having made some useful preliminary distinctions in the two previous sections, I shall attempt to show in the remaining sections that Walsh's objection to Kant is incorrect. Walsh thinks that Kant is mistaken in maintaining that categorial concepts have a necessary role to play in the cognitive synthesis of the manifold given in intuition. Walsh furthermore argues that such a synthesis can be performed by means of empirical concepts alone. In order to demonstrate that Walsh's criticism of Kant is incorrect, I shall consider Kant's view of how we form and apply empirical concepts. Here are some reasons

for this.

As we have already mentioned, Kant's understanding of concepts as rules is very important for his overall account of the possibility of empirical cognition. Empirical concepts, like 'book' and 'tree', function as rules because of their generality, i.e., multiple instantiability. By means of such rules we combine and organize the manifoldness of objects given in intuition; subsequently, by means of rules we ascribe to those objects various properties and relations. It is on the basis of such properties and relations that we are able to identify and re-identify objects.

Empirical concepts can, of course, be formed and employed for various reasons and in various ways. For instance, they can be formed and employed in an arbitrary manner. However, Kant focuses his attention to cases when we have a cognitive interest in the formation and employment of concepts. He realizes that the employment of empirical concepts can yield cognition only when they are not formed and applied arbitrarily. Instead, those concepts have to be formed and applied in accordance with certain rules of their own. Kant further argues that categorial concepts function as meta-rules for the formation and cognitive application of empirical concepts.

Thus, Kant's idea is that categorial concepts are

required for the formation and cognitive application of empirical concepts. This will show that, eo ipso, categorial concepts are required for the cognitive synthesis of the manifold given in intuition and that Walsh is wrong.

I argue that an account of how we form and cognitively apply empirical concepts is at the heart of Kant's account of the possibility of empirical cognition.²⁶ Kant claims, for instance, that

Experience contains two very dissimilar elements, the matter for cognition from the senses, and a certain form, for the ordering of this matter, from the inner source of pure intuition and thought which, on the occasion of the former, are first brought into action and yield concepts (final emphasis added; A86/B118).

'Experience' here means 'cognitive experience' or 'empirical cognition'. Cognitive experience contains the matter, the raw material given in empirical intuition, as an essential ingredient. But this ingredient, although necessary, is in itself insufficient for cognition, and there can be no cognition if the matter is not organized and ordered by means of a certain form.

This form required for empirical cognition is twofold. First, it is the pure form of intuition. This formal element will not be of my main concern here, but I shall outline its role in one of the later sections of this chapter, section II.7. The second formal element required for empirical cognition comes from thought.

Kant is not sufficiently specific here about the form of thought, but it must include concepts, which are conceived of by him as rules for the synthesis of the matter given in intuition. That is, cognitive application of concepts is required for an account of the possibility of empirical cognition.

Moreover, the quoted passage does not only indicate that cognitive experience involves cognitive employment of concepts, but also maintains that cognitive experience is a process by means of which we arrive at some other concepts. Empirical cognition is elsewhere (A76/B102) described as a process by which our sensible representations are "transformed into concepts." Kant argues that the combination of the given manifold can never come to us through senses (B130), and the question of how intuitive representations become concepts is one of the main questions for his account of the possibility of empirical cognition. Of course, it is not the case that with every new experience we always form completely new concepts. It is much more often that by means of new cognitions we expand, or modify, or merely re-affirm, some concept(s) which we already had (cf. A728/B756, A764/B792).

Hence, an account of how we form and apply empirical concepts should not be regarded as different or even separated from Kant's account of the possibility of

empirical cognition. If categories can be shown to have an important role to play in the former account, it would suffice to answer Walsh's objection.

For the sake of argument, I shall concentrate here on Kant's account of the formation of empirical concepts and somewhat neglect his account of their cognitive application. One reason for this is that, if it can be successfully shown that categories play an important role in the formation of empirical concepts, it will suffice to refute Walsh's objection. Another reason is that many insights about the role of categorial concepts in the formation of empirical concepts will at the same time illuminate some issues relevant for Kant's account of the cognitive application of empirical concepts.

But before we begin our consideration of the formation of empirical concepts we have to realize that there are some additional complications here which have to be addressed immediately, and which Kant himself did not sufficiently clarify. As we have seen in one the previous sections, empirical concepts have to be formed or made both with respect to their discursive content and their logical form (generality). This raises a number of important questions.

(i) What precisely is meant by the formation of empirical concepts with respect to their discursive content and their logical form? What is a difference, if

any, between concept formation with respect to their discursive content and their logical form?

(ii) Is the formation of empirical concepts with respect to their discursive content relevant for an account of the possibility of empirical cognition? Or is it the formation with respect to their generality? Or, perhaps, both?

(iii) Finally, are categorial concepts supposed to play an important role in the formation of empirical concepts with respect to their discursive content, or with respect to their generality, or both?

Let us try to answer the first set of questions which, I believe, will give us a clue for dealing with all remaining questions. Consider, then, our distinctions from section II.2 again. We have seen that Kant distinguishes between singular and immediate intuitive representations and multiply instantiable mediate representations, which then serve as rules for the synthesis of the manifoldness of objects given in intuition. Having this distinction in mind, I will argue that an account of the formation of empirical concepts with respect to their generality is an account of how generality is introduced into the manifoldness of singular representations and how general representation can, in turn, function as rules for the conceptualization of undetermined objects of intuition. Those rules are

part of the formal requirement necessary for organization and ordering of the matter given in intuition.

Kant also claims that objects are given in intuition and thought in concepts. Accordingly, the contrast between the matter and the discursive content of an empirical concept is to be conceived of as the contrast between a manifoldness of undetermined objects of empirical intuition and a representation of determined, i.e., individuated and identifiable, object of thought (cognition). Thus I argue that an account of the formation of empirical concepts with respect to their discursive content is an account of the conceptualization (through various characteristics or properties) of the manifoldness of objects given in intuition.

So far so good. A problem arises when we try to see if these two accounts of the formation of empirical concepts are to be treated in separation or jointly. In the Lectures on Logic Kant clearly argues for the former option. He maintains there, for instance, that, since "general logic abstracts from all content of cognition through concepts," it can consider the formation of a concept "only in regard its [logical] form." General logic, Kant continues, does not deal with a problem of how a concept "determines an object through a property, but only [a problem] of how a concept can be applied to several objects."²⁷ What I call an account of the

formation of concepts with respect to their content is there assigned to metaphysics.

Thus, Kant makes us believe that the formation of empirical concepts with respect to their generality or logical form is not in any way related to an account of the possibility of empirical cognition. Furthermore, in the Lectures on Logic, categories are not mentioned in the context of an account of the formation of concepts with respect to their generality. Hence, it seems that Kant believes there that categories are not relevant for this account.

Let us now consider the situation in the Critique, where Kant contrasts between general and transcendental logic. Kant repeats in the Critique that general logic abstracts from all content of cognition and, we can add, is 'existence free' (cf. A53/B78, A55/B80). Transcendental logic, on the contrary, is for Kant a logic of discursive content, or a logic of determination of the manifold in intuition. Transcendental logic does not 'operate' with modalities of logical possibility and necessity, but, as Kant's "Postulates" make it clear, with modalities of real possibility and necessity and an existence assumption. There should be no doubt that Kant believes categories are necessary for the formation of empirical concepts with respect to their discursive content, but we wonder if categories have a role to play

in the formation of empirical concepts with respect to their generality as well.

Although some statements in the first Critique, which concern the function which general logic and transcendental logic are supposed to perform, are not easy to clarify and interpret, I believe that in the Critique Kant does not repeat the doctrine of the Lectures on Logic. That is, he does not adopt the view in the Critique that the formation of concepts with respect to their generality and their discursive content is to be treated separately.

The first point is that nowhere in the Critique (explicitly) Kant claims that general logic has to account for the formation of concepts with respect to their logical form. Kant maintains, for instance, that general logic "considers only the logical form in the relation of any cognition to any other cognition, that is, treats of the form of thought in general" (A55/B79). It is, thus, quite possible that a more "modest" job is assigned to general logic in the Critique. It might very well be that general logic has some other assignments as, for instance, an analytic determination of the logical hierarchy of various concepts (representations), as well as some logical classification of various formal ways in which they are predicable of each other.

Furthermore, Kant makes it clear that the statement

that general logic abstracts from all content should be understood in a relative sense.²⁸ An analysis that does not in any way relate to and rest on some synthesis would be impossible, "for where the understanding has not previously combined, it cannot dissolve, since only as having been combined by the understanding can anything that allows of analysis be given to the faculty of representation" (B130). Kant clearly expresses his view when he claims that general logic is concerned with "analysis of the concepts which we already have of objects" (A5/B9), and thus is in this sense dependent on transcendental logic.

Therefore, I do not think that these two accounts can be, nor should be, completely separated. On the one hand, our conceptualization of the manifoldness of objects given in intuition cannot be accounted for and is impossible without some rules for the intellectual organization and ordering of the given manifold. On the other hand, our rules for the ordering of the manifoldness of objects given in intuition cannot be treated in isolation from an account of how these rules get employed, i.e., an account of the conceptualization of the given manifold. If so, it should be clear that both an account of the formation of empirical concepts with respect to their discursive content and an account of the formation with respect to their generality have to

be relevant for an account of the possibility of empirical cognition.

Moreover, if Kant is right, we can expect that categorial concepts are relevant for both of these accounts. It is certainly Kant's idea that categorial concepts are relevant for the formation of rules which help guide cognitive synthesis of the manifoldness of objects given in intuition. To form empirical concepts as rules means to form them with respect to their generality. It is, thus, at least via the employment of these rules, that categorial concepts play an important role in an account of the formation of empirical concepts with respect to their discursive content. However, as we shall see later in sections II.7-8 of this chapter, there are some other reasons why categories must be taken into account of the formation of empirical concepts with respect to their discursive content.

Since Kant's accounts of the formation of empirical concepts with respect to their discursive content and their generality cannot be completely separated, we have a problem of how to proceed in the presentation of his accounts. I propose the following way. In the next section we shall consider Kant's account of how empirical concepts are formed with respect to their generality, and also whether categorial concepts have a role to play in this account. This will give us an insight in Kant's

conception of the generality of empirical concepts, regardless of the conditions for their application as rules for cognitive synthesis of the manifold given in intuition.

Then, in the remaining sections, we shall pay more attention to an account of the formation of empirical concepts with respect to their discursive content. That is, we shall attempt to motivate and explain the "transition" from undetermined objects of empirical intuition to conceptually determined objects of cognition, the transition which requires the application of rules for cognitive synthesis of the manifold given in intuition. We shall also consider there what role categories have to play in the conceptual determination of the manifoldness of objects given in intuition.

II.5 Formation of Empirical Concepts with Respect to Their Logical Form

Let us now consider in more detail the problem of the formation of empirical concepts with respect to their generality. We say that, as general representations, empirical concepts are "derived from experience," but it is far from being clear what is meant by this phrase. It is often thought that we simply have to notice that various perceptual items are alike in a certain respect,

then to abstract that particular characteristic or property from all others, and finally to decide to classify further perceptions according to the criterion of whether they resemble the original ones in that respect. This is, roughly, how Locke conceived of the acquiring of an empirical concept.²⁹

Hume similarly thought that, in order to acquire an empirical concept of an object, one must first be confronted with instances of it or simpler concepts out of which a new concept is to be made. Repeated instances of the concept help us to acquire a custom of using the word (which stands for a particular concept) in some particular manner. Hume thought that those repeated instances of a concept also arouse in us the expectations, however little justified or rational those expectations might be, that events in nature would repeat themselves in a regular, or even a law-like way.³⁰

In a similar manner Kant maintains in his Lectures on Logic that the logical acts by which we generate concepts with regard to their form are 'comparison', 'reflection', and 'abstraction'. The first of these consists in "comparing representations with respect to one another in relation to the unity of consciousness;" reflection consists in "going back over different representations so that they could be comprehended in one consciousness;" and abstraction consists in "segregation

of everything else by which given representations differ."³¹ Kant warns us that it is a mistake to speak about "abstracting something" from the manifoldness of objects. It is rather that we "abstract from something."³² For example, in the concept of 'body' we abstract from particular shape, size, color, figure, and so on. We abstract from all particular features of objects (bodies) which fall under this concept.

Although abstraction appears to be the key for an understanding of the formation of empirical concepts with respect to their generality, Kant realizes that abstraction cannot have such an essential role as, for instance, Locke ascribes to it. The formation of empirical concepts with respect to their generality simply cannot consist in a straightforward abstraction. Abstraction is only a "negative condition" of the process, claims Kant; "the positive [condition] is comparison and reflection."³³ Let us, then, concentrate on comparison which appears to be the crucial step, since, according to Kant, comparison is presupposed by reflection.

Formation of empirical concepts with respect to their generality requires a comparison of the material given in various sensible representations. The purpose of such comparison is finding out what is common or different in all of these representations. But how is

such comparison to be made? How do we find out what is common, or different, in various representations?

The idea behind Locke's and Hume's views appears to be that it is somehow apparent that various instances or items of perception are similar or dissimilar in some respect. What we have to do is simply to notice what is similar, abstract that feature from all of the others, and form a concept. To put it somewhat differently, they assumed that some standard of comparison, a standard of similarity or dissimilarity, on the basis of which any comparison can be made, is already given in a perceptual encounter (Locke), or that it can be found in a series of perceptual encounters (Hume).

However, the problem with this thesis, as many philosophers have already noticed, is that it presupposes what it wants to prove.³⁴ In a perceptual encounter a subject is faced with too many potential qualitative discriminations. Two things which are similar (or dissimilar) are always similar (or dissimilar) in a certain respect. But there can hardly be two things which are not similar in at least one respect. And, conversely, there can hardly be two things which do not differ in some respect.

What, then, is needed in order to compare things is a standard of similarity or dissimilarity, of sameness or difference, on the basis of which any comparison can be

made. In order to see, or notice, some perceptual items as similar or dissimilar, as the same or different, an appropriate standard has already to be presented before we can compare and recognize various instances as such. Thus, any comparison requires a standard for comparison, and such a standard is required for the formation of empirical concepts with respect to their generality.

The moral of Kant's criticism of Locke and Hume is that no such standard can be given in a singular perceptual encounter, nor could it be found in any finite series of such encounters. A standard for comparison is a point of view which, not simply being present or given, has to be adopted before one can be able to notice that things are similar or dissimilar in some respect. The adoption of a point of view is epistemically prior to noticing and recognizing things as similar or dissimilar.

Another point here is that although the given manifold does not necessitate what standard for comparison is to be applied, since a subject has a cognitive interest in the manifold presented, the choice of such a standard is to be relative to the items given in the perceptual encounter. That is to say, a standard for comparison cannot be somehow 'fixed' before and wait to be applied as if 'ready-made'. Instead, a standard has to be chosen and introduced by a subject, in

accordance with the given manifoldness of objects which are compared. This choice of a standard is based on the activity of thought and is an intellectual or discursive choice.

An important implication of this argument is that, although the material for the formation of empirical concepts is sensible, empirical concepts must contain some non-sensible elements. What the previous argument about the choice of a standard for comparison shows us is how an a priori element has to be introduced in the formation of empirical concepts with respect to their generality. A standard for comparison, required for the formation of empirical concepts with respect to their generality, is chosen and introduced in a manner which is a priori in respect to the given manifold. This is precisely the point where Kant sees a contribution of categories for the formation of empirical concepts with respect to their generality. The contribution consists in the following.

