

INFORMATION TO USERS

The most advanced technology has been used to photograph and reproduce this manuscript from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

University Microfilms International
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

Order Number 9120496

Imagination in Kant's "Critique of Pure Reason"

Hongladarom, Soraj, Ph.D.

Indiana University, 1991

Copyright ©1991 by Hongladarom, Soraj. All rights reserved.

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

NOTE TO USERS

**THE ORIGINAL DOCUMENT RECEIVED BY U.M.I. CONTAINED PAGES
WITH POOR PRINT. PAGES WERE FILMED AS RECEIVED.**

THIS REPRODUCTION IS THE BEST AVAILABLE COPY.

IMAGINATION IN KANT'S
CRITIQUE OF PURE REASON

by
Soraj Hongladarom

Submitted to the faculty of the Graduate School
in partial fulfillment of the requirements
for the degree
Doctor of Philosophy
in the Department of Philosophy
Indiana University
January, 1991

Accepted by the Graduate Faculty, Indiana University, in partial fulfillment of the requirements of the degree of Doctor of Philosophy.

Frederick Beiser

Prof. Frederick Beiser, Ph.D.,
Chairman

Hector-Neri Castañeda

Prof. Hector-Neri Castañeda, Ph.D.

Paul D. Eisenberg

Prof. Paul D. Eisenberg, Ph.D.

Karen Hanson

Prof. Karen Hanson, Ph.D.

Brian G. Caraher

Prof. Brian Caraher, Ph.D.

Date of Oral Examination:

January 11, 1991

©

1991

Soraj Hongladarom

ALL RIGHTS RESERVED

Acknowledgement

This dissertation would not have been possible if not for the help of my teachers. I would like particularly to thank my director, Frederick Beiser, for his unfailing dedication to the development of this work from rough drafts to the present form. He is especially generous in giving me ample time to discuss Kant's texts as well as my attempt to interpret them. I am also grateful for his willingness to read through several versions of my drafts in such a short period of time.

I would like also to thank other members of the committee. Hector Castañeda has been very helpful and supportive, even after he is ill. The other members of the committee whose help I acknowledge here are Paul Eisenberg, Karen Hanson, Romane Clark, and Brian Caraher. I have learnt a great deal from all of them.

My stay at Indiana was made possible in part by a scholarship from Chulalongkorn University. I am also grateful to the Students' Department of the Royal Thai Embassy for their support in matters of visas and funding. Finally, I would like to thank my wife, Krisadawan, who has always been my companion at the times when writing a dissertation would have been unbearably lonely, and to whom this work is dedicated.

Table of Contents

Chapter One: Introduction / 1

Notes / 21

Chapter Two: Review of Literature / 26

Norman Kemp Smith / 31

Martin Heidegger / 35

Peter Strawson / 55

Mary Warnock / 61

Richard Aquila / 65

Conclusion / 72

Notes / 74

Chapter Three: Transcendental Aesthetic / 76

"Entia Imaginaria" / 79

Imagination, Synthesis, and Space and

Time as Formal Intuitions / 86

Kant's Argument for the Apriority of

Space / 99

The Logic of "Necessary Condition of

Possibility" / 110

The Processing of Empirical Intuitions / 115

Kant and Contemporary Theories of

Perception / 131

Notes / 143

Chapter Four: Transcendental Analytic / 148

The Metaphysical Deduction / 150

The Transcendental Deduction / 173

The Schematism / 201

The Processing of Empirical Judgments / 222

Notes / 227

Chapter Five: Conclusion / 233

Imagination in the *Anthropology* / 233

Imagination as the "Common Root"? / 245

Imagination in Other Places in the

First Critique / 255

Notes / 262

List of Works Cited / 265

Chapter One

Introduction

I would like to open this work with a quotation from Kant:

Psychologists have hitherto failed to realise that imagination is a necessary ingredient of perception itself. This is due partly to the fact that that faculty has been limited to reproduction, partly to the belief that the senses not only supply impressions but also combine them so as to generate images of objects. For that purpose something more than the mere receptivity of impressions is undoubtedly required, namely, a function for the synthesis of them (A120n.).

This passage represents the motto, the presiding theme, of this present study. What one gets from this note in the first edition of the Transcendental Deduction is that the senses themselves are not the factor that is responsible for the "combination" of the sensory material which is necessary for successful perception. According to Kant, this act of combination is the primary task of "imagination." Kant apparently hints in the passage that

the senses themselves do not have this power of combination. The reason is quite clear. If the senses do have this power, then there will be no problems regarding how the necessity and substantiality of events and objects come about. The necessary connection between the components of an event, for example, would be received from outside in full, with the consequence that there would be no problem regarding how such an idea of necessary connection could be received. This, however, is a serious problem since sensations alone are not sufficient in providing a fully justified picture of the world that includes necessity or substantiality. All sensations can supply is nothing more than collections of minuscule pieces of data that are presented to the mind. So where do such ideas as necessary connection or substantiality come from?

Recall that for Hume there is no possible way, in a case of a perception of an event, in which one could get at such a connection by means of sensation alone because data presented in this manner are at most only received as being contiguous to one another. The most one could have access to is mere juxtapositions or what he calls "constant conjunctions," which in themselves contain no idea of necessity. If the "idea" of necessary connection is not directly received via sensation, and if there is no other ground upon which an integrated knowledge can be based which must incorporate necessary, and not merely contingent or habitual, connection among items, then how is such

knowledge possible at all? In other words, how is it possible that ideas of causal connection, for example, are so deeply ingrained in the mind that makes it really implausible that they occur only through habits or customs?

The preceding is not a merely rhetorical question, for it pertains to a fundamental issue concerning the very possibility of human knowledge itself. Kant also grapples with this problem, and it is well known that the Critique of Pure Reason attempts to find a solution to these problems: How is synthetic a priori knowledge possible, given the limited capacity of human power of sensibility? Where do the ideas of substantiality and necessary connection, for example, come about if not through sensation? These are the questions that both Kant and Hume, each in a different way, try to solve.

The upshot is that, according to Hume, the idea of necessary connection among items that we evidently have as a matter of course when we perceive an event is supplied by the mind through the work of imagination. For Hume, then, a solution of this problem requires the faculty of imagination (see A Treatise of Human Nature Book I, section vi, p. 140). However, Hume stops short of claiming that the imagination is the source of items of experience themselves. This is due to the fact that, according to Kant, Hume is mistaken in taking such concepts as cause and effect to be derived solely from experience (Prolegomena 260). Even though Hume claims that imagination is a factor

in supplying these concepts, the imagination in his theory is only an empirical factor and hence can be nothing but contingent. The consequence is that this account fails to explain the necessary character of human knowledge.

For Kant, then, Hume's imagination works only at the empirical level; thus Hume, in Kant's eyes, is mired with the seemingly unsolvable problem of how knowledge is possible given the fact that sensibility does not supply ideas or concepts that are absolutely crucial for knowledge, and given that the most that can be supplied by the mind is nothing other than the habitual, contingent connection. Note that for Hume this is not a problem at all, provided that he is a skeptic regarding the origins of constitutive concepts of experience. This, however, would be a real problem if such constitutive concepts were derived from empirical factors because necessity and real connection among objects, for example, would be unexplainable.

This thesis, therefore, will look at Kant's idea on imagination and how in his system of the Critique it solves the problem of knowledge. Kant's original contribution to this matter is that he recognizes the transcendental function of imagination--one of the faculties ultimately responsible for the existence of experience in humans.

This work will focus only on Kant. To discuss Hume's idea on this topic in any substantial detail would be to wander far away from the present concern of this study.

Besides, since there is a large amount of secondary literature devoted to the exposition and critique of Hume,¹ this thesis will then not delve into a full discussion of the matter.

It is the basic idea of the first Critique, as Kant struggles to find an answer to this problem, that such concepts as cause and effect or substance, among others, are not directly received via the senses alone, but are a priori forms and are the conditions of the possibility of objective experience in the first place. In order for these conditions to be possible, and applicable to a real situation in a human system of cognition, the faculty of imagination is absolutely needed. This account does not limit itself to the merely empirical function of imagination, but will attend to the more primordial "transcendental" function also. I shall shortly discuss Kant's distinction between the transcendental and the empirical later in the chapter. However, Kant's view on this matter constitutes his famous "Copernican Revolution," which he mentions in the Preface to the second edition of the Critique: "If intuition must conform to the constitution of the objects, I do not see how we could know anything of the latter a priori; but if the object (as object of the senses) must conform to the constitution of our faculty of intuition, I have no difficulty in conceiving such a possibility" (Bxvii). Thus if the imagination is really needed for any account of how

knowledge is possible, then it is at the very center of the Copernican Revolution--a hub around which all other parts of the critical system revolve.

This thesis, then, aims at elucidating and analyzing Kant's idea on imagination, especially its role in perception and recognition. Mainly the texts of the *Aesthetic* and the *Analytic* will be studied in detail. However, other places in the first Critique where Kant mentions the imagination will also be discussed. The main objective of the work is to provide an interpretation, but a limited defense of Kant's ideas on the topic will also be offered. Since a full defense of Kant would require an entire work in itself this thesis will only be circumscribed to some arguments defending Kant in so far as it is practicable. The task of defending Kant, however, will only be secondary to the primary one of providing an interpretation of the nature and the role of imagination in such a way that Kant's system of the critique of pure reason becomes coherent and more tenable.

I would like to argue that Kant has a unified view on the imagination and that it functions prominently in the system of the Critique. Imagination is the sole unifying agent that brings together both pure and empirical intuitions, and both pure and empirical concepts in order that judgments are generated.

This account I shall be giving is distinctive from other accounts, notably ones by Bennett and Heidegger, in

that it focuses equally on imagination in both its empirical as well as transcendental senses, arguing that it is the same basic power that is at work both at the transcendental and empirical level, and that the transcendental function is the condition that makes its empirical employment possible. This reflects Kant's distinction between "productive" and "reproductive" imagination. The former is responsible, among other things, for joining together concept and intuition in the most general manner and relating them to the single framework of consciousness so that knowledge in general becomes possible. The latter, on the other hand, is an empirical factor of bringing to mind previously had items or of connecting a series of successive items coming to the mind in order to integrate them as a distinct, particular intuition.

In Kant's Analytic, Jonathan Bennett sees Kant's treatment of the imagination relentlessly in unfavorable terms, and he fails to recognize its preeminent transcendental role. Bennett accuses Kant of being helplessly confused in this matter, to such a degree that Kant is, in his words, "neurotically inept" (Kant's Analytic 138). This thesis, however, will defend Kant against this accusation by showing that Kant is much more consistent in this matter than Bennett thinks. It is true that sometimes Kant lapses into apparent incoherent terminological choices, but this is only a superficial

mistake and by no means entails that his idea is in itself inconsistent.

On the other hand, Martin Heidegger, in Kant and the Problem of Metaphysics, gives much more emphasis to the role and nature of imagination than do other commentators. This thesis will also show that in some aspects Heidegger is correct in his interpretation of Kant. However, Heidegger, as is well known, is not so much concerned with "getting Kant right" as with propounding his own original philosophy, sometimes bending Kant's texts to suit his own purposes more than the text allows. I shall show that Heidegger is indeed correct in recognizing the very important role of imagination as the "linchpin" of the whole critical system. Heidegger, nonetheless, errs in putting his philosophy in Kant's mouth and not adequately distinguishing which is really Kant's and which is his own. Heidegger's view that the transcendental imagination is for Kant one and the same as "original time" (ursprüngliche Zeitlichkeit) will be found to be a mistake, for the reason to be given later in the next chapter. In addition, Heidegger regards Kant as holding that the imagination is the "common root" of sensibility and understanding. This idea has much plausibility, but the matter could be no more than a reasoned speculation, for Kant himself states that the "common root" itself could not be directly known. This issue will be the subject matter of a section of Chapter Five.

The interpretation I shall be giving, moreover, is different from the standard picture in the Anglo-American tradition that has been put forth by Peter Strawson in "Imagination and Perception." In that article Strawson proposes that imagination is necessary for perception in the sense that it brings up what he calls "non-actual perceptions," which are related images of a certain object one necessarily has when one is perceiving that object and recognizing it to be of a certain kind. This idea is influential on later interpretations of Kant's view on the imagination, especially ones by Mary Warnock (in Imagination) and Richard Kearney (in The Wake of Imagination). However, I will try to show that this picture is incomplete. Kant has a deeper theory which attends to the transcendental role of imagination as the formative center of thinking and experiencing.

In terms of methodology, the account that I shall be presenting here is also different from both Bennett's and Heidegger's, among others, in that it neither looks at imagination in Kant in a piecemeal way, as does Bennett, nor does it try to fit Kant into being an advocate of my own philosophy, as Heidegger is wont to do. Instead this thesis aims at uncovering Kant's idea in a systematic way and at finding out whether his idea in the first Critique and the Anthropology is consistent. The main purpose of the work is only to understand what Kant means in the texts.

The interpretation to be presented in this work depends very much on Kant's distinction between the transcendental and the empirical; so I think it is advantageous to discuss this important issue here in the first chapter as a background for later developments in the work. At A11-12/B25 Kant gives a definition of the term "transcendental" which could be considered standard:

I entitle transcendental all knowledge which is occupied not so much with objects as with the mode of our knowledge of objects insofar as this mode of knowledge is to be possible a priori.

The main difference between transcendental and more common types of knowledge, including such a priori forms or kinds as geometry and arithmetic, is that the former is the necessary condition of the possibility of the latter. The relation "something being the 'necessary condition of possibility' of some other thing" is prevalent in Kant's writings in the Critique. In the third chapter I shall present an interpretation purporting to show what this very important relation means. As for now, it is the case that transcendental knowledge does not investigate objects directly. This task belongs to both pure and empirical knowledge. Instead, transcendental knowledge is concerned with the conditions without which both pure and empirical knowledge would not be possible at all. In this way transcendental knowledge is naturally a priori, since the preconditions of any possible relating to intuitions

obviously could not in themselves be obtained empirically. Thus for Kant the proper subject matter of transcendental knowledge is necessarily limited, since

what here constitutes our subject matter is not the nature of things, which is inexhaustible, but the understanding which passes judgment on the nature of things; and this understanding, again, only in respect of its a priori knowledge. These a priori possessions of the understanding, since they have not to be sought from without, cannot remain hidden from us, and in all probability are sufficiently small in extent to allow our apprehending them in their completeness. . .

(A12-13/B26).

Since transcendental knowledge constitutes the same core, so to speak, for any kind of empirical and mathematical knowledge, even though these latter account for an infinite range of objects, it is relatively small and can be known in its entirety.

There is one major difference, however, between the apriority of transcendental and mathematical knowledge in that the former is the "necessary condition of possibility" of the latter. What I mean by this is that transcendental knowledge, such as the Axioms of Intuition and the Anticipations of Perception, are what is required for mathematics to be possible as a species of human knowledge. Kant's transcendental exposition of the concept of space in

the Aesthetic is intended to show that the self-evident and a priori nature of geometry is essentially dependent upon the "transcendental" knowledge of space (and time) as being a priori.

Therefore transcendental knowledge is clearly not a kind of knowledge of a supersensible or "transcendent" being. In fact such knowledge, if it were possible at all, would surely require transcendental knowledge since it also features a kind of relation to some definite being (even though it is supersensible).

For transcendental knowledge, which concerns the possibility of both pure and empirical knowledge, the imagination is crucially important because it is the unifying factor in bringing together intuitions and concepts, which is the necessary precondition for any knowledge at all. Imagination, however, is not the object of investigation of transcendental knowledge. In fact the latter has no object of investigation for itself because it is a result of a reflection on the items presented in experience and on how knowledge of these items is possible. Imagination, then, is important for such a knowledge in the sense that the reflection reveals that some basic power is needed in order that pure and empirical knowledge are possible at all. The imagination is not an instrument of transcendental knowledge, but is known in this type of knowledge to be necessary for non-transcendental knowledge.

Imagination is such a basic power of the mind that it is ultimately responsible for the act of molding the sensory material into intuitions and of forming concepts out of common "markers" among whatever falls under the relevant concept. In this way the imagination is at work both at the level of the pure sensory manifold and of concepts in general. In the following chapters this idea will be expounded in detail. In particular, the chapter on the Aesthetic will attempt to show that imagination is the originator of intuition in general, including space and time. And in the chapter on the Analytic its important role in the Metaphysical and Transcendental Deductions, as well as the Schematism, will be shown. The upshot is that the imagination will be shown to be the "mediator" of the faculties of sensibility and understanding, making it possible that the two vastly different faculties are joined together to produce knowledge. This mediating role of the imagination would be seen much more transparently if it were indeed the case that imagination is actually the "common root" of the two faculties, as I have mentioned previously in the chapter. Kant himself suggests the idea of the common root of the two faculties in at least the first Critique (A15/B29) and the Anthropology from a Pragmatic Point of View (§31, 177n.). However, he never specifically mentions that the imagination is such a common root; instead he claims that it is not possible at all to know it. In this thesis, nevertheless, I will show that if

there is any plausible candidate for the common root, then the imagination is most likely to be one. This will depend on the arguments I will have put forward concerning the role of imagination in both the Aesthetic and the Analytic.

In the Aesthetic the imagination is involved in processing intuitions out of the sensory manifold. Space and time are thus dependent on the imagination for their being, since they can be seen as pure, formal intuitions. Kant, however, does not specifically mention this point in the text of the Aesthetic. We shall see that this is due to the fact that in the Aesthetic Kant is pushing the point that space and time are a priori conditions of possibility of outer and inner experience, respectively. In this capacity space and time are "forms of intuitions." However, if these forms of intuitions are to be presentable in consciousness at all, they must also be conditioned by the imagination.

In the Analytic, on the other hand, the role of imagination is more pervasive. In the Metaphysical Deduction imagination is directly involved in the act of unifying according to the forms of thinking in general. It is the same function, as Kant says at A79/B104-105, that gives unity to both judgments in discourse and in internal speech. In the former the logical forms are discovered by abstraction from the components of discourse. This act is one of unifying elements in discourse into headings and hence is done analytically. In internal speech, on the

other hand, the act of unifying is a transcendental one, and it is this latter act that is necessary for any act of thinking and also for the analytical act of abstracting the logical forms from normal discourse. The forms that govern unifying in internal speech, then, are called "the pure concepts of the understanding," or "the categories." To illustrate the point one has to pay attention to a distinction that Kant makes in the Critique of Practical Reason between ratio essendi and ratio cognoscendi.² In this case, the logical forms are the ratio cognoscendi of the categories, for the former are the conditions by which the latter are known. The latter, on the other hand, are the ratio essendi of the former because without the categories as the condition of thinking in general, the logical forms would not be in existence since they are gotten merely by abstraction from discourse and there would be no discourse if there were no thinking. This shows that the Metaphysical Deduction is at least as important to the critical system as the Transcendental Deduction. This point, furthermore, has not been much appreciated in the secondary literature.

In the Transcendental Deduction, the role of imagination is also pervasive. In the first edition Kant has three kinds of synthesis--apprehension, reproduction, and recognition in concept. These are all functions of the imagination, even though he appears to mention that only the second of these--namely, reproduction--is done by

"imagination." This, however, is only a seeming terminological confusion on Kant's part. All the syntheses originate from imagination in its transcendental guise, but empirically it is also responsible for the act of uniting particular representations in time-order, which is the task of the second synthesis. This task is only empirical.

In the Schematism the task of the imagination is to provide the schemata which are necessary for joining together concepts and intuitions. It is well known that according to Kant thoughts without concepts are blind and concepts without the thoughts empty (A51/B75). The role of imagination here is then twofold. Firstly, imagination produces the schemata, both empirical and transcendental. Second, it is responsible for the binding together of the two heterogeneous elements so that knowledge is effected. This last is a very important function, and is the one that makes experience possible.

Thus it can be seen that the imagination plays absolutely crucial roles in all the major parts of the critical system. It is necessary for combining the sensory manifold into empirical intuitions, as well as putting together representations in order to produce concepts. This is possible because, as I will show in the following chapters, the imagination is the basic formative power originally inherent in humans.

It is well known that Kant's idea on imagination was very influential to the later development of German Idealism and English Romanticism; so an understanding of this matter will be of great help in seeing the historical as well as philosophical connection between Kant and the German idealists such as Fichte and Schelling. Besides, Kant's idea on imagination did not occur in a vacuum, but he incorporated and developed ideas of his predecessors, the most notable of whom are Johann Tetens and, of course, David Hume. In The Creative Imagination, James Engell writes that much of Kant's views on imagination was influenced by Tetens' idea in his book, Philosophische Versuche über die menschliche Natur und ihre Entwicklung (1777). According to Engell, ". . . on the nature of the imagination, Kant stands largely on the shoulder of Tetens, who in turn is well informed about nearly all eighteenth-century views of the imagination as they had been formulated by 1775" (The Creative Imagination 118). Engell has an explication of Tetens' idea on imagination and a comparison with Kant's own ideas. While Tetens concentrated on the empirical and physiological problems of imagination, Engell contends that Kant tried to put together two different strands of thought so as to fuse and reconcile them (128), thus developing the idea of "transcendental" imagination. These two strands are the rationalist ideas of Leibniz, Wolff and Baumgarten, and the

empiricist "associationalist psychology" in the more "scientific" schools of Hobbes, Newton, Locke, and Hume (128). Engell sees Kant as attempting to integrate these two ideas, and the primary agent for this fusing is the imagination.

Apart from Engell's work, which is intended to show that our present idea of imagination is the product of the Enlightenment, there are only a few works on the topic of Kant's influence on the development of the ideas of German idealism³ and English Romanticism.⁴ Nevertheless, these works show that Kant's ideas were strongly influential in nearly all subsequent writings on imagination and its role in building the edifice of the structure of perception and the world itself. This study will look at Kant's view on imagination in detail; so it will contribute to an historical understanding of the imagination in a deeper way.

Since this study focuses more on the philosophical issues in Kant's idea on imagination, it will also serve to clarify and deepen our understanding of this multi-faceted power of the mind. As the philosophical problems of perception are still presently being debated and far from definitely resolved, I hope that this thesis will contribute to the debate by showing that Kant's position--which I will show to be much more tenable than some might think--has much to say toward a solution of the problems. These problems, as one may know, include: the

knowledge of the external world, and the problem of how a theory could be put forth to explain, in formal and abstract but indispensable terms, how humans perceive and recognize objects--how human experience is possible. It will be the task of this study to show that for Kant the imagination figures prominently in his theory.

* * *

This dissertation is divided into five chapters. The second chapter will be a rather exhaustive critical survey of the significant philosophical literature on Kant's idea of imagination. To be examined in detail are works by Norman Kemp Smith, Martin Heidegger, Peter Strawson, Mary Warnock, and Richard Aquila. Also discussed are works by Hermann Morchen and Margherita Palumbo. After this the third chapter will look into the issues of the Transcendental Aesthetic. The fourth chapter will be concerned with the Transcendental Analytic. The role of imagination in these two sections of the Critique will be examined in detail. Afterwards the fifth chapter will conclude the work. There I shall have a rather short look at Kant's idea on the imagination in the Anthropology from a Pragmatic Point of View, which, contrary to what it might superficially appear, is a serious work. Kant's idea on imagination there will be compared with that in the first Critique. I shall show that there is much to be learnt

from this rather neglected work of Kant, including some points that help clarify the issues of the first Critique. Another section in the fifth chapter is on the question whether imagination is in fact the "common root" of sensibility and understanding. Finally, the last section of the concluding chapter will go back to the first Critique again to have a look at the texts in which Kant mentions the imagination but which are not discussed in the third and fourth chapters. It is found that in these places Kant discusses the imagination only in its empirical function. This, nonetheless, does not conflict with its transcendental employment previously discussed in the thesis, for it is still the same power but only differently employed.

NOTES

1. Examples of the secondary literature on Hume's idea of imagination include: Richard H. Lineback, "The Place of Imagination in Hume's Epistemology;" David M. Wadsworth, "Critical Reflections on Hume's Treatment of the Imagination;" Natika M. Newton, "Imagination and Logical Possibility;" Dorothy P. Coleman, "Hume's Philosophy of Imagination;" Jan Wilbanks, Hume's Theory of Imagination; W. C. Gore, The Imagination in Spinoza and Hume; E. J. Furlong, "Imagination in Hume's Treatise and Enquiry Concerning Human Understanding;" Harold Taylor, "Hume's Theory of Imagination;" John Laird, Hume's Philosophy of Human Nature; Charles W. Hendel, Studies in the Philosophy of David Hume; Robert J. Fogelin, Hume's Skepticism in the 'Treatise of Human Nature'; Galen Strawson, The Secret Connexion; John P. Wright, The Sceptical Realism of David Hume; and James Engell, The Creative Imagination.

The loci classici of the topic are, of course, Book I of The Treatise of Human Nature, and An Enquiry Concerning Human Understanding, where basically imagination is what supplies the subject with such ideas as identity and necessary connection, which are conspicuously missing from sensation alone. Lineback's dissertation is among the first in a series of subsequent dissertations, including those by Wadsworth, Newton and Coleman, that deal with the topic. Lineback argues that Hume, surprisingly similar to Kierkegaard, attempts to restrain the power of reason (1-3), and that imagination in Hume takes on an essential place in his epistemology (3-7). Wilbanks

seeks to see how Hume's theory fits into his own theory of human understanding (1), and Wilbanks also includes useful critical reviews of some leading commentators on the topic, such as Kemp Smith, Gore, Furlong and Taylor in order to provide an overview of the important scholarship in the field. Laird sees imagination as being tied to the principle of association, whose development he traces back to Hobbes and Locke and, amazingly, even to Plato and Aristotle (38). For Laird, Hume's imagination differs from that of his predecessors in that Hume regards it as a "sane" and universal, if irrational, power of connection (41). Constance Maund's work, which she develops from her doctoral thesis, is to me one of the more promising studies on Hume; Maund sees imagination as being responsible for there being a perception and it is "the ultimate fact of experience" (132). Furthermore, in one of the most important studies on Hume, Charles W. Hendel believes imagination is important enough that he devotes an entire chapter to it. Hendel outlines a history of the idea of imagination, under such guises and variations as "customs" or "association," from Montaigne, Hobbes, Malebranche and Locke. Hume, for Hendel, thinks that imagination is not to be taken as a symptom of "madness" as Locke appears to do, but a natural propensity and the rule of human understanding at large (99). Robert Fogelin interprets imagination as having power to "verify" sensations so as to provide the subject with perceptions of continued, identified, real objects (54); thus imagination offers a set of beliefs which reason, when left alone, is unable to do (178n.).

To me the two most significant recent studies on the matter are Wright, The Sceptical Realism and Strawson, The Secret Connexion. The

former explores the history of imagination and compares Hume with Malebranche in quite the same way as does Hendel, and focuses on the relation of Hume's idea with one currently known in the intellectual atmosphere of his time. However, Wright's main contention is that imagination is a positive force, lending itself to being a "natural propensity" in humans to acquire ideas which are unobtainable by sensation alone. This propensity happens entirely out of the range of consciousness, arising completely from the psychophysiological processes which are comparable to Malebranche's (67).

Galen Strawson sees imagination as a product of human evolution which is crucial in human ability to survive as a species. Imagination enables humans to perceive the world populated by continuously existing objects and largely predictable events, whereas "in themselves" such objects or events either might or might not possess these properties.

2. The text is from Critique of Practical Reason, translated by L. W. Beck (p. 4n.). The German text appears in Band V of the Preussische Akademie edition, p. 4n.

3. References in English on the topic of Post-Kantian German idealism are hard to find. Frederick Beiser has published an important history entitled The Fate of Reason. The book covers the period of German philosophy from 1781--the year of Kant's first publication of the first Critique--to 1793--the year of publication of Fichte's Wissenschaftslehre. Ernest Behler ed., Philosophy of German Idealism is a collection of primary texts in this area.

German sources include: E. Zeller, Geschichte der deutschen Philosophie seit Leibniz; J. Erdmann, Die Entwicklung der deutschen Spekulation seit Kant; Rudolf Christof Eucken, Die Trägere des deutschen

Idealismus; Helga Ende, Der Konstruktionsbegriff im Umkreis des deutschen Idealismus; Nicolai Hartmann, Die Philosophie des deutschen Idealismus; Moritz Kronenberg, Geschichte des deutschen Idealismus; Bernd Küster, Transzendente Einbildungskraft und ästhetische Phantasie; and Wilhelm Lütgert, Die Religion des deutschen Idealismus.