Since an a priori element is required for the formation of empirical concepts with respect to their logical form, empirical concepts cannot be wholly "learned from experience," as it is often claimed, but have to be constructed in some regards. Kant's idea is that they are constructed as concepts of 'natural kinds'. What empirical concepts of natural kinds, such as 'book',

'tree', 'red', and so on, embrace is not mere sensible material as such, but rather some stable patterns of relations.

More specifically, empirical concepts of natural kinds characterize the law-like behavior of objects to which they are applicable. Concepts of natural kinds are those which predicate regular and law-like behavior to objects (which fall under them) and their properties. They prescribe, for instance, what sorts of changes objects and their properties can and cannot undergo.³⁵ We shall see in the following sections that categorial concepts specify not only the range of law-like predicates to objects of concepts of natural kinds, but also general criteria for their identification and re-identification.

Thus, although the matter of empirical concepts of natural kinds has always to be given in an a posteriori manner, the generality of these concepts, that is, the formation of concepts of natural kinds, is always introduced in an a priori manner. Categorial concepts are the rules which govern the formation of empirical concepts of natural kinds.³⁶

What the construction of empirical concepts of natural kinds amounts to is the construction of empirically cognizable characteristics or properties for objects which fall under these concepts. Our empirical

concepts of natural kinds are parts of rational systems of beliefs and theories, and objects of these concepts are characterized by the particular theories in which they figure. Various theories will introduce and ascribe different empirically cognizable properties for objects, but all such ascriptions of cognizable properties have to proceed in accordance with categorial concepts. Hence, the formation of empirical concepts of natural kinds with respect to their generality requires the application of categorial concepts; generality is introduced by means of the application of categories.

Let us summarize the results of this section. It has been argued by Locke and Hume that by simply noticing what is similar and dissimilar in the given manifold, and then by abstracting those features and assigning to them a word (name) which will stand for a concept, we can form an empirical concept with respect to its generality. We have seen that this picture is incorrect insofar as it assumes that a standard for comparison is simply given or can be found in the presented manifold. It is rather that a standard for comparison has to be introduced by a subject, and it is only by means of some a priori standards for comparison of what is similar or dissimilar, the same or different, in the manifold given in intuition that empirical concepts can be made with respect to their generality. Therefore, generality of

empirical concepts is introduced by means of a priori standards for comparison of the manifold given in intuition. Empirical concepts constructed in this way are concepts of natural kinds. Natural kinds are not "objective external facts" which we have to simply notice or recognize, but are constructed by a cognitive subject in accordance with categorial concepts.

II.6 Appearances and Objects of Cognition

Let us now concentrate on the other aspect of the formation of empirical concepts, i.e., the formation with respect to their discursive content. What has to be explained here is the "transition" between the matter of empirical concepts and their discursive content. To put it somewhat differently, we have to account for the transition from an undetermined object of empirical intuition to a fully (cognitively) determined object of cognition. I shall first attempt to motivate and explain Kant's distinction between an object given in intuition and an object of cognition. Then I shall concentrate on the specific role which categorial concepts are supposed to play in the formation of empirical concepts with respect to their discursive content.

Consider, then, Kant's view that what counts as an object of cognition is not simply given to us in a

perceptual encounter. As we have already seen, Kant maintains that what is given to us by means of the senses are not things as they are considered in themselves, but appearances. Although Kant believes that only appearances are "appropriate" candidates for objects of cognition, it is prima facie clear that for Kant the notion of an object of cognition is narrower than the notion of an appearance in the sense that not every appearance is an object of cognition. Kant emphasizes this distinction between an appearance and an object of cognition by pointing out that, although in some broad sense

everything, every representation even, insofar as we are conscious of it may be entitled object ... it is a question for deeper enquiry what the word 'object' ought to signify in respect of appearances when they are reviewed not insofar as they are (as representations) objects, but only insofar as they represent an object (A189-90/B234-35).

The question of how a representation relates to an object is of crucial importance for Kant and he claims that "the fact that the affection of sensibility is in me, does not amount to a relation of such representation to any object" (A253/B309). Had we a mere succession of intuitions, "no object [would] thereby [be] represented since throughout this succession nothing is distinguished from anything else" (A198/B243). Moreover, such a series of successive intuitions "would not then belong to any

experience, [and] consequently [it] would be without an object, merely a blind play of representations, less even than a dream" (A112).

We can attempt now to make the contrast between an appearance and an object of cognition sharper. Kant defines an 'appearance' as "an undetermined object of empirical intuition" (A20/B34). His idea is that something is given or presented to us in empirical intuition, but the nature of what is presented is not yet determined by means of intuition alone. An appearance has some uncognized properties. In contrast to this, we can say that an object of cognition is a determined object; it is an object with determined or cognized properties.

The notion of determination (Bestimmung) is never clearly defined by Kant; moreover, it is overused by him. Nevertheless, we can give some explanation of its meaning. Determination is opposed to arbitrariness and chance (A67/B92), and is understood to involve some regularity. 'To determine' some 'x' means, in a minimal sense, to attribute something to 'x' in accordance with a certain rule, or to classify 'x' in a certain way, or even to define it (Cf. A69/B94; A73/B99).

Kant often talks about the dichotomy between "das Bestimmbare" and "das Bestimmende". In some later part of the Critique, chapter on "Phenomena and Noumena", we can see that Kant identifies "das Bestimmbare" with

'matter' and "das Bestimmende" with 'form' (B317, B322). 'Form' in question is not the 'logical form', but a form which does not "abstract from all content." We can say that this is a 'transcendental' or 'epistemic' form. Matter is that which is passively received by us, or somehow given to us, and it is the element which is in a need of a certain form or determination. At B1 Kant tells us that what we get when we are affected by means of the senses is a 'raw stuff' which has to be organized and shaped, or formed, or determined, by subjects. We are pathologically affected, but are not thereby pathologically necessitated to form, or determine, the raw stuff in any particular way.

Forming, or determining, the raw stuff into cognition means giving to it a certain order and regularity, and forming the manifold always requires and involves a certain spontaneity, or freedom, with respect to the manner of combining and uniting the given raw stuff. Kant thus argues that cognition requires some formal elements which, although not temporally, must nonetheless be epistemically prior to matter. As we shall see in a moment, space and time, as pure forms of intuition, as well as categories, are claimed by Kant to be such formal elements.

In order cognitively to determine objects, we have to take into account the raw stuff given in intuition

since singular qualities of objects are accessible to us only by means of empirical intuition. However, there is nothing in our sensible representations, as they are given to us, to link them together so that they can represent an object of cognition. What does link them together are rules in accordance with which they are compared and combined in such a way as to represent an object. No such rule is given in intuition; instead, it has to be introduced by a cognitive subject.

Kant argues that what binds various representations together in respect of their cognitive content is the idea that they are all united in the notion of the one (individual) object. The shape, solidity, weight, and color of my desk do not go together by virtue of some given or discoverable identity or any given similarity between them. What binds them together is the idea that they are united as the shape, solidity, weight, and color of one object, that is, a desk.³⁷ Thus Kant claims that "an object [of cognition] is that in the concept of which the manifold of a given intuition is united" (B137).

According to this conception, being an object of cognition would not be possible in abstraction from any (idea of a) cognizing subject and his intellectual organization of the presented manifoldness of objects of intuition. That a manifold of representations is combined and united in accordance with the concept of an

object means that the manifold is combined and united in an orderly manner. This further means that the unification of the manifold of representations in accordance with the concept of an object prevents that they be connected in an accidental or haphazard way (A104).

Yet another important aspect of the above quoted claim is the following. Kant argues that in a mere succession of representations no object is represented because in such a succession nothing is distinguished from anything else. By means of synthesizing and uniting the manifold of representations in accordance with certain rules we can individuate and differentiate one appearance presented in such the manifold given in intuition from another (cf. A191/B236). It is by the application of rules that our representations are synthesized in a regular and a law-like manner which, in turn, makes possible individuation, identification and re-identification of objects represented by them. Kant's conclusion therefore is that, regarded by itself, the manifoldness of objects given in intuition has no cognitive significance or value ("intuitions without concepts are blind"). And such a manifoldness can obtain a cognitive significance or value if it is brought together and combined in a rule-governed manner.

II.7 Objects of Cognition and Categories

Kant further argues that categories are those conceptual rules by means of which it is possible to synthesize and unite a manifold of representations given in intuition so that they represent an object of cognition. They are conceptual rules by means of which a certain manifold of representations, the raw material of the senses, is formed as a discursive content of a certain concept. One might think that Kant reaches this conclusion simply by means of our results in section II.5.

We have establish there that categorial concepts are necessary for the formation of empirical concepts with respect to their generality because generality is introduced by means of categories. As general representations, empirical concepts serve as rules for the cognitive determination (in terms of various empirical characteristics) of the manifoldness given in intuition. Hence, they serve as the conditions for the formation of some other empirical concepts with respect to their content. Via the application of those empirical rules categories are also necessary for the formation of empirical concepts with respect to their discursive content.

This line of reasoning, however, is, at least,

incomplete in that it leaves some important issues unaccounted for. It does not tell us, for instance, how we decide which empirical rules to apply for the cognitive determination of the manifoldness actually given in intuition. The given manifoldness does not 'invite', so to say, the application of any specific empirical concept.

Even more importantly, this story does not even indicate how we connect various empirical concepts by means of which an object is to be determined in terms of empirical properties. To see how the latter problem is truly significant for Kant, let us briefly consider a possibility that various empirical concepts be determined not in the sense described in the previous section, but be connected by some Humean principle of imaginative association, based on past experiences and habit.

Kant describes the mechanism of association as that in accordance with which "empirical ideas that have often followed each other produce in us a mental habit such that, when one is produced, this causes the other to arise as well."³⁸ He believes that (merely) to associate is to report of how some representations are connected in my perception, or my mental state. Merely to express, or report, how various representations are connected and associated in my mental state is not to make any cognitive assertion about any object. My associating the

representation 'body' with the impression of weight, for instance, does not constitute a cognition of any object. This is so because by means of such association I do not ascribe the weight to the body; such association merely reports, or expresses my feeling, my mental state now, as something appears to me, and as such is incorrigible. Association of various representations does not carry any 'epistemic impact'; there is no right or wrong way of associating representations since an association of the manifold does not make any (corrigible) claim that anything corresponds to the way in which they are associated in the subject's mental state. In other words, an association is the connection of various representations in the subject, not by means of the subject, or - more precisely - not by means of the subject's judging.

In an association of several representations something happens as a rule, not because of a rule. As Kant says in the Anthropology, "the association is carried out in conformity with the understanding, though it is not derived from the understanding."³⁹ It happens to me that I associate the representation of a body with the impression of weight, but I need not feel in the same way in the next moment. I could very well associate 'body' with 'light', or even 'weightless'. There is nothing to hold the associated representations together

so that they constitute a cognition of an object. Thus Kant claims that the "unity of synthesis according to empirical concepts would be altogether accidental, if these latter were not based on a transcendental ground of unity" (A111).

The term 'transcendental' indicates an a priori ground of that unity, and we know that he refers here to categorial concepts. What Kant's criticism of the Humean principle of association and the quoted claim (A111) suggest is that categorial concepts have an important function in the cognitive synthesis of the manifoldness given in intuition, a function which is not quite reducible to the function which they have in the formation of empirical concepts with respect to their generality, although not a completely separated function either. Let us try to clarify this a bit.

Kant's idea is that any given manifoldness on the basis of which an empirical concepts is to be formed with respect to its discursive content, i.e., the manifold to which some other already formed empirical concepts are to apply, has to be categorially determined. That is, any such manifold has to be determined in accordance with categorial concepts.

Since there are four groups of categories, any manifold given in intuition is to be determined, relative to that which is actually given, with respect to each of

these groups. The given manifold has to be categorially determined with respect to quantity, quality, relation, and modality. An appearance of red, for instance, has extensive magnitude equal to a spatial area and hence is to be determined with respect to quantity. It has intensive magnitude as a sensation with a certain degree of intensity and hence is to be determined as a quality. An appearance of red is related to some further appearance as accident is to substance and hence is to be determined as a relation. And in relation to other appearance it is possible, actual, or necessary, and has to be determined with respect to its modality.

To claim that categorial determination of some given manifold is epistemically prior to empirical determination of the same manifold does not mean that empirical determination is deducible from categorial determination, or that empirical rules are deducible from categorial concepts. Nevertheless, categorial determination 'limits', so to say, the options of empirical determination; it does not limit so much the number of options, as it limits the kinds of options. Determination by means of empirical concepts is not derivable from categorial determination but presupposes it and must conform to it (cf. B165, A159/B198, A178/B220).

Let us give one example to illustrate this point.

Both psychologists and some philosophers sometimes use a drawing of a figure which can be seen either as duck's head or as rabbit's head.⁴⁰ In our terminology, the figure can be seen (i.e., can be empirically determined) either as belonging to one natural kind, or as belonging to some other natural kind. It is not necessary for us to discuss why one figure can be seen in so different ways. What is important for us is that, regardless of whether the figure is seen as belonging to one or the other natural kind, it can be seen as belonging to a natural kind at all only by means of some specific categorial determination. However the figure is determined empirically, i.e., either as duck's head or as rabbit's head, it has to be seen as a substance in both cases and not, say, as a substance in one and as a property (accident) in another.

Unlike empirical determination of the manifoldness of objects given in intuition, which consists in ascribing various empirical properties to objects, categorial determination consists of temporal (and spatial) determination of the same manifoldness of objects. Categories are conceptual rules which guide the synthesis which is constitutive of temporal (and spatial) determinations of objects of intuition. To take the category of substance as an example again, Kant claims that substance is "the substratum of all that is real,

that is, of all that belongs to the existence of things" (B225), and is manifested as continuous or permanent existence of those things.

The permanence is, however, simply the mode in which we represent to ourselves the existence of things in the appearance. The determinations of a substance, which are nothing but special ways in which it exists, are called accidents (A186/B229).

In order to be constitutive of temporal (and spatial) determination of objects in intuition, categories have to be applied to those objects and are, therefore, in need of schematization. As Butts nicely puts it, without the conditions of applicability to the manifoldness given in intuition, categories would be like "logical shells" and "uninterpreted rules."⁴¹ Although this cannot be discussed here at any great length, I shall point briefly to an important (double) role which space and time perform, and which makes them significant for an account of the formation of empirical concepts with respect to their content.

On the one hand, space and time are essential features of empirical intuition, because they are forms of empirical intuition. Thus, they are not things or characteristics of things, but "conditions of the receptivity of our mind - conditions under which alone it can receive representations of objects" (A77/B102). Formal characteristics of space and time are a priori characteristics, which are neither passively received,

nor introduced by the activity of the understanding. Formal characteristics of space and time are due to the activity of imagination.

On the other hand, space and time, as forms of empirical intuition, provide the needed "sensible conditions" for the application of categories and make possible their schematization. Due to their formal characteristics, space and time present "before the mind" a manifold of a priori sensibility, "as material [Stoff] for the concepts of pure understanding. In the absence of this material those concepts would be without any content [Inhalt], therefore entirely empty" (A77/B102). In order to make possible individuation and identification of objects presented in empirical intuition, a cognitive subject has to introduce conditions of spatiality and temporality, as well as categorial conditions.

II.8 Categories and Nomological Connections

We can see yet another idea Kant has of the categorial determination of the given manifold from the following passage.

If we enquire what new character relation to an object confers upon our representations, what dignity they thereby acquire, we find that it results only in subjecting the representations to a rule, and so in necessitating us to connect them in

some one specific manner; and conversely, that only in so far as our representations are necessitated in a certain order as regards their time-relation do they acquire objective meaning (A197/B242-43).

Although Kant does not explicitly mention categories in the quoted passage, his idea is that to synthesize the manifoldness given in intuition in accordance with a rule is to necessitate their connection in a certain manner. The necessity in question is not a strong Leibnizian (logical) necessity. Kant does not assert that the given representations combined in a concept of any object necessarily belong to one another. Nor does Kant conceive of "an object as that in virtue of which the several representations constituting such a manifold are necessarily connected",⁴² something some commentators, like Guyer, ascribe to Kant, if this necessary connection has to belong to empirical intuitions. Kant clearly denies that the given representations belong to one another in empirical intuition (B142). Furthermore, it is in accordance with his general view that the combination of the manifold is not to be found in ontologically independent objects, but has to be performed by a cognizing subject (B130).

Nor is the necessity in question a weak Humean necessity, understood as a psychological compulsion to associate various representations in an accidental way. I have already made some comments on Kant's criticism of

the mechanism of association. Nevertheless, in order to appreciate more Kant's own conception, I should say something about Hume's puzzlement with concepts like 'cause' and 'substance'. Hume realized that there are no corresponding sense impressions from which these concepts could be derived and hence concluded that they are not empirical. Hume also realized that these concepts are indirectly 'present' in our assertions of matter of facts. What really puzzled Hume was that he could not see any rational ground for the application of these concepts.

For instance, the application of concepts like 'cause' and 'substance' does not help or contribute establishing the truth value of our assertions about objects or state of affairs. "That the sun will rise tomorrow is no less intelligible a proposition and implies no more contradiction than the affirmation that it will rise."⁴³ Concepts like 'cause' and 'substance' do not play any evidential role for our assertions of matter of facts either. Hume noticed that our assertions go "beyond the present testimony of our senses or the records of our memory."⁴⁴ (Hume's own example is that "a man finding a watch or any other machine in a desert island will conclude that there had once been a man in this island.") The application of concepts like 'cause' and 'substance' cannot cover the evidential 'gap' since

they stand neither in a deductive nor in an inductive relation to the stated conclusion.

Hume could not see any rational ground for the application of these concepts. Their regular application, he believed, can be explained only by means of the mechanism of imaginative association. It is just a contingent fact about human nature, Hume might have said, that we, human beings, apply these concepts for the connection of our ideas and not some others.

Kant did not attempt to show, against Hume, that categories have primarily either a 'truth'-function or an 'evidential' role. However, we shall see that the role that categories play is not without any relevance for truth of and evidence of our cognitive judgments; but such a relevance is conceived of by Kant in a way of which Hume did not think at all. Kant's positive statement is that the application of categories grounds in an objective manner, or provides an objective ground for, the cognitive synthesis of some given manifold. The application of categories makes possible a systematic correlation by a rule between empirical concepts and items of perceptual encounters, i.e., appearances.

It is on the basis of this ground that we can make assertions about objects. That is, an objective ground makes it possible to attribute something to an object, to attribute a property, or a set of properties, so that an

object of intuition can be individuated and identified. Individuation and identification of an object is possible by means of constructed and thus cognizable properties. By means of those constructed properties empirical concepts are constructed as concepts of natural kinds. An object of cognition is determined, that is, individuated and identified, as an instance of some concept(s) of natural kinds. By making possible individuation and identification of objects, categorial concepts makes possible corrigibility of our ascribing various properties to an object.⁴⁵ As Kant remarks at A728/B756, some further investigations can force us to change what we think of, say, gold. That is, we can change the list of properties which make the content of concept of 'gold'; "new observations remove some properties and add others."

Hence, the application of categories is not intended to determine the truth value of our assertions about objects; the truth value of those assertions is intrinsically connected with, or dependent on, existentiality.⁴⁶ But the application of categories makes an objective ground of the basis of which the truth value can (eventually) be established in an objective way. For this reason Kant could have said that both "The sun will rise tomorrow" and "The sun will not rise tomorrow" are objectively grounded (and corrigible), even though it

will turn out that one of them is (objectively) false.

This, however, is not possible in the case of a mere association. If I tell you, for instance, "When I support a body, I feel an impression of weight," you cannot appropriately reply either "This is true" or "This is false." What you can say is that, when you support a body, you feel (or you do not) in the same way, or you can make an assertion (=corrigible statement), "This body is heavy," or "But this body is not heavy."

The application of categories will provide an objective ground for establishing the truth value of our assertions about objects because their application establishes what counts as a possible set of circumstances or cases in which a particular assertion will, or will not, be warranted. Hume was right to claim that categories do not play either deductive or inductive evidential role. But Hume missed a more important point, namely that categories regulate what counts as an appropriate evidence for our assertions about objects. We do not learn or discover a posteriori that some assertions about objects are assertable in certain circumstances. It is rather that we introduce in an a priori manner a certain systematic connection or correlation between our empirical concepts and such and such actually given items of perceptual encounters (appearances), so that it is established a priori that in

certain circumstances we are warranted to assert a certain factual statement.

Kant's idea is analogous to cases of nomological or law-like connections between universal laws and initial conditions, on the one hand, and the assertions which, on the other hand, can be deduced from their conjunction.⁴⁷ To return to Hume's 'watch' example, it is because of the systematic law-like connections of the given manifoldness to our concept of 'watch' (as well as several other concepts) that we are allowed to "conclude" to the presence of a man in the desert island in the past. But the law-like connection is not a logical implication; that is, the conclusion is not logically implied by the evidence, and the categorial law-like determination of the given manifoldness also accounts for the conditions under which a possible error in our conclusion can be detected and corrected.

We can return now to the question of the nature of necessity required for the cognitive synthesis of some given manifold. Kantian necessity, as we have seen, is to be understood in terms of nomological connection, which is introduced by means of categories as rules for the cognitive synthesis of the given manifold. If we want to draw some conclusions from this story, the conclusion relevant for our account of the formation of empirical concepts with respect to their discursive

content, we can say the following. Various properties which are united in an empirical concept "must agree with each other" (A104), that is, be nomologically connected relative to what is given in intuition and in terms of the stable patterns of relations or law-like behavior which they predict to objects which fall under this concept.

Hence, cognitive experience and the formation of empirical concepts with respect to their discursive content require both the raw material given in intuition, as well as nomological necessity for the ordering and synthesis of the material given in intuition. Although the required nomological necessity is relative to what is actually given in intuition, it cannot be reduced to what is given. Both pure forms of intuition and categorial concepts are required for the nomological necessity by means of which the manifoldness of objects given in intuition is cognitively determined in the sense that cognizable properties are constructed for those object.

II.9 Conclusions

As we have already seen, the manifoldness of objects given in empirical intuitions does not represent an object of cognition unless it is conceptually organized and synthesized. Walsh thinks that empirical concepts

alone are sufficient for a plausible account of the cognitive synthesis of the manifold given in intuition; he also thinks that Kant is wrong in maintaining that categorial concepts have an important role to play in this account. However, the story of the formation and application of empirical concepts shows us that Walsh is wrong because empirical concepts must contain some synthetic a priori elements. Both empirical and categorial concepts are necessary for an account of the possibility of empirical cognition. Those two kinds of concepts should be seen as having a complementary role in such an account.

The role which categorial concepts play in the formation of empirical concepts, both with respect to their generality and their discursive content, as well as the described dependency of application of empirical concepts on the application of categorial concepts, indicate that the difference between empirical and categorial concepts can be expressed as a difference between first- and second-order rules.⁴⁸ Empirical concepts are the first-order rules normative for intellectual organization and determination of the manifold given in intuition. Categorial concepts are the second-order rules normative for the formation and cognitive application of empirical concepts (cf. A127-28). It is this normative aspect of empirical and

categorial concepts which will be the main topic of our discussion in the next chapter.

II. 10 Endnotes for Chapter II

1. Walsh claims that, in order to have cognition of objects, "it must be possible to connect diverse experiences together. If experiences are to be connected we must be able to bring them under concepts, i.e., to discover features which they or sets of them have in common with other experiences or sets of experiences. But the concepts in question could perfectly well be, for all that has been shown to the contrary, empirical concepts;" see his "Categories," in Kant, A Collection of Critical Essays, ed. Robert P. Wolff, pp. 61-62. (Let me remark that Walsh believes that a successful argument is provided by Collingwood's theory of absolute and relative presuppositions.)

2. See Kant's Lectures on Logic, Ak. IX, p. 91 (sec. 1).

3. Cf. A19/B33, A68/B93, and A320/B377. Jaakko Hintikka argues that (as he puts it) only the singularity criterion is essential for intuition and that the immediacy criterion is a mere corollary (e.g., "On Kant's Notion of Intuition (Anschauung)," in The First Critique, eds. T. Penelhum and J. MacIntosh, pp. 38-53). I believe that his view is incorrect and that it has been successfully criticized by Charles Parsons, "Kant's Philosophy of Arithmetic," in Philosophy, Science, and Method, eds. S. Morgenbesser, P. Suppes, M. White, pp. 568-94. For a criticism of Hintikka's view see also G. Brittan's Kant's Theory of Science, ch. 2.

4. This has been pointed out by R.P. Wolff; see his Kant's Theory of Mental Activity, pp. 63-64.

5. Lectures on Logic, Ak. IX, p. 99 (sec. 11, note); see also A645-46/B682-83.

6. Lectures on Logic, Ak. IX, p. 93 (sec. 4, note).

7. Jonathan Bennett, Kant's Analytic, p. 55, and Robert Pippin, Kant's Theory of Form, pp. 105-106, have argued that Kant's conception of concepts cannot be appropriately understood and appreciated without a comparison with the conceptions of his predecessors.

8. Lectures on Logic, Ak. IX, p. 91 (sec. 2).

9. Op. cit., p. 141 (sec. 102).

10. See more about this dispute in Richard Aquila, Matter in Mind, ch. 3.

11. This is explicitly stated in Kant's letter to J.S. Beck from January 20, 1792, Ak. XI, p. 314; Zweig, p. 183. I believe that this is also the view which Kant adopts in the Critique; cf. A50/B74, A62-63/B87, A239/B298, A262/B318.

12. Besides talking about 'common features' and 'properties', Kant also talks about 'parts' (A8, B12), and 'predicates' (A572/B600) of a concept.

13. Lectures on Logic, Ak. IX, p. 58 (Intro. VIII).

14. Op. cit., loc. cit.

15. Ibid.

16. Op. cit., pp. 59-60 (Intro. VIII).

17. For instance, Kant claims at A59/B83: "Since we have already entitled the content of cognition its matter..." See also A5/B9, A62-63/B87-88, A720/B748, A723/B751.

18. The most notable of them are those where Kant claims, on the one hand, that the matter is passively given to a subject by means of the senses (e.g., A20/B34: "The matter of all appearance is given to us a posteriori"), and, on the other hand, that all content is a result of synthesis, that is, of subject's activity (cf. A77/B103-104).

19. Lectures on Logic, Ak. IX, p. 92 (sec. 3, note 1).

20. Op. cit., p. 63 (Intro. VIII).

21. See, for instance, Henry Allison's Kant's Transcendental Idealism, pp. 66-67, and Pippin, op. cit., p. 120.

22. Kant claims that he has developed his "table of categories" from the "table of the logical forms of judgment," which belong to the general, not transcendental logic (A80-82/B106-08). Klaus Reich is perhaps the only philosopher who believes that Kant has successfully fulfilled this task; see his Die Vollständigkeit der kantische Urteilstafel.

23. J.H. Paton explains that, "if concepts are properly called categories, they must apply to all objects without exception; and to speak as if categories could apply to some objects, and not to others, is a contradiction in terms;" see his Kant's Metaphysics of Experience, v. 1, pp. 225-26.

24. Pippin, op. cit., p. 90, points out that, unlike Aristotle, categories are not for Kant "the primary predicates of being, but rules for judging about beings, not forms of objects but 'forms of the thought of objects'."

25. This has been argued for by Pippin, op. cit., ch. 4.

26. Aquila has recently emphasized the significance of the connection of the formation and cognitive application of concepts for Kant, as well as their importance for Kant's account of empirical cognition; see his Matter in Mind, chs. 2 and 3. Hubert Schwyzer has also made some interesting points with respect to Kant's theory of concept formation; see his "How are Concepts of Objects Possible?," Kant-Studien 74 (1983), pp. 22-44.

27. Lectures on Logic, Ak. IX, p. 94 (sec. 5, note 1).

28. This has been nicely argued for by Ernst Cassirer, Kant's Life and Thought, pp. 172-73.

29. Cf. Locke's Essay, book 2, ch. 11, sec. 9. See also Graham Bird's comparison of Locke and Kant in his Kant's Theory of Knowledge, pp. 96ff.

30. See Hume's Treatise, book 1, part 1, sections 6-7. See also J. Bennett's Kant's Analytic, pp. 96ff.

31. Lectures on Logic, Ak. IX, p. 94 (sec. 6).

32. Op. cit., p. 95 (sec. 6, note 2).

33. Op. cit., p. 95 (sec. 6, note 3).

34. For a Kantian criticism of this view see, for instance, Ralf Meerbote's papers "Apperception and Objectivity," The Southern Journal of Philosophy, 25 (1986), Supplement, pp. 116-17, 125-26, and "Kant's Functionalism," Philosophical Foundations of Cognitive Science, ed. J-C. Smith, pp. 161-87, G.G. Brittan, Jr.,

op. cit., pp. 200ff. For a general criticism see, for instance, L. Wittgenstein, Philosophical Investigations, part II, C.I. Lewis, Mind and the World Order, ch. 2, Karl Popper, Logic of Scientific Discovery, pp. 422-24, Norwood R. Hanson. Patterns of Discovery, ch. 1, and Hilary Putnam's Reason, Truth and History, ch. 3.

35. Brittan, op. cit., pp. 190ff, has a good account of concepts of natural kind and law-likeness. Concepts like Goodman's 'grue' are not concepts of natural kinds. The reason for this is, as Brittan puts it (pp. 192-93), is that the 'grue'-type predicates are "not very well geared in the concept of rule-governed change."

36. This thesis is argued for and developed in R. Meerbote's "Kant's Functionalism."

37. The example is taken from R.P. Wolff, op. cit., p. 112.

38. Anthropology From a Pragmatic Point of View, Ak. VII, p. 176 (sec. 31B); Gregor, p. 51. See also Hume's Treatise, pp. 10-12.

39. Anthropology, Ak. VII, p. 176 (sec. 31B); Gregor, p. 52.

40. See, for instance, Wittgenstein's Philosophical Investigations, part II, p. 194.

41. See his "Kant's Schemata as Semantical Rules," in Kant's Studies Today, ed. Lewis W. Beck, pp. 292ff.

42. This has been claimed by P. Guyer, Kant and the Claims of Knowledge, p. 103.

43. Inquiry, p. 40. The account of Hume offered in the text is based mainly on the section of the Inquiry called "Skeptical Doubts Concerning the Operations of the Understanding," which was known to Kant.