Kronenberg's is a comprehensive history of German Idealism. Küster attempts to relate Kant's idea of imagination to those of Fichte, Schelling and the German romantic poets such as Schlegel and Novalis.

4. References on the topic of Kant's influence on the English romantics are also scarce, and the topic really deserves more attention from intellectual and literary historians as well as philosophers concerned with imagination and the arts. Rene Wellek, Immanuel Kant in England 1793-1838 is an indispensable early source. Other works are Thomas MacFarland, Coleridge and the Pantheist Tradition and the recent Originality and Imagination which contains articles on Coleridge's indebtedness to Kant's and German psychologist Johann Nikolaus Tetens' theories of imagination (90-119; 148-200). An attempt directly to derive terms of the romantic quest for self-understanding from the Kantian origin is made by Mark Kipperman, Beyond Enchantment, which seems to be a significant ground breaking. Kipperman's main tenet in the book is that the major preoccupation of the post-Kantian idealists is with the creative self as at the center of the world, treading a balance between uninhibited, egotistical self-centeredness and a barren, humanless world (ix-x), and this preoccupation, originating from the idealists' understanding of Kant, is also the central concern of the Romantic poets, who have turned to inward looking, according primary significance to the creativity of the mind.

Some other references are Claud Howard, Coleridge's Idealism, which traces the philosophical connection between Kant and Coleridge, and Elizabeth Winkelmann, Coleridge und die kantische Philosophie.

Chapter Two

Review of Literature

Surprisingly, important and influential as the topic of imagination in Kant certainly is to my mind, there are only a few secondary works dealing exclusively, or extensively, with the issue. Many commentators on the first Critique mention the topic, if at all, only in passing; some, however, pay attention to the problem and sometimes even give a hint about its importance. These discussions still almost always do not specifically discuss the issue in itself. For example, Strawson in The Bounds of Sense mentions imagination only as "the go-between of sense and understanding" (97) without delving into the justification of the assertion. It is surprising that one of the most influential articles on imagination was written by Strawson himself (i.e. "Imagination and Perception"), but in his major work he paid only a scant attention to the issue. Graham Bird, in Kant's Theory of Knowledge, views imagination in mechanical terms and compares it to a "clutch mechanism" (52), which is "ready to engage the categorial engine so that it may drive the wheels of experience" (9-10). Bird's reason is that since the categories are absolutely distinct from experience, some

kind of mechanism is needed to connect the two together. Bird argues that this distinction is artificial and that the attempt to postulate such a mechanism works only in empirical, physiological contexts but not transcendental ones (9-11). It is clear from this that Bird is not quite sympathetic with Kant's theory of imagination; the interpretation offered in this thesis, however, will show that imagination in Kant has a far more active role.

Another commentator who is even less sympathetic than Bird on the issue is Jonathan Bennett. In Kant's Analytic (134-138) Bennett lists a number of excerpts from Kant in order to show that Kant often changes his mind about the roles of imagination and understanding, shifting "restlessly from one set of technical terms to another, making no attempt to relate them" (135). The crux of the matter is that apparently in the Transcendental Deduction Kant is not consistent in his terminology. Bennett asserts that in the Schematism Kant has a theory of imagination as a bridging device between sensibility and understanding, but in the second edition of the Deduction he seems to identify imagination with understanding outright (B162n.) In addition to seeing imagination as nothing but "intellectually disciplined memory," Bennett cites a number of passages from Kant on imagination and the threefold synthesis, that is, apprehension, reproduction and recognition (e.g. A97) in order to show how confusing Kant's passages are on both terminological and conceptual

grounds. For Bennett, Kant seems to be very indecisive regarding terminological issues. In one place Kant talks about there being three sources of possibility of experience, namely sense, imagination and apperception, according the function of imagination to the synthesis of a manifold a priori (A94). Then Bennett sees Kant, at A120, as talking about the threefold synthesis again, but this time imagination seems to "engulf" both sense and itself (137). Having catalogued some of the alleged disparities and inconsistencies in Kant's texts, Bennett goes on to state that the exposition of the Transcendental Deduction is "neurotically inept" (138), and it is unlikely that any amount of clarification will resolve the matter (138).

The issue here is confusing and much of it admittedly springs from Kant's text itself. However, in the section on the Deduction I will present a solution to this alleged confusion and offer an interpretation aimed at showing that Bennett is totally wrong on this point and that Kant really has a coherent, albeit implicit, idea on imagination.

Other commentators are much more favorable to Kant's imagination. W. H. Walsh sees it as "the synthesizing faculty" (Kant's Criticism 48), and it functions, as figurative synthesis in the second edition Deduction, to mediate between "the senses and the understanding, it being similar to both" (53). Moreover, the imagination also performs a crucial function in forming the unity of space and time as pure intuitions within which objects inhere

(53-54). Walsh also sees the important role of imagination in the Schematism (72-77). The understanding, for Walsh, "as it actually operates in human consciousness goes hand in hand with the imagination and is powerless without it" (75). The two are necessary for each other, for the imagination is "blind" (A78/B103) hence it needs to be guided by rules (75).

In his influential book Kant's Transcendental Idealism, Allison accords a good deal of importance to imagination under the guise of "transcendental synthesis" (160-164). The problem that concerns Allison here is how imaginative synthesis, which is the necessary condition for human sensibility, is governed by the categories. Allison is very clear on the importance of the issue:

Why, after all, should the imaginative activity have anything to do with the logical functions of judgment? I take this to be the most fundamental question raised by Kant's analysis. Only by establishing such a connection can Kant demonstrate the connection between the categories and human sensibility that is needed for the explanation of the possibility of synthetic a priori judgments. The issue is thus central to the whole program of the Critique (161).

Allison tries to argue that the transcendental synthesis of imagination produces a unification and determination of time into a single whole. This unification must accord

with the unity of apperception as the condition for its possibility, since otherwise the unification cannot be represented as a single whole. Hence, since the unity of apperception is intimately connected with the categories, the transcendental synthesis of imagination itself necessarily conforms to the categories (162). The argument here is very complicated, and will eventually be discussed later in the section on the Deduction. What I would like to show here is only that for Allison the imagination plays a crucial role in the Deduction. Precisely, the function of the transcendental synthesis of imagination here is that it links the categories together with the form of human sensibility by means of imagination's production of a single overarching framework of time.

Nevertheless, even though Allison does recognize the importance of imagination, he does not devote more than a few pages to it in his book. This may be due to the fact that the project might not be entirely relevant to the main thrust of the work, namely to provide a philosophically acceptable advocacy for the doctrine of transcendental idealism. There are, however, a number of commentators who devote a good deal of attention to the issue and each of them deserves a close look. A minor exception to this could be Norman Kemp Smith, whose discussion on the subject matter in his Commentary (77; 225; 265; 348; 375-6), though very brief, contains a number of considerably penetrating insights. The rest of the group to be closely considered

is Heidegger, Strawson in his hallmark article, Warnock, and Aquila. In the following sections I shall discuss each of them in turn, commencing with Kemp Smith.

Norman Kemp Smith

Kemp Smith's Commentary has been a necessary source of nourishment for generations of students of Kant. Even though he does not isolate and attend to the present topic, his discussion of it contains much that is very interesting and in fact adumbrates what I argue for in this thesis. For Kemp Smith, imagination and understanding bear an intimate relation to each other. Kant, however, seems not to be clear on the precise role each one should play (264-265), a phenomenon also discussed by Bennett, as we have seen. Sometimes Kant seems to identify one with the other outright, as in the note to B162 in the Deduction, but in another place he states that imagination mediates between sense and understanding, itself not reducible to either of the two (A124). In this study I shall assume this apparent disparity in the text to be a basic datum, and I shall argue later on that this is only a manifestation of a deeper underlying theory of imagination in the Critique. Nonetheless, Kemp Smith clearly sees that at least Kant is clear on this issue: The function of the productive imagination is a "generation of unified experience" (265). It seems to me that Kemp Smith has hit

upon an extremely illuminating insight:

Doubtless one chief reason for his choice of the title imagination is the creative character which in popular thought has always been regarded as its essential feature. As Kant, speaking of Schematism, which is a process executed by the imagination, states in A 141: "this Schematism . . . is an art (Kunst) concealed in the depth of the human soul." This description may perhaps be interpreted in the light of Kant's account of the creative character of artistic genius in the Critique of Judgment, for there also imagination figures as the truly originaive or creative faculty of the human spirit (265).

This is a very interesting passage, for it hints at the creative nature of imagination as well as its consequent relation to the third Critique. Actually Kemp Smith is the only commentator that I am aware of who has a glimpse of the creative function of imagination in the first Critique.

However, in the Anthropology (§32, 178) Kant explicitly states that the imagination is not creative in the sense of having a power to create things entirely out of nothing. It has to make use of the material supplied by sensibility. In the fifth chapter this issue will be discussed in more detail. Nonetheless, I will argue there that as a "transcendental factor" responsible for experience, imagination is creative in this special sense.

Kemp Smith, at any rate, does not pursue this topic in any substantial detail. The passage quoted above merely stands as a suggestion of what later could be fruitfully pursued. It is intriguing that in his discussion on schemata and images (337), Kemp Smith does not mention the creative character of imagination again; nor does he say anything again about this in his book.

There is another extremely interesting passage in the Commentary, which deserves a close and detailed look. Here Kemp Smith is commenting on a passage at A15/B29, where Kant talks about the fact that sensibility and understanding "may perhaps spring from a common root:"

Kant sometimes seems to suggest that imagination is this common root. It belongs to sensibility and to understanding, and is passive as well as spontaneous. But when so viewed, imagination is virtually regarded as an unknown supersensuous power, "concealed in the depth of the soul"

[A141/B180-1]. The supersensuous is the point of union of our disparate human faculties, as well as of nature and freedom, mechanism and teleology (77).

Again, Kemp Smith leaves the passage alone without any further development. The idea of imagination as the "common root" for both sensibility and understanding sounds very familiar, for it was Martin Heidegger in his Kant und das Problem der Metaphysik (KPM) who makes this idea the

foundation of his entire work. What is intriguing here is that this idea is almost universally credited to Heidegger, but no one seems to recognize at all this passage of Kemp Smith's. In fact the Commentary was published in 1918, more than ten years before the publication of KPM in 1929, and seven to eight years before Heidegger's first lecture on which the book was based, in the winter semester of 1925-26 (KPM xxiii).

Kemp Smith's passage, nonetheless, points to nothing more than the possibility of imagination's being the common root. For him, imagination becomes a "supersensuous power." This power, according to Kemp Smith (186), also appears in section 57 of the Critique of Judgment, where a solution to the problem of the antinomy of taste is proposed purporting to showing that the contradiction that tends to surface between judgments of taste is indeed the result of assuming a premise which itself is self-contradictory. The procedure here is analogous to the solution to the antinomies of pure reason, namely by claiming that the doctrine of transcendental realism leads to contradicting propositions, and these resulting antinomies could be resolved only by accepting transcendental idealism. Kemp Smith suggests that imagination acts as a "supersensuous" substratum on which both sensibility and understanding are based. This anchor point then becomes the all-unifying element which binds together the disparate human faculties, including nature

and freedom (Commentary 77). However, the link between imagination both as the root of sensibility and understanding and a grand synthesis of the antinomies is indeed a tenuous one, and it is unlikely that there could be much textual and conceptual support. Since sensibility and understanding in themselves are not in conflict with each other in the way that a pair of thesis and antithesis is in an antinomy of pure reason, the link between the former and the latter is very difficult, if not altogether impossible, to establish.

In sum, Kemp Smith's view on imagination contains ideas that should provoke a good deal of attention and certainly deserves much more interest among later commentators than it is receiving now. His view on the creative nature of imagination is particularly interesting and as far as I know no scholar has yet taken up and elaborated on the issue.

Martin Heidegger

Compared to Kemp Smith's Commentary, Heidegger's Kant und das Problem der Metaphysik differs from the former as radically as any two works dealing with the same text can be. It is very difficult really to see how two interpretations of the same text can be so very different from each other. In fact, Heidegger does not pay as close attention to historical accuracy as does Kemp Smith;

instead he attempts, in the Kantbuch as his book is sometimes called, to construct an interpretation not based on what Kant is directly saying, but on what he "intended to say" (KPM 206). The purpose of this is to bring out Kant's project as an act of "laying a foundation of metaphysics," i.e. specifying conditions whereby metaphysics, which includes as parts such disciplines as theology and cosmology as well as ontology, is possible (e.g. 9-14). Heidegger is explicit about his intention:

To be sure, . . . what is essential in all philosophical discourse is not found in the specific propositions of which it is composed but in that which, although unstated as such, is made evident through these propositions (206).

Heidegger's enterprise in the book remains strictly loyal to this maxim; this is not straightforward historical scholarship, but an "unearthing" of what Heidegger thinks Kant should have said, or meant to say. Heidegger justifies this procedure by citing a passage from Kant himself where Kant argues that the first Critique could be looked upon as a real "apology" to Leibniz, which is contrary to the popular opinion of his contemporaries that the work was an unyielding and stringent attack on Leibniz. Heidegger quotes from Kant himself a passage where Kant sees the works of historians of philosophy of his time as hardly bestowing honor on the authors whose works they study, for they "do not understand the intentions of those

philosophers when they neglect the key to all explication of the works of pure reason through concepts alone, namely the critique of reason itself (as the common source of all concepts), and are incapable of looking beyond the language which these philosophers employ to what they intended to say" (qtd. in KPM 206-7).

Heidegger's main ideas concerning imagination in the first Critique can be put into two main categories, namely those concerning its roles and those about its nature. For Heidegger, imagination, as has been discussed before in the part on Kemp Smith, is the common root of both sensibility and understanding (144); it is a "formative center of ontological knowledge" (134), and a distinct third faculty of knowledge beside sensibility and understanding (141). As for its nature, imagination is intimately connected with time and with human consciousness (177-201). I shall discuss these matters in turn.

According to Heidegger the transcendental imagination as the original and pure synthesis is responsible for "the primordial act of unification" which is required for the unity of ontological knowledge (134). What this means is that ontological knowledge, which is the condition of possibility for any special knowledge, whether empirical or mathematical, of "essents" or ordinary objects (15-17), must be essentially unified since its pure elements--time as pure intuition and objects of thoughts--cannot be understood separately from each other (61). In other

words, the condition of possibility of special, or "ontic," knowledge must be a unity because its constitutive elements--time and thoughts--are essentially dependent on each other. Each act of thought must be in time and endures through time. To conceive of an act of thought which does not presuppose time is simply impossible. Heidegger argues that the interdependence between time and thoughts cannot be understood by proposing another unifying element bearing down on them "later" than the elements themselves. This unifier, on the contrary, must be something "earlier" than they so that it could be their foundation, i.e. their condition of possibility (61). This unifying element is the transcendental imagination. Therefore, the transcendental imagination is "the foundation on which the intrinsic possibility of ontological knowledge . . . is construed" (134), and since the transcendental imagination is such a condition, it is the "formative" center as well.

This leads to Heidegger's assertion that imagination is the third fundamental faculty not reducible to either pure intuition or pure thought. As a condition for the possibility of the unity of the latter two, imagination is a faculty (Vermögen) in the sense that it has "power," or "capacity" to make possible such a unity (141). Here we have a familiar technique of Heidegger's, looking into the etymological roots of technical terms in order to find support for his philosophical theses. The idea is that as

a Vermögen, imagination has a characteristic of being able to unite time, as pure intuition, and pure thought. Thus it cannot be reducible to either one of the two, but must remain a foundation from which both of them spring. Heidegger cites passages from Kant, namely A124 and A78-9/B104, where Kant talks about imagination as one of the fundamental faculties and there being three elements of knowledge--"the manifold of pure intuition," "the synthesis of this manifold by means of the imagination" and the "concepts which gave unity to this pure synthesis"--respectively, in order to lend support for his argument.

However, there are some other passages in the first Critique where Kant talks about there being only two elements of knowledge, excluding imagination. Kant separates the critical system into two, the Transcendental Aesthetic and Logic, and the transcendental imagination is then "homeless" (142). Heidegger explains this by affirming that the unity of the Aesthetic and Logic is based on a deeper, more primordial unity where the two "function only as elements" (143). Hence the result of the critical system as a whole leads beyond both of them. However at A94 and A115, Kant again talks about the elements of knowledge being three--sense, imagination and apperception--each of which has empirical as well as transcendental employments (143).

For Heidegger, then, this apparent contradiction on

the number of primary elements of knowledge gives rise to a theory of his purporting to show that imagination is the root of the two stems (Stämme, see A15/B29) of human knowledge:

The interpretation of the laying of the foundation of metaphysics has revealed that the transcendental imagination is not merely an external bond which fastens two extremities together. It is originally unifying, i.e., it is the specific faculty which forms the unity of the other two, which faculties themselves have an essential structural relation to it (144).

As the original unifier of both stems, imagination is the common "root" and thus the primordial condition of unity and coherence of apperception, experiencing and contents of experience.

That pure intuition and pure thoughts are the products of imagination does not mean that they are "imaginary." Heidegger puts it that, since transcendental imagination is not "ontically creative," that is, since it does not have a capacity to create anything out of nothing in space and time, its products then are not really "there" in that sense. Furthermore, they are not merely imaginary because the distinction between objective and subjective entities is made possible by the imagination in the first place (145-6). The transcendental imagination forms a "horizon of objectivity"--a criterion to which entities necessarily

conform if they are to be objective--where such a distinction between object and subject is possible. An idea of subjective, or imaginary, entities would not be possible if not for objects in space and time. Kant makes this point clear in the Refutation of Idealism (B274-9). Basically the point is that an idea of subjective or private entities peculiar to one's mind presupposes that there be a distinction between subject and object, the private and the public. If there were not such a distinction, then there would be no way for any kind of communication to be possible since any act of communication requires that there be some sort of underlying and abiding entity or subject matter for the interlocutors to communicate about. I think this is a central issue of Kant's Refutation, but we will have to wait until its proper chapter to discuss the matter in more detail.

According to Heidegger, such a distinction between subjectivity and objectivity is only possible within the "horizon of objectivity" formed by the transcendental imagination in the first place. Thus it is a mistake to conclude that pure intuition and pure thought, as products of imagination, are merely imaginary. They are its products only in the sense that the conditions of their possibility are specified by the imagination, not that imagination "ontically" creates them in the same way as it creates mental images.

What is "intuited" in pure intuition cannot be

anything but a unified totality whose parts are always limitations of itself. Space and time are an infinite given, and each one is a unified totality. It is impossible that there could be any more than one total space or time. Any limitation on either assumes the idea that there is further space or time since it is always possible to conceive what lies beyond the boundaries, implying that there are further space and time. For Heidegger, this unity of pure intuition is not due to concepts; hence it is not a result of the "synthesis of the understanding" (149), since this happens before and independent of any conceptual activity. Therefore, this unity must be a result of the act of imagination, which is responsible for all kinds of synthetic activities from the beginning. The imagination is in general "the source of all that is 'synthetic' in character" (149; cited from A78/B103). Heidegger also cites another passage in Kant showing the imaginative character of pure intuition:

The mere form of intuition, without substance, is in itself no object, but the merely formal condition of an object (as appearance) as pure space and time (ens imaginarium). These are indeed something, as forms of intuition, but are not themselves objects which are intuited (A291/B347).

This matter will be one of the central topics in the chapter on the Aesthetic. As for now, it serves to show

that Heidegger recognizes the importance of the imagination in the Aesthetic; space and time are entia imaginaria, not objects in themselves, hence they are pure products, stems of the root of imagination.

Heidegger's argument for the imaginative origin of the understanding is much more complex. It is considerably more difficult to see how thought, concept or understanding could be rooted in the imagination. Heidegger's main factor in his argument here is the role of the synthetic unity of apperception. In the B edition of the Deduction, Kant states in a famous sentence that "it must be possible for the 'I think' to accompany all my representations; for otherwise something would be represented which could not be thought at all, and that is equivalent to saying that the representation would be impossible, or at least would be nothing to me" (B131). This shows a necessary relation between the 'I' and any thought representations in the 'I.' For any representations to be possible for me, that is, for any of them to be able to be thought of by me, I must be able to think them. It would simply be a self-contradiction if there could be a representation consciously known to me which is not thought of by me. Kant terms this 'I think,' which must remain one and the same for all my acts of thought, "the transcendental unity of self-consciousness" (B132) or of "apperception."

Heidegger's use of this point in his argument is that the transcendental unity of apperception underlies and is a

condition of the possibility for the coherence of the categories. Since thought is "the faculty of rules" (156; also A126), that is, the faculty dictating some rules in representations (A126), and since there can be no more and no less than twelve possible modes of unification (A80/B106) serving as rules, it "pro-poses" in advance such modes--which are none other than the categories. Moreover, these categories "must also be included in advance in an abiding . . . unity by means of an act of representation even more primordial" (156).

This more primordial act of representation is nothing but the transcendental unity of apperception. Since the application of the twelve categories must be coordinated to form a single awareness of one objective nature, an abiding unified reality which does the coordination is thereby required. For Heidegger, the "ego is the 'vehicle' of the categories. . . it puts them in a position wherein, as represented, they can be regulative, unifying unities" (157). This act of "putting the categories in such a position" according to Heidegger is an act of imagination (158). The understanding is a "spontaneously formative act of representation" (158), and this is a defining characteristic of imagination. Heidegger suggests that the pure schematism based on transcendental imagination "constitutes original being-as-understanding (Verstandsein) of understanding itself (158). It is hard to figure out the meaning of this assertion, but at any rate Heidegger

seems to say that the schemata provide "content" to understanding, thus giving "being" to the latter.

In sum, Heidegger's basic argument for the imaginative root of understanding is that since understanding is a "faculty of rules" dictating rules or laws in representations, it "pro-poses in advance" the categories as the only highest possible mode of unification. That is to say, the understanding forms or puts forward the categories, which according to traditional logic are the only possible forms of judgments, in order to impose laws on the (empirical) representations. This is why Kant says that the understanding is "something more than a power of formulating rules through comparison of appearances; it is itself the lawgiver of nature" (A126). For Heidegger, this act of rule imposition is essentially imaginative in character. The implicit premise which permits such a move for Heidegger might be that for any act to be formative or unifying at all, imagination is always required. Heidegger could also cite Kant from this passage in the Table of Categories to prove his point: "Synthesis in general, as we shall hereafter see, is the mere result of the power of imagination" (A78/B103).

Heidegger does not supply much justification for his statement that the act of pro-position of the understanding is primordially an act of imagination. Except for relying on Kant's point in the passage cited above, this argument would be altogether lacking in textual support. However,

one has to keep in mind that Heidegger does not attempt to make an exposition of Kant, but he uses Kant more to propound his own philosophy. Much of his interpretation, however, remain true to the Kantian spirit. Indeed one has to dig deeper than what Kant's text superficially says in order to come up with something that makes sense. And if my interpretation of him in this work is correct, then Heidegger has many insights that are valuable for an investigation of the Kantian categories.

Apart from his pro-position argument, Heidegger also has another one aiming at the same conclusion. Here the move is to show first that pure thought is indeed essentially intuitive in character as well as spontaneous. A necessary condition of this is that it is a "reception of that which offers itself" (160). The meaning of this seems to be that a finite, i.e. non-pure and thus empirical, intuition is essentially a reception of whatever comes from outside (as modifications of outer sense) or inside the ego (as modification of inner sense). This "finite reception" then is nothing but limitations of space and time. The modifications of inner and outer sense "offer themselves" in that they are not controlled by the will; even modifications of inner sense are uncontrollable once a concept is applied to them. Now the major task of the transcendental unity of apperception is always to look for regularity in its representations and to avoid anything "haphazard" (160-161). So with the modifications offering

themselves the transcendental unity of apperception then both imposes rules (categories) on them as well as acquiesces to their uncontrollability by it. Heidegger puts it this way: "The free formative projection [of the understanding] which develops affinity while submitting to it is in itself a receptive act of representation" (161). The submitting itself of the understanding to "affinity," which is made possible by the "unity" of the transcendental apperception, is nothing more than the objective modifications of outer and inner sense by causes coming from nature, and this modification makes the act receptive (161). Since any receptive act, as contrasted with pure spontaneity, requires imagination, the understanding itself also requires imagination as the necessary condition for its own receptivity.

We have seen in detail Heidegger's arguments for the imagination being the root of both sensibility and understanding. It should be recognized that Heidegger will have a number of important contributions in the field of Kant study if his work is properly understood and his sometime excessive verbosity cast aside. It remains, then, to look at Heidegger's idea of the nature of imagination itself, which he tries to argue to be nothing but "primordial time."

At first it seems incongruous that since time is an intuition, it could be the root of itself, as a component of sensibility and understanding. Heidegger's argument is

that the succession of nows in an act of consciousness necessarily requires something to bind it together so that all the relevant moments be grasped in one whole intuition (179). Empirically, the sensory input results only in a series of unrelated moments since there is nothing outside to guarantee that all these purely sensory data will be bound together in themselves. This fact necessitates that the act of binding be a spontaneous one, and even an act of receiving one moment, one now, itself also requires such a spontaneous binding, since "each now has an essentially continuous extension in a just passing and just coming [Soeben und Sogleich]" (179). In other words, even one moment of an act of receptivity of a flux of impressions is itself extended in time. To receive and be aware of a single, unextended "instant" is simply impossible for human consciousness.

Heidegger's proposal for a solution to this problem is that he maintains that pure intuition cannot receive anything "present" (179). That is, it cannot merely empirically and passively receive a flux of unrelated impressions. Thus it has the essential character of transcendental imagination since it is originally formative. Heidegger says that this formative character forming a unified series of nows would have nothing to do with temporality if the formative action of imagination in general were not itself temporal.

According to Heidegger (181), Kant gives a hint about

the temporal character of imagination at A95ff., where he talks about the threefold a priori ground of experience. The three grounds at this particular point in the text are apprehension, reproduction and recognition. Heidegger sees Kant as indicating this section to be a necessary background for an understanding of the Deduction. However, Heidegger uses this section to support his claim that the threefoldness here is a working of primordial time which is expressed in past, present, and future respectively. The reason for this is that the unity of the three "grounds" (which is obviously necessary for the possibility of any knowledge at all) can be explained by the fact that time is the primordial, unifying root of the three and that the three are indeed three because time appears in them as past, present and future. This means that Heidegger interprets the threefold grounds as the three possible ways of working of time in experience. As a unifier, time necessarily unifies three and only three basic elements. He states that since the threefold grounds are the only possible grounds for knowledge, and since the condition of the possibility of experience is the transcendental imagination, then the latter simply is identical to "primordial time" of which the a priori grounds are only expressions:

Now, if the original unification of the essential unity of ontological knowledge takes place through time and if, on the other hand, the basis

of the possibility of knowledge is the
transcendental imagination, is it not obvious
that the latter is primordial time? (182)

This argument will be valid only if it is true that there
is one and only one ultimate source of experience;
otherwise the identification of time and imagination would
not be justified since nothing would prevent there being
more than one ultimate condition of the possibility of
experience.

The only justification that Heidegger has for equating
the a priori grounds of the possibility of experience with
time is a citation from Kant's Vorlesungen über die
Metaphysik, quoted in Heidegger's KPM (180). In this work
of Kant's the faculty of imagination

produces representations relative to the present,
the past, or the future. Consequently, the
faculty of imagination consists of:

(1) the faculty of forming images, the
representations of which are of the present:
facultas formandi,

(2) the faculty of reproducing images,
the representation of which are of the past:
facultas imaginandi,

(3) the faculty of anticipating images,
the representation of which are of the
future: facultas praevidendi.

However, that the imagination "produces representations

relative to the present, the past, or the future" is hardly a reason why it is identical to--indeed one and the same as--time itself. This act of the imagination may allow only that the employment of imagination can only be in time if it is to belong to a possible consciousness. As a manifold of powers, imagination binds together a flux of impressions and, since the impressions cannot be frozen if they are to present reality, this binding necessarily includes past impressions as well as present and future ones. This act, however, obviously is not an act of time itself. Time is a framework within which such action becomes possible; it is hard to imagine that it can have any power at all, as Heidegger's identification of it with imagination implies.

Actually Heidegger's argument purporting to identify time with the transcendental imagination can be summarized as follows:

(1) Pure intuition, i.e. time, has a synthetic character (since it forms a unified succession of nows in experience).

(2) So pure intuition forms what it is able to receive. ("Pure intuition gives to itself, in the receptive act, that which is capable of being received" [178-179].)