44. Op. cit., p. 41.

45. R. Meerbote has connected 'corrigibility' with 'objective validity' in his "A Sometimes Neglected Aspect of Kant's Subjective Deduction," in Proceedings: Sixth International Kant Congress, eds. G. Funke and T.M. Seebohm, pp. 263-65.

46. This issue is explained by Brittan, in his discussion of the notions of 'presupposition' and

'existentiality'; see his Kant's Theory of Science, chs. 1-2, esp. pp. 28ff.

47. This has been successfully argued for by R. Meerbote; see his "Kant's Functionalism," pp. 173ff. See also A.C. Grayling, The Refutation of Scepticism, pp. 28-32.

48. The distinction between categories, as the second-order rules, and empirical concepts, as the first order-rules, is first developed by Wolff, op. cit., pp. 24-25.

CHAPTER III
ON THE NORMATIVE ASPECT OF CONCEPTS AS RULES

III.1 Introduction

We have seen in the previous chapter that one of the essential features of Kant's account of the possibility of empirical cognition is his understanding of concepts serving as rules. A mere apprehension of the manifoldness given in intuition is insufficient for cognition. Cognition requires conceptualization of the given manifold. Kant maintains that, in regard of their generality, concepts are rules by means of which the manifoldness of objects given in intuition can be combined and unified.

Another important key for an understanding of Kant's theory is that empirical concepts have to be formed and employed in accordance with certain rules, and not by means of an arbitrary and/or accidental association. Kant argues, as we have seen, that categorial concepts are those rules required for the formation and cognitive application of empirical concepts.

As usually happens, the solution of one problem leads to a statement of another. It has been established

in the previous chapter, against Walsh, that categorial concepts are required for empirical cognition. The relation between empirical and categorial concepts argued for there is that the former are the first-order rules for the combination and organization of the given manifoldness, and that the latter are the second-order rules, or meta-rules, for the formation and cognitive application of empirical concepts. In that way the formation of the first-order rules from some material given in intuition and their application to some other material are accounted for in terms of the second-order rules.

But the problem now shifts to the higher level: What about the second-order rules themselves? Are they to be accounted for in terms of some third-order rules? If yes, what could possibly be those rules? If no, are not, then, categories, as the second-order rules, arbitrary (or accidental, or haphazard)? And if categories, as the second-order rules, are themselves non-regulated and arbitrary, than the formation and application of empirical concepts will also be to some extent arbitrary, and the very possibility of cognition will be in question. In other words, if the rules for the cognitive synthesis are arbitrary, then the synthesis itself will be arbitrary. So what has to be considered is whether or not categorial concepts, as the second-order rules of

cognition, are non-regulated and arbitrary.

Notice that what is in question is not whether or not categories function as the second-order rules for the formation and application of empirical concepts. In Kant's terminology, the present problem does not consist in the quid facti for categories. The problem to be discussed here is that of the quid juris for categorial concepts. As Kant also puts it, it is the problem of the "legitimate right" of categorial concepts to be employed as the second-order rules.¹

I do not want to give the impression that these questions, the question of fact and the question of legitimate right, have nothing to do with each other; that would certainly be false. There are already seeds for Kant's answer to the quid juris in the previous chapter. But these questions are separable. And while in the previous chapter our primary concern was to answer Walsh's objection, that is, to show that categories are required for an account of empirical cognition, the primary goal in this chapter is to concentrate on the quid juris for categorial concepts.

III.2 The Problem and Its Solution

In this section I shall first argue what is not intended as a solution to the quid juris for categorial

concepts. This consideration will help us to specify and understand better the problem to be solved. Then I shall briefly anticipate what I see as Kant's solution of the problem. Finally I shall outline my strategy for demonstrating that Kant has both a defensible and a valuable solution of the problem of the legitimate right of categorial concepts.

Let me begin by trying to make the term "arbitrary" a bit more specific. The term is usually taken to mean "depending on volition, or based on preference or whim," and also "not governed by principles, or not fixed or determined by rules." For that reason one might be inclined to think that, if it can be shown that categorial concepts are not arbitrary, it can be done (only) by an appeal to some higher order rules. However, this proposal is not very promising because it faces some serious problems.

A general problem for any such proposal is connected with the possibility of an infinite regress. (How are those third-order rules, which might eventually legitimate the application of categories, to be legitimated themselves? By means of some even higher level rules?) A more specific and a more interesting problem for us here is that it is not clear what such third-order rules in the case of cognition might be at the first place.

Moreover, Kant himself explicitly claims that categorial concepts are to be regarded as the highest rules of cognition.² His regarding categorial concepts as the highest rules of cognition clearly indicates that Kant himself did not consider proving the legitimate right for the employment of categorial concepts in terms of any third-order rules. According to Kant, there are no such (third-order) rules for cognition.³

How, then, does Kant intend to show that categorial concepts are not arbitrary but have a legitimate employment in cognition? One obvious way in which Kant intends to demonstrate that categorial concepts are not arbitrary in any pejorative sense of that word can be found in the so-called metaphysical deduction of categorial concepts. There Kant attempts to prove apriority and uniqueness of his table of categorial concepts by relating them to general logical forms of judgment. Kant argues that those general logical forms of judgment provide "the clue for the discovery of all pure concepts of the understanding" (A66/B91). Kant describes general logical forms of judgment as "the functions which give unity to the various representations in a judgment" (A79/B104), and also as "moments of thoughts in general" (A71/B96) which "specify the understanding completely" (A69/B94). General logical forms of judgment, then, are certain general structures,

or rules, which specify the ways in which the unification of various representation in judgments is possible, irrespective of the content which is thereby unified.⁴

Thus, Kant's relating categorial concepts to general logical forms of judgment is intended to exclude a certain sense in which categorial concepts could be arbitrary. If Kant is right, the origin and the precise number of the original categorial concepts does not vary from one person to another, or from one culture or society to another. According to Kant, the origin and the precise number of categories can be determined for any rational being with an understanding which, like ours, is discursive and is not intuitive.

However, my main concern in this chapter will not be to see whether Kant succeeded in establishing the uniqueness of his set of categories. Nor shall I discuss Kant's metaphysical deduction in general. The main reason for this is that Kant himself did not intend to answer the quid juris for categorial concepts by means of the metaphysical deduction of categories. Kant raised the quid juris after the conclusion of the metaphysical deduction. He was aware that even if we accept the conclusions of the metaphysical deduction of the categories, there would still remain some problems because of which the quid juris will not yet be answered. This is so because there are two other senses in which

Kant wants to show that categories are not arbitrary.

The first of these is related to a possibility that, as a matter of fact, no object conforms to categories. According to Kant, categories do not represent the conditions under which objects (Gegenstände) are given in empirical intuition (A89-90/B122-23). Hence, it is possible that those objects given in empirical intuition might appear to us without being related to categories. For this reason Kant argues that, even if all of us share and must share the same set of categorial concepts, it is still possible that they are mere "subjective dispositions" of our cognitive capacities. By means of those subjective dispositions we would regulate the formation and application of empirical concepts, but it would still be possible that objects do not conform to those categorial concepts.

In that case, Kant claims, these categorial concepts would be no more than "mere phantom[s] of the brain" (A91/B124). That is to say, in that case categories would be arbitrary and the quid juris for them would not be answered. This is a problem with which traditional metaphysicians were not very concerned; they usually simply assumed that there are objects which certainly conform to what Kant calls categorial concepts.

Yet another thing which worries Kant in this context is that, even if it can be shown that some objects really

conform to categories, this would not imply that an unlimited and unrestricted employment of categories would be legitimate. This is the second sense important for Kant in which categories might eventually turn out to be arbitrary. For instance, one can say of a book, as well as of a unicorn, or of a soul, that it is a substance. That is, one might think in each case that it is an enduring object which is the bearer of changeable characteristics and relations. But there can be epistemically significant differences between such cases, and what therefore has also to be examined is whether or not such universal and unrestricted employment of categorial concepts is legitimate.

The main concern in this chapter, then, will not be with the eventual uniqueness of the set of categories but, we can say, with the unique function or role which such concepts (are supposed to) play in cognition. To be sure, Kant wanted to show both that there is a unique set of categories as well as that there is a unique function which they play in cognition. But these two projects can be separated and actually are separated by Kant himself. Not only that Kant considers them in two different sections of the Critique but, when Kant in the transcendental deduction discusses the problem of the function which categories are supposed to play, his discussion does not in any way depend on the actual list

of categories established previously in the metaphysical deduction.

Moreover, one might perhaps argue that there is an apparent conflict between the conclusions of the metaphysical and transcendental deduction. According to the former, categorial concepts are permanent and unchangeable, and there is only one unique set of them derived from the judgmental forms of the understanding. According to the latter, categorial concepts are (as we shall see) legislated by us, they are our own contributions and, in a sense, our own choice. Whether this conflict is merely apparent or real will not be discussed here. But a complete separation will be made between the thesis that there is a unique set of categories and the thesis that categories perform a unique function in cognition. Only the latter thesis will be examined in this chapter.

Let me remark here Kant does not merely and accidentally phrase in legal terms what he believes is the central problem for his account of categorial concepts; he intends to answer it in the same manner. The answer to the quid juris is to be found, according to Kant, in better grasp of the function which concepts perform as normative rules (cf. A125-30, B159-65).

To anticipate his solution more specifically, Kant argues that categories are a specific kind of

prescriptive rules necessary for cognition of objects. Kant further argues that the guid juris for categorial concepts can be answered by realizing that "categories are concepts which prescribe (emphasis mine) laws a priori to appearances, and therefore to nature, the sum of all appearances" (B163). This statement clearly indicates that Kant intends to show the legitimate right of categories to be applied in cognition in the following ways.

- (i) The application of categorial concepts is to be restricted to appearances;
- (ii) Categories display some legislative function in respect of appearances.

A brief outline of Kant's argument in what consists the legislative function is question is as follows. If appearances, or objects of empirical intuition, are to be cognized at all, argues Kant, they must combined, contrasted, and united by a cognitive subject (A125, B130). Categorial concepts are those rules in accordance with which a cognitive subject performs this process of ordering and unification. Hence, all appearances must conform to categories because categories are the conditions of the possibility of cognition of objects and, indeed, of objects of cognition themselves (but not in themselves). As Kant puts it,

[The understanding] not only is the faculty of

rules in respect of that which happens, but is itself the source of principles according to which everything that can be presented to us as an object must conform to rules. For without such rules appearances would never yield knowledge of objects corresponding to them (A158-59/B197-98).

If, then, Kant is right to conclude that all appearances must conform to categories, he is also right to conclude that categorial concepts cannot be arbitrary rules for cognitive synthesis of the manifoldness of objects given in intuition. To put it more precisely, Kant believes that this proposal can demonstrate that categorial concepts are not arbitrary in the above mentioned senses. First, categories are not arbitrary because appearances must conform to them, if they are to be cognized at all. Second, although an unrestricted and unlimited employment of categories is not legitimate, categories are not arbitrary when their (cognitive) employment is restricted to appearances.

Kant's proposal has often been criticized. For instance, Paul Guyer has maintained that "Kant leaves obscure the exact source of the requirement of conformity which is to obtain between our laws for representing objects and the objects that in fact we represent - the reason why these object conform to these rules."⁵

Notice that this criticism of Kant's view addresses itself to (ii) but not to (i). What has in effect been objected to Kant is that he neither sufficiently supports

his claim that categories are legislative concepts, nor sufficiently clarifies how this legislative function of categories answers the quid juris.

My general goal in this chapter will be to clarify and defend Kant's answer to the quid juris for categories. It is true that Kant's language is often obscure and does not always clearly reveal his views. In order to avoid some possible misunderstandings and present Kant's view as clearly as possible, I shall partially depart from his own terminology. For this reason I shall first present, in the spirit of the contemporary philosophy of language, a general conception of rules. This presentation will provide us a conceptual framework useful for the assessment of Kant's endeavor.

The emphasis of the discussion in the first part of the chapter will be on the nature of prescriptive (not descriptive) rules. It will become clear in the course of the discussion that not every kind of prescriptive rule would suffice to answer the quid juris for categorial concepts. Following Searle, I shall distinguish between two kinds of prescriptive rules, regulative and constitutive. Regulative rules will be defined as those rules which are contingent and replaceable by some other rules. I shall argue that replacements of regulative rules need not involve significant changes in the character of the activity

which they govern. Constitutive rules will be defined as rules which constitute and make possible a certain rule-governed activity. I shall argue that, so understood, constitutive rules cannot be arbitrary with respect to the activity they regulate.

This conceptual framework will help us in the second half of the chapter to explain a deep and fundamental difference which empirical and categorial concepts display as prescriptive rules. While empirical concepts will turn out to be regulative rules of cognition, Kant's categorial concepts will turn out to be constitutive rules of cognition. That is, Kant's claim that categories are legislative concepts will amount to the claim that categories make possible our cognition of objects (in the sense to be specified) and for that reason are constitutive rules of cognition. When their (cognitive) employment is restricted to appearances, categories are not arbitrary and they have a legitimate right to be employed as the second-order rules for the formation and application of empirical concepts. In that way the quid juris for categorial concepts will be answered.

III.3 A General Conception of Rules

The notion of 'rule' has a spectrum of various

meanings, ranging from "something that usually happens or obtains," to "a fixed principle that determines conduct." One thing that the variety of meanings of the notion of 'rule' has in common is that rules are inseparably connected with regular activities or behavior. It is in connection with the discussion of regular activities that we shall distinguish and clarify some typical kinds of rules.

Regular activity is a uniform and recurrent activity, an activity which is often characterized by conformity to a procedure or rule. A regular activity can be of two kind; it is either (i) a merely regular activity or (ii) a rule-related activity.⁶ We talk about a merely regular activity when something happens as a rule, either habitually or because of some underlying mechanism. On the other hand, in the case of a rule-related activity something happens in accordance with a certain rule. An example of a merely regular activity is that truck drivers rest their left arms on the ledge of the open window. An example of a rule-related activity is that truck drivers stop at red lights.⁷

Another important difference between (i) and (ii) is that in the case of a merely regular activity there is no right or wrong, correct or incorrect, way about it, while in the case of a rule-related activity there is a right and wrong, or correct and incorrect, way to perform it.

This difference is to be accounted for in terms of the difference between rules related to (i) and (ii).

Rules of merely regular activities are 'descriptive' or (to use Rawls' expression) 'summary' rules.⁸ Such rules describe or summarize that and/or how some things happen. Descriptive or summary rules are usually based on (frequent) observations and are often formulated as empirical generalizations. Cases of merely regulative activities are prior to rules which describe or summarize these cases.

Rules of rule-related activities are not descriptive but, instead, are prescriptive. Such rules are prescriptive because they tell us what we must, can, and cannot do in connection with a particular activity. There are correct and incorrect ways of performing rule-related activities. Rules which govern such activities provide criteria for correctness of their performances; they establish correct and incorrect ways of performing activities. Further, prescriptive rules of rule-related activities are prior to the cases of activities which they govern. As Searle expresses it, such rules "automatically cover new cases." Confronted with a new game of chess a player knows "what to do."⁹

Prescriptive rules and rule-related activities are of more interest for our discussion here and we shall concentrate on them in the remaining part of this

section. Although the boundaries between various kinds of prescriptive rules are not always easy to recognize, various prescriptive rules can differ significantly among themselves. Their differences will be distinguished by means of two logically independent criteria.

To begin with an already familiar distinction, prescriptive rules can be first- and second-order rules. While first-order rules govern the performance of some activities, second-order rules govern the invention and/or the application of first-order rules. It is possible to have some higher order rules as well, but it need not be the case that a rule-governed activity has any second-order rules.

The other distinction between prescriptive rules is the distinction between regulative and constitutive rules. This distinction is more often discussed in the recent philosophical literature. Mainly following Searle,¹⁰ I shall draw the line between regulative and constitutive rules in the following way. Regulative rules do not define an activity which they govern but rather give some (specific) directions or regulations of how this activity is to be performed. Regulative rules prescribe that an activity be performed in one way rather than another, and prescribe sanctions for violations of these rules.

Constitutive rules, on the other hand, constitute

the "essential" characteristics of a certain activity, rather than merely prescribing ways to perform it. The constitutive rules of chess, for instance, create, as it were, the very possibility of playing games of chess. Unlike regulative rules, constitutive rules do not prescribe sanctions or penalties for their violation. It is not easy to grasp how somebody could violate the rule as to what counts, or what constitutes, checkmate in chess. Of course, one might choose not to follow constitutive rules of chess; that is, one might choose not to play chess at the first place. Or it is certainly possible that one misapplies the constitutive rules. But these cases are an entirely different matter, not relevant for our discussion here. Hence, we can conclude, while regulative rules of rule-related activities can be violated or broken, constitutive rules cannot.

What this difference indicates is that regulative and constitutive rules differ in their modalities. Regulative rules stand in a contingent relation to the activity they govern. Constitutive rules are necessary with respect to the activity which they define. The contingency and necessity in question are obviously relative to a certain activity, (e.g., playing chess or card games) and are not to be understood in an logical sense. Constitutive rules, for instance, are necessary

with respect to the certain activity because they constitute the essential characteristics of that activity, and are necessary only for that particular activity. It is therefore important to restrict the application of rules to proper activities.

Notice that there are many other activities which, although rule-related, are relatively 'loose'. That is, there are rule-related activities which have regulative rules, but do not have constitutive rules. Baking cakes is an example of such activities. There are clearly no strictly prescribed and defined rules as to what counts as a cake.

More interesting for us are those rule-related activities which have constitutive rules. An important feature of constitutive rules is that they give a definite and firm form to the activity they define. It is for this reason sometimes said that constitutive rules define the activity they govern as an "institution."¹¹ (Often mentioned and discussed examples of institutions are games, such as card games and chess, formal languages, legal systems, as well as some social organizations.) Constitutive rules create institutions by creating and determining practices and institutional behavior characteristic of that activity. Constitutive rules determine what must or must not be parts of or be subsumable under the institution. In this way

constitutive rules make possible (together with regulative rules) that performances of the activity to be objectively assessed as good, bad, and so on. For instance, only correct moves of chess, that is, only moves played in accordance with the rules of chess, can be judged to be good or bad.

However, what all of this means is not that constitutive rules are, as it were, self-sufficient. It is true that by means of such rules we determine, for instance, whether or not something is a checkmate in a game of chess. Without a rule to determine what counts as a checkmate, no position of the pieces on the board would really be (determined as) a checkmate. But, on the other hand, such a determination is possible only with regard to a certain position or a constellation of the pieces on the board. Without taking into consideration that which is to be determined, that is, a particular constellation of the pieces on the board, our rules are merely empty prescriptions which determine nothing. Constitutive rules have their full significance only when it is possible to apply them to relevant situations.

In the remaining part of this section I first want to make a few criticisms of Searle's conception and then further develop some of the points relevant for my purposes in this chapter.

One important question to be considered here is that

of the mutual relationship between regulative and constitutive rules. Unfortunately, Searle is not very explicit in respect to this matter. All he says is that constitutive rules are also regulative.¹² But I believe that this thesis is inconsistent with the sharp contrast he makes between the two kinds of rules. Let me mention one example to illustrate this. If Searle is right in claiming that constitutive rules have no penalties for their violation and regulative rules do,¹³ then how can constitutive rules function at the same time as regulative?

If they cannot, I suggest that it would be more consistent with the main body of Searle's conception to hold that constitutive rules put a certain constraint on the formation and application of regulative rules. This is not to say that constitutive rules require a certain definite or unique set of regulative rules. But regulative rules are to be formed, modified, and applied only in accordance with, or in conformity with, constitutive rules. The source of such dependency lies, I maintain, in the nature of constitutive rules. Constitutive rules constitute and make possible a certain rule-related activity; no matter by means of which rules that activity is going to be regulated, regulative rules have to conform to the constitutive rules of that activity for otherwise they would not regulate, or be the

rules of, the same activity.

Another point of disagreement between Searle and me is the following. So far I have presented constitutive rules as rules which constitute and make possible a certain rule-related activity; although this conception of the function which constitutive rules display very is interesting and fruitful, I nevertheless find Searle's description of constitutive rules as analytic definitions to be unnecessarily narrow and restrictive. I shall here first motivate and explain his view, and then attempt to show that this particular view is not essential for his overall conception of constitutive rules.

Searle argues that, in contrast to constitutive rules, regulative rules of a certain activity can be changed, i.e., modified or replaced by another set of regulative rules, without thereby changing the essential (defining) features of that activity. It can be prescribed, for instance, that a game of chess is always to be open with a pawn move, and in that way we would eliminate the possibility that a game can be open with a knight move.

No analogous changes are possible in the case of constitutive rules. It is of course possible that one changes what counts as checkmate in chess or, more generally, that one wants to introduce a (completely) new set of constitutive rules to be played with the same

pieces and the board. But, Searle seems to believe, this would change the essential character of the entire activity and it would not be quite correct to talk any longer about chess in the same sense. Thus, the activity of playing chess is "logically dependent" on its constitutive rules.¹⁴ This is so because, according to Searle,

[Constitutive rules] are almost tautological in character, for what the rule seems to offer is part of a definition of [for example] 'checkmate'....That, for example, a checkmate in chess is achieved in such and such a way can appear now as a rule, now as an analytic truth based on the meaning of 'checkmate in chess'.¹⁵

I want to make a few comments here. For one thing, there seems to be nothing in Searle's conception of how constitutive rules function to imply that such rules have to be analytic at all, and certainly not so in each and every case. That is, Searle's conclusion that constitutive rules are analytic definitions certainly does not follow from his view that constitutive rules are rules which make possible rule-related activities since these views are logically independent.

Furthermore, Searle's own example does not seem to support his conclusion that constitutive rules are analytic definitions either. In the case under consideration, what constitutive rules define and determine is a certain activity or element of an activity, i.e., checkmate in chess, not merely the word

'checkmate'. The definiens of the word 'checkmate' does not merely tell us the meaning of that word, but also contains a clear mark by means of which checkmate can be recognized and by virtue of which it can be shown that such a thing as checkmate in chess occurs. Thus, what the example indicates is that constitutive rules would presumably be synthetic rather than analytic.

It might be surprising that Searle simply does not consider that option for a proper description of constitutive rules. A reason for this might be that Searle holds a not so long ago widely accepted view that all a priori propositions are analytic. Since he also maintains that all definitions are a priori, he claims that all constitutive rules are analytic definitions.

As it is well known, Kant did not accept either the view that all definitions are analytic,¹⁶ or the view that all a priori propositions are analytic.¹⁷ Searle has a much broader conception of analyticity than Kant, and what is analytic for Searle need not be analytic for Kant. But we do not have to be Kantians to criticise Searle's proposal that all constitutive rules are analytic definitions. Let me only mention here that after Kripke's Naming and Necessity very few philosophers would argue that all a priori propositions are analytic and that, consequently, all definitions are analytic. For that reason, without going here into a discussion of

the nature of definitions and analyticity, we can see that Searle's view that constitutive rules are analytic definitions is unnecessarily restrictive. I thus propose that the options be left open, that is, that we allow that constitutive rules can be synthetic as well. In this case Searle's conception of the function which constitutive rules perform is both more interesting for and applicable to some cases he did not consider, particularly the case of cognition regarded as a rule-related activity, which is important for us in this chapter.

Let me now further develop the main body of Searle's conception by making a few remarks about the mutual relationships of the first- and second-order rules on the one hand, and regulative and constitutive rules on the other. We have already seen that, when they exist, constitutive rules of a certain activity, are logically prior to regulative rules of the same activity. What this shows is that it is impossible that the constitutive rules of any rule-related activity coincide with the first-order rules of the same activity. That is, constitutive rules are always meta-rules. The relevance of this case is clearly seen when we apply this consideration to empirical cognition, viewed as a rule-related activity. As we shall see in a later section of this chapter, section III.5, empirical concepts, as the

first order rules, can never be constitutive rules of cognition.

There are obviously possible several combinations of the mutual relationship between first- and second-order rules on the one hand, and regulative and constitutive rules of the other. This is so because some rule-related activities do not have the second-order rules and some other do, and because some rule-governed activities have only regulative and not constitutive rules. For our present purposes two of those possible combinations seem worth commenting upon.

The first interesting case is the one in which both first- and second-order rules of some rule-related activity are regulative. That is, although constitutive rules are always meta-rules, the reverse need not be the case. When applied to cognition this means that, although categories are meta-rules of cognition, it need not be the case that they are constitutive rules of cognition. It is quite possible that they are regulative rules of cognition of a higher order than empirical concepts.¹⁸ However, if this is the case, if categorial concepts are regulative rules of cognition, it is not clear how the charge of arbitrariness can be answered. We shall attempt to show that it is not the case that categories function as regulative rules of cognition.

The second interesting case is the one in which the

first-order rules of a certain activity coincide with the regulative rules of the same activity, and that the second-order rules coincide with the constitutive rules. If this be the case empirical concepts, as the first-order rules, would coincide with regulative rules and categories, as the second-order rules, would coincide with constitutive rules of cognition. I shall argue that this second case is the actual model to be applied to Kant's conception of concepts as rules and that this is the right model to accept.

The most important conclusions of this excursion into the discussion of the general conception of rules are related to the nature of constitutive rules. By being constitutive of a certain rule-related activity, by making it possible, constitutive rules are necessary and perform a unique function in respect of that activity. This means that the constitutive rules of some rule-related activity cannot be arbitrary, or accidental, or haphazard in respect to that activity, in spite of the fact that these constitutive rules are not themselves regulated by some higher order rules. Since they constitute a certain activity, it simply cannot be meaningfully asked whether or not constitutive rules are arbitrary in respect that activity. Any such question is an ill-defined question. If we can show that Kant's categorial principles function as the constitutive rules

of cognition, we would be able to answer the quid juris for them. This is what we shall attempt to do in the following sections.

III.4 Kant's Conception of Rules:

Some Preliminary Considerations

Let us now use the general conception of rules, as it is outlined in the previous section, to get a better grasp of Kant's own conception of rules. Kant certainly maintains that cognition is a regular activity, an activity which displays an order and consistency (A130, A158-9/B197-8). Further, cognition is not a merely regular activity for Kant; it is quite different from a Humean associative connection of ideas (A766-7/B794-5). Cognition is an activity performed from a conception of rules (cf. B132), and thus is a rule-related activity. According to Kant, no combination of the manifold is given by means of the senses, but is due to the activity of a cognizing subject. A cognizing subject combines and unites some given manifoldness by introducing rules which prescribe how cognitive synthesis is to be performed. In respect of their generality, concepts consistently prescribe the same synthesis so that objects of cognition are classifiable into natural kinds and re-identifiable as such (A104, A125, B137).

Thus, there seems to be a pretty apparent resemblance between Kant's conception of cognitive synthesis and the general account of rule-related activities from the previous section.¹⁹ The model of rule-related activities which Kant has in mind when he accounts for cognitive synthesis is very close to what contemporary philosophers, like Wittgenstein and Searle, understand as a paradigm of rule-related activities. Their paradigm examples are formal languages and games. This also seems to be the case with Kant, who explicitly compares the task of a philosopher with that of a grammarian; they both have to seek and discover those rules which regulate and govern in one case our language and in the other our cognition.²⁰

I shall argue that the resemblance extends further in the sense that Kant's conception of the different ways in which empirical and categorial concepts function in cognition is very close to the way in which Searlean regulative and constitutive rules differ among themselves. I shall also argue that it is something very close to that Searlean distinction what Kant has in mind when he describes categories as being legislative and constitutive, and when he in the first Critique distinguishes empirical and categorial concepts in terms of rules and laws (cf. A113, B163).

In a similar manner Kant makes a distinction between empirical and categorial concepts in the Critique of

Judgment. There Kant distinguishes between categorial and empirical concepts by saying that the former are "legislative rules" and that the latter are not.²¹ Kant adds that categories "exercise legislative authority" in a certain realm and connects their legislative function with the understanding. According to Kant, the understanding contains "constitutive a priori principles"²² and "prescribes a priori ... a law to nature, as the sum total of appearances."²³ Kant further remarks that only with respect to nature (as appearance) is it possible for us to prescribe laws by means of a priori concepts of nature, which are actually pure concepts of understanding."²⁴ For empirical concepts, on the other hand, Kant claims that although "they are produced by laws, they do not legislate; rather, the rules that are based on them are empirical and hence contingent."²⁵

We have already seen that both empirical and categorial concepts are required for empirical cognition. What we shall attempt to establish in the following sections is that Kant's distinction between empirical and categorial concepts coincides with the Searlean distinction between regulative and constitutive rules. If this can be established, we would be able to explain and defend Kant's idea that categories are legislative concepts (rules). This, in turn, will help us to answer the quid iuris for categorial concepts.

But before we do that we have to point to two significant disanalogies which exist between the Searlean conception of rule-related activities and Kant's account of cognition in terms of rules. The first of them concerns the nature of that which is subject to constitutive rules. The other disanalogy deals with Kant's actual usage of the terms 'constitutive' and 'regulative'. The sole aim of pointing to these disanalogies is to prevent possible misunderstandings, and not to question the fruitfulness of the consideration of Kant's doctrine in terms of the Searlean conception of prescriptive rules.

Let us clarify the first of the above mentioned disanalogies. Although Searle is not explicit on this point, what his considerations show is that he believes that that which is subject to constitutive rules is wholly immanent and wholly determined by the nature of such rules. This is especially clear when he uses chess to illustrate his views. What counts as a particular piece in a game of chess (e.g., a king, or a rook) is completely determined by the constitutive rules of chess; it is determined by the constitutive rules of chess which prescribe how that piece can be used in playing chess. It is of course possible, as Searle himself remarks, that in one country the king is represented by a big piece and that in another the king is smaller than the rook.²⁶ But this and similar differences do not matter at all,

insofar as we are concerned with playing chess. Searle attributes such differences to the "conventional forms" of playing chess.²⁷ Hence, according to Searle, it is simply irrelevant what is being used to represent the king; what matters is that that which is so used is completely determined by the constitutive use of chess.