(3) (2) means that pure intuition is a condition of the possibility of empirical intuition since it specifies a "horizon" within

which impressions could be formed into intuitions (179).

(4) The act of imagination is also formative, i.e. it is a condition of the possibility of . . . , and its working is threefold --"looking back," "looking at present" and "looking ahead" (180).

(5) The originally formative act of pure intuition is also threefold in exactly the same way as in (4) (179).

(6) The act of imagination in (4) is relative to time (180).

(7) So imagination constitutes time (from (6)).

(8) "Time as pure intuition is neither only what is intuited in the pure act of intuition nor this act itself deprived of its 'object.' Time as pure intuition is in one the formative act of intuiting and what is intuited therein. Such is the complete concept of time" (180).

(9) The condition of possibility of (1) is that "imagination . . . forms, reproduces and anticipates [from (1), (2) and (4)] (180).

(10) Time in (1) is not the same as primordial time, which is the former's condition of possibility (181).

(11) So transcendental imagination is the same

as primordial time (from (9) and (10)).

In a few words, Heidegger's argument appears to be that the pure act of intuition in (1) is formative. The condition of the possibility of this is the transcendental imagination, as a faculty responsible for all such formation in general. The transcendental imagination, as in (4), works in relation with time. Since the nature of time is that it is both formative and intuitive, as in (8), its formative aspect, in other words its primordial (ursprüngliche) time, is in fact the same as the transcendental imagination.

So far as it goes, this argument is manifestly fallacious. In (9) it is established that transcendental imagination is the condition of the possibility of the pure formative act of intuition and in (8) Heidegger simply states categorically that time also has this original formative character that the transcendental imagination has. But this is hardly a good reason for their identification with each other. An illustration of the questionableness of this move could be seen from the fact that from two premises, a is F and b is F alone, it cannot be validly concluded that a=b! In (7) Heidegger says that imagination "constitutes" or "forms" (bilden, original version of KPM,¹ 159) time. The use of the verb bilden here is scarcely a support for the identification, Perhaps what Heidegger means is that "time" in the last sentence refers to the succession ofnows in (1) only, and this

succession owes its origin to the primordial time; but the fact that the latter shares that same predicate as the transcendental imagination does not imply that both are identical with each other. Moreover, Heidegger does not give an argument showing that only one unique thing can be F, which would make his overall argument valid. The premise would have the form: For all x (Fx --> (for all y (Fy --> y=x))). Such argument does not appear in the text.

In conclusion, Heidegger has many insights that are of considerable interest to any project trying to understand the first Critique. It is regrettable that philosophers, especially those in the English-speaking world, scarcely pay any attention to his works. Nonetheless, the situation now is changing as the dichotomy between Analytic and Continental philosophies is breaking down.² It is in any case indisputably true that Heidegger's writing presents a formidable challenge for anyone trying just to understand what he means; but his contribution to philosophy, Kant scholarship included, should not be overlooked. Kant und das Problem der Metaphysik is sometimes as difficult to read as, often even more obscure than, the text it aims to elucidate, but Heidegger's discussions, such as ones about the imaginative root of sensibility and understanding and the intimate relation among imagination, consciousness and time, are to my mind indispensable to a philosophical study of Kant.

Peter Strawson

Heidegger's interpretation of Kant's theory of imagination is very influential in the Continental arena, and we have already discussed how his ideas are not adequately studied in the English-speaking world. A commentator who is instead a famous and influential commentator on Kant's idea of imagination in the Anglo-American world is Peter Strawson, whose article "Imagination and Perception" is a source of nearly all subsequent Anglo-American works dealing with Kant on imagination (e.g. Warnock, Imagination and Kearney, The Wake of Imagination).

It is amazing to see how one text could spawn such divergent interpretations as Heidegger's and Strawson's. Imagination in Strawson's article has a far more diminished role than in Heidegger. Nevertheless, it is still a necessary factor in any perception. Strawson distinguishes three areas where imagination is operative in perception and recognition. The first is that it is necessary in perceiving an object to be an object "of a certain kind," for example in perceiving a dog as a dog or a mammal. The second area is that imagination is required in perceiving one and the same object to be one and the same, even after some interruption in viewing that object (83; 91). The third and last area is that imagination is also essential

in recognizing "different (and sometimes very different) particular objects as falling under the same general concept" (91). That is, imagination here is the power to relate disparate objects together under one general rubric, such as when recognizing certain different mammals to be under the concept 'mammal.'

How the imagination can accomplish this is explained by Strawson in a way that aims to relate Kant's (and Hume's) technical use of the term to the normal one. In the first case, that of recognizing an object to be one of a certain kind, imagination is necessarily operative in that it presents to the subject currently perceiving an object "images" or "the thoughts of other past and merely possible perceptions of the same object" (89)--which he terms "non-actual perceptions"--so that the subject is enabled to recognize the object as one of a certain kind. To see a dog to be a dog, to use Strawson's own examples, is "to see it as a possible mover and barker" (89); that is, one must be able to relate other possible features which are characteristic of the kind of object in question to be able to recognize it as belonging to that kind. This is basically what Strawson takes Kant's idea of imagination to be.

The role of imagination according to Strawson is similar in the other two cases. In the second case, imagination relates both past and present perceptions of the objects; and if the object is of an enduring kind, then

naturally no distinguishing features strong enough to warrant a recognition of two different objects will be present, and the subject will accordingly view the object as one and the same now as well as before. Also in the third case, for example in the recognition of any trees as belonging to the concept 'tree,' imagination produces "non-actual representations" of other trees beside the one being perceived so that the recognition of the object as a tree is possible at all. About how they are able to do this Strawson is not entirely explicit; what he is more interested in, however, is to show that the technical usage of "imagination" in Kant and Hume belongs to the same "family" as the ordinary one. The latter usage is even employed by Kant whenever he wants to distinguish objective perception of things in the real world and purely subjective "imagination" of fictitious images. Strawson attempts to relate Kant's notion of imagination to Wittgenstein's "seeing-as" idea.

For Strawson imagination is always a faculty of producing images (89). Even in Kant's technical use which he separates from the everyday, ordinary one Strawson regards it as ultimately image producing. However, I think that Strawson's interpretation here does not go deep enough to explore fully Kant's theory on the issue. And it does not place adequate emphasis on the primary significance of imagination to the whole critical system. As a mere image producing faculty, imagination, especially in its

transcendental aspect, would hardly be at the center of the critique of pure reason that Kant aims to provide. Also Strawson's account does not mention anything about the creativity of imagination. The image producing character of imagination, however, is merely an aspect of its creativity.

Let us examine Strawson's argument more closely. Basically Strawson's contribution is that the non-actual perceptions of an object of a certain kind are in some way necessary in recognizing the object to be what it is supposed to be. Thus in visually encountering a small, furry, four-legged, big-eyed, meowing object one needs to bring up non-actual perceptions of this kind of object, which have been previously acquired, in order for one to be able to recognize the object as a cat. But it appears that Strawson is getting the order of the process wrong. For how is one able, in order to have an object recognition, to bring up the past perceptions from among the myriads of non-actual perceptions one actually has--how, that is, can one select those that indeed belong to a cat without one's recognizing first that the object one is currently confronting is a cat all along? According to Strawson, a present perception of a cat would not be what it is but for (89) the non-actual perceptions. But the problem is precisely how one can "choose" such representations without having already at hand a concept that serves as a guideline. Thus it would seem that the process of bringing

up the non-actual perceptions depends on one's already being able to apply a concept, not the other way round. And if this is indeed correct, then the role of imagination as a necessary condition for perception must be quite different from Strawson's account.

But perhaps Strawson's point could be construed in another way as follows: The reason why I can now recognize a certain tree as a magnolia, for example, is that some time in the past I was introduced to a magnolia tree by someone showing it to me and giving me its name. From then on I have had an image fixed in my mind of a magnolia, not necessarily the same magnolia I was introduced to (in fact I do not remember when and how that precisely happened), but somehow an image of a "generic" magnolia. And I could say that this generic image is always "alive" whenever I encounter a magnolia again. In this case I would not have been able to recognize the magnolia as it is without having learnt to do so beforehand. This, I think, is Strawson's point. But still the actual process of how such non-actual perceptions can be present in an occurrent perception is left unexplained.

To put Strawson's point simply, an occurrent perception of something, say a cat, "involves" or "is infused with" the thoughts of non-actual perceptions of that object or any objects of that kind, and these non-actual perceptions are brought forward by the imagination. This act by the imagination is precisely what

makes a perception or a recognition of an object possible. But now the problem seems to be that of determining what is responsible for warranting that--for example in the first case, of recognizing an object to be one of a certain kind--the non-actual and the occurrent perceptions brought together are indeed of the same kind of object. In my case of recognizing the magnolia, I simply recognize it without having consciously to invoke my memory of the first encounter with the magnolia I was introduced to. At any rate it seems that I do not have to compare this magnolia now before me with the one in my mental file, so to speak, in order that I can recognize the one before me as also a magnolia. Even if I am able to do so, it seems that I would need some other power to conjoin and compare both the image of my first magnolia and my occurrent one for me to be able to recognize the latter as the experience of a magnolia. This point should be clearer if I recognize the occurrent magnolia to be a dicotyledon--the concept of which I learnt from my biology class years ago. At this point my recalling of the first magnolia is certainly unnecessary in recognizing the occurrent tree to be a dicotyledon; instead it seems that there is no specific introductory image of any particular plant that serves as my starting point of comparison to enable me subsequently to identify a dicotyledon. In fact the starting point seems more like a schema, in this case that of a leaf with branching veins. This leaf schema is not actually any

specific leaf of any plant; rather it is an abstracted figure designed just to show a distinction between a dicotyledon and a monocotyledon. If such a schema is indeed only what is needed in object recognition, then Strawson's point of gathering non-actual perceptions of a specific, real world object is quite off the mark.

Mary Warnock

Strawson's article has had a wide influence on subsequent Anglo-American interpretations of Kant. One philosopher whose idea is demonstrably influenced by him is Mary Warnock. Her book Imagination is an important resource for a study of imagination and its significance in Hume and Kant, Wordsworth and Coleridge, and Wittgenstein and Sartre. Her treatment of the topic in Hume and Kant, however, very much echoes Strawsonian themes, a debt that she fully acknowledges (10). Nevertheless, there is much in Warnock that is original and deserves to be examined solely on its own merits. Warnock adopts Strawson's interpretation of Kant's imagination as being necessary in perceiving an object to be the same and to be of a certain kind (27). That is to say, imagination is required in "joining together" different occurrences of acts of perceiving the same object so that the object could be perceived to be the same through time. Imagination is also required in connecting impressions of a cat, for example,

to the concept 'cat' in order that the cat is then recognized to be what it is. So far this reading is virtually the same as Strawson's, but Warnock's own contribution to the topic is her awareness and elaboration of the distinction in Kant of the two main types of imagination: reproductive and productive.

According to Warnock, the function of the reproductive imagination is entirely empirical and contingent. The fact that a person can recognize a rhododendron when he sees one or when he hears it being described to him clearly enough shows that he has had previous encounters with rhododendrons and, when requested, can recall its images to serve his purpose. This activity requires imagination "which has unified parts of the manifold of his sensory experience, visual appearances of flowers of a certain colour and shape, of shining green leaves and so on" (29). Empowered with this, he can recognize a rhododendron even though it is a totally new one which he has never seen before. This is Warnock's view of Kant's reproductive imagination, which she inherits from Strawson (see "Imagination and Perception," 90). This ability to recognize a rhododendron is a contingent one; that is, it is not necessary for our ability to perceive at all that we possess this particular concept. Thus the imagination at work here is empirical in the sense that the concept which is employed by it is an empirical and contingent one. This imagination is then contrasted with the productive

imagination, which is a spontaneous and active power. Warnock sees this latter kind as a faculty of the general form of objects, a necessary condition for one's being able to have any particular set of images (for example, those of rhododendrons, or magnolias etc.) at all (31). Warnock sees the distinction as one between the proper domain, respectively, of transcendental philosophy and psychology. For it is the task of the former, according to her, to specify the "general form" which the subject has to have in order to be able to have experience, and it is merely a matter of "psychology" that I, for example, have the concepts that I do have, such as that of magnolias.

Warnock claims that for Kant the role of the transcendental imagination is to provide a "general psychological truth" (31) about human perception. It does not matter what kind of specific concepts I do have; but if I have them at all and am able to utilize them, I must have this "general psychological truth" provided to me by the transcendental imagination. This "general truth" is the same in all humans since we are able to communicate with one another and thus share the same world. Though this point is not emphasized by Warnock it is crucial to her interpretation of transcendental imagination as objective and thus opposite to its empirical counterpart.

I believe Warnock's contention that the transcendental imagination holds "general psychological truths" about human perception and object recognition is in the main

correct, though she does not furnish any explicit arguments for it. The question is: If the transcendental imagination is actually psychological, how does this fare with Kant's own clear dictum that it is a priori and necessary, not to mention that it is "transcendental"? This naturally hinges on what is meant by "psychological," "a priori," "necessary" and "transcendental." I hope that these terms will be made clearer in the course of the dissertation, especially in the chapter on the Deduction where the issue is particularly pertinent.

For Warnock, then, "it is the representational power of the imagination, its power, that is, actually to form images, ideas or likenesses in the mind which is supposed to contribute to our awareness of the world" (33). This power, as we have seen, is indispensable in both perceiving an object to be the same and perceiving it to be of a certain sort. It is an image-forming power, and it is "reproductive" when it works at the level of particular sets of impressions and concepts and "productive" when working at the level that makes the first one possible, which according to Warnock is the power to make "images of a certain form, blueprints, as it were, for all future and possible reproductive images" (33). So the productive imagination is also an image-producing faculty, but the images formed by it are utterly general. They could be images/schemata formed from their corresponding categories.

This picture of imagination and its role in Kant

remains the standard picture in the Anglo-American interpretive tradition. We shall later see to what extent this standard view can hold against the light of my own interpretation that I have outlined in the first chapter. Basically my difference from this picture is that for Kant the primary function of the productive, transcendental imagination is not to form images at all, whether general or specific; instead its function is something more primordial. It is the condition that makes any kind of image-forming possible.

Richard Aquila

In recent years Richard Aquila has published a series of books and articles devoted to the question of the nature of the matter-form distinction in intuitions and concepts. Basically what he proposes is that in perception the matter-form distinction applies to two separate levels--the sensory level where sensation, as matter, is modified by "the forms of intuitions" to become empirical intuitions, and the conceptual one where the concepts themselves are formed out of a material in an analogous way with the formation of intuition at the first level (see, e.g., Matter in Mind, ix-xiii; "Imagination as a 'Medium,'" 209). Aquila hopes to bring this proposal to bear on the problem of an apparent contradiction in Kant's text. Kant sometimes says that imagination is needed for a synthesis

of intuition for concept application (A78/B103) and in some other places he maintains that imagination is itself "an action of the understanding on sensibility" (B152). Aquila holds that this notion of matter and form has to be applicable at the level of understanding in the sense that concepts are themselves to be made from a certain kind of material in a way that is comparable to the way intuitions are made from sensations (Matter in Mind, x). The material for concepts, except the categories, is ingredient in intuitions themselves, and the additional material, apart from what is directly supplied by sensation, is the work of imagination. Aquila calls this additional material "imaginative."

Therefore, the primary function of imagination in Aquila is to supply this additional material to intuitions and concepts. In fact Aquila prefers the phrase "anticipation and retention" to "imagination" since to him the latter tends to connote the idea of creating objects out of nothing. For Aquila imagination is nothing more nor less than anticipation and retention, of which he argues there are two kinds. The first is "animal" anticipation and retention--a sort of anticipation and retention that is pre-conceptual and pre-intellectual. This is the way intuitions are formed out of sensations; the end result of this is that the intuitions "anticipate" and "retain" their alterations or other characteristics definitive of them. Aquila asserts that this kind of anticipation and retention

operates in animals and human babies (Matter in Mind, 68-69). The idea is that this is a working of a mind without conceptual apparatus, and the resulting intuitions contain their anticipations and retentions without any help from concepts.

The other kind of anticipation and retention, or in other words "imaginative association," is naturally a human one. In this case it is a conceptual operation on intuitions themselves. The reason Aquila presents this distinction appears to be that he would like to avoid the same sort of logical difficulty faced by Strawson's account in "Imagination and Perception" that we have discussed. In order to be able to judge that an object before me is a cat, I have to associate this present intuition of mine with what Aquila calls "imaginative associations" ("Matter, Form, and Imaginative Association," 72-73. These are of course the same as Strawson's non-actual perceptions.) Only if I do this can I recognize the object now before me as a cat. However, as we have already seen, to be able to associate all these "associations" presupposes that I possess the concept in question in the first place; otherwise how could I select from among the plethora of my imaginative and actual intuitions? The problem, then, is that this kind of account is circular; I have to have the concept 'cat' before I can choose from among the imaginative associations, but Strawson seems to suggest that if I am now seeing a cat, I will know this to be the

case only when I am able to associate all or most of its imaginative associations (see Strawson, "Imagination and Perception," 89).

Aquila sees the problem clearly, though not exactly in these terms. He views Kant in the Deduction as attempting to explicate the notion of how predication of a concept and so judgement in general is possible in the first place ("Matter, Form," 80). Kant's solution, according to Aquila, is that judgements are possible because a concept synthesizes a manifold of intuition: thus to explain the synthesis in terms of what predicates are true to the intuition at hand would seem circular ("Matter, Form," 80).

Aquila's distinction between animal and human "anticipation" and "retention" is precisely what is proposed to solve the circularity. Intuitions already contain within themselves a manifold of "animal" imaginative associations which are non-conceptual and non-linguistic. Thus:

the (logical) connection among intuitions that a concept introduced must be founded upon some already obtaining (psychological?) connection among the former. Intuitions themselves must be already supposed capable of "representing" a manifold of possible ways of arriving at further intuitions ("Matter, Form," 81).

This manifold of further intuitions which intuitions are capable of representing is exactly the same material for

concepts as well ("Imagination as a 'Medium,'" 210). Actually Aquila even contends that intuitions, which in themselves contain their anticipations and retentions characteristic of what they are, originally attach themselves to the empirical realities and "contribute to the original constitution of an empirical concept...in the first place" ("Matter, Form," 85). So empirical concepts are constituted out of the material of imaginative associations. Aquila maintains that the act of conceptualization is not to be construed as one of "attachment" of concepts to intuitions in some way, but rather it is an act of "internal alteration" of the intuitions themselves ("Matter, Form," 92).

So for Aquila there is no separate distinction of intuitions and concepts. Concepts are but a unified collection of a manifold of imaginative associations in intuitions themselves. All the material required by a concept application is already there in intuitions, and a judgement of experience, namely one of an objective, conceptual nature, does nothing but add a "formal" aspect to the intuitions; this is what is meant by imaginative association being the "medium" of conception ("Imagination as a 'Medium,'" 214). In other words, concepts just are this body of imaginative associations, and the synthesis of concepts under the transcendental apperception is just an act of an intellectual function operating on this body itself ("Imagination as a 'Medium,'" 218).

The foregoing is the basic tenet of Aquila's interpretation. As we can see, Aquila's focus is more on the nature of concepts and intuitions and how the act of concept "application" (or in his own terms one of internal associations of imaginative material within intuitions) takes place, than it is on the nature of imagination per se and how such pre-conceptual, animalistic associations are possible. It will certainly take a lot of pages to discuss Aquila's points in detail, but for now we could note some problems arising from Aquila's interpretation. One of them is that it seems to me quite counterintuitive to conflate concepts and intuitions. If both of them are composed of the same imaginative material, then it is hard to see what exactly serves to distinguish one from the other. Aquila seems to push forward such an idea--concepts and intuitions are basically the same. Thus it is difficult to see how in this theory concepts are applicable to various objects and intuitions are particular. If one intuition contains within itself anticipations and retentions characteristic of what that intuition is, then it seems that the normal task of concept application is already done by whatever function is responsible for producing such associations. What I have in mind is a problem of how, without any previous employment of concepts, intuitions at first contain associations and what in fact is responsible for selecting which anticipations and/or retentions should be contained within each relevant intuition. Aquila seems to

advocate the idea that the responsible factor here is a pre-linguistic power, but it is left unspecified as to exactly how this really happens.

Here I think Aquila appears to push the problem of circularity one step back, without really solving it. The problem arises when the manifold of imaginative associations is supposed to give rise to conceptual application, but itself presupposes a concept. Now it is proposed that this same manifold is formed by some pre-conceptual power, but one would want to know how this particular act is accomplished. How, for example, does my manifold of imaginative associations of a dicotyledon contain materials that supposedly are the result of a non- or pre-conceptual apparatus, which seemingly implies that no learning is involved?

The second problem is that Aquila does not discuss in any significant amount of detail the nature of imagination. Certainly imagination plays a crucial role in his interpretation, but Aquila equates imagination with "animalistic" anticipations and retentions (Matter in Mind, x). This account tends to lessen the force of Kant's distinction between empirical and transcendental imagination. Indeed it is very difficult to see how in Aquila's terms one could explain the pure transcendental imagination, which is obviously devoid of empirical material and is what Kant affirms at A124 to be the necessary "mediator" of sensibility and understanding.

Moreover, it is equally difficult to see how Aquila's imagination--which, let me repeat, is nothing but pre-conceptual anticipations and retentions--can build the transcendental schemata, which are responsible for any associations at all from the beginning.

* * *

Conclusion

The preceding was a rather exhaustive survey of the principal literature in the field of Kant's view on imagination.³ We can easily see that there are basically two strands of interpretation at work in the literature, one of which, originated by Kemp Smith and developed by Heidegger, sees imagination as Kant's "common root" of sensibility and understanding at A15/B29. The other strand, started by Peter Strawson, views imagination as necessary for perception and concept application. Thus the commentaries discussed above can be grouped loosely into two, with Heidegger in one camp and Strawson, Warnock, and Aquila in the other.

In fact, there is actually some truth in both of the strands. Imagination could be regarded as the "root" of sensibility and understanding in the sense of its being the necessary condition presupposed by a successful act of perception and recognition. In this way, Strawson's and Heidegger's views are reconciled. Heidegger, however,

attempts to link imagination to what he calls "the primordial temporality" (die ursprüngliche Zeitlichkeit), which he claims to be the ultimate source of subjectivity and consciousness. I think that this attempt of Heidegger's is a consequence of extending Kant's intended meaning of "imagination" more than the text allows. We shall see later to what extent this interpretation holds up against my own proposal of imagination as a manifold of natural powers that is the real "condition of possibility" for perception and recognition. According to Heidegger, imagination, consciousness, and time are all very intimately linked with one another, so much so that often they verge on being only different aspects of one and the same entity. We shall see, especially in the following three chapters, how, according to my own interpretation, the three are connected and whether Heidegger's view is tenable in the light of my interpretation.

NOTES

1. Reference to Heidegger's original German text is from Martin Heidegger, Kant und das Problem der Metaphysik (Frankfurt am Main: Vittorio Klostermann, 1951).

2. Evidence for this process of breaking down is prevalent. For example, Richard Rorty heralds it in his Philosophy and the Mirror of Nature and Consequences of Pragmatism. Nor is this affirmation of the process limited to philosophers of Rorty's bent. Castañeda himself acknowledges this in his article "Philosophy as a Science and as a Worldview"; in his words: "a healthy rapprochement between analytic philosophy and continental philosophy has taken place" (35).

3. There are other works dealing exclusively with the topic of Kant's view on imagination which in my view are not as significant as the ones I discussed, but nonetheless deserve to be mentioned. These include: Hermann Mörchen, Die Einbildungskraft bei Kant, Margherita Palumbo, Immaginazione e matematica in Kant, J. Michael Young, "Kant's View on Imagination," and Eva Schaper, "Imagination and Knowledge."

Mörchen's work is devoted to an interpretation of Kant's view on imagination in all the major works in which he is concerned with the topic in substantial detail, namely the first and the third Critiques, and the Anthropology from a Pragmatic Point of View. Mörchen attempts to show that Kant has basically the same view on the topic in all the three works. Imagination, according to Mörchen, is the unified ground of understanding and sensibility (89). This is the same as Heidegger's

idea of imagination being the common root of both understanding and sensibility, a connection which is not surprising since Mörchen was one of Heidegger's students and was very much influenced by him. Besides, Mörchen also regards imagination as "primordial temporality" (ursprüngliche Zeitlichkeit), as does Heidegger. Mörchen attempts to relate this line of interpretation to his interpretation of the third Critique, according to which imagination in that work is also basically primordial temporality; hence imagination is the same throughout at least in the first and the third Critiques.

Palumbo, on the other hand, aims at an exposition of imagination in the first Critique only. She argues that the various syntheses in the first Critique express the same power, namely that of imagination. Palumbo recognizes the important role of the Schematism, arguing that it is responsible for the joining together of intuition and concept to produce a perceptual judgment. However, she does not go much deeper than a basic textual exposition. That is, she does not give an account of how exactly the process of joining together which is done by the Schematism actually takes place.

Other works can be summed up in a few words. Michael Young's article argues that Kant's imagination is not a mere "image-making" faculty, but basically an interpretative one akin to Wittgenstein's "seeing as" theory. Schaper claims that imagination is the "recognitional component" of experience (10). Imagination is required in order that experience be stable and unified, instead of being fleeting and momentary.

Chapter Three

Transcendental Aesthetic

Kant's goal in the Transcendental Aesthetic is to show that space and time are not the properties of things as they are in themselves, but are contributions of the perceiving subject which are necessary for the subject's being able to have empirical intuitions. Space and time are in this way "forms of intuitions" since they constitute the forms for each and every empirical intuition. All acts of perceiving external objects (i.e. objects "outside me," A23/B38) necessarily are acts of perceiving entities that are located within the framework of space and time.

The Aesthetic is one of Kant's most significant contributions to philosophy, and it is naturally related to his doctrine of transcendental idealism. For if space and time are not properties of things in themselves but are features of the subject's mental constitution, then the perception of external objects, or in Kant's words the experience of outer sense, is intimately related to something already at hand which is not obtained (indeed not obtainable) from outside. This is the conclusion for which the Aesthetic attempts to argue.

What I would like to accomplish in this chapter is to

show that imagination plays a crucial role in the Aesthetic. That is, it is the necessary factor in forming space and time themselves as pure, formal intuitions. Moreover, I shall present a limited defense of the apriority of space and time (as forms of intuitions), as Kant presents it in his argument at A23/B28. I would like to show that for Kant's argument to be valid, space and time in the argument must not be viewed as "intuitions," but as forms or structures of representing to oneself three-dimensional fields of appearance including time. This defense of the apriority of space and time will show that the imagination plays a prominent role in perception. If it is indeed the case that space and time are the a priori products of imagination and that they are the necessary forms of experiencing, then the imagination will be essentially involved in any act of perception. Thus an understanding of the process of perception in humans, I would like to argue, requires the faculty of imagination as the synthesizing agent that brings together representations in such a way that a perception of a static object or an event is possible. I shall show that, as forms of experiencing, space and time are also conditioned by the imagination; hence, if it is true that space and time are necessary in perception, then an account delineating the process must also include the role of imagination.

Therefore, the aim of this present chapter is twofold. First, it will argue that for Kant space and time are the

products of imagination, both in their capacity as forms and as intuitions. Secondly, I shall show that Kant's account of perception, in which space and time are a necessary a priori factor, is a plausible one. To this latter aim I shall make use of some recent findings in the psychology of perception. These will clearly illustrate that Kant's account is not irrelevant to an understanding of perception. What Kant specifies is, of course, not a detailed factual account of how perception occurs, but is a general one indicating a necessary form that any successful act of perception must adhere to.

The connection between these two aims of the chapter is that if the first one is successful in showing that imagination is essential for the a priori structure of space and time, then an attempt to defend Kant, to argue that it is plausible, certainly requires that imagination be involved. In addition, findings in psychology are then utilized to help illustrate Kant's point as concrete examples.