If cognition can be accounted for in terms of rule-related activities, and if that particular Searle's view is to be extended to cognition, what would follow is that the objects of cognition would also have to be regarded as being completely determined by categories. There is nothing internally inconsistent with this conception and there are, indeed, Kant commentators which hold that objects of cognition are completely immanent to the scientific theories in which they figure.²⁸ However, I believe that this interpretation of Kant is incorrect. What is given to us in empirical intuition is important; the difference in the material given by means of the senses does not belong to any kind of "conventional forms" in which it might appear. Nor can the difference in what is given to us be disregarded or reduced to any system of constitutive and other rules of cognition. The material given in sensation is a constraint on our formation and construction of empirical concepts and theories.

Another disanalogy between Searle's and Kant's conception of rules refers to some terminological

differences in the usage of the terms 'constitutive' and 'regulative'. More specifically, Kant's own usage of 'constitutive' and 'regulative' differs from the one which is proposed in section III.3. One might be inclined to conclude from this that Kant's view should not be accounted for in terms of the Searlean conception. Let us for this reason consider first Kant's own usage of these terms and then see how important is the terminological difference.

The first thing to point out here is that, when in the Transcendental Dialectic Kant calls categories and principles of the understanding constitutive, he contrasts them not with empirical concepts but with ideas of reason. According to Kant, ideas of reason are derived "not from the constitution of an object, but from the interest of reason in respect of a certain perfection of the cognition of the object" (A666/B694). They do not determine any object but "serve to mark out the path toward systematic unity" (A668/B696). Kant sometimes calls them "maxims" of speculative reason, which serve only to guide and are heuristic (A616/B644). Thus, for Kant ideas of reason are regulative principles because they direct or regulate the employment of the understanding.

On the basis of such considerations one might argue that (i) for Kant regulative principles are very different from regulative rules, as they are

characterized in section III.3. Kant's regulative principles are not dependent in any way upon constitutive principles, as Searlean regulative rules are. On the contrary, Kant's regulative ideas of reason are, one can say, "beyond" the constitutive principles of the understanding since they guide the employment of the understanding. (ii) Moreover, Kant's contrast between constitutive and regulative principles is the contrast between principles of the understanding and principles (ideas) of reason. It is not the contrast between categorial and empirical concepts, as it is proposed here (cf. A509-10/B537-8, A619/B647).

However, I believe Kant's usage of 'regulative' does not provide a reason to reject the proposal we are pursuing here. For instance, Kant's view on ideas of reason does not exclude a possibility that something else (e.g., empirical concepts) can also function as regulative rules of experience, in the sense of 'regulative' described in section III.3. The point simply is that Kant uses the term 'regulative' in a way different from the one which we intend to pursue in this chapter. We are not here primarily concerned with the difference between various kinds of principles or ideas of reason.²⁹ Our interest is rather directed to the contrast between various kinds of concepts, categorial and empirical concepts in particular. For this reason we are not going to discuss the specific sense in which

Kant's ideas of reason can function as regulative principles of experience.

An additional complication with Kant's usage of 'constitutive' and 'regulative' emerges from some of his considerations in the *Transcendental Analytic*. There Kant divides all the principles of the understanding into "mathematical" and "dynamical" and calls the former constitutive and the latter regulative. This gives an impression that, for Kant, not all of the categorial concepts are constitutive rules. Let us, then, see what this distinction is about and whether it creates a problem for our proposal.

In accordance with the four group of categories (of quantity, quality, relation, and modality), in the chapter of the "Analytic of Principles" Kant divides all the principles into Axioms of intuition, Anticipations of perception, Analogies of experience, and Postulates of empirical thought in general. The first two principles, which justify the application of mathematics to appearances, Kant calls "mathematical." Mathematical principles refer to the possibility of appearances and teach us how "alike as regards their intuition and the real in their perception, [appearances] can be generated according to rules of a mathematical synthesis" (A179/B221).

Analogies of experience and Postulates of empirical thought are called by Kant "dynamical" principles. These

principles

seek to bring the existence of appearances under rules a priori. For since existence cannot be constructed, the principles can apply only to the relations of existence, and can yield only regulative principles (A179/B221).

Although I do not want to deny the plausibility of this distinction from the Analytic of Principles, I argue that it is not to be regarded as a counter-argument against the thesis that, in an important respect, all categories (and all principles) are constitutive rules of cognition. As Kant himself explains,

In the Transcendental Analytic we have distinguished the dynamic principles of the understanding, as merely regulative principles of intuition, from the mathematical, which, as regards intuition, are constitutive. Nevertheless these dynamical laws are constitutive in respect of experience, since they render the concepts, without which there can be no experience, possible a priori (A664/B692).

Without going into consideration in what the difference consists, it is sufficient for our purpose to realize that Kant makes an explicit contrast between a principle being regulative or constitutive in respect of intuition, and a principle being regulative or constitutive in respect of cognitive experience. It is the latter case which is relevant for our discussion.

The moral of our considerations in this section is the following. First, Kant has in mind the model of rule-related activities analogous to that of some contemporary philosophers. For this reason some of their results are applicable to Kant's account of cognitive

synthesis, as well as on his account of empirical and categorial concepts. Further, Kant uses the term 'constitutive' in various contexts in which the meaning of the word obviously differs. Finally, he clearly uses the word 'regulative' in the sense which is not intended here. To avoid possible misunderstandings, we shall in the following use these terms only in the sense in which they are characterized in section III.3. In this way we shall depart from Kant's terminology but not from the spirit of his doctrine.

III.5 Empirical Concepts as Regulative Rules

So far we have clarified and defined the notions of regulative and constitutive rules as well as give some preliminary comparison between the Searlean and Kant's conceptions of rules. Now we are in a position to present some positive evidence for the view that empirical concepts coincide with regulative rules and that Kant's categorial concepts coincide with constitutive rules. If this can be done, it will help us to defend Kant's theory against the charge of arbitrariness, raised at the beginning of this chapter.

In this section we shall deal with empirical concepts. In the remaining sections we shall attempt to

clarify Kant's claim that categories are "legislative concepts." It will turn out that categories function (in a specific sense which will be explained) as "a priori laws." This, in turn, means that categories are the conditions of empirical cognition which make possible objects of cognition. This, then, will be the legislative function which shows that categories function as the constitutive rule of cognition.

Consider now the similarities between empirical concepts and regulative rules. Let us recall that regulative rules are said to be a subspecies of prescriptive rules. Regulative rules are prescriptive rules which are contingent, can be broken or violated, and can be changed, i.e., modified and/or replaced by some other regulative rules.

Empirical concepts are also contingent; what they ascribe to objects which are subsumable under them are not necessary properties. As Kant remarks, "new observations [can] remove some properties and add others" (A728/B756). This is so because in the case of empirical concepts we do "not analyze what lies in them but learn through experience what belongs to them."³⁰ Kant emphasizes that it is always possible to discover "through experience" new properties as belonging to empirical concepts; a consequence of this is that empirical concepts are never complete and, strictly

speaking, have no definitions but only open-ended (nominal) expositions which can be changed and modified. Further, empirical concepts are never strictly universal; it is rather that they are merely comparatively universal. As we already seen in the previous chapter, empirical concepts ascribe to objects subsumable under them, objects of natural kinds, a property or a set of properties for which we have not yet encountered an exception (B4).

But imagine that we find an exception. An exception to the set of ascribed properties leads to some changes and adjustments in our network of empirical concepts. The discovery of black birds which are in all the features alike swans, except for the color, requires that we, for instance, modify our concept of 'swan' by dropping out the color as a distinguishing property. Or it might require that we introduce a new concept of a natural kind, which will have in common with the concept of 'swan' all the properties, except for the color.³¹

Therefore, empirical concepts are contingent, and what they prescribe as rules of cognition can be changed. This leads us to the conclusion that empirical concepts are, or function as, regulative rules of cognition.

III.6 Categories as Legislative Concepts

Let us now turn to categorial concepts to see if they are to be regarded as constitutive rules of cognition. As we have concluded in an earlier section of this chapter, constitutive rules are prescriptive rules which are necessary with respect to a certain rule-related activity. Further, constitutive rules cannot be broken or violated. Most importantly, constitutive rules make possible, or constitute, that activity which they govern.

Consider now the following questions. What is it that distinguishes categories from empirical concepts so significantly? What is the difference which makes that empirical concepts function as regulative rules and categorial concepts (if we are right) as constitutive rules?

Kant tells us that one of the distinguishing features of categories is that, unlike empirical concepts, they are strictly or absolutely universal, as well as necessary (A91/B124). Although the nature of their necessity is never clearly and uniformly defined by Kant, it is evident that he does not have in mind either a strong Leibnizian necessity, or a weak Humean necessity. (In the previous chapter, in section II.8, we

have explained the necessity of categories in terms of their being required for the law-like connection of the manifoldness of objects given in intuition. We shall return to this point briefly.)

An important way in which Kant develops the distinction between the contingency of empirical concepts and the necessity of categories is by distinguishing 'rules' and 'laws'. The distinction is explicitly made in the first edition of the Critique, and it is preserved, although not defined, in the Prolegomena and the second edition of the Critique. Kant claims,

The representation of a universal condition according to which a certain manifold can be posited in a uniform fashion is called a rule, and when it must be so posited (gesetzt) a law (Gesetz) (A113-14).

Although Kant is not as clear as we wish him to be, his intention in the quoted passage is apparent. By the "representation of a universal condition" Kant means 'concept', insofar as it is multiply instantiable and as such serves as a rule for the uniform synthesis of some given manifold. As Paton has pointed out,³² Kant connects the root of the German term for 'law' with his own views. More specifically, Kant connects 'law' (Gesetz) with the representation of a universal condition in accordance with which a certain given manifold must be posited (gesetzt). According to the quoted passage the difference between a concept functioning as a rule and a

concept functioning as a law appears to be the difference in their modality with respect to the unifying role which it plays in the cognitive synthesis of some given manifoldness. If a concept is such that it can, but need not, be used for the cognitive synthesis, it is a rule or, more precisely, functions as a rule. If, however, the application of a concept is necessary for the cognitive synthesis, it is a law or functions as a law. A law, according to the above quoted passage, is a rule which is necessary for the cognitive synthesis (cf. A216/B263).³³

Kant does not follow this distinction consistently and, even after the distinction is made explicitly, he occasionally shifts back to talking about categories as rules rather than as laws. But this distinction is illuminative for an understanding of Kant's view that categories are legislative concepts. So is his further distinction between two kinds of laws, empirical and a priori.

Empirical laws are for Kant laws of natural sciences. They are "specific laws" (B165), that is, laws which capture and formulate particular fragments of nature. Even though in some sense necessary (in the sense of the so-called physical necessity), empirical laws are synthetic and a posteriori. This is so not so much because it is logically and conceptually possible

that nature might have been governed by quite different laws,³⁴ but because such laws of nature can be known only by means of experience.³⁵ Thus, empirical laws are somewhere "between" empirical concepts and categorial concepts (laws). On the one hand, they are empirical insofar as they always contain an a posteriori element. But, on the other hand, they are laws because they possess a certain necessity. This is why empirical laws can also be characterized as being "relative" a priori (cf. B3-4).

To such empirical laws Kant contrasts laws absolutely a priori, which he characterizes as "universal laws of nature."³⁶ These absolutely a priori laws will turn out to be the conditions of the possibility of cognition of nature, and they are for Kant always related to categorial concepts.

The significance of Kant's distinguishing between empirical and a priori laws can be seen clearly in the light of his thesis that the former are "subject" to, and are dependent upon, the latter (cf. A127-28, B163ff). If so, it is a priori laws which make nature possible and which are constitutive of nature, not empirical laws which are "subject" to a priori laws. This is the thesis which Kant repeats time and again, and the clarification of this thesis is of central importance for answering the quid iuris for categorial concepts. But the thesis is far

from being obvious and unquestionable; one might wonder how these two kinds of laws are related at all, as well as why the relationship is not reversed.

Consider, then, Kant's reasons for supporting his thesis. Kant maintains that,

There are certain laws which first make nature possible, and these laws are a priori. Empirical laws can exist and be discovered only through experience, and indeed in consequence of those original laws through which experience itself first becomes possible (A216/B263).

An understanding of Kant's notion of 'nature' is clearly very relevant for the understanding of his entire argument. Perhaps the clearest account of this notion is given in the Prolegomena. There Kant defines nature (as a whole) as "the existence of things, so far as it is determined according to universal laws."³⁷ Then he distinguishes between "nature in the material sense" and "nature in the formal sense."³⁸ By the former Kant means "the totality of appearances,"³⁹ that is, the totality (sum) of things insofar as they appear to us in accordance to the peculiar conditions of our sensibility. By "nature in the formal sense" Kant means "the totality of rules under which all appearances must come in order to be thought as connected in experience."⁴⁰ To put it somewhat differently, "nature in the formal sense" refers to the various ways in which the manifoldness of things given in intuition can be combined, so that they can be

thought and cognized by us.

Both empirical and a priori laws of nature are concerned with "the connection of appearances," and not so much with either the existence of appearances or with the conditions under which appearances can be given to us (A127ff, B160ff, A216/B263). For this reason it becomes clear that in the quoted passage Kant has in mind nature in the formal sense. It also becomes more understandable why Kant can claim in the quoted passage that a priori laws "first make nature possible" and also are "those original laws through which experience itself first becomes possible." The nature which natural science investigate and whose laws it is trying to detect is the nature of things and their relations and properties, but only insofar as they can be experienced by us. What does not conform to the conditions of our empirical cognition, the conditions of our sensibility and our thought, is not empirically possible for us (cf. A218-20/B265-67). Thus, what does not conform to such conditions cannot be investigated by natural science.

Furthermore, if categories express the conditions of the possibility of experience, they a fortiori express the conditions of natural science and of empirical laws that natural science detects. This is why Kant claims that empirical laws "are one and all subject to" a priori laws (B165) and also that "all empirical laws are only

special determinations of the pure laws of understanding, under which, and according to the norm of which, they first become possible" (A127-8).

As Kant warns us, his thesis that all empirical laws are subject to a priori laws does not imply that empirical laws are thereby derived from a priori laws. Kant maintains that,

To obtain any cognition whatsoever of those [empirical] laws, we must resort to experience; but it is the a priori laws that alone can instruct us in regard to experience in general, and as to what it is that can be cognized as an object of experience (B165).

Empirical laws, then, are subject to but not derived from a priori laws. It is through categorial concepts that the understanding prescribes absolutely a priori laws to nature, and it is in that sense that categories are legislative concepts.

III.7 Limitation of the Legislative Function of Categories

Having clarified what Kant means by maintaining that categories are legislative concepts, we are now in the position to show that the worry (expressed in the beginning of this chapter) that categories may be arbitrary is unjustified. Remember that the two relevant senses of arbitrariness which Kant wanted to exclude for

categorial concepts are the following ones. First, it might be possible that no objects conform to categories and that they are "mere phantom[s] of the brain." Second, Kant realized that even if it can be shown that some objects must conform to categories, it is important to clarify what those objects are, and in that way prevent a non-legitimate and hence arbitrary employment of categories. Since it is easier to show in which cases the employment of categorial concepts cannot be legitimate, than to show that some objects must conform to categories, let us begin by showing that categories are not arbitrary in the second of the two mentioned senses.

Kant thinks that the distinction between what is and is not nature is very significant, but that it was hardly ever made precise.⁴¹ To make this dividing line as sharp as possible, Kant distinguishes between objects' being subject to conditions of our cognition and their not being subject to such conditions. What this distinction amounts to is that, insofar as objects satisfy those conditions, they are cognizable and, insofar as they do not, they are not cognizable. Hence, this is an epistemic, not an ontological, distinction between objects as they appear to us according to conditions of our cognition and as they are considered in themselves, regardless of conditions of our cognition. According to

this distinction an appearance is anything that satisfies conditions of our cognition. On the other hand, a thing considered in itself is an unknown something considered in a manner not satisfying conditions of our cognition.⁴²

The significance of the epistemic distinction between appearances and things as they are in themselves in this context is the following. Kant attempts to show that if categories are to be legislative concepts at all, they can be legislative for appearances only. He intends to show that "categories are concepts which prescribe laws a priori to appearances, and therefore to nature, the sum of all appearances" (B163). If categories are to be legislative, their application has to be restricted to appearances.

This is not to say that we cannot and do not attempt to (mis)apply categories to things as they are considered in themselves. Indeed, this is what Kant's rationalistic predecessors did, hoping to yield some "intellectual cognition of Reality."⁴³ Kant notices that there are two major reasons why categorial concepts appear to have a broader range of legitimate application. First, categorial concepts are quite independent from any experience in respect of their origin. Second, they display a certain necessity of determination, "which experience never attains."⁴⁴

However, no attempt to employ categories to things

as they are in themselves can yield us cognition of such things. One reason for this, as it is already indicated in the previous chapter, is that apart from the conditions of sensibility categories will have no object. Thus, categorial concepts could not be able to determine any object, "for in this case no ostensible object (angeblicher Gegenstand) is given that could be subsumed under the [categorial] concept" (A247/B304). Subsequently, our categorial concepts cannot legislate anything about reality as it is considered in itself. Without the raw material of the senses categorial concepts would not be schematized and will be merely empty and uninterpreted forms of thought (cf. A287/B343, A241ff). Moreover, as Kant demonstrates in the Transcendental Dialectic, an unrestricted application of categorial concepts leads to the so-called "antinomies" and other "dialectic illusions" of reason.

Let us now summarize our position. The notion of nature is to be understood in reference to the conditions of the possibility of empirical cognition. This is so because nature, as it is to be investigated by natural science, is nature of things which, at least in principle, can be cognized. As the sum of cognizable things, nature is dependent upon the conditions of our sensibility. Without the conditions of our sensibility nothing can be presented to us at all. Only appearances

can be objects of experience, and if categories are to be legitimately applied at all, their application is to be restricted to appearances.

III.8 Categories as Constitutive Rules

What our previous considerations do not (yet) conclusively show is that appearances have to conform to categorial concepts at the first place, and why they do. This problem arises, let us remind, because Kant claims that categories do not represent the conditions under which objects are given in intuition and, hence, objects might appear to us without being categorially conditioned (cf A91/B124). But if this is so, how can Kant reach the conclusion that appearances have to conform to categorial concepts?

Kemp Smith has attempted to solve this problem by arguing that the view that objects can appear to us without being categorially conditioned is a pre-critical one and is denied in the later parts of the Critique.⁴⁵ According to Kemp Smith's line of interpreting Kant, the very notion of appearance seems to be (analytically) connected with the notion of categorial determination.

However, this line of reasoning does not seem justified by the text. What, for instance, speaks against Kemp Smith's interpretation is Kant's explicit

distinguishing an appearance from a phenomenon. The former Kant defines as an undetermined object of empirical intuition (A20/B34), and the latter as an appearance insofar as it is thought as an object according to the unity of categories (A249). What we have when something appears to us without being categorially conditioned is, to use the language of the Prolegomena an "appearance as such" (Erscheinung als Erscheinung).⁴⁶ And when an appearance as such is categorially (as well as empirically) determined we have a phenomenon, or an object of cognition.

Kant's critical view is that our ability to be presented with appearances, with undetermined objects of empirical intuition, is due to the conditions of sensibility. And our ability to discriminate between, name, and describe phenomenal objects is due to the conditions of thought. This is the view exposed by Kant both in the Critique of Pure Reason and the Prolegomena. Moreover, remember that the same view is also mentioned in the third Critique; in one of the statements quoted above Kant maintains that the understanding prescribes a priori laws to nature as the complex of phenomena.

Why, then, should appearances conform to categorial concepts? To understand Kant's answer, consider the concept of 'cause', for instance. By 'cause' Kant means "a special kind of synthesis, whereby upon something, A,

there is posited something quite different, B, according to a rule" (A90/B122). Kant further adds that "this concept makes a strict demand that something, A, should be such that something else, B, follows from it necessarily and in accordance with an absolutely universal rule" (A91/B124). Now there is no reason why things as they are in themselves should conform to that concept. We have no reason to assume, with regard to things as they are in themselves, that if some A is given, something else, some B, must also necessarily be given. Even if A is granted we do not see why it will be contradictory, or impossible, not to grant some B, which is altogether different from A.⁴⁷

Kant claims that the situation is altogether different with appearances. As we have already seen, appearances are undetermined objects of empirical intuition, the connection and combination of which is not given in intuition. In a mere succession of some given manifoldness of objects nothing is properly distinguished from anything else. As Kant puts it,

The order and regularity in the appearances, which we entitle Nature, we ourselves introduce. We could never find them in appearances, had not we ourselves, or the nature of our mind, originally set them there (A125).

To express Kant's idea in a somewhat different way, it is only by means of the application of rules that the given manifoldness can be combined in a regular and law-

like manner. This, in turn, will make possible individuation, identification, and re-identification of objects in terms of empirical concepts of natural kinds. As we have also concluded in the previous chapter, categorial concepts are those rules through the application of which regular and law-like combination of some given manifoldness is possible. It is for this reason that Kant insists that categories make possible empirical cognition, and therefore nature, in respect of its form (cf. A125-30, B159-64).

To return to our case, assume that, as appearances, some A and B are connected in one's cognitive experience with reference to their temporal relation. Also assume that they are connected as an effect and a cause. It is by means of the categorial determination, that is, by means of the application of the concept of cause, that A and B stand in the particular temporal relation. To put it somewhat differently, in the cognitive synthesis of the particular temporal relation some appearances are determined as A and B, as an effect and a cause, and thereby are also determined as objects of cognition. For this reason A and B cannot be separated without rejecting at the same time that connection by means of which they are established as A and B of one's cognitive experience.⁴⁸ A and B become knowable and objects of cognition for us only by means of that cognitive

synthesis which make empirical cognition possible in respect of its form.

Every appearance (object), therefore, insofar as it is to be an object of empirical cognition, must stand under the conditions of thought which make the cognition of that object possible. Categorical concepts are these conditions of thought, and in this way it is made comprehensible why appearances have to conform to categorical concepts. This is also why Kant claims that "conditions of the possibility of experience in general are likewise conditions of the possibility of the objects of experience" (A158/B197).⁴⁹

What these conditions of the possibility of objects of cognition amount to is the following. As we have already indicated in the previous chapter, a cognitive subject constructs empirically cognizable characteristics or properties for objects of cognition. We discriminate among, we identify and re-identify such objects, we predict their law-like behavior, in terms of such cognizable properties of objects which classify them into natural kinds. Our empirical concepts of natural kinds are parts of rational systems of beliefs and theories. For this reason objects of cognition are characterized by particular theories in which they figure.

What is important for us in this context is that, as we have already seen in the previous chapter, empirical

concepts of natural kinds are constructed by a cognitive subjects in accordance with categorial concepts. Categories are constraints on the formation of cognizable empirical properties of objects of cognition. Thus, objects of cognition are "made possible" or constituted (in the sense already described) on the strength of legislative constitutive a priori laws contributed by a subject, that is, on the strength of categorial concepts. Kant's idea that categories are legislative concepts shows how categories function as constitutive rules of cognition (in the Searlean sense of constitutive rules). As constitutive rules of cognition, categories make possible objects of cognition and, if any appearance is to be known at all, it must conform to categories. This function demonstrates the legitimate right of categorial concepts to be employed in cognition and thereby answers the quid juris for categorial concepts. This function also shows that categories are not arbitrary when their cognitive application is restricted to appearances.

III.9 Endnotes for Chapter III

1. For Kant's usage of the phrases "quid facti," "quid juris," and "legitimate right," see section 13 of the Critique of Pure Reason. For an account of the origin of Kant's legalistic terminology, see D. Henrich's "Kant's Notion of a Deduction and the Methodological Background of the First Critique," Kant's Transcendental Deductions, ed. E. Förster, pp. 29-46.

2. Cf. A126 and the Prolegomena, Ak. IV, p. 305 (sec. 23); Beck, p.53.

3. There are places where Kant says that the principles of the understanding are rules for the employment of categories (cf. A161/B200). This view has often been disputed by Kant commentators; see, e.g., R.P. Wolff's Kant's Theory of Mental Activity, pp. 204ff. But even if Kant is right, the principles are not intended to be the third-order rules by means of which categories will be defended against the charge for arbitrariness, which is relevant for us here. This defense Kant intends to provide in the transcendental deduction.

4. As Melnick suggests, for that reason those logical forms of judgments can be regarded as syntactical, not semantical, rules for the unification of representations in judgments; see his Kant's Analogies of Experience, pp. 30-42.

5. P. Guyer, Kant and the Claims of Knowledge, p. 53. In a similar manner W.H. Walsh has remarked that "it is [Kant's] thesis that his categories are one and all constitutive of the world of experience....But how does he know that they will in fact have such application?"; see his "Kant's Transcendental Idealism," Kant on Causality, Freedom, and Objectivity, eds. W.A. Harper and R. Meerbote, p. 89.

6. Following R.M. Martin (The Meaning of Language, pp. 65-76) I use the phrase "rule-related." This phrase is fairly neutral and captures both "rule-directed" activities (discussed by Wolff) and "rule-governed" activities (discussed by some contemporary philosophers of language, such as Searle).

7. The examples are taken from R.M. Martin, op. cit., p. 66.

8. For Rawls' account of summary rules see his "Two Conception of Rules," Philosophical Review 64 (1955), pp. 19-23.

9. J. Searle, Speech Acts, p. 42.

10. Op. cit., ch. 2.5, pp. 33-42. See also his "How to Derive 'Ought' from 'Is'," Philosophical Review 73 (1964), pp. 43-58.

11. This point is made and developed by Susan Feldman in her Ph.D. Thesis, "Concepts, Rules, and Mental Activity: A Synthesis of Themes from Kant and Wittgenstein," defended at the University of Rochester in 1979, pp. 95-101.

12. J. Searle, op. cit., p. 34. For some other criticism of Searle's view see H. Schwyzer, "Rules and Practices," Philosophical Review 78 (1969). pp. 451-467.

13. J. Searle, op. cit., p. 41.

14. J. Searle, op. cit., p. 34.

15. J. Searle, ibid.

16. For Kant's understanding of analytic and synthetic, as well as of real and nominal, definitions see his Lectures on Logic, Ak. IX, pp. 140-45 (sections 99-109), especially p. 141 (sec. 100). For a detailed account of Kant's view on definition see L.W. Beck's "Kant Theory of Definition," in Studies in the Philosophy of Kant, pp. 61-73.

17. For Kant's account of the analytic-synthetic distinction see A6-10/B10-14. See also Brittan's interpretation of Kant's view in his Kant's Theory of Science, chs. 2-3.

18. In effect, something along this line is actually proposed by philosophers like C.I. Lewis, Collingwood, Körner, and Putnam, who -in one way or another- accept some versions of cultural relativism.

19. One of rare Kant commentators who has paid a considerable attention to the discussion of the nature of rules is R.P. Wolff. He argues that the comparison between Kant's conception of cognitive synthesis and an account of rule-related activities is instructive for the understanding of the nature of cognitive synthesis. See

his Kant's Theory of Mental Activity, pp. 120-34. See also an interesting article by Leah J. Stern, "Empirical Concepts as Rules in the Critique of Pure Reason," Akten des 4. Internationalen Kant - Kongress, Mainz 1974, ed. G. Funke, pp. 158-165, esp. p. 161.

20. Prolegomena, Ak. IV, pp. 322-23 (sec. 39); Beck, p. 70. For some further details of Kant's own conception of cognition as rule-related activity see B2, as well as the Lectures on Logic, Ak. IX, p. 11, where Kant claims that "the exercise of our own powers also takes place according to certain rules which we first follow without being conscious of them, until we gradually come to cognize them through experiments and long use of our powers, and finally make them so familiar to us that it costs us great effort to think them in abstraction. Thus, for example, general grammar is the form of a language as such. One also speaks, however, without knowing grammar, and he who speaks without knowing it actually does have a grammar and speaks according to rules, even though he is not conscious of them."

For a detailed general account of various models of rule-related activities see S. Feldman, op. cit., pp. 80ff.

21. Thinking about categories, Kant claims in the Critique of Judgment that a priori concepts are legislative, and that empirical concepts are not; Ak. V, p. 174; Pluchar, p. 13.

22. Op. cit., Ak. V, p. 167; Pluchar, p. 4.

23. Op. cit., ibid.

24. Op. cit., Ak. V, p. 178; Pluchar, p. 17.

25. Op. cit., Ak. V, p. 174; Pluchar, p. 13.

26. J. Searle, op. cit., p. 39.

27. Ibid.

28. I am primarily thinking here on G. Brittan; see his "Kant and the Objects of Theory," New Essays on Kant, ed. B. den Ouden, pp. 7-27.

29. For a detailed account of the difference between Kant's principles of the understanding and ideas of reason see Stanley G. French, "Kant's Constitutive - Regulative Distinction," Kant Studies Today, ed. L.W. Beck, pp. 375-391.

30. Lectures on Logic, Ak. IX, p. 141 (sec. 102n). See also sections 103-106 on pp. 141-144.

31. For more discussion about this issue see Thomas Kuhn's paper "Logic of Discovery or Psychology of Research?," Criticism and the Growth of Knowledge, eds. I. Lakatos and A. Musgrave, pp. 1-23.

32. H.J. Paton, Kant's Metaphysics of Experience, v. I, p. 446n1.

33. According to the Lectures on Ethics, p. 34, Kant defines law as "every formula which expresses the necessity of an action."

34. This has been pointed out by R. Butts, "Teleology and Scientific Method in Kant's Critique of Judgment," Nous 24 (1990), p. 2.

35. Prolegomena, Ak. IV, p. 318 (sec. 36); Beck, p. 65.

36. Op. cit., Ak. IV, p. 295 (sec. 15); Beck, p. 43.

37. Op. cit., Ak. IV, p. 294 (sec. 14); Beck, p. 42.

38. Op. cit., Ak. IV, p. 318 (sec. 36); Beck, p. 65.

39. Op. cit., ibid.

40. Ibid.

41. Critique of Practical Reason, Ak. V, p. 53; Beck, p. 54.

42. Notice that there is also an ontological distinction between appearances and things in themselves; this is a distinction between various types of entities. These distinctions are made by R. Meerbote, "The Unknowability of Things in Themselves," Kant's Theory of Knowledge, ed. L.W. Beck, pp. 166-67.