This chapter is divided into six sections. The first one will discuss textual matters concerning the term "imagination" in the Aesthetic. Kant's idea that space is an ens imaginarium will be treated in detail. The second part tries to show that space and time are intuitions and thus owe their origins to the imagination. The third part discusses Kant's argument for the apriority of space (and analogously, time). I will attempt to show that space and

time are a priori and thus are necessary for perception. Corollary to this, I will also show that imagination is involved in the process, as the factor that is responsible for the unity effected by the forms of space and time. The next part of the chapter considers Kant's prevalent use of the relation "the necessary condition of possibility." This relation is important for an understanding of Kant, and certainly is significant to the project of seeing space and time as the "necessary conditions of possibility" of experience, as well as to an understanding of the issues of the Transcendental Analytic, which I will consider later in the next chapter. The fifth section will illustrate the process of perception in Kant in detail. A diagram will be furnished to clarify the point. Finally, the last section will look into recent findings in psychology to buttress my contention that space and time are a priori factors that are necessary for perception. In sum, the first two parts look at textual matters as well as the issues of the imaginative origins of space and time. The other four sections, on the other hand, present a limited defense of Kant's idea that imagination is essentially involved in perception.

"Entia Imaginaria"

Before an investigation of the role of imagination in the Aesthetic could be made, the issue of textual evidence

should be made clear. It is surprising to see that in the Aesthetic Kant does not pay any particular attention to the role of imagination in forming intuitions. In fact the only place where he mentions the term at all is at A40/B57 where Kant discusses Leibniz's theory of concepts of space and time as being "merely creatures of the imagination." Kant distinguishes his own theory of a priori space and time from both the Newtonians' and the Leibnizians,' both of whom he sees as making the mistake of taking space and time to be something existing in themselves. As for the Newtonian theory, Kant's criticism is that if both space and time are self-subsistent, infinite and eternal, then the Newtonians will have to entertain a self-contradictory proposition that space and time are, in Kant's term, Undinge, or "non-entities" (in Kemp Smith's translation, A39/B56), because they are not items of experience. Nevertheless, they are real and absolute, and contain in themselves real objects in nature. On the other hand, the Leibnizian theory does not fare much better in Kant's eyes. For the Leibnizians space and time are abstracted relations obtained from objects in nature. Kant's criticism of this latter theory is, first, that if this were true, then it would not be possible to maintain the apodicticity of mathematics. The reason is that if the Leibnizians' theory were the case, then since geometry, for example, presupposes space (and time), it would be derived from objects in nature themselves (A40/B57)--a conclusion which

is in stark contradiction with geometry's synthetic apriority. The Leibnizians see space and time as having their source ultimately in experience; their existence is formed by the imagination, abstracting them out of natural objects. This last doctrine concerning the origin of space and time is the reverse of Kant's own argument that space and time are themselves a priori and not derivable from experience at all. Instead they are precisely what make experience possible in the first place. We shall shortly see in this chapter that this is Kant's central argument of the Aesthetic, and one on which the entire structure of the Aesthetic hinges.

We can now see that, according to Kant's interpretation, the role of imagination in the Leibnizian theory is actually empirical. The imagination here works merely as an image-forming capacity relating objects of outer sense together and abstracting from them representations of space and time. Hence for the Leibnizians the ultimacy of outer reality belongs first to objects themselves, and space and time are only their derivatives formed by imagination in its empirical function. However, I would like to argue that for Kant, whose theory is the reverse of the Leibnizians', the imagination assumes a far more significant role. It is imagination, in its role as an a priori material, that spontaneously forms space and time themselves in the first place.

Why Kant says nothing about the function of imagination in his own theory can only be a matter of interpretation and speculation. Perhaps it might be the case that Kant wanted to avoid charges that his work was a subjectivist project aiming to reduce the objects in nature to mere mental items. It is clear, in any case, from the passages in other chapters of the Critique that Kant is indeed very aware of imagination's role in forming space and time. At the end of the Transcendental Analytic, where Kant discusses the various concepts of 'nothing' corresponding in general to the pure concepts of understanding (A290-292/B346-349), he talks about space and time as "imaginary being" (ens imaginarium). The passage from which these lines are taken has been quoted before in my discussion of Heidegger, but needs to be put here again for convenience:

3. The mere form of intuition, without substance, is in itself no object, but the merely formal condition of an object (as appearance), as pure space and pure time (ens imaginarium). These are indeed something, as forms of intuition, but are not themselves objects which are intuited (A291/B347).

It is indisputable that this passage represents Kant's, not the Leibnizians', view, and Heidegger uses it to contend that Kant has an idea of an imaginative root of sensibility, as we have seen. In order to understand fully

what is meant by the passage, the context surrounding it has to be taken into account.

This passage at the end of the Analytic is often neglected in the secondary literature. Kant's stated purpose for this passage is to complete the system which he has just delineated in the Deduction and Schematism. In these chapters Kant aims at demonstrating, specifying and justifying his twelve pure concepts of understanding or categories and their corresponding schemata. (This will be the subject matter of Chapter Four.) In both the Deduction and the Schematism Kant tries to specify positive concepts and schemata; that is to say, all the a priori concepts are at least something, to which there correspond concepts of nothing. Kant takes it that every division presupposes that there be "something" in general to be divided--something that lies ready to be divided and thus whose existence is naturally presupposed by any act of division. This fundamental and purely theoretical "something," to which the categories correspond in their capacity as concepts of objects in general, is divided into something and nothing. Kant then proceeds to specify four kinds of nothing, according to the four-fold division of the categories. The kind that interests us is the third, which Kant calls "empty intuition without object" (ens imaginarium). It is quite apparent that there is very much of the Leibnizian influence in this conception. In the Aesthetic Kant discusses the Leibnizian view of space and

time as "mere creatures of the imagination." Accounting for them as "empty intuition without object," then, naturally lends itself to the Leibnizian viewpoint. After all, looking at space and time as "imaginary beings" and as "mere creatures of the imagination" sounds very much the same. But if this is the case, then where is Kant's own unique contribution to the theory of space and time?

To settle this case one must be clear about what Kant means by "ens imaginarium," and "empty intuition without object." First, Kant defines "intuition" as "that through which [a mode or species of knowledge (eine Erkenntnis)] is in immediate relation to [objects], and to which all thought as a means is directed" (A19/B33). I think it is quite apparent from a natural and straightforward reading of the line that intuition is a representation of an object, and it is a direct object of thinking. Thus for Kant thinking is not directed at objects themselves, in so far as these latter are what Kant calls "transcendental objects" (A109); it is always necessarily related to them by means of, or through, intuitions.¹ Space and time, as entities capable of being thought of, are in this sense intuitions. However, they are not empirical intuitions, because they are directly correspond to no particular objects in nature. Here a comparison with the Leibnizian theory might be helpful. According to the latter, space and time are abstracted from the relations obtained among physical objects; they themselves are no objects in this

sense because their existence depends on such relations. They are quite literally products of the mind having no real counterpart in the physical world. Kant's conception of space and time in some way is analogous to that of the Leibnizians' in that on both views they share the salient characteristic of not being real subsistent in the physical world as the Newtonians think. Space and time in Kant are different, however, from their Leibnizian counterparts in that they are not merely empirical "products" of the mind obtained from nature; they are instead what make such experience of nature and physical objects possible. That is, this act of the Leibnizians of abstracting space and time itself presupposes the more primordial Kantian "forms of intuition."

What this move about presupposition means will be explained later in the chapter. But we are now in a position to understand what Kant means by asserting space and time to be entia imaginaria, and to see how and to what extent this conception agrees with or differs from the Leibnizian one. Considered only in themselves, space and time in Kant's theory are very much the same as their Leibnizian counterparts. In both theories could be regarded as "empty intuition without objects" in that they do not belong in the physical realm as definite objects. The difference between the two, on the other hand, is that Kantian space and time are ingredient, indeed constitutive, of physical objects, whereas the Leibnizian ones are mere

mental constructs. Thus the sense of space and time in Kant's theory being *entia imaginaria* could be interpreted along the Leibnizian lines only with respect to their characters in themselves as intuitions. But there is another, more important sense of *entia imaginaria*, which this chapter aims to explicate. The sense is that, since they are a priori intuitions, space and time are transcendental products of the imagination. This is a more basic sense than the Leibnizian one, in which the imagination is employed merely in its empirical, abstracting function. In Kant's view space and time are products of the imagination in the sense that they are not derivable from sense experience, but are already there as preconditions for perception and experience. They somehow belong to the subject before the subject can have any experience.

Imagination, Synthesis, and Space and Time as Formal Intuitions

Apart from Heidegger, few Kantian scholars pay any attention to the role of imagination as responsible for forming space and time. Perhaps the obvious reason for this is the lack of any explicit discussion of the issue in the text of the *Aesthetic* itself. An exception to this non-attention, however, is provided by Henry Allison.

In Kant's Transcendental Idealism, Allison sees the

role of imagination in the Aesthetic as the necessary condition for the possibility of space and time. He bases his interpretation on Kant's own explicit definition of "imagination" as "the faculty of representing in intuition an object that is not itself present" (B151). Let us take a close look at Allison's argument in detail:

The Transcendental Aesthetic showed that each extent of time is represented as a determinate portion of a single all-inclusive time, which is itself characterized as an infinite given magnitude. It follows from this that the actual awareness of a given portion of time, for example the present time during which I am struggling to explicate Kant's doctrine of transcendental synthesis, involves the awareness of it as a portion of this single time. . . . [H]owever, this whole is not itself actually given in intuition as an object. In the case of time, we could say that it is given only one moment at a time. Nevertheless, in order to represent the particular portion of time, and myself as engaged in that activity during that time, I must be able to represent past and future time. In other words, I must be able to represent times that are not "present," and ultimately the single time of which all determinate times are parts. This is what the imagination enables me to do. Similar

considerations apply to space (160).

In a few words, then, Allison's point is that, in order for me to be able to represent to myself a single portion of time, an overall infinite magnitude of time must be presupposed; that is, I must be able to represent the overall portion of time, within which a particular part of it could be perceived by me. The overall portion of time, which includes past and future time, is then made possible for me by the power of imagination according to Kant's definition at B151. However, this is not the only, or the more primordial, role of imagination, for Allison does not take into account imagination "forming" space and time as infinite given magnitude in the first place. My point is that Allison's argument is indeed correct; a necessary condition for my being able to represent a portion of space or time is my ability to represent the whole, infinite space or time. But this is not the whole matter. Allison's argument makes it sound as if imagination works only at the empirical level. It is true that space and time could be obtained as representations by the act of imagination spontaneously forming them, but this point does not stress the fact that for Kant space and time are the forms of nature itself and are not mere subjective mental items belonging to particular individuals only. Moreover, Kant's main argument of the Aesthetic--that space (or time) is presupposed whenever I represent an object confronting me as something outside me--is not specifically

addressed by Allison's argument here. In my act of representing, for example, the tree now before my eyes as being outside me, space is already presupposed. This act of mine can be regarded as an act of imagination forming intuitions of "absent" objects, in this case the intuition of the distance from me to the tree. And this act in turn requires that I be able to "represent" the single portion of space. Allison's point seems to lead to a conclusion that this act of mine requires that I be able to "represent" the "single" space. Nonetheless, Allison's point must be complemented by another argument showing that the presupposed space is not only the product of imagination in its more empirical act of forming an intuition of an absent object, but space itself, as a single, whole and unified intuition, as the container of objects in nature, owes its existence to imagination in its transcendental function. This latter mode of the imagination's activity is actually what makes possible the former function of "representing in intuition an object that is not itself present" (B151). The reason is that the capacity to represent via intuition absent objects clearly requires the ability to "form" or "picture" which in turn needs a fundamental faculty of synthesizing.

Another point is that the imagination as defined by Kant at B151 (quoted above) is more pertinent to Allison's point as an empirical function than as transcendental. The definition is particularly suited to the usual notion of

imagination as the capability of forming mental images, and this is the natural understanding of "imagination;" to imagine is to have a mental picture of something which need not at present exist. Surely Allison sees this point very clearly; nevertheless, I would like to affirm that this is not the really basic argument for the role of imagination in the Aesthetic. Another argument will be put forth that delves deeper into the root of the matter--to the real, more primordial nature of imagination.

The structure of this argument is quite simple: Since any act of forming intuition requires synthesis and since synthesis itself is "the product of imagination" (A78/B103), imagination is then necessary in any act of forming intuition. And because space and time are themselves "formal intuitions" (B160n.), they are also the products of imagination. In other words, each and every intuition, whether pure or empirical, is already a product of imagination.

An intuition for Kant is an object of thought and is material for application of concept. As "that through which a mode of knowledge is in immediate relation" and "to which all thought as a means is directed" (A19/B34), intuition is basically the primary entity of cognition--what the mind gets at in order to know the world. This definition might lend itself to a reading that it is self-contradictory, for how is it possible that "knowledge" can be in "immediate" relation to objects, but

must be so related only through intuitions? However, if one keeps in mind Kant's basic view that objects in nature, as they are in space and time, are always objects of possible experience, then these objects are certainly not the things in themselves. The consequence is that these objects could be regarded also as possible intuitions, since the latter are direct objects of thought. Hence, Kant's definition here seems to point out that knowledge cannot be "immediately related" to the things in themselves, but must always be related through objects of thinking.

Since each intuition is separate and contains in itself a distinct identity that singles it out from its counterparts, we are therefore entitled to postulate a function of the mind that takes care of this matter. This function is "synthesis" (Verknüpfung in B, Synthesis in A). As Kant puts it:

By synthesis, in its most general sense, I understand the act of putting different representations together, and of grasping what is manifold in them in one act of knowledge [*Ich verstehe aber unter Verknüpfung in der allgemeinsten Bedeutung die Handlung, verschiedene Vorstellungen in einander hinzuzutun und ihre Mannigfaltigkeit in einer Erkenntnis zu begreifen*] (A77/B103).

The phrase that is of particular importance is "one act of

knowledge." This was translated by Kemp Smith from the German "eine Erkenntnis" with his own editorial insertion. This term also appears in Kant's own definition of "intuition" (Anschauung) at A19/B34. The German version of the latter passage is this: "*Auf welche Art und durch welche Mittel sich auch immer eine Erkenntnis auf Gegenstände beziehen mag, so ist doch die, wodurch sie sich auf die Gegenstände unmittelbar bezieht, und worauf aller Denken als Mittel abzweckt, die Anschauung.*" Here Kemp Smith translated eine Erkenntnis as "a mode of knowledge," which is clearly different from his translation of the same word at A77/B103. I shall not attempt to speculate on the reason why Kemp Smith deviated from one translation to the other. What I would like to say, instead, is that this term of Kant's provides a key to an understanding of the important role of "synthesis" in intuition.

It is worth investigating what eine Erkenntnis actually means for Kant. Syntactically it seems quite strange that knowledge (to which "Erkenntnis" could be safely construed to refer in this context) could be counted, hence that there could be one knowledge, two knowledges, and so on. Moreover, in the first edition of the Transcendental Deduction at A119 Kant explicitly uses the plural form "Erkenntnisse" as distinct ways that the understanding can be related to its object. The detail of this will be discussed in full in the next chapter. In this case, however, this use signifies that Kant must be

using the term technically. Kemp Smith translated the term as "a mode of knowledge," (e.g. A19/B33; A119) and then in the chapter on the Table of Categories as "one act of knowledge" (A77/B103). The two phrases are apparently different in meaning. The first one seems to mean something like a distinct species of knowledge apart from others, in the same way as geographical is different from geometrical knowledge. The second translation, on the other hand, suggests an action. Kemp Smith's insertion makes this clear. "One act of knowledge" can mean something like one particular act of knowing--one instance of grasping, comprehending or understanding as contrasted with an instance of passively seeing or hearing, or for that matter, as contrasted with another such instance of mental grasping, etc.

It is clear that Kemp Smith's second translation is a more accurate rendition of Kant. The reason is that Kant is obviously not talking about distinct species of knowledge at all in any of the passages we are investigating. The passage at A119 supports this point very well. In fact to translate the term as Kemp Smith does in the first sentence of the Aesthetic is wrong because, as the text indicates, Kant's purpose here is to establish the meaning of Anschauung as an object of thought. Any act of thought requires that there be something to be thought, and this latter is an intuition. So when Kant writes "In whatever manner and whatever means

eine Erkenntnis may relate to objects, intuition is that through which it is in immediate relation to them" (A19/B34), what "eine Erkenntnis" actually means is definitely not akin to a separate "mode" or "species" of knowledge, but one distinct act of knowing, or more perspicuously an act of mentally grasping or comprehending. (However, this technical use of Erkenntnis here does not imply that in other places Kant also regards the term as referring to an act rather than the product of the act.)

Kant's technical usage here, I would like to add, refers to an act of mentally grasping something at a particular moment--the way I am now thinking about my lost wallet. The picture of the wallet is "distinct before my eyes," so to speak. The wallet, as an object of thinking at the moment, is clearly an intuition, ("all thought must, directly or indirectly, . . . relate ultimately to intuitions" A19/B33), and my thinking at that particular moment "eine Erkenntnis."

Let us go back to Kant's first sentences of the Aesthetic at A19/B34 again. It is clear from the text that if eine Erkenntnis, which I have said should be more perspicuously translated as "an act of mentally grasping," is to be related to objects at all (and in this case "objects" are objects in the real world), it must be so related through intuition. A straightforward construal of this is that intuition is what is mediated between eine Erkenntnis and objects. No act of knowledge can get at

objects in themselves without the intervening presence of intuitions. Furthermore, since the 'I think' must be able to accompany all my representations (B131), intuitions, if they are to be mine, must also be able to be thought by me, to be something of which I am aware.² Hence each intuition necessarily requires that it be thought of in order for it to have being at all.

The upshot is that my intuition, as an object of thought, analytically and trivially requires my thought. We have learnt from the sentence at A19/B34 that any mode or manner of eine Erkenntnis, if it is to be related to an object, requires intuition, and this act of mentally grasping is what any of my intuitions must be able to accommodate. For this reason each and every intuition requires the act of mental grasping.

On the other hand, such an act of mental grasping is made possible by synthesis from the beginning. According to the passage at A77/B105, synthesis is the act of putting or binding (begreifen) together "different representations" and "what is manifold in them" in one act of mentally grasping. An analogue of an act of mentally grasping is an arrow moving from its source to its target. The act of the arrow moving is comparable to the act of grasping and the arrow's target is the intuition being thought of. Hence synthesis is analogous to the act of putting the target together from various different portions so that it can present itself as a target for an arrow, an act of

awareness of the target as a distinct entity. The putting together of the target is a precondition for a shooting. So any shooting requires that the target lies ready and unified. An act of shooting a target cannot occur if the would-be target is scattered all over the place.

The fruit of the analogy is that an act of mentally grasping requires synthesis as its necessary condition. Since we have seen that intuition requires such an act of grasping, it also requires synthesis. The final conclusion is that since space and time are themselves intuitions, they are also products of synthesis. And as Kant puts it in a famous passage:

Synthesis in general, . . . , is the mere result of the power of imagination, a blind but indispensable function of the soul, without which we should have no knowledge whatsoever, but of which we are scarcely ever conscious (A78/B103).

Space and time are, therefore, products of the imagination.

To sum up, then, since space and time are intuitions, they imply that there is an act of mental grasping directed to them. This act of grasping is itself only possible because of synthesis, which is the primary factor in relating and combining various mental representations into one. And since synthesis is "the mere result of the power of imagination," so are space and time. This argument is more general than the one by Allison that we have seen. In fact it helps us see the real nature of imagination better.

The image making ability of imagination for Kant is only a manifestation of its deeper power of synthesizing, of making a unity out of many representations.

Nonetheless, the main thrust of the Aesthetic is not to argue that space and time have an imaginative origin; instead it is directed at establishing that space and time are a priori and are necessary for there being perceptions of objects "outside us." In the following it will be shown that space and time as intuitions (thus having imaginative origin) and as being necessary for perception are not exactly regarded as absolutely the same in their functions. The former are intuitions, but the latter are "forms of intuitions." I would like also to establish that the whole process of the Aesthetic could be spelled out in physical terms regarding the human system of perception and representation as a whole, although a schematic one. Kant, as is well known, is not interested in giving a detailed physiological account of the process; instead he is delineating the form according to which such an account must adhere to if it is to explain human perception adequately. And it is this "form" that the Aesthetic is concerned with. In the following section I shall offer an analysis and a limited defense of Kant's argument for the apriority, focusing on his prevalent use of the relation of "necessary condition of possibility." It is this argument for the apriority of space and time that is crucial for an account of the form of every detailed description of human

perception. Afterwards I shall examine the relationship of this argument to the doctrine of transcendental idealism; I shall also give an argument and illustration purporting to show that transcendental idealism is tenable under the radical separation of items of perception and their ultimate causes. Moreover, I shall briefly discuss the issue of skepticism, arguing that transcendental idealism is far from being a theory proposing skepticism against objectivity. The theory is instead an affirmation of the untenability of this kind of skepticism. Objective items of experience must conform to the conditions of possibility of experience that Kant spells out in the *Transcendental Analytic*, and if Kant is successful in showing this, then objectivity is ascertained.

Consequently, skepticism, which denies objectivity, cannot be viable at all. This examination of the relationship between transcendental idealism and skepticism will then make use of the brain-in-vat example that Putnam has introduced. That we might be brains in vats is not evidence for skepticism if the skepticism concerns the objectivity of items of experience, for it is perfectly conceivable that a community of brains in vats can belong to a common world where all of them are participating members. I would like in addition to assert that this is the farthest one could go in combating skepticism.

In the last section some findings in the psychology of perception will be given in order to help illustrate Kant's

point in the Aesthetic. Here is where we turn to empirical investigations pioneered in studies of perception in cognitive psychology. In what sense are space and time a priori and "in us"? How do they contribute to the process of perception, whose major physical ingredients are the eyes, the ears, other sense organs and the brain? These are very interesting and stimulating questions that Kant opened a way of seeing, and the last section of this chapter will be devoted to it and other problems.

Kant's Argument for the Apriority of Space

Kant talks a great deal about something being "the condition of possibility" of some other thing. This can be spelled out thus: Something must obtain, or must be the case, or must simply exist, in order that something else be possible at all. I shall focus on the nature and the working of the relation itself in the next section. We shall see that any proper understanding of Kant necessarily requires that we pay an adequate attention to the nature of this relation. However, in this section I shall have a look at Kant's argument at A23/B38, where he seeks to conclude that space is an a priori representation.

In addition, I shall show that Kant's argument is valid only if the presupposed space is not considered as an intuition, but its form. Here is the argument in full (the numbering is mine):

(1) Space is not an empirical concept which has been derived from outer experience. (2) For in order that certain sensations be referred to something outside me (that is, to something in another region of space from that in which I find myself), and (3) similarly in order that I may be able to represent them as outside and alongside one another, and (4) accordingly as not only different but as in different places, (5) the representation of space must be presupposed. (6) The representation of space cannot, therefore, be empirically obtained from the relations of outer experience. (7) On the contrary, this outer experience is itself possible at all only through that representation.

What Kant aims to accomplish in this argument is that space is a priori and not obtainable from outer experience. In fact outer experience is possible at all only through the representation of space. Hence (1) and (7) are the twin conclusions of the argument; in fact space can be a priori only if it is the necessary condition for outer experience from the beginning. The reason lies in (2) to (5). Kant bases the whole argument on the undoubtable phenomenological fact that I, for example, have experience of things outside where I find myself and of things lying alongside one another, including my own body. Kant maintains that this ability of mine presupposes that the

representation of space is not derived from experience, since any act of experiencing already requires such representation.

In Kant's Transcendental Idealism, Allison argues that in this argument Kant is saying that experiencing something as "outside me" implies that the objects being experienced are not parts of one's own self and perceptual states; instead they are "distinct from the self and its states" (83). What Allison has in mind here is that Kant apparently recognizes that the self plays an important role in a perception of objects as "outside," or in Kant's terms in an experience of "outer sense." However, Allison contends that this is the case only for humans, for it is conceivable that other kinds of beings might possess some kind of knowing about their selves from other means which is not space and time (83). Kant's important distinction between intuitus derivativus and intuitus originarius at B72 is here particularly pertinent. Humans can have only the former kind of intuitions, which are always formed by space and time. Some other kinds of beings might not need such intuitions; instead they might have direct access to things as they are in themselves. In this case they do not have to be confined to space and time. They have, then, original intuitions, and not derivative ones.

It seems clear, at any rate, that, as a human being, I must depend on (derivative) intuitions to know my world empirically, and these intuitions do belong in the

framework of space and time because it is a fact of human experience that it always occurs in space and time. The presupposition of space and time in human experience simply means that they are not items of perception, but are the conditions by which such a perception becomes possible. This is so for the reason that, as the forms or the frameworks within which both outer and inner senses necessarily function in humans, space and time are the "container," so to speak, of any reception of empirical items. This act of reception, furthermore, depends crucially on the ability to distinguish one's self and its own inner states from the states one has as the results of one's interaction with outside objects. Otherwise the representation of space would not be a factor at all in the act, and thus an experience of something outside oneself would not be possible at all.

This ability to distinguish between one's own inner and outer states is clearly presupposed, as Kant shows in the argument. But now the question is: Is this ability to differentiate objects the same as what Kant intends to show in the argument to be a priori? In other words, does Kant intend to show merely that this ability is presupposed by experience or does he intend to show that space itself, as an intuition, is what is so presupposed in the argument?

It is here that the distinction that Kant gives at B160n. between the forms of intuitions and the formal intuitions comes into play. In this argument for

apriority, Kant argues, *prima facie*, that space is presupposed. But which one? Space as forms or as intuitions? It seems clear, however, that if space is considered only as an intuition, then it is difficult to see how it is presupposed and is the ground of my ability to represent things as being outside me. It seems rather that I must have acquired some notion of space through learning before I can represent space (as an intuition) as an abstraction which is representable, for example, by three lines of coordinates, each of which is perpendicular to one another. I must then have studied some geometry before I can thus represent space. And as an intuition it must be possible that I am conscious of it as an object of thought. If space is considered solely in this respect, then it is really difficult to see how it is presupposed precisely because this picture of space itself requires some formal learning, which obviously cannot be *a priori*.

What I would like to argue here is that in order for Kant's argument here to go through, the term "space" in the argument must be regarded, not as referring to an intuition, but to a some form of ability inherent in the perceiving subject which is responsible for the subject's being able to perceive things as lying outside herself. Viewed in this way Kant's argument becomes much more plausible. Thus the conclusion of the argument is that some form of ability must be presupposed before the subject can represent things outside. For if this ability is

lacking, then the subject would not be able to represent things as outside at all. The subject need not be conscious of the ability; it is already at work as the ground of perception of the three-dimensional world in the first place.

An illustration of this can be given in the well known "visual cliff" experiment by Walk and Gibson. A six month old baby is laid on a floor to crawl about. On the floor there is a small well with the same patterns of tiles as the floor itself, but the well is covered with a piece of glass so that the baby won't fall into it if it crawls over. Now the point of the experiment is that the baby, when approaching the well, refuses to crawl onto the glass over the well to its mother, obviously being afraid that it will fall down the well. It is clear, then, that a prelingual baby possesses the ability to discern what is "outside." If this ability is lacking, then the picture presenting itself to the baby's field of perception might perhaps be only two-dimensional. The patterned tiles on the floor and the well would look the same to the baby, and it could see no distinguishing marks that the well is deep down. The consequence will be drastic if the well is deep enough.

This ability in itself is not acquired by experience because the baby does not learn about the depth of the well by trial and error or induction. It is the case that the cues from the floor and the well present themselves to the

baby in such a way that it somehow "knows" that the well is deep down, but if the baby does not possess the ability in question, these cues (which I shall talk about in the last section of this chapter) would not make any sense to it. The cues would still be all there with the baby having no capacity to use them to construct a picture that the well is deep down and thus not to be crossed over. In a two-dimensional perceptual world (if the baby lacks the ability), the cues to depth perception would still be the same, but since the ability to discern depth is lacking the subject is not able to use them to see the other dimension.

I would like to suggest that this ability is what is required for Kant's argument here to be valid, not the full fledged geometrical representation of space that the text of the Critique seems to indicate. So a conclusion can be drawn that this argument, which is the linchpin of the argument of the Aesthetic as a whole, does not argue that space as abstract and formal representation is what is directly presupposed by the subject's ability to distinguish things as outside; instead it is this innate ability that babies also have that is required.

This ability, I would like to add, is the same as space when considered as a form of intuitions. In this aspect it is the form of representing outer intuition in general, a structure by means of which alone outer intuition, as material from outside, can be given.

According to Kant:

Now that which, as representation, can be antecedent to any and every act of thinking anything, is intuition; and if it contains nothing but relations, it is the form of intuition. Since this form does not represent anything save in so far as something is posited in the mind, it can be nothing but the mode in which the mind is affected through its own activity (namely, through this positing of its representation), and so is affected by itself;. . . (B67-68).