43. This was also Kant's own hope in his Inaugural Dissertation, "On the Form and Principles of the Sensible and Intelligible World," Ak. II, pp. 385-419.

44. Prolegomena, Ak. IV, p. 315 (sec. 32); Beck, p. 62.

45. N. Kemp Smith, A Commentary to Kant's "Critique

of Pure Reason," p. 221.

46. Prolegomena, Ak. IV, p. 311 (sec. 28); Beck, p. 58.

47. Critique of Practical Reason, Ak. V, p. 53; Beck, p. 55. See also Prolegomena, Ak. IV, pp. 311-12 (sec. 28); Beck, pp. 58-59.

48. Critique of Practical Reason, ibid. See also Kant's "Second Analogy of Experience," A189-211/B232-56. For a good detailed account of Kant's Second analogy see A. Melnick, op. cit., ch. 3, pp. 78-135.

49. Cf. A111, B161, A158-59/B197-98.

CHAPTER IV

CONCLUDING REMARKS

IV.1 Summary

According to my interpretation, Kant's central project in the Critique of Pure Reason is not to refute any form of epistemological skepticism. Instead, Kant's central goal is to investigate and explain conditions of the possibility of cognition. Kant assumes that we have cognitions and attempts to clarify what conditions should be satisfied in order for this to be possible. By assuming that we have cognition Kant does not in any way beg the skeptical challenge, since cognition is conceived of by him in a much broader sense than knowledge. And it is the question of whether or not we have knowledge that is relevant for the skeptical challenge.

One of the most fundamental assumptions of Kant's project in the Critique is that what is given to us by the senses is necessary but not sufficient for cognition. Items given in perception are objects as they appear to us in accordance with the particular constitution of our sensibility. Appearances, as Kant calls such objects, yield only the "raw material" for cognition. It is because of our conceptual apparatus that we are able to

determine what is presented to us by the senses.

My main task in the dissertation was to examine and develop Kant's account of concepts relevant for empirical cognition. Kant argues that because of their generality, that is, because of their applicability to many instances, concepts function as rules. They are rules for the intellectual organization of the raw material of the senses into judgments about state of affairs. By means of such rules we are able to recognize, that is, identify and re-identify, items of perception and ascribe to them various properties and relations.

It is clear and uncontroversial that empirical concepts, like 'red', 'book', and 'tree', are required for empirical cognition. What is not uncontroversial and what is, at the same time, one of Kant's major insights, is that categorial concepts are also required for empirical cognition. We have seen in chapter II that Kant's argument is as follows. The employment of empirical concepts yields cognition only if they are not formed and applied arbitrarily. Instead, empirical concepts have to be formed and applied in accordance with some rules of their own. Kant argues that categorial concepts, like 'substance' and 'cause', function as meta-rules for the formation and cognitive application of empirical concepts.

Kant is not sufficiently explicit about the details

of the argument, but I have proposed that the following interpretation is both faithful to the text and offers a philosophically defensible theory.

Kant distinguishes between 'matter', 'generality', and 'discursive content' of empirical concepts. The matter of empirical concepts is always given to us, and it is the raw material given by the senses. But the generality of empirical concepts, as well as their discursive content, are never simply given to us and have to be made or constructed. It is, then, both the formation of empirical concepts with respect to their generality and with respect to their discursive content that has to be accounted for in terms of categorial concepts. The two accounts have many features in common, but I have treated them separately for the sake of argument.

The formation of empirical concepts with respect to their generality cannot consist in a simple comparison of the material given by the senses and the further abstraction of the common features. It is rather that any such comparison of the material given by the senses requires an antecedent point of view, that is, an antecedent standard on the basis of which something can be compared and recognized as similar or dissimilar. A standard for comparison has to be introduced by a cognitive subject and has to be a priori. Empirical

concepts constructed in that way are concepts of natural kinds. Hence, natural kinds are not "objective external facts" which we have to simply notice or recognize, but are constructed by a cognizing subject in accordance with categories.

With respect to their discursive content empirical concepts are constructed from the raw material given by the senses. The transition which thereby occurs is a transition from an appearance, that is, an undetermined object of empirical intuition, to a fully cognitively determined object of cognition. Kant argues that empirical concepts are formed with respect to their content not by means of any merely associative connection but by means of law-like connections, which are made possible by means of the employment of categorial concepts.

If, then, empirical concepts are to be treated as the first-order rules for intellectual organization and determination of the raw material given by the senses, categorial concepts are to be regarded as the second-order rules for the formation and cognitive application of empirical concepts.

Kant further attempts to demonstrate that categorial concepts are not arbitrary rules. If they themselves are arbitrary, the formation and application of empirical concepts would also be arbitrary and the very possibility

of empirical cognition would fall into question. Kant does not intend to prove the "legitimate right" of categories by means of any higher order rules; he argues that there are no such rules. Instead, Kant points to the normative aspect of their functioning as rules. According to Kant, categorial concepts function as "legislative" rules, insofar as they prescribe laws a priori to appearances. By means of the Searlean conception of constitutive rules I have clarified and defended Kant's idea as follows.

It is by means of categorial concepts that we actually construct and ascribe cognizable properties and introduce concepts of natural kinds. Appearances must conform to categorial concepts for the reason that only by means of the application of categories can any of them become an object of cognition. As Kant puts it, the conditions of the possibility of empirical cognition are at the same time the conditions of the possibility of objects of empirical cognition. Objects of cognition are, then, constituted on the strength of the legislative a priori laws contributed by a cognitive subject. That is, they are constituted on the strength of categorial concepts. It is, thus, the role of categories as constitutive rules of empirical cognition which demonstrates the legitimate right of categorial concepts to be employed in such cognition.

IV.2 Some Philosophical Implications of Kant's Account of Empirical Cognition

Let me finally indicate some of the philosophical implications of Kant's account of empirical cognition which was presented, developed, and defended in the previous chapters of this essay. More specifically, I shall very briefly outline the relevance of the defended account of empirical cognition for some issues of contemporary concern in epistemology and ontology. The issues that I shall address here are the debate about realism and idealism (anti-realism) as well as some issues concerning truth.

A significant part of Kant's account of empirical cognition consists in his view that a cognizing subject has to contribute some essential elements for cognition. More precisely, a cognizing subject in some respect constructs empirically cognizable properties or characteristics of objects which we cognize, objects like trees, books, and so on. In terms of constructed cognizable properties a subject is able to predict law-like behavior of objects and also is able to classify them into natural kinds. Our empirical concepts, by means of which we classify objects into natural kinds,

are parts of rational systems of beliefs and theories. Consequently, objects of cognition are characterized by particular theories in which they figure.¹

What this view amounts to is certainly a denial of some version of realism (e.g. metaphysical realism); we cannot have cognitive access to things or reality which will be independent of our various conditions of cognition and/or independent of empirical givenness, which always has to serve as a material for our cognition. Hence, if Kant is right, what we can cognize is not a pre-structured world or reality, one of which there would be only one true and complete description.

But we should not be too quick to conclude from this that it is all that Kant's view amounts to. That is, we should not for that reason classify Kant's view as a straightforward idealism or anti-realism, as some Kant commentators have done.² Although objects of cognition are objects of theories in which they figure, they are not wholly objects of those theories. To put it somewhat differently, although our cognition of objects is relative to the mind and its conceptual apparatus, and although cognizable properties of objects are due to a subject, this does not imply that the instantiation of such properties is wholly due to a subject.

When Kant claims, for instance, that an object of cognition is "the product of the understanding from the

material of sensibility,"³ he certainly wants to emphasize that cognition is subject to constraints other than internal coherence. The raw material given by the senses does not only occasion but also puts a certain constraint on the activity of our cognitive capacities. I shall below engage in some speculation concerning the nature of such a constraint. Let me for the moment only say that an object of cognition has two equally important components; one of which is passively received by the senses and the other of which is actively contributed by a subject.

As outlined so far, Kant's position with regard to the dispute between realism and idealism should not be interpreted as falling entirely on the idealist side. It can more properly be described as having elements of both idealist's and realist's views. In that respect it can be compared with nowadays widely known Putnam's 'internal realism'.⁴ Indeed, it is not accidental that Putnam often declares that an inspiration for his view can be traced back to Kant. But although sympathetic with Putnam's view, I nevertheless see two problems in trying to further explain and develop Kant's view on realism and anti-realism in terms of Putnam's theory.

The first of these problems is quite general. Putnam's theory itself is insufficiently clarified and developed; hence, it can hardly help us understand Kant's

own view better. The second problem is more specific and also more important. Putnam rejects Kant's view on things in themselves as playing no role in an account of empirical cognition at all.⁵

However, I believe that Kant's doctrine of things as they are regarded in themselves plays a very important part in Kant's overall theory and, furthermore, can help us account for something which Putnam's view cannot. Namely, Putnam admits that "there are experiential inputs to knowledge; knowledge is not a story with no constraints except internal coherence;"⁶ However, Putnam is not able to give us any closer account as to precisely why and how such "experiential inputs" can function as constraints to our formation of concepts and theories. I believe that Kant can account for it. Let me briefly indicate how he can do so.

Objects which appear to a cognitive subject are things which in their own existence are independent of our constructions.⁷ Moreover, they are things which, qua things, have some properties and need to have some properties.⁸ These properties are not constructed and hence not cognizable; but the existence of such properties can explain a certain correlation or isomorphism which must exist in order for the raw material of the senses to be a constraint to the formation of concepts and theories.

The isomorphism in question clearly cannot be well-defined because we cannot individuate and identify unconstructable and uncognizable properties of things as they are regarded in themselves. Furthermore, it cannot be conceived of in terms of any type-type identity, because natural kinds or types introduced by a cognitive subject cannot be claimed to be type-identical to unconstructable and uncognizable properties of things insofar as they are considered in themselves. Constructed properties are not reducible nor linked causally to unconstructable properties; neither can the reduction be established in the opposite direction.

But this does not show that no isomorphism is possible, as Putnam believes.⁹ The isomorphism in question can be understood in terms of an admittedly ill-defined token-token identity.¹⁰ That is, it can be understood in terms of an ill-defined numerical identity between instances of unconstructable and uncognizable properties which objects regarded in themselves have and instances of the properties which we construct for and ascribe to objects of cognition. The objects which affect our senses are empirically cognizable only because instantiations of their unconstructable properties are cognizable as instances or tokens of constructed natural kinds. It is, then, in terms of the token-token identity that we can explain that and why objects of cognition are

not wholly internal to the theories in which they figure. In light of such token-token identity we can also demonstrate that a realist element plays an important role in Kant's account of empirical cognition.

Consider now some of the issues relevant for the problem of truth. One difficulty involved in any reconstruction of Kant's conception of truth is that, in his works, there are rather fewer remarks concerning the problem of truth than, for instance, concerning the debate between realism and idealism. But, on the other hand, Kant gives a clear impression that he accepts a correspondence theory of truth. For instance, he characterizes truth as an agreement between cognition and its object (cf. A58/B82, A820/B848). I shall mention here a few significant implications of Kant's account of empirical cognition for the conception of truth.

According to Kant, the correspondence between cognition and its object should not be conceived of in any naive sense of the word. The reason for this is that Kant denies that there is what is sometimes called "God's Eye" point of view which we could adopt and which is characteristic of metaphysical realism. Objects of cognition are not independent of a cognitive subject insofar as their cognizable properties are concerned. A model for cognition which we have to adopt is an anthropocentric one,¹¹ and correspondence should be

understood in terms of that model. According to this model, the question of truth, that is, the question of correspondence between cognition and its object, is the question that only makes sense to ask with reference to a cognizing subject and his conceptual framework. And an implication of this view is that there can be more than one true theory of the world.

And although, if Kant is right, any naively realistic conception of correspondence is mistaken, this is not a reason for arguing either that some more sophisticated version of the correspondence theory is not correct, nor that Kant does not hold a sophisticated version of such a theory.¹² Kant clearly rejects the idea which is characteristic for a naively understood correspondence, i.e., the idea that our cognitions and the objects to which they refer are literally similar. Our cognitions of objects are not simply copies of an independent reality; although it is often thought of in that way, the relation of correspondence between cognitions and their object does not require that our cognition must be copies of their objects. As Kant puts it, we can cognize on objects only what we put into them (cf. Bxiii-Bxvii).

Let me also remark here that, in respect of the problem of criterion of truth, Kant explicitly argues in the Second Postulate that sensation is the criterion of

empirical truth (A222-26/B272-74). The element of givenness which is present in sensation is, as already mentioned, a constraint on our construction of empirical concepts and theories. This again indicates that some external reference, that is, some reference to objects given in intuition, is required and that, further, the criterion of empirical truth cannot consist entirely in internal coherence.

However, this is not to say that coherence plays no role whatsoever. What Kant's view rather amounts to is the following. Different theories introduce and ascribe various cognizable properties to objects of cognition. This view can be developed to demonstrate that our theories construct truth-conditions for the recognition and ascription of cognizable properties to objects of cognition. But our theories can never construct all of the conditions of satisfaction of those conditions. Observation and experiential inputs are that which functions as a check on our theories. A properly constructed theory of truth and of criterion of truth should, therefore, include and contain both elements of correspondence and of coherence.

This sketch must suffice here. It would be another project to work out the details of Kant's complex theory of truth. The same of course holds for his complex brand of idealism and realism. But I believe that even a very

sketchy outlines of these views can be sufficient to indicated that Kant's account of empirical cognition, which was defended in this essay, can be developed further in such a way to generate both philosophically interesting and defensible answers to some questions of primary concern both for epistemology and for ontology.

IV.3 Endnotes for Chapter IV

1. I have in mind here primarily Brittan; see his "Kant and the Objects of Theory," New Essays on Kant, ed. B. den Ouden, pp. 7-27.

2. See Brittan, op. cit. See also Strawson's The Bounds of Sense, p. 35.

3. Prolegomena, Ak. IV, p. 316 (sec. 38) ; Beck, p. 63 .

4. See, for instance, Putnam's Reason, Truth and History, ch. 3, and also his Representation and Reality, ch.7.

5. Cf. Putnam, Reason, Truth and History, pp. 61-63, and his Many Faces of Realism, 36-43.

6. Putnam, Reason, Truth and History, p. 54.

7. Kant argues, for instance, that "though we cannot know these objects as things in themselves, we must yet be in a position at least to think them as things in themselves; otherwise we should be landed in the absurd conclusion that there can be appearances without anything that appears" (Bxxvi-xxvii); see also A249.

8. This thesis has been defended by R. Meerbote; see his "Apperception and Objectivity," The Southern Journal of Philosophy, 25 (1986), Supplement, p. 127.

9. Putnam, op. cit., pp. 63-64.

10. The thesis of the token-token identity is explained and defended by R. Meerbote; see his "Kant's Functionalism," Historical Foundations of Cognitive Science, ed. J-C. Smith, pp. 181-82. Let me remark here that the doctrine of the token-token identity is closely connected with a 'two descriptions' or 'two aspects' view on the relation between things considered in themselves and objects of empirical cognition.

11. This terminology is adopted and explained by Henry Allison in his Kant's Transcendental Idealism, ch. 2, esp. p. 28.

12. For an attempt to develop and defend Kant's

conception of truth as correspondence, see Thomas Nenon,
Objektivität und endliche Erkenntnis: Kants
transzendental-philosophische Korrespondenztheorie der
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