Kant seems to be saying in this passage that the form of intuition is a system of relations which is "posited in the mind," and which in itself does not represent anything, but depends on the material given from elsewhere. In another place in the *Aesthetic* he states that the conditions of space and time, as conditions necessary for our having intuitions, are "originally inherent in the subject" (A43/B60). These passages are very suggestive of the possibility that the form of intuition itself is actually in the mind as a structure of representing in general. And if this is so, then it accords well with the finding of the "visual cliff" experiment. The baby already possesses this "system of relations" inherent in its mind, so it won't go over the cliff to its mother.

Thus one must distinguish clearly between space (and time) as a form of intuition and as intuition itself. The

former is nothing but a system of relations and in itself does not present itself as a direct object of thought, as "image" or "picture." The latter, on the other hand, is an object of thought. When thinking is directed to some thing, that "thing" is an intuition. The former, as Kant says, is "the mode in which the mind is affected." That is, it is the form according to which the power of imagination can mold its material so that the material results in an intuition. If there is no supplied material, then when the power of imagination forms something according to the form of intuition, the result will be, in Kant's words, "empty intuition without object." That is, the result is space itself considered as pure intuition. In this case space is pure because it owes nothing to the supplied material from outside; it results from the spontaneous act of forming according to the form of intuition alone.

However, if the form of intuition is to be representable to the mind at all, it can thus present itself as nothing but an intuition. In the second edition Transcendental Deduction, Kant argues that space and time are not only forms but intuitions in their own right; in his words:

Space, represented as object. . . contains more than mere form of intuition; it also contains combination of the manifold, given according to the form of sensibility, in an intuitive

representation, so that the form of intuition gives only a manifold, the formal intuition gives unity of representation. In the Aesthetic I have treated this unity as belonging merely to sensibility, simply in order to emphasise that it precedes any concept, although, as a matter of fact, it presupposes a synthesis which does not belong to the senses but through which all concepts of space and time first become possible. For since by its means (in that the understanding determines the sensibility) space and time are first given as intuitions, and not to the concept of the understanding . . . (B160n.).

The "unity of representation" that is given by the "formal intuition," then, is treated here in the Deduction as ultimately belonging to the faculty of understanding and not sensibility as the text of the Aesthetic indicates. This text seems strange, because it should instead be the case that the form, not the intuition itself, should be responsible for the unity of representation. However, the meaning of this puzzling sentence could be seen from the fact that the intuition, as we have seen, requires synthesis, which then effects unity. Kant says, however, that it is the "form of intuition" that gives the manifold. In Kant's Transcendental Idealism, Allison interprets this passage as arguing that the ability to represent space, or in his words "the mere capacity to intuit," is the

"ultimate source or ground of the manifold contained in the actual intuition" (97).

The upshot is that this unity according to the form of intuition is acknowledged by Kant to belong to synthesis which relates it to the single framework of consciousness and thus to the categories. Therefore, it is the faculty of understanding that is the condition of possibility for the space and time as forms because, as a function of unity in cognition, space and time as forms do belong in the single framework of consciousness from the beginning. Otherwise there would be no way to integrate the results of sensibility into cognition at all. And as synthesis forms itself spontaneously according to the forms of intuition, without any given a posteriori material, the result is the pure intuitions of space and time themselves, given as objects on a par with other types of intuitions and representable, for example, by three lines of coordinates that I have mentioned.

Therefore the forms of intuition themselves depend for their being on the understanding, and since the latter is the work of synthesis (this will be the major topic of the next chapter), the imagination--which effects synthesis (A78/B103)--is responsible for the unity of such a form when it is involved in human cognition.

The scenario of what it would be like if the subject lacked the ability to represent things as outside him illustrates the extent to which the relation "something

being a necessary condition for the possibility of something" means. We have seen that any act of perception would not be possible if not for the representation of space. Thus to imagine acquiring space from outside is to be engaged in an infinite regress or circular activity since any act of acquiring anything from outside does itself require space as the form of representing in the first place. Since this form is inherent in us, it naturally cannot be acquired from outside and thus is a priori. This is the gist of Kant's argument at A23/B38.

The Logic of "Necessary Condition of Possibility"

Now we turn to tackle the methodological issue of what is really meant by Kant's prevalent usage of the relation "something being the necessary condition for the possibility of some other thing." This relation could be spelled out more transparently as follows:

A state of affair, p, is a "necessary condition of the possibility" of another state of affair, q, if and only if

If it is possible that q then it is necessary that p.³

The relation argues from the possibility of a proposition to the necessity of another, which is the former's "condition of possibility." It is open whether such a condition is unique or not; it can be either. What is

crucial is the move from possibility to necessity. For example, a condition of possibility of a composite (a,b,c) is that a must be in it. So the condition is obtained from an analysis of the items involved.

In order better to understand the relation, a concrete example might be helpful. Consider a case where someone, A, walks. What is the necessary condition (or conditions) of possibility of A's walking? One might think of the fact that A must have a pair of legs, must be able to move them one after another in a certain manner and to stay in balance lest he fall, and so on. This looks simple enough. Then consider a horse walking. It is clear that having just one pair is not necessary for walking since quadrupeds also walk. And if we design robots to look like humans, their walking, although requiring a pair of legs, does not need legs made of flesh and bone. Hence possessing legs made of flesh and bone is not necessary either. The balancing act in humans, horses and other walking animals is performed by the brain, which is an organic stuff made of neurons and other kinds of organic matter. This is not true in silicon-based robot-brain, for example. Therefore the search for the necessary conditions for walking has to bypass the question of material and go a notch deeper. It has to look for a structural similarity of the performance of the brains in living animals and central processing units in robots, plus a comparable way this is actualized, either with flesh-and-blood or metal legs. What we are

interested in is the abstract functions of the central processors of either living animals or robots regardless of their material composition.

This structural similarity is therefore not based on any particular material. Nevertheless, in order to account for such conditions of possibility, the abstracted structure that we have constructed must be based on some material system for it to work in an environment at all. Hence both form and matter in this case are all necessary. To import the talk of possible worlds, we might say that in a world, w , a structural procedure that enables a system, s , in w to be able actually to walk must be based on some material system in w . A blueprint of such a procedure by itself would not enable one to make a walking robot unless one appropriately implements it with appropriate material and energy distribution system. Thus a possible system in w must be implemented by a central processor belonging to w so that the system could function in that world. Complementing the "brain" is of course the fact that the system must be appropriately equipped with required material that permits the act to be actualized. Our actual world is also no different. In order that a human can walk, the brain is required, and a similarly functioning "brain" is also required in the case of walking robots, as well as a pair or more of actual "legs." In this case the form is represented by the blueprint and the matter by the material that is to be constructed according to the

blueprint. Note that the blueprint itself is not the form, but only "refers" or "points to" it. The form itself is abstract.

Kant's argument at A23/B38, consequently, can be more formally presented as follows:

- (a) I can represent objects as being outside me and alongside one another in different places.
- (b) The necessary condition for the possibility of (a) is that the ability to represent space in general is presupposed.
- (c) This ability cannot then be "empirically obtained from the relations of outer experiences."
- (d) The reason is that if (c) were not the case, then (b) would not be true, hence (a) would be false too, which is absurd.
- (e) So (c) is indeed true.

The truth of (c) hinges on the truth of (a) and its logical connection to (b). In the preceding paragraphs I have explained the relation of presupposition in (b). And as for (a), it is a fundamental phenomenological fact.

We have already seen how the relation of the condition of possibility could be construed. The example of the condition of possibility of walking affords us an idea that in order for a system in a world to be able to walk in that world, a material with a certain composition must be formed or constructed in such a way that the system is enabled to

walk. Apart from having the necessary equipment, such as having a pair of legs, the system must be endowed with a "brain" that coordinates all the equipment so as to make the system succeed in walking. This coordinator of course needs to be implemented in some kind of material in that world, but we can certainly abstract its working and represent it in a model that is necessarily true for all possible models. This, I contend, is one part of Kant's necessary condition for the possibility of walking. The other part is the necessary material appropriate to each world, such as a pair or more of "legs," an energy system to make the "legs" move, and other such things. The latter parts are no less necessary for walking than the "brain" that embodies the form since obviously the "brain" cannot walk by itself. The two parts must cooperate in tandem with no conflict for the system to succeed in walking, or in any kind of its endeavour.

This notion of Kant's, I would like to argue, is essential in understanding his attempt in the *Aesthetic* and the *Analytic*. Understood in this way, space and time, as necessary conditions for perceiving objects outside me and thus a priori formal intuition, become nothing mysterious. In order to gain an insight to what Kant is really up to, the example of a walking system needs to be that of a seeing system instead.

It becomes apparent what a seeing system in a possible world needs in order to be able to see. It needs both a

"brain" that does the coordination and computation and a material framework to actualize the process, thus the brain represents the form of the condition of seeing. In this case even a brain itself must be made of some hardware material in the same way as other components of the system. Hence the material composition of the brain itself is quite irrelevant if they represent this same "blueprint" or form. What sets the brain apart from being merely material is that a set of instructions is installed in it which actually is not material at all. This set of instructions tells the brain of a system to do whatever it is told to. These instructions, analogous to a computer program, must bear a structural similarity to other sets of other systems doing the same thing, hence a more general set could be abstracted which is the necessary condition. Recent findings and theories in physiology and psychology are valuable in helping us see what is empirically and schematically going on in a human's or other animal's system of perception. What Kant does is to specify the formal part of what is necessary in order that a system could represent objects. In the Aesthetic in particular, the problem is to find out such necessary conditions.

The Processing of Empirical Intuition

In Chapter One we have had a view of what Kant set out to do in the Aesthetic, namely to find out how it is

possible that empirical intuitions are produced out of an immense array of input feeding into the perceptual system. Now I shall examine the process in detail, and for this purpose I have provided a diagram outlining the components of the process on the following page.

Since the discussion of the move from (2) to (3) in the diagram is hardly in a philosophical domain, I will leave it to specialists in the field. Suffice it to say here that the "crude" manifold here is what is mechanically obtained from the sense organ prior to any act of processing or inference. In the case of vision this refers to the retinal images and the information emanating from the eyes to the brain in whatever form. The important thing is that this "raw" information is definitely not the same as empirical intuition. A perceived red apple before me located outside me and alongside other objects is hardly the same as the stream of information from the apple feeding into my brain.

We have already seen how the process from (6) to (5) works; that is, how space and time, as formal intuitions are ultimately produced by imagination. As products of the imagination, space and time are intuitions; on the other hand, as necessary factors of processing the "crude" manifold into empirical intuitions, space and time are the forms of intuition, as evidenced in the relation between (4) and (5). The two only differ in their functions. As forms of intuitions, though, space and time, according to

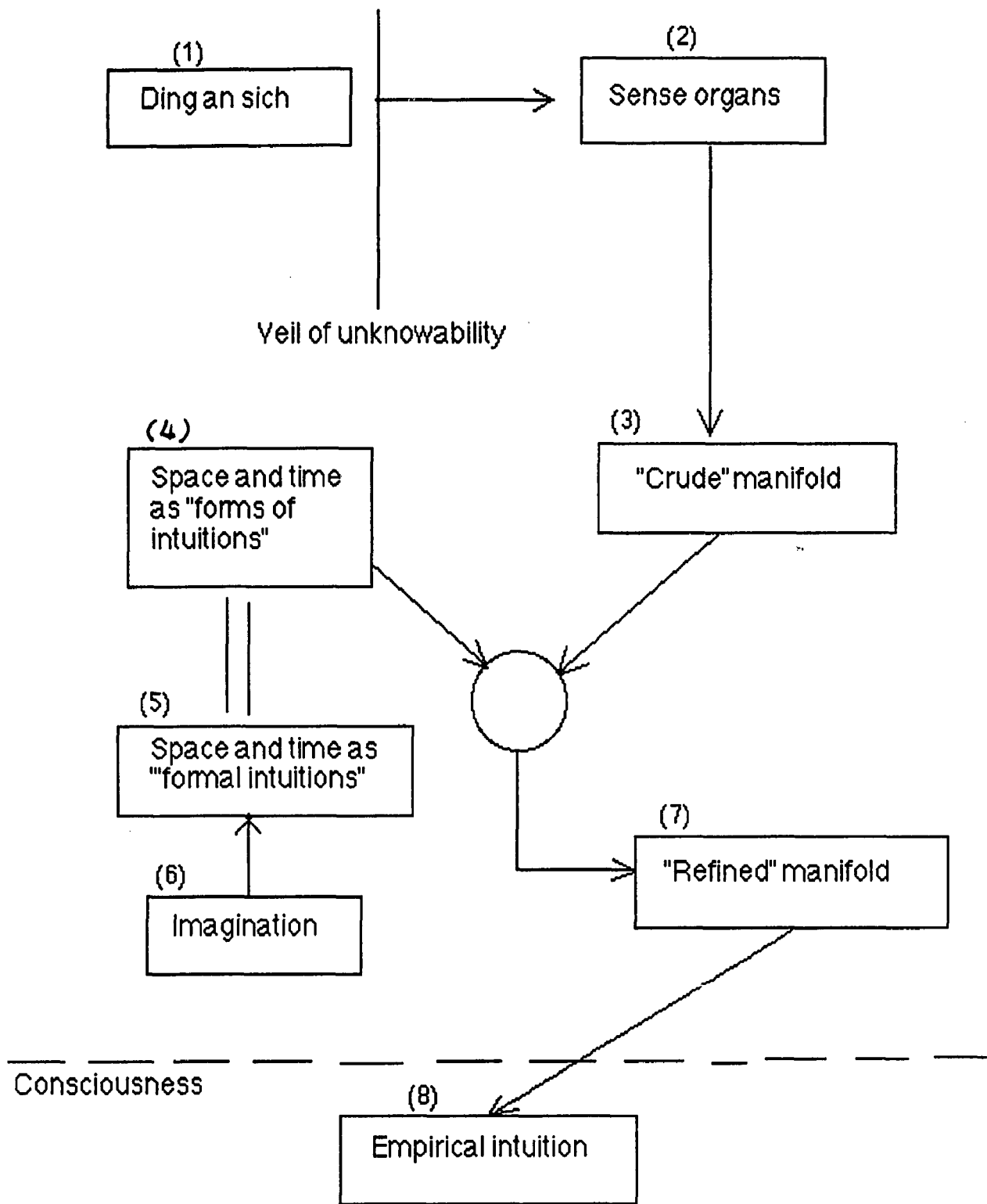


Figure One: Transcendental Aesthetic

Kant, represent the ability to represent things as lying outside and thus are responsible for being an overarching framework within which empirical intuitions can be represented as being external, individuated and locatable in time.

The remaining moves, then, are more strictly philosophical. The order in which I will discuss the diagrams are, respectively, (1) to (2), and (3) to (4) and to (7), which in turn produces the transition from (7) to (8). The process from the Ding an sich to sense organs is a very interesting one, and naturally one that is most in need of explanation and clarification. So I elect to discuss it first.

What I would like to establish is that the process from (1) to (2) in the diagram could in a few words be described as an input of sensory information to the sense organs. The ultimate source of this information, however, cannot be directly known since from the beginning all thoughts must be directed to intuitions without exception. What this means is that the external objects which are perceived are, as they are so perceived, not the originators of the process, but its end results! This is a version of Kant's transcendental idealism. We can never know the source of the information as it is in itself, simply because what we always directly perceive are empirical intuitions which themselves are processed through many stages as shown in the diagram, hence the purpose of

the "veil of unknowability" that in the diagram separates the thing in itself from what is directly perceptible. I will in the following contend that according to my interpretation here Kant's doctrine of transcendental idealism will not be as untenable or flatly false as many Kantian commentators claim. In fact the unknowability of the thing in itself is an inevitable consequence of Kant's system in the *Aesthetic*. Since humans are equipped with what Kant calls "derivative intuitions," (B72), that is, their intuitions are derived from some other objects, the doctrine of transcendental idealism then logically follows.

In order to see this point more clearly let us consider the example of brains in vats made famous by Hilary Putnam in Reason, Truth, and History. Putnam postulates a possibility of there being brains being fed information from a clever scientist who deludes the brains into thinking that they are behaving in a normal world as real human beings and that they are themselves not brains in vats. Putnam is clear in indicating that these brains, since they are real, have the same capacity as normal brains in human skulls do, but Putnam contends that the words used by the brains in vats (henceforth BIV's) do not refer at all because there is nothing to which the BIV's words really refer (Reason, Truth and History 12-14).

However, since the BIV's are real brains and the information fed into them, at the physiological level, is of the same kind as that into our brains, there is no

denial that the phenomenal world of the BIV's and of humans are of the same kind. This is of crucial importance for Kant. Suppose that I am now a BIV. Evidently I do not and could not have any means to know that I myself am a BIV because that would imply that I have a means to knowledge that transcends my ability, empirically, to know. To be able to know that I now am a BIV would require that I have a means of knowing that is not dependent upon my predicament as a BIV--I must be able, in other words, to dissociate myself from my phenomenal "world" and incorporate another world to which real human beings normally refer in their talkings. This, patently, I cannot in any conceivable way do, since it would be tantamount, in Kant's term, to going beyond things as they appear to things as they are in themselves.

In addition, transcending my phenomenal limit as a BIV would violate a basic fact about the transcendentalty of the ego. The idea is that it is impossible to distance oneself from one's point of view and observe one's own workings of one's mind from an "objective" third-person point of view. The reason is clear: As an observer, I must be in my own phenomenal space at that moment and hence this space is not the same as the observed working because the observed working, as object of my introspection, is only a part of my phenomenal space at the moment of observing. This is evidently not the same as the phenomenal space I have as being observed. The qualia that I have as being

observed cannot be imported to my qualia as observing. In fact they cannot be put side by side at all. My qualia as being observed might be manifested in a certain working of the neurons, but when I inspect that working what I have is another qualia of that working. The two are not the same.

The upshot of this is that, as a BIV, I have no ways of knowing that I am such, and, corollary to this, I have no means to alienate myself from my phenomenal space. The question is: If a certain number of BIV's are hooked up to a central processing system such that the BIV's all think that they are participating in a communal activity, sharing the same information, the same world and so on, are we, as outsiders to this "community," justified in saying that the talkings of the BIV's from their point of view do not refer at all? If their talks do not refer, then how are their communication and all of their communal activities apparently successful?

It seems that we need to establish a distinction here that is analogous to Kant's distinction between phenomenon and noumenon. According to the BIV's, we and our world are their noumenon, and their "world" their phenomenon. Conceivably there might be among the BIV's a Kant who propounds a theory that their world is nothing but a world as appears to them and they have no means whatsoever to know the world as it is in itself. Since the BIV's and we share the same type of brain, there is nothing that would constrain us from suspecting that our world is what it is

only as it appears to us and we never know what the world looks like in itself. This point will be better illuminated if one imagines oneself as a member of the BIV world. I, for example, might imagine myself to be a member of such a world and now writing in that world on a yellow pad about a problem in philosophy, intending to get my degree. The quality of my phenomenal space as a BIV is not different from my phenomenal space as a real human being--this is only the hypothesis of the thought experiment.

Of course for the BIV's to be able to participate in such communal activities presupposes that the sensory input feeding into each of them must be such that it enables them to construct a shared world. This requires that the central processing system must be constrained in such a way that it provides a sharable and understandable information to the BIV's. Such a world would not be possible at all if the central processing system did not provide a reliable, largely predictable information. For example, if a BIV is programmed to be a philosophy student, then the necessary condition for this would be that the information must be provided to it so that it can construct a reliable, stable world where it can communicate with, among others, its professors and classmates. Its condition as a philosophy student would not occur at all were the input feeding into it so chaotic that a stable world could not be constructed at all. I suspect that if the central processing system

which is responsible for feeding information is not constrained and is free to feed anything to the BIV's, it will be utterly inconceivable that any of the BIV's would have the essential language ability. The reason is that language ability naturally requires a stable and comprehensible world. Its brain, in this dismal case, might not be able to develop at all.

If the BIV's world is nothing but pure illusion for us, then our own world would certainly be in a no better condition were there some transcendent being toward which we are mere BIV-type beings. As far as perception goes, we are not in a different situation from the BIV's because their and our worlds are phenomenally of the same kind. This always leaves open a possibility, in our case, of some transcendent being who could perceive what to us is noumenal. The noumenon for us would then be only phenomenon for them. Furthermore, the possibility can certainly be pushed further. The "phenomenality" of the world of the transcendent being would leave open a possibility that there be another world which is "noumenal" to them but is only "phenomenal" to yet another, more transcendent being, call them transcendent being₂, and so on.

These possibilities certainly sound incredible, but in fact there is nothing that would hinder the infinite progression. The heart of the matter is that these possibilities would be the case if the transcendent beings

had humanlike perceptual mechanism. That is, the infinite regress would be a certainty if they had to process their input and thus had no way to get at the source of the input as it actually is. The only way to stop the regress would be that the transcendent beings must be so endowed that they have the capacity to know things without any such interference. In this case they would be able to know the noumenon directly and consequently their perceptual equipment is not human-like. In Kant's terms these beings must have "intellectual intuitions" (intuitus originarius B72), instead of merely human ones (intuitus derivativus B72).

However, in the case of the BIV's and humans a transcendental chasm is already in place from the beginning. The purpose of the thought-experiment has been to show a possible case where a "noumenon" with respect to some beings could be a "phenomenon" for others. And since, ex hypothesi, we possess the same types of brains as the BIV's, the noumenon for the BIV's is phenomenon to us, and our noumenon might be a phenomenon to some other beings.

Let us go back to the move in the diagram from the thing in itself to the sense organ. We have already learnt from the BIV analogy that our world is just like the perceptual world of the BIV's (when the input into the BIV's is consistently and coherently coordinated so that they share the same world), and, as real humans, we know what the "Ding an sich" for the BIV's, is, namely a system

of a coordinated stream of information computed by a central processing system in our world. The "veil of unknowability" in the diagram serves to show the transcendental chasm between the BIV's world and this to them transcendent source. Since we are in the same situation as the BIV's, the same case applies to us as well, except that, as being analogous to the BIV's in this respect, we have no means to know what the transcendent source of our world is like.

Now let us concentrate on the aspect in the diagram where the "crude" manifold is processed through space and time to become a "refined" manifold. Since the latter is just the same as empirical intuition except that the latter is an object of consciousness while the "refined" manifold is not, the process here is essentially the same for empirical intuition also.

In the B edition of the Transcendental Deduction at B162-163, Kant discusses how empirical intuitions, for example those of such objects as a house or such an event as the freezing of water, are essentially related to their respective categories, namely that of quantity and cause and effect. In the first case Kant shows that in making "the empirical intuition of it [the house] into a perception" (B162), what is required is that he represent the intuition as a necessary unity of space and of outer intuition in general. In order for Kant to be able to represent to himself an empirical intuition of a house as a

"perception," in other words as a perceptual judgment of the form: "This, before me, is a house," he must be able to represent it within the framework of space as a unity. This is a conclusion of the argument of the Aesthetic. Furthermore, Kant says that even when he is representing the house completely in thought without the benefit of the presence of the real object, he still needs the representation of space which is essentially the same as that of outer perception. As Kant puts it: "I draw as it were the outline of the house in conformity with this synthetic unity of the manifold in space" (B162). The analogous case of event perception, such as the freezing of water, also aims for the same conclusion in the case of time; in this case time is required in any act of representing an event at all.

This shows clearly that as a prerequisite in representing an object space is necessary. Kant's words at the first sentence of this important passage, let us recall, are: "When, for instance, by apprehension of the manifold of a house I make the empirical intuition of it into a perception, the necessary unity of space. . . lies at the basis of my apprehension" (B162). The passage seems to suggest that first I "receive" a manifold of information coming, empirically, from a certain object, then I "apprehend" this manifold according to the form of intuition so that the manifold become something I can be immediately aware of, thus making it an empirical intuition

(or in fact a refined manifold and then empirical intuition).

In the Second Analogy, Kant also gives a couple of examples intended to show the working of space and time on the sensory manifold. The example of a house recurs here, but Kant emphasizes at this point more on the different natures in themselves of the two items: the successivity of the pure sensory manifold and the unified nature of intention:

. . .the apprehension of the manifold in the appearance of a house which stands before me is successive. The question then arises, whether the manifold of the house is also in itself successive. . . . Now immediately I unfold the transcendental meaning of my concepts of an object, I realise that the house is not a thing in itself, but only an appearance, that is, a representation, the transcendental object of which is unknown. What, then, am I to understand by the question: how the manifold may be connected in the appearance itself, which yet is nothing in itself? That which lies in the successive apprehension is here viewed as representation, while the appearance which is given to me, notwithstanding that it is nothing but the sum of these representations, is viewed as their objects (A190-1/B235-6).

A full understanding of this passage requires that we have already tackled the major problem of the Analytic, namely that of conceptual application, hence we need to postpone this until later in the thesis. For now, however, the passage suggests that the manifold of something outside necessarily comes to us successively. It is just our constitution as a creature in time that makes this a necessity. On the contrary, the perception of that manifold, since it is one of a house, is not successive but static and unified and in space and time. In this example Kant illustrates the diagram given above of the Aesthetic quite well. The information comes to us in successive form and the real source of this information is something we will never know since it is beyond the veil of unknowability. Kant calls this ultimate source "the transcendental object." (Recall the analogy of BIV's and humans I have given before.) Now the manifold of information enters us through the visual system, and the account of how this happens is the province of physiology. In any case what we call the "crude" manifold is anything that has passed through its appropriate physiological channels and is ready for another level of processing, that of the "a priori forms of sensibility," which happens below the level of consciousness. This is where for Kant the crude sensory manifold, such as that of a house, is processed so that it is perceived to be static, since although I perceive different parts of the house

successively, my intuition of it is not of a happening, but of an object. (At this moment the question of how I happen to know that the manifold of the house is not successive must be postponed until the Analytic, since it involves the issue of concepts and communicability among humans.) This already processed manifold, before any act of thinking is applied, is then called a "refined" manifold. This then becomes an object of thinking (including dreaming, hallucinating and so on) and thus becomes an empirical intuition.

A parallel case with this is Kant's example of experiencing such events as water freezing or a ship moving downstream. What is unique in these cases is that events are composed of at least two happenings occurring in a definite order. Hence the unifying element in these cases is also time, as a form of sensibility, instead of space alone in the former case of experiencing a house.

So how do space and time contribute to the processing of the "crude" manifold? Kant's general outline is that since space and time belong to the human perceptual system, any content of human experience necessarily adheres to such "forms of sensibility" in the first place. Moreover, since space and time are not direct objects of perception, that is, in Kant's terms they are not empirical intuitions, nor are they the results of abstraction from outer relations obtaining among objects as the Leibnizians claim, space and time could not be anything but a priori.

We have seen earlier that what is a priori or transcendental is not something mysterious or supersensible at all. Space and time, as forms of sensibility, could then be nothing but a pure form instantiated by a particular constitution of human perception, or any other being that shares the same perceptual structure as humans. The study of how this structure actually operates in humans is the domain of psychology of perception, and I shall briefly discuss the relationship between this discipline and philosophy in the next section.

In fact Kant emphasizes this human aspect of space and time in many places in the Aesthetic. For example, at A42/B59 Kant writes: "We know nothing but our mode of perceiving them [i.e. the things in themselves]--a mode which is peculiar to us, and not necessarily shared in by every being, though, certainly, by every human being." Again, at B72: "This mode of intuiting in space and time need not be limited to human sensibility. It may be that all finite, thinking beings necessarily agree with man in this respect. . . ." These passages show that Kant is sensitive to the question of what is peculiar to the human perceptual mechanism and perhaps to any other beings who share the same overall mechanism as humans. All finite, thinking beings only have derivative, and not intellectual, intuitions. They cannot get at the things as they are in themselves, for their perceptual mechanism is such that they have to construct their world out of the sensory

material coming to them. It is impossible, moreover, for them to get around the construction since it is constitutive of the experience that they can have. It is conceivable that a kind of being with intellectual or original intuitions need not construct its world in this way, but might instead possess the ability to have access to the things themselves without any intervening empirical intuitions. This kind of being, then, would not be in space and time, for its world is one in which space and time are not necessary; its world, in other words, is not situated in any region of space and time.

It is obvious that the world appears to us as three dimensional and we are fully justified in asserting that for all practical purposes the world is in fact three dimensional simply because we are constrained by our "necessary condition of possibility" of perception to perceive it to be that way. This, nonetheless, does not preclude a possibility that the "world" in itself might be the same as, or different from, what we normally perceive it to be. Kant's transcendental idealism, then, is not a species of skepticism that seeks to destroy the objectivity of items of experience. On the contrary, it is a doctrine that affirms such objectivity. However, this objectivity is not of things as they are in themselves apart from the conditions which must obtain for human experience to be possible. If we have no escape from the mere possibility that we might perhaps be BIV-type beings, then the most we

can have is such conditions of possibility. With these conditions the situation would not be any drastically different if humans possessed some transcendent ability to gather such concepts as substance or cause and effect from "intellectual intuitions" (intuitus originarius, B72) that God has, for we still are justified, in our peculiar way, in the perception of the world around us, of which we all normally agree what it is like.

Kant and Contemporary Theories of Perception

Kant's theory of perception bears many similarities to some of the leading theories of perception today. However, it is not possible in this work to discuss this important topic in substantial detail, so I choose to concentrate only on the aspect that is the most relevant to a philosophical purpose and the present concern of this study.

Most works in psychology dealing with the topic focus on the question how a perception of a three dimensional world is possible given the fact that the retinal image is only two dimensional and upside down. Bruce & Green, in Visual Perception, survey many theories purporting to address the question. Almost all of them concentrate on the existence of various "cues" in the object to be perceived, such as gradation of sizes, textures or shapes, or some "dynamic cues" such as motion parallax (a

phenomenon where the observer can detect different distances between objects while he himself is moving or while one or all of the objects move). Apart from these outside cues another method is also studied which belongs only to the human physiological makeup. This latter method is used when each of the two eyes receives a signal which is somewhat different from the other. This slight disparity between the images then provides a cue for the perceiver to learn about the three dimensionality and distance of the objects perceived. Let us look more closely at the first method first.

Due to the way the eyes are like focusing cameras, we have an image of an object closer to us as being larger than the same object or another object of the same size at some further distance. Figure Two illustrates this point. Three equally sized objects, A B and C, are situated at different distances from the observer with A nearest and C farthest, the image cast by A on the "frontal plane" which is perpendicular to the line of sight is bigger than B and B's image is bigger than C.

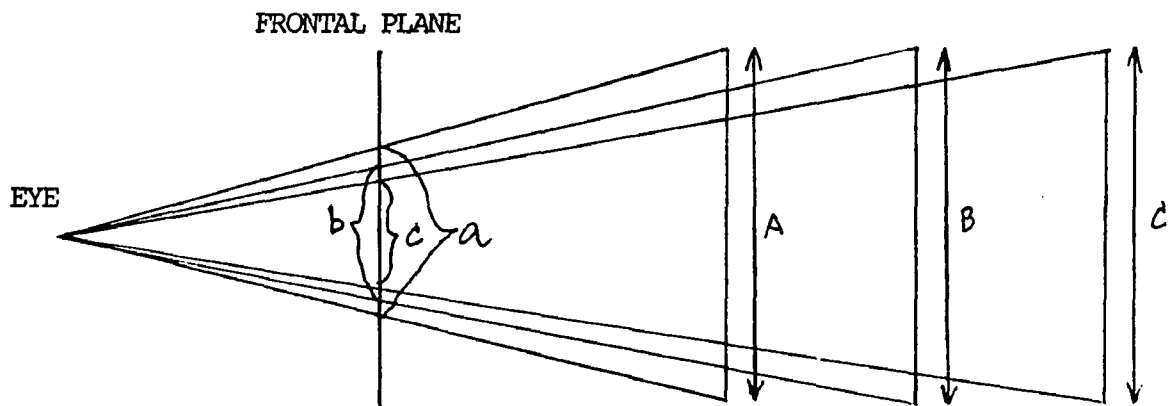


Figure Two (From Visual Perception 141)

The reason why we appear to see a two dimensional picture with perspective as three dimensional is because the cues to depth perception are present in the picture.

In sum, this cue, that objects appear to decrease in size as they recede, is one among several that enable third dimension perception. Some other outside cues to the same effect include changing textures, clarity or brightness, as we actually see when observing a number of mountains; the nearer ones appear clear and bright, whereas the farther ones will be hazy and less detailed (Visual Perception 142).

The other kind of cue lies not in the outside objects but in the physical make up of the eyes themselves. The fact that humans have a pair of eyes located on the same vertical plane with each other makes it possible for them to have overlapped images as a cue to depth perception. The phenomenon is known as stereopsis. Since the two eyes are on the same plane and since they are at a distance from each other, the exact images received by each are slightly different. We can easily see this for ourselves by looking at a small object close to the eyes with one eye only and then with the other, the images that we will have of the object will be that the object appears to move slightly relative to its background. It is held that if the brain can calculate this slight shift in the two pictures it can calculate the relative distance of one object in the visual world from another (Visual Perception 131). In this case

the responsible party in depth perception is not in the objects but in the physical structure of the eyes themselves.

We can conclude from these findings that the sensory input feeding into our bodies contains within it various cues that serve to make it possible for us to detect and perceive the three dimensionality of the outside world (provided that we possess the ability to discern three dimensionality from these cues in the first place). Moreover, the human eyes are structured in such a way that depth is also perceptible in this way. A deeper and more philosophical question naturally ensues from these findings, but for the moment let us postpone that discussion and concentrate once more on another area which is of particular interest to Kantians.

The problem is this: Given the fact that the eyes always move and that humans and other animals become acquainted with their worlds through "successive fixations," how then could these animals integrate the successive information so that they could perceive an abiding world? "Successive fixations" here is a technical term referring to the action of the eyes that focus on an object or a part of it at a time and then move on to focus on another part of the same object so that a complete view of the object is grasped and recognition is effected. Recall that this problem is mainly the same as Kant's problem in the Second Analogy of how it is possible to have

an intuition of a house from a series of successive inputs. Psychologists are also interested in the problem and have provided a number of theories intended to explain this phenomenon.

It has been suggested that a perception of a stable world through successive fixations is achieved by some kind of memory that preserves the former image for comparison with the present one (Visual Perception 149). This kind of memory is called "iconic memory," a term coined by Ulric Neisser in Cognitive Psychology. This kind of memory preserves an image exactly as it appears and carries it to be compared with the next item. According to experiments by Sperling ("The Information Available in Brief Visual Presentations"), iconic memory typically lasts about half a second. After this time items preserved by the memory begin to fade away. Furthermore, items in iconic memory are in their uninterpreted form, hence exactly what they are in their physical presence in the retina (See also Von Wright, "Selection in Visual Immediate Memory" and "On Selection in Immediate Visual Memory," qtd. in Visual Perception 149).

According to the experiment, then, an integration of successive fixations is achieved by comparing iconic memory of a past instance of an item with the present one. A problem then follows from the approach, for what is indeed responsible, at the level of the mechanical iconic memories, for comparing them in order that a perception

results? The problem thus appears to be merely put off one step further. A memory which is very short lived and purely physiological could not in any way fully account for the problem of successive fixations for the reason that iconic memories simply are duplicates of their retinal images and the successivity of the former (which duplicates that of the latter) requires an integration all over again.

This argument has been put forth against the iconic memory theory by Hochberg in "In the Mind's Eye" and Turvey in "Contrasting Orientation to the Processing of Visual Information." In his article Hochberg proposes that instead of an ephemeral iconic memory some other factor which is longer lasting must be present in order to solve the problem. Hochberg conducted a number of experiments showing that an observer, when successively observing parts of a line drawing of an ambiguous or an impossible object, correctly reports the whole picture without being shown the whole thing at once. Moreover, Hochberg reported that the observers could tell about the ambiguity or the "impossibility" of the picture with only successive viewing of the parts of the picture. The upshot of these studies is that memories from the viewings are not only stored in their iconic, exactly duplicate, form, but also in what Hochberg calls a "schematic map," which is already governed by the observers' experience or expectations. In Hochberg's own words: "It seems most plausible to me that they (schematic maps) are built up not only from the

successive views of a given object or scene but from previous experiences as well" (325). In addition, "[a] schematic map is a matrix of space-time expectancies (or assumptions)" (324).

What is very interesting in these passages is the similarity in idea they bear to Kant's writing which we are exploring. For Hochberg, what is primarily responsible for the integration of successive fixations is that the observer possesses a "schematic map" which enables him or her to integrate all the relevant sensory data in a way that results in an empirically correct perception of the world. In my interpretation of Kant, "schematic map" here seems to be whatever factor is responsible for the processing of empirical intuition. All the input feeds into the observer successively, and due to this "power" he or she is enabled to unify this "successive manifold" in an order that results in empirical intuition.

So how do these findings in psychology help us better understand Kant's project in the Aesthetic? The answer must be that it does not directly answer what preoccupies Kant, namely the question of apriority of space and time. Hochberg notes that previous experience plays a crucial role in directing an interpretation of the successive fixations, but then a philosopher is immediately prompted to ask: What exactly is responsible for that previous experience? And so on. Obviously an infinite regress of "previous" experiences is impossible because human life is

finite, hence there must be a starting point somewhere that makes the whole process possible. Hochberg's schematic map and previous experiences are clearly in Kantian terminology "necessary conditions of the possibility" of the integration of successive fixations of the eyes such that they result in a perception of stable objects. However, one of Kant's projects in the Critique is just to find the starting point from which experience becomes possible, and Hochberg's experiments simply show that for a particular episode of experience a schematic map and previous experiences are required, not experience as a whole.

We have seen a very brief sketch of some leading psychological research on the issue of visual perception. Necessarily a complete evaluative and interpretive study of the influence and pertinence on philosophy would require much more time than presently available for this work. Nonetheless, I would like to assert that this could very well be an area of productive and fruitful study. At the moment my interpretation of Kant is intended to show that Kant has a lot more affinity to contemporary theories of perception than previously thought.

However, a reflection on the results of these experiments should make us aware of some of the major differences between the two approaches, viz. Kant's and the psychologists'. We have seen that in the case of depth perception, all such cues as perspective or stereopsis are necessary if perception of depth is to be achieved. But

are these cues really the same as Kant's space as an a priori form of sensibility? Apparently not. It is an empirical fact that the images from the two eyes are not exactly the same and studies have shown that we sometimes rely on this disparity in perception of depth, but what exactly is responsible for the fusion of the two images? This fusing agent certainly must be the same for all the other cues to depth perception since the result is always the same, i.e. a perception of a three dimensional, abiding world. Some cues which have been proposed such as iconic memory, however, are apparently not effective at all in producing perception because they are purely mechanical, as Hochberg has shown. Therefore there must be some other agent which processes the information from the sensory input in such a way that, at this particular level, depth perception is achieved. That is, the agent must act according to some prior form in such a way that the cues are rightly interpreted as representing depth. This agent, then, is the imagination. It will be the task of physiologists or other scientists in pertinent areas to study how precisely in physical terms the brain does the processing. As for Kant, however, he would see these experiments as clearly not a transcendental pursuit but nonetheless on the right track toward a confirmation of his own rather schematic and conceptually fundamental theory of how depth perception is achieved.

Another important issue remains, however. It seems

clear that the psychological experiments only seek to find an answer to the question of how we come to have an image of depth, not how we represent the image as being of something outside us. This latter question is philosophical in that it points to the totality of experience and does not deal with particular matter of how various cues produce depth perception. In order to understand this better we need to go back to the brain-in-vat example again.

Suppose in the BIV world there is a group of psychologists studying how their fellows happen to perceive their world as three dimensional. They come up with the same results as human psychologists have done. The psychology in the world of the BIV's then is the same as ours (assuming that they have the same science as ours). Suppose further that in the BIV world there is a philosopher who questions whether what is directly perceived is really what it is in itself. Clearly this question is legitimate as it is in ours. The philosopher in the BIV world then proposes a theory that it is the constitution of the BIV's thinking and perceiving system that is primarily responsible for their perceiving their world it as appears to them.

The BIV's situation, of course, parallels ours. And from our vantage point we can see the BIV's unfortunate position. We know that the "world" according to the BIV's is nothing but a system of information and the

"transcendent source" of their world is our own phenomenon. Hence it is actually the working of the brains in vats themselves that produce their phenomenal images. Thus we understand that the brain is the primary processor of the BIV's (since they are nothing but brains) that is responsible for producing the perception of their "three dimensional" world in the first place. This is conditioned by the fact that the information fed into their systems contains "affinity," to use Kant's word (A122). That is to say, the information might be fed into the BIV's from a giant computer that coordinates the individual BIV's phenomenal, subjective worlds so that they all believe they belong to the same world. This affinity, however, is definitely not the same as the fact that the information we might feed into the BIV's system is decidedly different from the effect the information has in individual BIV's.

This example serves to show that, in the case of the Aesthetic, space and time, as forms of intuitions, are instantiated by the working of the brain, which processes the information via sensory input in the same way as the BIV's brains do. The diagram showing how empirical intuition is processed would be exactly the same in the BIV's world as in ours, provided that they have the same brains as we do. Since space and time are products of imagination and due to the fact that they are, as forms of intuition, instantiated by such functional working of the brain, imagination can then be considered as the factor

that is responsible for the act of synthesizing in the type of beings that necessarily employ derivative intuitions, such as humans. However, whatever is physically responsible for such act in humans is not the same as imagination itself, because it is the form of such physical act, and not the act itself.

NOTES

1. Hence intuition is whatever thought is directed to. The idea is that as "that to which all thought. . . is directed" intuition must be conceptualized through the act of synthesis in order that it be a part of judgment, in order, that is, that it is an essential component of human understanding.

Thus the "refined" manifold is in fact the result of receptivity alone. Empirical intuitions, on the other hand, are what we normally encounter in everyday perception. Empirical intuition is an object of thought and are subject to conceptual predication if an act of judgment is to be effected. Evidently empirical intuitions also include such items as mental images, or what is taken as a "this" in hallucination or dream, since they are all made possible by external objects in the first place, as Kant shows, or tries to show, in the Refutation of Idealism (B274-279).

It is quite clear in the text that Kant does not mention "intuition" as a matter of sheer receptivity alone. He sometimes uses the term "sensation" to emphasize the purely receptive aspect of sensibility. For example at B147 Kant writes: "Sensible intuition is either pure intuition (space and time) or empirical intuition of that which is immediately represented, through sensation, as actual in space and time," and a little further: "Now things in space and time are given only in so far as they are perceptions (that is, representations accompanied by sensation). . . ." It is quite apparent that Kant thinks that sensation alone is not sufficient for giving "things in

space and time." Since they are "representations accompanied by sensation," the latter is only a part of them. What more is needed is that the sensation must be synthesized according to the forms of space and time so that empirical intuitions are produced.

2. In the Anthropology Kant has a section on "Ideas that We Have without Being Conscious of Them" (§5, 135-137). In it Kant discusses cases where the subject is not fully conscious of the ideas in his mind. According to him, we can be "mediately conscious" of an idea even though we are not immediately conscious of it. Kant calls the ideas of which we are not fully conscious "obscure ideas" (§5, 135), and those of which we are fully conscious "distinct ideas" (§5, 135).

Kant illustrates this point very clearly in the following words:

In man (and so in beasts too) there is an immense field of sensuous intuitions and sensations we are not conscious of, though we can conclude with certainty that we have them.

In other words the field of our obscure ideas is immeasurable, while our clear ideas are only the infinitesimally few points on this map that lie open to consciousness: our mind is like an immense map with only a few places illuminated.

Kant's example of these obscure ideas is a case of a musician who "plays a fantasy on the organ with ten fingers and both feet, while talking with someone nearby, in a matter of seconds a host of ideas is awakened in his soul; and in selecting each of them he must make a particular judgment about its appropriateness, since a single stroke of the finger out of keeping with the harmony would at once be perceived as discord" (§5, 136). Kant's point is that the musician is making a

lot of judgments simultaneously. The musician does not accomplish this by being fully conscious of all the musical notes he is making, nor the words he is talking with his friend. On the other hand, it is the case that if he becomes fully conscious of his moves, then it is very likely that he will lose his harmony and perhaps cannot even play further. Some obscure ideas must be at work here so that the musician can accomplish the feat with apparent ease.

All this shows that Kant is aware of the case of unconscious or, at any rate, of less than fully conscious ideas. Thus Kant does not claim that ideas of which we are fully conscious are all there are in the mind. His point is that the understanding can get at only the "distinct ideas" because they are direct objects of thought and can be applied concepts. This does not imply that there are not any other kinds of ideas of which we might not be fully conscious at all.

Castañeda also has a study on the role of what he calls "egoless thinking"--a kind of "thinking" of which the thinker is not fully conscious--in "The Role of Apperception in Kant's Transcendental Deduction of the Categories."

3. This account of "presupposition" differs rather markedly from what is treated in much of the literature in philosophical logic. For example, in a quite well known article by Bas van Fraassen ("Presupposition, Implication, and Self reference"), the author outlines presupposition as being primarily a semantic relation. According to van Fraassen, A presupposes B if and only if A is neither true nor false if B is not true. Thus if A presupposes B, then unless B is true A will be meaningless. The truth of B is the necessary condition of A's being meaningful (viz. able to be assigned truth

value), not its being true or false. This view is applied by Gordon Brattan in Kant's Theory of Science to Kant's idea on necessary condition (32-36).

One should suspect, however, whether this view accurately represents Kant's own view. It is difficult to see how meaningfulness or meaninglessness has anything much to do with the issue at hand. Remember that the issue now is an elucidation of the relation of something "being the necessary condition of the possibility" (die notwendige Bedingung der Möglichkeit) of some other thing. So the issue should concern modality more than meaningfulness. It is furthermore dubious if van Fraassen's view could satisfactorily be applied to my example of a search for a necessary condition of walking. What I aim at finding is a proposition p where p fills this schema and yields a true sentence:

(1) If it is possible that a walks, then it is necessary that p .

(1), of course, is the case if and only if that p is the necessary condition for the possibility of a 's walking, of "that a walks presupposes that p ." According to van Fraassen, however, unless p is true, the proposition that a walks would have no truth value. This seems wrong to me, at least as an exposition of what Kant has in mind. For if p is false, it should instead be the case that it is not possible for a to walk, for she obviously lacks the necessary wherewithal (no matter what that actually is). So the proposition "it is possible that a walks" should be false. It should not be the case that this proposition is thus meaningless if p is false. We can still capture the meaning, or the truth or falsity, of " a walks" even if p is

false. Consider a negative case of a man, b, who flies. Clearly a "necessary condition for the possibility," q, of b's flying can be given. Then if q is false or does not obtain, this does not make the proposition "b flies" meaningless.

This matter can be further illuminated in a clearly defined world of chess. Anyone who plays chess knows the rule of castling. There is a clearly defined set of rules prescribing when it is possible to castle, all of which must obtain together. The rules are: (a) The king and the rook must not have moved before; (b) The king must not be in check; and (c) There must be no piece in the row of the king and the rook to be castled. Any chess player knows this. My point is that these rules jointly constitute the necessary conditions for the possibility of castling. And if either one of the three does not obtain, for example if I have moved the king, then I cannot castle my king for the entire game because the rule is now violated. Hence in this context it is indeed the case that the proposition "It is not possible for me now to castle" is true. In other words, when the necessary conditions do not obtain, the proposition "It is possible now for me to castle" is false. This proposition should not be meaningless, nor truth value unassignable, as van Fraassen and Brittan seem to think.

Chapter Four

Transcendental Analytic

As I have briefly shown in Chapter One, Kant's overall theory about perception and recognition is that empirical judgment, one of the type "This is an F," is the result of joining together two radically different entities, intuition and concept. These have different origins, but each nevertheless needs the other, in order that the first be intelligible and the second not empty. This remark, of course, comes from Kant's famous dictum: "Thoughts without content are empty, intuitions without concepts are blind" (A51/B75). In the Aesthetic Kant discusses the origin and the processing of empirical intuition. It is now natural that he discusses the other part, namely the origin of pure and empirical concepts, in the Analytic.

In this chapter I shall focus on the very important role of imagination in the Metaphysical and Transcendental Deductions, and the Schematism, which comprise the Analytic as a whole. In each of these sections the role of imagination is much more visible than in the Aesthetic, and Kant explicitly states here how in general terms imagination contributes to the system. The matter treated in the Analytic is extremely complicated, and not only do

the two editions of the Transcendental Deductions present very difficult and sometimes very obscure arguments, but the other two sections are no less difficult. Hence my treatment of these sections will necessarily be brief but concentrated, and I shall focus only on the role of imagination. I shall give roughly equal attention to all the three sections, and will try to show that all are equally important to the system as a whole. The structure of the arguments of the Transcendental Deduction, especially the one concerning imagination and recognition, will be examined. The discussion of the section as a whole, however, will be relatively brief, considering the fact that a vast amount of work has been written on it. This by no means implies that the Transcendental Deduction is not as significant as the other two sections, but so many commentators have written on it, and I feel that the Metaphysical Deduction and the Schematism have been somewhat neglected, especially the former. This is a rather unfortunate situation because both the two sections are concerned with issues that are vital to a complete understanding of the entire critical system. Besides, these sections of the Analytic complement one another. This makes it rather imperative that the other two sections need to be examined with as much vigor as the Transcendental Deduction.

My main objective in this chapter is to present the role and nature of imagination as being essential to the

critical system. I shall commence with the Metaphysical Deduction, then proceed to the Transcendental Deduction, and finally the Schematism.

The Metaphysical Deduction

The section on the Clue to the Discovery of All Pure Concepts of the Understanding, which comprises the first chapter of the Analytic of Concepts (A66/B92-A84/B110, and B110-B116) is one of the most misunderstood pieces of Kant's writings. Kant's stated purpose in this chapter is to show the identity, existence and exact number of the pure concepts of the understanding--or the categories. These are the most general concepts functioning in unifying representations into judgments. What I would like to do here is to indicate the necessity of this important section by showing that this section provides a way, a "clue," to discovering the categories, without which the Transcendental Deduction, which is the justification of this discovery, could not even get off the ground.

There are basically three questions which the Metaphysical Deduction addresses. These are: (1) How is the table of the twelve forms of judgments complete and exhaustive? That is, what justification is there to support Kant's claim that his table contains all the most general forms there are without any omissions or redundancies?; (2) How can Kant derive the corresponding

pure concepts of the understanding from the logical forms, each of the former having a one to one correspondence with each of the latter?; and (3) What justification is there, corollary to (2), to support the claim that the table of categories is exhaustive and complete? These three questions intimately relate to one another. The crucial point is the question of the correspondence between the logical forms and their respective categories, to which I shall devote the most attention.

On the surface it looks extremely puzzling how it is possible at all that logical forms, which are purely formal, have any connection with the categories, which are a priori concepts necessary for human thinking and understanding. This is the central tenet of the Metaphysical Deduction (henceforth I shall abbreviate it as "MD"). And the key to the answer to this lies in the work of the imagination, as I shall show later on in the chapter.

Let us first have a close look at question (1) concerning the nature of logical judgments. Kant here seems to see no need at all to defend his choice of the twelve logical forms divided into four groups. This looks very puzzling, for this fourfold division of the twelve logical forms, and hence of the categories, is the touchstone of all of Kant's further development of the critical system. All Kant has to say in the first Critique regarding the question how he actually comes up

with what he has is at a rather non-spectacular sentence at the very beginning of the MD itself at A70/B95:

If we abstract from all content of a judgment, and consider only the mere form of understanding, we find that the function of thought in judgment can be brought under four heads, each of which contains three moments.

This is all Kant has to say about the issue. Considering the fact that elsewhere in the work when Kant sees a need to elaborate on an issue he spares no effort in doing it (The Transcendental Deduction and the Schematism are two good examples.), it must be the case here that Kant does not see a great need to emphasize and defend his choice in detail. The point might have been obvious to him and he might have felt his reader to believe the same.

In the passages following the table of logical forms at A70/B95 Kant gives a rather brief defense of his choice including his own additions of some logical forms which he feels not attended to by logicians of his time. He includes the group of modality as well as "infinite" and "singular" judgments. Here Kant is concerned that this represents the uniquely complete and exhaustive forms of logical judgments. His point at the moment is that the table of logical forms results from the abstraction of all content of all possible forms that a proposition can assume. In fact the table at A70/B95 could be represented in modern logical parlance as follows:

| | | |
|-----------------------------|------------------------|-------------------|
| <i>Quantity</i> | | |
| Universal | | |
| All F's are G's | | |
| Existential | | |
| Some F's are G's | | |
| "Singular" | | |
| An individual, a, is G | | |
| <i>Quality</i> | | <i>Relation</i> |
| Positive | | Categorical |
| It is true that a is F | | a is F |
| Negative | | Hypothetical |
| It is not true that a is F | If a is F, then a is G | Disjunctive |
| "Infinite" | | a is F, or a is G |
| a is "non-F" | | |
| <i>Modality</i> | | |
| Necessity | | |
| It is necessary that a is F | | |
| Actuality | | |
| It is actual that a is F | | |
| Possibility | | |
| It is possible that a is F | | |

Thus, this table represents a form that every logical statement must take in a system of first order modal logic. A statement has to be either universal, or existential, or "singular;" and either positive or negative or "infinite;" and either categorical or hypothetical or disjunctive; and either possible or actual or necessary (see A70-77/B96-101). A proposition, according to Kant here, must satisfy either one form within each of the four groups. I think that this is basically what Kant has in mind by his abstraction of all content of logical forms.¹

Leaving aside the question whether the table represents a set of complete and exhaustive logical forms, the problem that is much more interesting and more complex is how Kant derives the categories out of these logical

forms. The text on this topic is brief and cryptic to the extreme. In order for us to be better equipped for the task, however, we need to study Kant's distinction between general and transcendental logic. The passage on this topic precedes that of the MD, as a necessary background.

For Kant general logic is the study of the forms of judgments alone which are abstracted from all content. It "considers only the logical form in the relation of any knowledge; that is, it treats of the form of thought in general" (A55/B79). General logic thus studies the same general subject matter as modern formal logic, namely the rules of deduction and preservation of validity and consistency. On the other hand, transcendental logic is concerned with what Kant calls "empirical thought of objects"--that is, thought in so far as it is affected by empirical intuitions and consequently by the manifold of space and time and synthesis. I think that general logic, as the study of the rules of validity, could safely be equated with the logic proper in Kant's time, and thus with formal logic. Transcendental logic, however, is Kant's original contribution. In the sentences immediately following the one just quoted, Kant claims that transcendental logic should not treat only of the pure rules of validity, but should instead "treat of the origin of the modes in which we know objects, in so far as that origin cannot be attributed to the objects" (A55/B80). In other words, the proper subject matter of transcendental

logic is the study and the search for the origin of the ways or "modes" of how we come to know objects. This origin could not be anything but a priori since transcendental logic obviously needs to distinguish itself from the merely empirical (i.e. a posteriori) mode of knowing, as well as from general logic. Furthermore, Kant even claims that transcendental logic is the condition of possibility of any a posteriori mode of knowing. Since transcendental logic looks specifically into the origin of a priori knowledge, it could not be limited only to the study of the rules of validity as is general logic. Consequently the former could not be purely formal. The reason is quite straightforward: Since transcendental logic studies the origin of a mode of knowledge, it should concern itself with whatever constitutes the modes of thinking and judging in the human mind and how these are implemented in a general sense rather than with the mere abstract rules for correct or valid thinking. In addition, if the knowledge of the a priori condition of the possibility of empirical knowledge (i.e. "transcendental" knowledge) is not to be confused with the "transcendent" knowledge of supersensible material, then transcendental logic could not deal with a transcendent subject matter, but only with the necessary features responsible for the possibility of thinking in any rational beings.

In the Jäsche edition of Logic, Kant states that general logic differs from transcendental logic in that in

the latter "the object itself is presented as an object of mere understanding, whereas general logic concerns all objects generatim" (Logic 18). Thus, in transcendental logic the role of the understanding, hence of synthesis also, is necessarily involved, and it is concerned primarily with cognition in general. General logic, on the other hand, is an abstraction from the content of thought, and is a study of such abstraction per se.

Kant writes, speaking of a science which is distinguished from pure general logic but is nonetheless essential in determining the mode of a priori knowing:

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

In fact the point will be much clearer if one bears in mind that the Transcendental Analytic is but one part of the Transcendental Logic, itself being divided into the Analytic and Dialectic. Hence what is discussed in this chapter, namely how concepts are originated and how they apply to intuitions, is the subject matter of transcendental logic itself.

This account of transcendental logic as treating of

such a condition of possibility for other, non-transcendental knowledge, is not the same as that of "applied logic," which is only a part of general logic. According to Kant, applied logic is concerned with such empirical issues as "attention, its impediments and consequences, . . . the source of error, . . . the state of doubt, hesitation, and conviction, etc." (A54/B79). In short applied logic deals with the psychological conditions pertaining to an individual's mental make up mind which hinders or furthers his or her act of thinking. Therefore applied logic is purely psychological and empirical. Such matter is not in the domain of transcendental logic, for the latter treats of the totality of perceptual experience, not any specific parts of it, and it aims at uncovering what ultimately makes perceptual experience possible.

To sum up, then, the subject matter of transcendental logic is to find the necessary condition of a priori perceptual experience. Hence it shares an overall aim with the Transcendental Aesthetic. The former is distinguished from the latter by the fact that it deals with thinking and the production and application of concepts, whereas the latter is concerned only with the conditions for receptivity. It is clear, therefore, that the Aesthetic and the Analytic have to work together if we are to be able to explain how perception is achieved.

We have now a necessary item that we can use to find an answer to the major question of the MD. I believe that

the key to discerning the bridge between the table of logical forms and the table of corresponding categories lies in the distinction that Kant has given between general and transcendental logics. I would like to submit that the reason why we are able to know the categories from the logical judgments is because the former are the condition for the possibility of the latter.

Let us now return to the question of derivation. Kant's passage on this topic is very brief and difficult, but nevertheless some meaning could be gleaned from it if it is examined in the context of the distinction between general and transcendental logics. The passage, which comprises §10 of section 3 of the Clue to the Discovery of All Pure Concepts of the Understanding (A76-83/B102-109), is one of the most important in the Critique. Here Kant explicitly relies on synthesis as the anchor point of the whole operation. It is here that Kant mentions synthesis for the first time. The basic idea of the derivation for Kant is that it is the same "function of unity" that is at work in both uniting forms of logical judgments, in other words uniting various representations into forms of judgments, and uniting various mental representations into intuitions (A79/B104).

This same function is to be known as "the pure concepts of the understanding." We might note that it never represents an individual in the way that an intuition does. An intuition is a singular representation of an

individual. A concept, on the other hand, is for Kant a representation of what is commonly shared by many intuitions. It is "discursive," and not "intuitive." It is based on what Kant calls "functions," which are in his words "the unity of the act of bringing various representations under one common representation" (A68/B93). The pure concepts of the understanding, then, are the most general concepts possible. These most general concepts have an intimate connection with the forms of logical judgments, as we shall presently see.

The only way to understand this is to see that there is much more to the connection than the merely superficial correspondence or juxtaposition. Kant is not proposing the categories ad hoc out of the logical forms. Instead he is trying to show that there is a necessary connection between the two. In this case the forms of judgment are made possible by the categories by means of the unity effected by synthesis. Since the logical forms of judgment are abstracted from normal discourse, they are dependent on the latter for their being. Therefore, if it is true that discourse depends on the categories as the conditions of thinking, then the logical forms themselves owe their being ultimately to the categories. The reason is that the categories are the preconditions for any act of thinking in the first place, if any can be. That is, the categories are the reason for being (ratio essendi) of the logical forms. However, the way to learn about the categories

themselves is only through the logical forms, since it is the latter that are manifest in formal logic and are the starting point that makes it possible to trace back to the origin, or the reason of being. In this way, the logical forms are the reason of knowing (ratio cognoscendi) of the categories.

Therefore it appears that the logical forms of judgment are only manifestations of the categories all along. We have this particular table because we are constrained by our a priori nature to think that way. This a priori nature is absolutely necessary in any rational being so far as they have discursive thought at all.

An argument for this connection between the categories and the logical forms, I would like to show, depends on the fact that the table of logical forms is founded on human discourse. Since logic is concerned with the forms of discourse in general, it is already constrained by the very act of human beings' discoursing and communicating. This seems to be the reason why such areas as multi-value logic or other kinds of free logic would have no place in the table of logical forms, were Kant acquainted with them. The reason is that these logics are not based on human discourse in so far as it is concerned with ordinary knowledge and common, everyday effectiveness of communication. Clearly, though, it is possible to discourse about or even in the language of multi-value or other free logics, but Kant's point would be that such

discourses would be about some artificially constructed realm, or in an artificial language, not about the real world. An example of this would be that it would be certainly impossible to use multi-value logic as a basis for a testimony or an argument in court. The judge and the jury would want to know what is true and what is false, not that some state of affairs is of some third (or fourth) truth value. A defense that employs free logic would certainly be unacceptable, and the attorney who employs it would certainly be questioned regarding his or her seriousness or even sanity. Kant's fondness of legal metaphors in the Critique seems to support this point very well.

Here it appears that Kant is using the same type of argument he has used in the Aesthetic when he is arguing for the apriority of space and time, as we have seen in the last chapter. It is a fact that humans converse, and the abstracted forms of their conversation could be laid out in the table of logical forms. In the MD Kant seeks to discover, on the basis of logical forms, what is its necessary condition of possibility. Since the table of logical forms represents all possible forms of human discourse, finding the necessary condition for the table is tantamount to finding the necessary condition of human discourse as a whole. The focal point of this discovery lies in the crucial passage from A76/B102 to A83/B109.

The argument proceeds as follows: First Kant refers

back to the distinction between general and transcendental logics that he has given. The latter has as material a "manifold of a priori sensibility," functioning as "material for the concepts of pure understanding" (A77-78/B102). This reflects the distinction given before that transcendental logic is concerned with thinking in so far as it is done by actual human beings in real situations. It is a "logic" in that it treats of the forms of thinking but is restricted only to such forms in rational beings alone, insofar as they are capable of discursive thinking. Therefore transcendental logic has as its material the manifold of space and time because human thinking cannot occur in a vacuum unaffected by receptivity. Space and time are at the same time what contain "the manifold of a priori intuition" and are themselves "conditions of receptivity of the mind." (This distinction reflects the famous distinction of space and time as "formal intuitions" and "forms of intuitions" that Kant mentions at B160n.) Any concepts of representations received by the mind via receptivity necessarily are formed by space and time. Transcendental logic could not ignore human receptivity if it is to be a treatment of human thinking.

Kant writes: "But if this manifold [i.e. of space and time, and so of empirical intuitions in general] is to be known, the spontaneity of our thought requires that they be gone through in a certain way, taken up, and connected"

(A77/B102). Kant names this act "synthesis." The text indicates that in order that the manifold of receptivity be known, it must have "gone through" the act of synthesis. I have discussed the role of synthesis, especially its role in combining the manifolds of intuitions, in the last chapter. The idea is that any act of thinking requires an act of joining together various representations in one act of knowledge or in my preferred way of speaking in one act of mentally grasping in one swoop. Representations presented by receptivity simply could not be known if they are not already taken up by the mind through synthesis.

The conclusion of this first part of Kant's argument here is that any act of thought requires a material presented by the Aesthetic if it is not to be in a vacuum. This is simply the idea that any thought requires an intuition as object. The intuition could be either pure or empirical. However, it must have been synthesized in order to be known, i.e. to be connected and grouped together as a material for thought. Another point that Kant tries to show is that space and time must affect the concepts of the representations. Only empirical concepts could be so affected because the categories are a priori, hence empirical concepts must somehow be affected by space and time in order to be empirical at all.

There are two levels of synthesis at work here. The first one is the level of intuition. The mind takes up the "sensory" or "crude" manifold and molds it into a "refined"

one through space and time. The latter, then, as a direct object of thought becomes an empirical intuition. This issue has been treated in the Aesthetic. The second is at the level of concepts. This is where empirical intuitions, as "this-suches," have concepts applied to them in order that they become determinate as "this F" or "this G." However, the intuitions that can have determinate, non-empirical concepts applied to them need not be empirical at all. Pure intuitions such as those of geometrical figures could also be applied concepts. Examples are when a figure is recognized to be a triangle or a rectangle, or when my determinate, non-categorical predicates apply truly to a figure. In order that these intuitions, both pure and empirical, could be applied concepts at all, however, they require synthesis in the process. The situation parallels the recognition of a refined manifold as a "this," hence it becomes a "conceptual representation of an individual," in Sellars' terms. In this case the intuitions are already thises, and when they are applied empirical concepts the act of mentally grasping in one swoop is also employed. Since this last act evidently is one of synthesis itself, the application of determinate concepts to intuitions in consciousness (or even in dreams) clearly is made possible by synthesis from the beginning.

The upshot of all this is that any judgment requires synthesis. Kant writes: "By synthesis, in its most general

sense, I understand the act of putting together, and of grasping what is manifold in them in one act of knowledge" (in einer Erkenntnis). This judgment is apparently a human one. When a human thinks out loud, for example, "This, before me, is a cat" or "That seems to be a drowning man," she makes a couple of judgments based on her perception of the world. Judgment is encoded in a form of language.²

This last point is very important and it provides a key to an understanding of how Kant derives the categories from the logical forms. According to Kant:

The same function which gives unity to the various representations in a judgment also gives unity to the mere synthesis of various representations in an intuition; and this unity, in its most general expression, we entitle the pure concepts of the understanding. The same understanding, through the same operations by which in concepts, by means of analytical unity, it produced the logical forms of a judgment, also introduces a transcendental content into its representations, by means of the synthetic unity of the manifold in intuition in general (A79/B104-105).

This sentence is very intriguing. How can categories be the function that gives unity to a logical judgment? The answer must lie in the fact that the categories are the most general forms possible for thinking, and since we have

seen in the case of logical forms that there are twelve forms constituting the forms of discourse in general, in thinking, which is also done in language, these twelve most general forms are also present, but now in the guise of pure concepts. "Judgment" here denotes a judgment in human discourse in general. The point is that, in so far as a judgment in a discourse reflects human thinking, it is also ultimately unified by the categories as the most general forms of thinking. The reason is that discourse reflects individual thinking, which is clearly governed by the categories.

According to Kant, "all judgments are functions of unity among our representations; instead of an immediate representation, a higher representation, which comprises the immediate representation and various others, is used in knowing the object, and thereby much possible knowledge into one" (A69/B93-94). The idea behind this is that a judgment is a kind of representation that includes immediate representations and is thus higher. It is the result of synthesis in the sense that synthesis "puts together" various "immediate representations" so that the understanding can take hold of them, resulting in knowledge. An immediate representation alone would not suffice for knowledge because the understanding has no access to it. This is so due to the fact that human understanding, as discursive (A68/B93), has no power of immediately relating to objects without the intervening

presence of concepts. To be able to do this would be tantamount to being able to use words in such a way that they relate directly to things, so there would be an exact one-one correspondence between the infinite number of things and the corresponding infinite number of words (with no grouping). Patently this could not be a human power. What humans can do is to group "immediate representations" together in some way that they can manage and that is effective in aiding communication.

Thus a judgment is a function of the understanding when it "knows" that something is of a certain type. Kant writes, in an important passage: "Now we can reduce all acts of the understanding to judgments, and the understanding may therefore be represented as a faculty of judgment" (A69/B94). Since the understanding is the "faculty of thought," all acts of the understanding then reduce to various acts of judging resulting in propositions. This is evident when we reflect that all thoughts are but internalized speech that we make to ourselves and when we want to communicate in actual speech. The understanding could be regarded as the faculty of making internal speech. So the principles governing actual speech (i.e. the logical forms) also bear an intimate connection with the principles of internal speech.

The whole idea could be better understood if an analogy with the Metaphysical Exposition of Space and Time is introduced. Recall that in the Aesthetic space is shown

to be a necessary condition for the possibility of perceiving something as outside me. In this present case, the target is to find such a condition for human discourse. Kant thinks that discourse could be abstracted into the twelve most general logical forms, but these logical forms are not such a condition of possibility because they are obtained analytically from the abstraction of all content of judgments (or statements) in discourse. What he is looking for, on the other hand, is something without which human discourse would not be possible. The search naturally goes to individual human thinking and the use of language. Since the categories constitute the most general forms of thinking, they are such a condition of possibility.

To sum up the argument so far, any judgment at all requires synthesis. Consequently since there are twelve most general forms that a judgment could take (as twelve ways of unification), there are also twelve corresponding forms of thinking. The reason is that discourse in general is made possible by thinking humans in the first place. There being discourse presupposes that there be a community of humans interacting and communicating with one another. This in turn presupposes that humans possess some ability a priori so that they are enabled to communicate. (A good illustration of this is that a chimpanzee raised as a human baby would never be able later to participate actively in a human community as a human baby can do.) This ability is

precisely what is embodied in the twelve categories. This seems to be what Kant has in mind in the MD. Therefore the categories have a very strong and intimate relationship with thinking and language using ability.

So what is the role of imagination is all this?

Kant's answer is given in an oft-quoted passage:

Synthesis in general, . . ., is the mere result of the power of imagination, a blind but indispensable function of the soul, without which we should have no knowledge whatsoever, but of which we are scarcely conscious (A78/B103).

Synthesis, then, is the result of imagination; the act of putting together different representations, of grasping its object into "one knowledge," is done by the imagination. It thus seems that imagination is a kind of dynamic power which is prerequisite in any thinking, a power which is so fundamental that it is the anchor of the unity and coherence of experience and hence renders it possible. The phrase, imagination is a "blind, but indispensable power of the soul" (eine blinden, obgleich unentbehrlichen Funktion der Seele) needs to be clarified. In what sense is imagination "blind"? To say that imagination is "blind" conveys the sense of that imagination as a fundamental, unconscious force. In addition Kant himself says in the same passage that we are "scarcely conscious" (der wir uns aber selten nur einmal bewußt sind) of the working of imagination.

The reason should be clear: Since imagination effects synthesis, it is impossible for the mind, which depends on synthesis, to be aware of imagination in the same way as the mind is aware of empirical mental items. The issue concerns the particularity of mental items and the totality of the mind's action when it is related to mental objects. One could also say that imagination is "blind" in the sense that it cannot be known empirically.

The consequence is that the phrase could be more perspicuously rendered as "a function of the soul (or mind) which is indispensable (if the mind is to think anything), of which the mind is not aware or conscious as an empirical item." It is a function, a "blind" power, that effects synthesizing, and since for Kant there are no more and no less than twelve channels of synthesizing, it is natural that there are twelve pure concepts of the understanding as the most general forms of thinking.

The reason why the working of imagination cannot be known seems to be that it pertains to the transcendental-ity of the ego. We have seen that any attempt to know the 'I' qua thinker is impossible because such an attempt would then require that there be an I who thinks and whose acts of mental grasping relate to the empirical pattern that is supposed to be the physical manifestation of the thinking I. A next attempt to capture that thinking I will then require yet another one, and so on. This process then goes on ad infinitum. This infinite progression points to the

fact that any attempt to know the thinking I as an item of empirical experience will be forever futile; at any point in the progression there necessarily will be another thinking I, and so on.

So how does this relate to Kant's idea that the transcendental imagination could not be known from experience? Kant's point is that any attempt to know the transcendental synthesis as an empirical item itself requires that another synthesis is at work to make sense of that synthesis manifested now as an empirical item. Then the synthesis which does the synthesizing at the former level will then become another physical manifestation and thus require yet another level of synthesis, and so on.

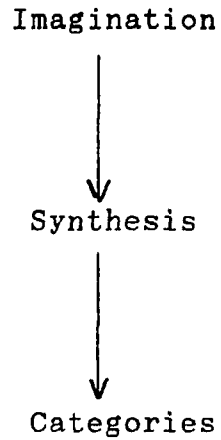
The preceding exactly parallels the infinite progression of the thinking I. The reason is that both are but two sides of the same coin. Thinking is an act of synthesizing; it is an act of making judgments out of various representations, as Kant says. So the thinking I is also the synthesizing I. Synthesis is the result of the power of imagination, hence the synthesizing of the thinking I is seen by Kant as the result of the power of imagination from the beginning.

In conclusion, the MD seeks to find from normal discourse the pure concepts governing thinking. Since Kant finds that there are twelve most general forms of discourse that he spells out in the table at A70/B95, there are also twelve corresponding "pure concepts of the understanding"

or the categories. The way to find the connection between the two is by synthesis. Kant argues that it is the same basic power that gives unity to both formal logical judgments and judgments in "internal speech." This is possible because logical judgments are only reflections or abstracted forms of human discourse, and since the logical judgments presuppose individuals' ability to think and to use language, they are only abstracted forms of the language of thought. Owing to the fact that, according to Kant, there are twelve forms of logical judgments and that it is the same basic power that gives unity to all types of judgments, we are then provided with a "clue" to discovering the basic forms of unity in human thinking.³

We know that these basic forms correspond to the forms of logical judgments because the latter reflect the former, as we have seen. Hence there are twelve basic forms, and since they are the most general forms of unity of human thinking, the act of synthesis naturally results in one or more of these forms or channels. These twelve basic forms of unity that constitute the most general channels for synthesis are the categories. The act of synthesis, or basic unification, is made possible by the imagination, which is the fundamental and unconscious force of the mind.

Therefore it is synthesis that gives rise to the categories. Since the former results from the power of imagination, the categories also derive their "roots" from imagination, as shown in the following diagram:



The Transcendental Deduction

The task of the Metaphysical Deduction, as we have seen, is to provide a clue for identifying the categories and for knowing how many there are and what they are. In fact the title "Metaphysical Deduction" is not given in that section. The name appears in the second edition of the Transcendental Deduction (TD) where the distinction between metaphysical and transcendental deductions is given (B159). The idea is that in the former section Kant aims to prove "the a priori origin of the categories . . . through then complete agreement with the general logical functions of thought" (B159). The latter, on the other hand, attempts to show the possibility of the categories "as a priori modes of knowledge of objects of an intuition

in general." The issue of the distinction between the two deductions will be made clearer when we discuss the three kinds of deductions that Kant mentions at B117 and B159.

These three deduction are the metaphysical, transcendental, and empirical. In normal cases, an empirical deduction is a purely factual account of how an item or a title comes into possession of the owner. It gives no defense of legal right to ownership at all; that is, it provides no justification for the possession of the object in question.⁴ For example an empirical deduction of a thief's possession of a piece of jewelry is a factual narration or explanation of how the thief comes into possession of the property in question, such as how he broke into a house and took the jewelry and so on. Obviously this does not show that the thief is entitled to the property. An argument other than a mere factual account would surely be required if the thief were challenged to defend his possession. In the case of knowledge, then, an empirical deduction would be a solely mechanical, a posteriori account of how a human being comes to possess a piece of knowledge, for example how she comes to know that it is now 100 degrees outside. This kind of deduction does not show how she possesses knowledge in totality. In other words, an empirical deduction does not furnish a justification of the possession of knowledge. It does not show how one is "entitled" to the objective knowledge that one has. For this purpose a different kind

of deduction is needed. It is clear, then, that the empirical deduction is not of much interest in philosophy.

The other two kinds of deduction, on the other hand, are much more interesting. The Metaphysical Deduction explores the close relationship between understanding and discourse, as we have seen. It is a "deduction" in the sense that it shows humans' possession of the categories through their complete correspondence with the logical forms. As a deduction it shows that humans in fact do possess the categories in question, and this is not done merely empirically. The essential purpose of the Metaphysical Deduction is to introduce and identify the categories. It is here that each one of the categories is individually recognized. This account is not empirical because Kant tries to show that here everything is complete and necessary, which would never be accomplished in a "merely mechanical" fashion.

The Metaphysical Deduction then leaves a big gap to be filled in by the Transcendental Deduction, for it is the task of the latter completely to justify the claim to rightful possession of the categories and their necessary application to experience. In a way the MD serves as a springboard, a starting place, for the TD. The former introduces the twelve categories and the latter seeks a justification for their employment.

The argument of the TD is immensely complex, and more literature is devoted to it than to any other parts of the

Critique. Here I shall be as brief as possible without a loss in sufficient clarity. The account I shall be giving of the important role of imagination in the TD should make it a vital piece in the overall puzzle about the role and nature of imagination in the work as a whole.

In the following I shall begin with a discussion of the argument in the first (A) edition and then the aspect in the second (B) edition that is different from the first. Then I will focus on the role of imagination in both editions to see whether Kant has any fundamental change in his ideas. My purpose is to show that as far as the fundamental ideas of the argument are concerned, Kant does not make any major change. The change--the difference between the two editions--is only on the level of emphasis, namely that in the B edition the role of imagination, which in A is autonomous, is curtailed and subsumed to the understanding.

From A84/B116 to A96 and B130 Kant opens the TD with a discussion of the various kinds of deductions that we have already seen. The main point is the famous distinction between quid juris and quid facti, i.e. the question of right and of fact, respectively. Kant's intention is to draw attention to the fact that the TD is to be on the side of quid juris, that is to justify a "legal" claim to a possession, in this case of a priori knowledge (A84/B116). An empirical deduction would address only the question of fact (quid facti), for, as we have seen, it is only a

description of what is going on or how in actual fact a present state of affair comes into being.

At the last paragraph of Section 1 of the chapter on the TD in the first edition (A94-95), Kant mentions that there are three "original sources" for the possibility of experience. These are sense, imagination, and apperception. These three sources are for Kant in the first edition the most fundamental powers of the mind in cognizing. They form the basic framework for the overall argument of the first edition Deduction. They appear in detail in the section called "Preliminary Framework" from A98 to A115, together with Kant's explanation "of the Possibility of the Categories, as Knowledge a priori" (A110). Then in Section 3 (A115-130), they appear again in an integrated attempt to present formally the argument of the TD. In fact the material in Section 3 contains nothing fundamentally new from the previous section; Kant simply presents the argument in a more integrated manner, whereas in Section 2 he merely introduces the elements of the argument. Nevertheless, I will try to show that these elements of Section 2 form all the necessary material of the Deduction and in themselves contain all of the moves of the "official" arguments that Kant will give later in the work.

Kant specifically mentions that the Preliminary Remark is a necessary background for understanding the argument of the TD. He provides this as a preparation for the more

formal presentation in the next section, for the "deduction . . . is a matter of extreme difficulty, compelling us to penetrate so deeply into the first grounds of the possibility of our knowledge in general . . ." (A98).

The first part of this Preliminary Remark is concerned with what Kant calls "The Synthesis of Apprehension in Intuition." This is the subject matter of the Aesthetic. It shows how necessary the conclusion of the Aesthetic is to the TD. We have seen in the last chapter that intuitions are results of the act of synthesis, which connects and combines the raw data of sense into what is graspable (as a this) by the mind through the a priori forms of space and time. This work of connection and combination is then called here "the synthesis of apprehension." In short it is the faculty of the mind which is responsible for processing intuitions, both pure (i.e. space and time) and empirical. Kant's main idea is quite clear. All knowledge, or all modifications of the mind must conform to the form of inner sense, i.e. time. This means that all modifications of the mind must occur in time. And for these modifications to become intuitions, a process of joining together is required in order that it is possible for them to be objects of thought, or "this-suches". A single modification of the mind which contains no manifold in it is represented only by an absolutely single moment or a point in time (A99). Since it is impossible that the mind could be aware of an

absolutely simple--a mathematical point--of time, it is evident then that such an absolute point could not be thought at all.

The second part of the Remark is the Synthesis of Reproduction in Imagination. The basic idea of this part is that an empirical reproduction of experience or expectations and anticipation would not be possible if not for what Kant calls "the a priori ground of a necessary synthetic unity of appearances" (A101). That is to say, regularity in nature itself, which is the ground for any empirical reproduction, is based on the a priori ground of synthetic unity. The reason is that regularity in nature could not be something that can be acquired by empirical means, otherwise we would lapse into the condition of having only a mere connection, without underlying necessity. Kant's strategy for this is a well known one; for him things in nature are "not things in themselves, but are the mere play of our representations, and in the end reduce to determinations of inner sense" (A101). This passage is very significant in that it unequivocally stands for the doctrine of transcendental idealism. If humans have no direct access to objects except through empirical intuitions and if the latter are not the source, but end results, of the process of sensibility, then regularity in nature, which is necessary and is a condition for objectivity, could not be obtained a posteriori. Its ground must then be a priori.

The idea is that regularity in nature itself--what Kant later terms "affinity" (A113; A122)--is the result of the synthetic power of imagination working on the modifications of the mind. Kant states: ". . . experience as such necessarily presupposes the reproducibility of appearances" (A101). This reproducibility is precisely the result of the synthesis of reproduction in imagination, and this clearly shows that affinity inheres in nature itself as contrasted to the result of the empirical imagination, which is concerned only with reproducibility of particular ideas in experience. Kant maintains that this synthesis is at work when in counting a subject is retaining what she has counted so that the number keeps going up and thus is able to represent the exact number of things counted. This would not be the case if the earlier numbers in the succession were to "drop out of thought" and so the whole cannot be attained (e.g. A102).

The third kind of synthesis is "the Synthesis of Recognition in a Concept." This is where the unity of consciousness comes into play. The idea is that, apart from the second kind of synthesis, a consciousness of a unity of experience is also required so that previous items in such act as counting would not be dropped out. The consciousness moreover must itself be a unity, because if it were not there would be no other way for all items of experience to belong to a single unified entity. This idea is central to the argument of the TD. For knowledge to be

possible, the subject must be able to be aware of the content--the subject matter--of the knowledge as a whole. For example, knowledge of the kind "It is raining now outside" requires, among other things, that the subject be able to perceive what is going on outside and this ability presupposes that the subject is currently conscious of what is going on. Furthermore, this also presupposes that the consciousness in question must be unified if the subject is to be able to integrate this individual piece of knowledge with all her other beliefs and actions (so that she decides to take an umbrella when she wants to go outside, for example.) This, I submit, is what is meant by Kant's insistence that consciousness be unified.

A contrastive case should help make the point clearer. Consider an imagined case where a patient is suffering from a lack of unity of consciousness. That is to say, the patient lacks the ability to integrate all the individual pieces of information bombarding her, and she has only a momentary awareness of what is going on. She can only relate to the exact moment now (at t_1) and then now (at t_2), and so on but not all of them together. It is apparent that the patient has at least some consciousness because she, ex hypothesi, is not in a permanent vegetative state. However, she lacks the ability to make sense of all the sensory material deluging her through the senses. To use some of Kant's examples, she would then not be able to count numbers because suppose at t_1 she begins to count

starting at one, at t_2 she must start from the beginning again because she could not make sense of the manifoldness of experience, of what it takes to represent a whole. This situation is surely an extreme one, but it would not be much better if the patient had only an amalgam of unconnected, short spans of consciousness, not a unitary one. For she would then be unable to relate to anything that lies beyond her memory span and unable to project herself beyond the span. This, however, does not imply that one must actually connect all possible items of one's consciousness in order to be able to count or to engage in other kinds of intellectual activities. Since humans have only a limited span of attention and memory, it is impossible to do so. Nevertheless, Kant's point here would be that the subject must be able to relate the items of her consciousness together in such a way that she could construct a coherent self which is able to relate the items in her field of experience in a rational way.

Let us imagine what it would be like to suffer a lack of coherent self. One of the most glaring aspects of this would be that concept use, hence language using ability in general, would be altogether impossible. For if at t_1 , I learn a concept F , and later at t_2 I encounter an object falling under F but now I have no memory of having learnt F , I would then not be able to relate to myself that this object is an F . This situation, however, is not altogether desperate, for I still am able to learn a concept. This

presupposes some ability to form a generalization, an ability to see unity among differences which for Kant is the hallmark of the concept using ability. This by itself presupposes that my consciousnesses of items i_1, i_2, \dots , in forming a set of instances of F must be able to be related to one another under a single framework; I would not be able to understand F if any disparate consciousnesses were not gathered in this way. (Therefore it is clear that if a consciousness were only confined to a single moment, the subject would be utterly deprived of all means of thought whatsoever; her "perceptual field" would be in Kant's words "even less than a dream" (A112).)

Kant maintains that even the ability to learn a concept at a time requires the ability to relate a group of examples--from which common "markers" are abstracted to form a concept in a single, unified consciousness. If this ability were missing, then even the ability to think, or to talk to oneself, would be entirely out of the question. No use of any of the categories would be possible. The reason, let me repeat, is clear. Since our language using ability depends on our ability to grasp concepts and since the latter depends in turn on an existence of a single framework of consciousness so that a generalization or an abstraction from various instances is possible, it is clear that the single framework is crucial for language use and with it the ability to connect items in experience in an objective manner.

Would this still be the case if concept learning were not done by examples, but by description or definition? The answer is yes, because both description and definition require language and hence presuppose language using ability. In addition, words used to describe or to define a new concept themselves have meanings, so they require, apart from language using ability, a unified framework of consciousness to make these meanings constant so that effective communication can be accomplished.

So what is "the synthesis of recognition in a concept"? It is a kind of synthesis that works at many levels. At first it is the synthesis that is responsible for uniting items in an experience as falling under an empirical concept, e.g. uniting representations of furry, four-legged, meowing creatures under the concept 'cat.' The synthesis is effected when the subject is conscious of a cat and recognizes it to be a cat. (In fact she could be dreaming of a particular cat and the synthesis is still at work when she recognizes in her dream that THAT is a cat.) For Kant thinking, language using, concept grasping, and consciousness are all inextricably and very intimately intertwined. Language using would not be possible if not for thinking, and thinking, as an act of using concepts, depends heavily on concept grasping or understanding, and the latter, as we have just noticed, requires consciousness.

The second level of the synthesis of recognition is

more fundamental and is the condition of possibility for the first level. Here the recognition relates its material to the most general concepts, i.e. the categories. The consciousness effecting this is called "the transcendental unity of apperception." This kind of synthesis is the ability to relate all items of experience as a whole to a single, unifying framework of thought and consciousness in order to make sense of it all. At this level the synthesis does not work in the same way as the first; instead it is "the condition of possibility," i.e. a framework within which a recognition of an item, either a single thing or an event, could be done. This requires a single unity of consciousness, thinking, language using ability, and understanding (concept grasping), all of the latter three point to the former as the sole condition by which they are unified. This "pointing" is nothing other than the fact that the single consciousness (i.e. the transcendental unity of apperception) is the sole source of unity necessary for knowledge, in a sense that parallels the unity of consciousness necessary for a recognition of an empirical concept. The difference is that at the transcendental level an empirical act is connected to the whole of the subject's entire experience.

In the last part of the Preliminary Remark in the A Deduction the categories are shown to become involved as the preconditions for experience and knowledge. The categories are introduced in an important passage:

The a priori conditions of a possible experience in general are at the same time conditions of the possibility of objects of experience. Now I maintain that the categories, above cited [in the MD], are nothing but the conditions of thought in a possible experience, just as space and time are the conditions of intuition for that same experience. They are fundamental concepts by which we think objects in general for appearances, and have therefore a priori objective validity. This is exactly what we desired to prove (A111).

What Kant exactly tries to prove is that the categories, which have been shown to be the most general forms of thought and of discourse, apply to experience. The reason is that since thinking must conform to them and since all items of possible experience must be able to be related to the single framework of consciousness, the categories themselves constitute the forms of thought. And as thinking is directed to intuitions, they necessarily conform to the categories.

Thus this last section completes the necessary elements for the argument of the TD. It explains how the categories, which have been discovered in the MD, figure in the TD. The key idea is that since the categories are the forms of thought having a direct, essential influence on the forms of discourse among humans in general, they are

the necessary conditions of objectivity. For what is objective is what is commonly shared, what is public, thinkable and communicable, what is the sole ultimate ground for the possibility of effective use of language, whose ultimate foundation is the "affinity" of nature itself. In short it is what is "out there" and not in any particular individual. This is of tremendous importance for the categories, for it is what is publicly sharable--hence a common object of language--that can be commonly referred to. In other words whatever is objective must be capable of being talked about. This in turn requires that it must be capable of being thought coherently. The categories are the forms to which thinking, and thus language, conform. The upshot then is that since what is objective is publicly sharable, it is clear that whatever is objective conforms necessarily to the categories.

The categories by themselves, however, do not suffice in producing objective items, for humans are not capable of producing public objects at will. Thus the categories are only necessary, but not sufficient, conditions for objectivity. What more is required is that an objective item must be present independently from human will. This is a tremendously important point, for if it were indeed possible than humans could produce public objects at will, then there would be no distinction between the subjective and the objective, and thus this fundamentally human

characteristic would be forever lost. There would be no sense then to employ the categories because everything would be a thing in itself.

Kant's point in the TD is to prove that the categories have "objective validity." This means that all humans, in so far as they are able to converse with one another and thus share the same world, have the same set of categories. The reason has been given in the MD. The basic idea, let me repeat, is that conversation presupposes that the conversants possess the same type of mechanism to enable the practice. This mechanism needs not be materially the same, for the material composition by itself alone is unlikely to be the relevant factor. What is important is that the material composition is an instantiation of the forms of thinking in general.

Thus whatever has "objective validity" must be at least publicly sharable and communicable. For the categories to have objective validity, then, is for them to be the necessary factor in every act of human thinking. In fact Kant gives an important argument later in the Critique to the effect that individual mental items, such as the image of my lost wallet that I am now having, require that there be publicly sharable items in the first place. This argument is laid out in the section entitled "The Refutation of Idealism" (B274-280). There is not enough space to explore this very interesting argument in detail, but the main idea there is quite straightforward. For the

case of my lost wallet, this would not be possible unless I had a publicly sharable wallet in the first place. To generalize the case, any subjective mental items, hence any time determinations of my consciousness as a whole, requires that I have made a distinction between what is me and what is not me; otherwise I would not know that they are determinations of my consciousness. The consequence is that what is publicly sharable is a precondition for my subjective mental experience. Therefore all thinking, whether of objective or subjective items, ultimately depends on the categories.

In the section immediately following the Preliminary Remark in A, Kant gives a detailed account of the role of the imagination in the argument of the Deduction. At A115 he gives "three subjective sources" of knowledge, namely sense, imagination, and apperception. These are the faculties that provide, respectively, "perception" (only in the sense of the pure result of the Synthetic of Apprehension); "association" or "reproduction" (the result of the Synthesis of Reproduction); and "empirical consciousness," that is, the recognition that a particular item of consciousness conforms to its empirical source, thus enabling the use of empirical concept. These "results" are only empirical, but the three sources themselves also have their transcendental employment in that they are "a priori elements or foundations, which make this empirical employment itself possible" (A115). The

idea is that all these three sources are faculties of the mind which are not received from outside because they are what is necessary for any such reception.

It is apparent that here imagination is one of the fundamental faculties of the mind; indeed Kant explicitly affirms this point later on at A124. Its employment regarding these three sources is strictly in the area of connecting various representations together which are different time determinations, such as connecting various representations of a ship in different times and locations as one coherent event of a ship moving downstream, Kant's example from the Second Analogy. However, there are two levels of employment here of the imagination. The first level is empirical; at this stage imagination simply connects together representations without linking them to definite concepts and ascertaining that they indeed are representations of outside objects or events, which would require the second, transcendental, stage. Kant has specific terms for these two levels of employment. When the imagination works at the first level he calls it "reproductive" and when it works on the other level "productive" (A121; A123; B151-152). Thus this distinction between reproductive and productive imagination refers only to the different workings of the same faculty, not to different kinds of imagination. For in itself it is but a power of synthesizing alone, as the important passage on synthesis at A78/B103 indicates.

Kant gives a more definite account of the transcendental synthesis of the imagination, or in other words the "productive" imagination at A118:

We entitle the synthesis of the manifold in imagination transcendental, if without distinction of intuitions it is directed exclusively to the a priori combination of the manifold; and the unity of this synthesis is called transcendental, if it is represented as a priori necessary in relation to the original unity of apperception. Since this unity of apperception underlies the possibility of all knowledge, the transcendental unity of the synthesis of imagination is the pure form of all possible knowledge; and by means of it all objects of possible experience must be represented a priori.

The synthesis of imagination is transcendental (hence becomes "productive") when it is not directed to particular items of intuitions, or is "without distinction of intuitions" (ohne Unterschied der Anschauung). That is, it is not an empirical working of connecting representations together yielding only subjective, individual images. Instead it is responsible for the totality of experience in general, rendering it one and whole. This has a necessary connection to the single framework of consciousness previously mentioned in that the latter is needed for the

possibility that the totality of experience be meaningful (since it would be nothing, surely not a totality, if it is taken up by disparate, incoherent consciousnesses). This unified and meaningful experience is required if objective utterances are to be possible. For representations to be objective in this way, they must be related, a priori, to thinking. The consequence is that since we have learnt in the MD that there are twelve most general forms of thinking or most general channels for synthesizing, the categories apply to representations, i.e. particular items of experience.

In fact, as the pure power of synthesizing (A78/B103), it should be clear that at a deeper level imagination is responsible for all the three kinds of synthesis mentioned in the Preliminary Remark. Consequently, to say, as Kant does, that only the Synthesis of Reproduction is effected by "imagination" is apparently inconsistent. Presumably his motivation for naming the factor for the second kind of synthesis "imagination" might stem from the fact that here he is focusing on the empirical role of imagination, the one most commonly attached to the everyday use of the term--that of referring to the act of recalling and joining together different mental images, what he later calls the "reproductive imagination." Nevertheless, the idea behind this terminological confusion is at least clearer than the text superficially indicates. The term "imagination" as it appears at A115 is not used in precisely the same way as

the same term at A78/B103. In the latter passage, imagination is regarded as the factor responsible for synthesis in general, which is at work in all acts of "putting together various representations" at any levels. On the other hand, at A115 imagination apparently assumes a narrower role of joining together representations as they occur successively in time. This specific role is here clearly distinguished from the other two workings of synthesis, as we have seen. But this is not to say that the narrower role of imagination at A115 is incompatible with the more fundamental role of effecting synthesis in general, itself being the source for all the three kinds of synthesis. Perhaps Kant could have made the matter more transparent if he separated these two separate usages of the term. However, this by no means indicates that Kant is "neurologically inept" as Bennett disparagingly remarks in Kant's Analytic (138).

Thus far we have laid out all the essential components of the argument of the TD. Since space is limited, I will only look briefly at the B Deduction and focus only on where it differs from the previous edition, and whether this signifies a fundamental alteration of the argument itself.

In what follows I would like to show that the change in the B Deduction is fundamentally at the level of organization and presentation. The most prominent changes lie in the role of imagination in the two editions. In A

imagination plays a leading role; it is "the third fundamental faculty of the soul" along with sense and understanding which are the conditions for knowledge. This tripartite factor is present, though in many guises and names, throughout the first edition. In B this tripartite figure is absent. The imagination is dissolved as an autonomous faculty and becomes only a part of the understanding.

Nevertheless, if we look at the argument in B itself, we will see that the actual role of imagination does not change in a significant way. The text of the second edition is divided into two main parts, each representing a step in the overall argument with the first part being a foundation complementing the full conclusion in the second. Thus my interpretation mainly agrees with Dieter Henrich's idea of a two-step-in-one proof structure of the B Deduction (See "The Proof Structure of Kant's Transcendental Deduction"). The first part ends at @20 (B143) with the conclusion "All Sensible Intuitions are Subject to the Categories, as Conditions under which alone their Manifold can come together in one Consciousness." The idea is basically the same as we have discussed before. That is, unity of experiences, and with it a unity of a manifold of intuition in so far as it is to be my representation, requires a single framework of consciousness, which in thinking its objects manifests itself in twelve categories. The conclusion of the first

part alone, therefore, is still too general. The reason is that it treats only of the relation between a manifold of intuition and a single original consciousness without discussing how exactly such a unity in an intuition is effected in humans. This unity in an intuition moreover requires the categories.

The key passage here lies at §21 (B144-147). At B145 Kant gives a precise, explicit reason why another section of the argument (i.e. §22 to §25) is needed:

For were I to think an understanding which is itself intuitive (as, for example, a divine understanding which should not represent to itself given objects, but through whose representations the objects would themselves be given or produced), the categories would have no meaning whatsoever in respect of such a mode of knowledge. They are merely rules for an understanding whose whole power consists in thought, consists, that is, in the act whereby it brings the synthesis of a manifold, given to it from elsewhere in intuition, to the unity of apperception-- . . .

Kant's point is roughly that the first part of the argument alone does not suffice in accounting for the intuitive aspect of the process. The first part establishes that the unity of apperception is necessary for all representations if they are to be unified for the subject. This, however,

still leaves open the question how in general terms, empirical intuitions are processed from the beginning. It will then be the task of the second part to show that the processing of empirical intuitions itself requires that the categories are involved--that their "unity is other than that in which the category (according to §20) prescribes to the manifold of a given intuition in general" (B144-145). This is to be expected from Kant's insistence on the human aspect of cognition. The first part of the Deduction might be the case for a being possessing consciousness and a way of representing. Hence if the Deduction is to be a justification of the human possession of knowledge, then another part of the argument specific for humans needs to be presented.

This attention to the process of how intuitions are presented to the understanding is the chief subject matter of the second part. Kant's aim is to show that it is the categories that control the process of synthesizing that results in an intuition (pure and empirical); the aftermath is naturally that in any kind of representing whatsoever, the categories are necessarily involved. They are involved as different channels of forms of thought in general--this is the conclusion of §20, and they are also necessary in any act of synthesizing peculiar to humans or human-like beings. This is the aim of the second part which Kant shows quite clearly in §24.

It is now a rather clear cut task to see the

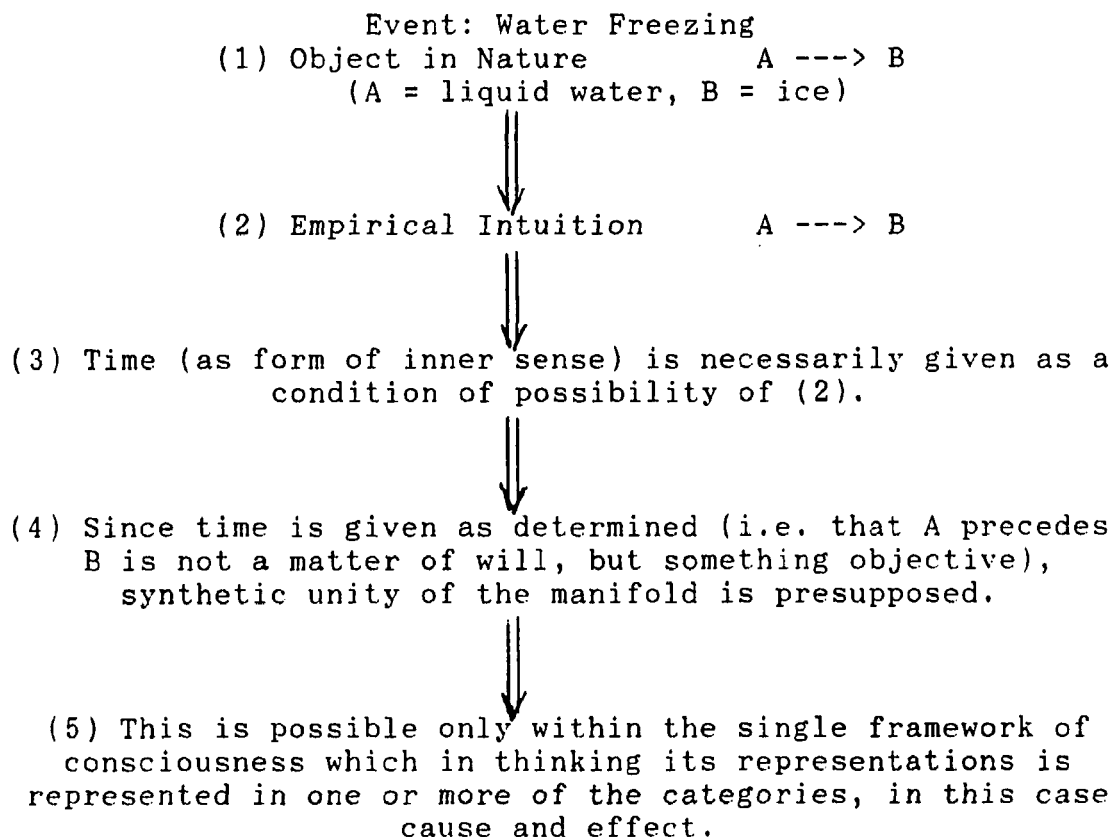
similarities in the overall structure of the two editions. For the most part the second is a recast of the first edition in a more formal, and I think better organized, manner. However, all the necessary features in the first edition still remain, albeit in some disguised form. All the three syntheses of the first edition are now grouped together under the "figurative synthesis," to contrast it with "combination through the understanding" alone (synthesis intellectualis, B151). This latter kind of synthesis has nothing to do with human cognition, but is the one type of synthesizing that the first part of the TD could not exclude itself from.

However Kant chooses to name the syntheses, the structure of the argument and the working of the act is still the same. The figurative synthesis now is necessary for all kinds of sensible synthesizing that the three syntheses of the first edition do. It is responsible for combining elements of sensory data into intuitions, both of static objects and events. It is the act of combination belonging to the understanding which links them to the single framework of consciousness and thus effects recognition. This last act is also accomplished by the figurative synthesis, now in its capacity as the act of consciousness itself (B151). Now Kant terms the figurative synthesis in this capacity of sensible combination "the transcendental synthesis of imagination" (B151). The idea behind this is that, as the factor responsible for

synthesis, imagination is the most primordial agent that makes the whole process of synthesizing at various levels possible in the first place.

In the third paragraph of §24, Kant discusses the role of imagination as being both sensible and spontaneous. This also parallels what we have seen in the first edition. Imagination is sensible when it works on the sensory data to yield empirical intuitions, which are thinkable. And on the other hand it is spontaneous when it is the act of combination of the understanding in the sense that the combination cannot be determined by what lies outside, and that it represents the distinct ways that the understanding can think (Cf. the *Metaphysical Deduction*). Kant terms the imagination in the first function "reproductive," and in the second "productive." These terms are the same as in the first edition. The "reproductive" imagination is subjective and particular in the sense that it renders possible a perception of an individual's environment only with respect to particular mental items. Its "productive" counterpart, on the other hand, is objective and common because it links the perceptual field, as a whole of the individual's field of consciousness, to the understanding, or what I have called earlier to the faculty of concept grasping.

The Transcendental Deduction is so rich and complex that the whole library of books and articles that have been devoted to it is still far from exhausting its resources. What I have done in this section is merely a brief overviewing, intended to show the argument structure and the role of imagination in it. In what follows I will present a diagram that stands for the argument as a whole. The example, that of water freezing, is taken from Kant in an important part of the Deduction at B162 and following. The diagram represents a perception of the event, which analogously is the same for a perception of a static object:



If one has followed the reasoning of the Deduction so

far, this diagram should be sufficiently self-explanatory. The object in nature in (1) is not the transcendental object, but is merely the empirical, objective ground for the veridical intuition in (2). The double arrow "===>" refers to the relation of "necessary condition of possibility," the meaning of which has been explicated in the last chapter. Therefore the consequence, the conclusion of the TD, is that an objective, veridical perception necessarily presupposes the existence and the use of the categories (which in the MD were discovered as the most general forms of discourse). And due to the fact that, as I already shown, such non-objective and non-veridical intuitions as dreaming or hallucinating always presuppose an objective ones, the former also require the categories as their preconditions.

We can clearly see that the imagination is pervasive in every level of the Deduction. Furthermore, if the relation of "necessary condition of possibility" is to be construed along the lines I suggested in the last chapter, then it is quite transparent that imagination could be nothing but a general form which is instantiated by the workings of the mind itself. The categories then are not something purely formal, but they are the ways in which rational beings are constrained to think from the beginning. And since the categories are the necessary conditions for thinking in general, they must be the same in any other beings who possess the ability to think. In

these beings the imagination also plays an equally important role in understanding.

The TD aims to show that the categories necessarily relate to mental representations, but still the task of showing this relation is not complete. For Kant believes he still has to show in addition how such a relation takes place. The problem is that, since the categories are pure, i.e. they are not derived from experience, how then is it possible that each of them, in its own special way, could relate to mental representations? This is the problem for the Schematism, to which we now turn.

The Schematism

The primary aim of the Schematism is to show that the pure concepts of the understanding are actually applicable to mental representations. Thus they are no "mere logical forms" abstracted from all the contents of thought. In the Introduction to Transcendental Judgment in General (A132-137/B171-176), which immediately precedes the Schematism, Kant outlines this important point at some length. This harks back to the distinction discussed earlier between transcendental and general logic. Here Kant affirms the distinction of transcendental philosophy, whose responsibility is to be "a critique to guard against errors of judgment (lapsus iudicii) in the employment of the few pure concepts of understanding that we possess, the

task, . . . , is one to which philosophy is called upon to devote all its resources of acuteness and penetration" (A135/B174). Transcendental philosophy is to be a critique of the rules of employment of the categories in order that knowledge is secured. (An attempt to show the futility of the unbridled flight of reason will be the subject matter of the Transcendental Dialectic, which does not concern us at the moment.) The task of securing knowledge within a limit beyond which it cannot go then must specify a set of rules a priori to the extent that the application and employment of the categories does not traverse the limit. It is the task of the Schematism to show that in actuality the categories are indeed employed in ordinary judgments, lest they be "void of content, and therefore mere logical forms, not pure concepts of understanding " (A136/B175).

The way that Kant fulfills this objective is that he presents a set of schemata to connect the categories and intuitions. The reason for the necessity of the connection is that the categories and the intuitions are "heterogeneous" and thus the latter could not be subsumed under the former because for Kant subsumption requires that the subsuming concept "contain something which is represented in the object" (A137/B176). The categories, being utterly pure, could not then be the subsuming concepts without the intervening schemata which on the one hand are homogeneous with the categories but on the other homogeneous also with the intuitions.

Now Kant shows that time is the key figure in bridging this gap. Time has a dual character. On the one hand, as the pure form of inner sense, that is as the form of combination in inner sense in general, time has a hand in the categories. On the other, time is also "homogeneous with appearance, in that time is contained in every empirical representation of the manifold" (A139/B178). Thus time becomes the connecting device joining together the categories and intuitions, and the categories when assuming a temporal character becomes the corresponding schemata.

It is difficult to see what Kant really means by this doctrine. Specifically how exactly is it possible that time has such a dual character? The answer seems to be, I think, that time is for Kant "homogeneous" with the categories because of the former's apriority and universality (A138/B177). Time is also homogeneous with the representations in that the latter are always in time. This notion of "homogeneity" is therefore very important and needs to be examined in more detail.

According to Kant's own definition of the term in the first sentence of the section at A137/B176, objects are "homogeneous" with concepts if the concepts "contain something which is represented in the object." As such this definition is unclear, for if an intuition of a dog is to be subsumed under the concept 'dog,' then the latter must contain something represented in a dog. What could

this be? Surely the concept is not to be confused with its object. The concept 'dog' itself could hardly run around or bark. The homogeneity with an intuition of a dog then has to go beyond mere physical similarity lest we commit a category mistake. Thus if Kant's insistence is to make any sense, if the concept 'dog' is to contain something represented in an intuition of a dog, then the 'similarity,' I submit, has to be something formal, something akin to Sellars' "formal analogy" between sense impressions and their objects. In "Scientific Relation or Irenic Instrumentalism" Sellars argues that sense impressions are categorically distinct from the objects they represent. They, nonetheless, are representations of their objects; they are "theoretical constructs" that enable humans to ground knowledge on perception without falling into the trap of sense data theory or phenomenalism. The idea adopted from Sellars is that concepts are "homogeneous" with objects falling under them only in the sense that they are "theoretical constructs" that are analogous to their objects formally. The similarity is only structural, in the manner that a dot in a line represents a moment in time, as Sellars says. In this case the dot is said to "represent" a moment in time and the dot and the moment then become in this sense "homogeneous."

Therefore a horse and the concept 'horse' are homogeneous only at the structural level. The subsumption

of an intuition of a horse under its concept is possible only through the corresponding horse-schema which itself is homogeneous both with the concept and the intuition. The same can be said for the categories and time. In this case time, as the a priori form of inner sense, shares the features of apriority and universality with the categories. The universality of time is apparent from the fact that humans can refer to public objects and agree about them. This points to another fact: that they share the same structure of cognition and the same ability to represent time, as the result of the synthesis of apprehension.

On the other hand, Kant's reason for time's homogeneity with appearances or intuitions is that, as the form of appearance in general it is pervasive in every aspect of appearance. If objects are not things in themselves, they are possible objects of experience, or appearance. And as such they are subject to the form of inner sense. This fact points to the pervasiveness of time as ingredient in representations of inner sense, in the way that is analogous to the fact that space is pervasive in objects of outer sense. From this Kant concludes that time is also homogeneous with appearance. This homogeneity is only apparent from the pervasiveness of time in appearance--the fact that all appearances, happenings, and apprehensions of objects occur in time. The shared structure, then, of appearance as a whole and of time is manifest in the fact that if we take the time/line analogy

again, time is represented as a line, and the totality of appearance is then analogous to the summation of all dots forming a line. In this way both are "homogeneous" with each other.

Therefore the transcendental schemata are the categories when the latter assume temporal character. For example, the category of substance becomes permanence of the real in time; that of cause and effect becomes "the real upon which, whenever posited, something else always follows [in time]" (A143-144/B183).

According to Kant, schemata are the products of the imagination. However, they are not the same as mental images. The latter are subjective and particular, whereas the former, as pertaining to concepts, are the opposite. As Kant puts it:

The schema is in itself always a product of imagination. Since, however, the synthesis of imagination aims at no special intuition, but only at unity in the determination of sensibility, the schema has to be distinguished from the image. If five points be set alongside one another, thus,, I have an image of the number five. But if, on the other hand, I think only a number in general, whether it be five or a hundred, this thought is rather the representation of a method whereby a multiplicity, for instance a thousand, may be

represented in an image in conformity with a certain concept, than the image itself. . . .

This representation of a universal procedure of imagination in providing an image for a concept, I entitle the schema of this concept

(A140/B179-180).

Thus a schema is in the midway between a concept and an image. It is "homogeneous" with both, for on the one hand it is objective and shared, hence compatible with concepts, but on the other hand it represents something that is the particular characteristic of whatever image it represents. Kant's point is that the schema of a number is not the same as the category of quantity. The latter is absolutely pure and could not be directly involved in any act of cognition. As "the representation of a method whereby a multiplicity, . . ., may be represented in an image in conformity with a certain concept," the schema is what is at work when a particular number is represented to the mind. In this way a schema shares an aspect with an image in that the former is in a sense a "pictorial" or "schematic" representation of a concept which by itself could never possibly be represented. Thus the schema functions as a "mediator" that joins together concept on the one hand and intuition on the other.

The issue of the schema being an objective but pictorial presentation of a concept might seem strange, if not altogether implausible. For it is quite difficult to

imagine what sort of "picture" could be objective in the way that a concept is. In order to find the answer to this problem one must bear in mind that for something to be objective it must be sharable and communicable among the members of a community. Hence to say, for example, that a schema of a dog is objective is tantamount to saying that this "picture" must be exactly identical in the members of the community who possess the concept 'dog.' More generally, then, the transcendental schemata, which are nothing other than the schematic representations of the categories themselves, must be also objective if the categories are. And so if the categories are objective (the conclusion of the TD), then their schemata are so too. This means that the procedure that produces these schemata is the same in all humans.

Therefore both empirical and transcendental schemata share one aspect in common in that they have "legs" both in concept and intuition, thus joining them together to produce judgments. Consequently, schemata are what is necessary in joining together concepts and intuitions in order that knowledge be produced. Since the schemata are the products of the imagination, the latter is then the underlying mediating factor that is responsible for coupling concepts and intuitions. In the Anthropology Kant has an idea concerning dynamic generation (§31, 177n.), which is the act of creating a radically new being out of two heterogeneous elements. This coupling of concepts and

intuitions, then, is a species of dynamic generation which is made possible by the fundamental synthesizing power of imagination through the schemata. The imagination generates the schemata, which, as they are homogeneous with both concepts and intuitions, serve to link them together so that a judgment--both transcendental and empirical--is possible as an "offspring." This is the chief reason why imagination is crucial as the factor necessary for the mediating activity of the schemata, without which thoughts would be empty and concepts blind (A51/B75).

In the transcendental case, the judgments are also transcendental, and they "follow a priori from pure concepts of understanding, and which lie a priori at the foundation of all other modes of knowledge" (A136/B175). Since there are only twelve categories, there are only the same number of these synthetic judgments. Kant deals with the topic of synthetic transcendental judgments in the section immediately following the Schematism. These judgments are divided into four groups, each of which has three members, in the same way as the categories. Some of these judgments are well known. For example the transcendental judgment of the Second Analogy (which is the second member of the group of Analogies of Experience) states: (In the first edition) "Everything that happens, that is, begins to be, presupposes something upon which it follows according to a rule" (A189), and (in the second) "All alterations take place in conformity with the law of

the connection of cause and effect" (B232). The Second Analogy corresponds to the category of cause and effect. The judgment is the result of the relevant transcendental schema, namely "the real upon which, whenever posited, something else always follows" (A144/B183). Kant discusses the procedure of deriving the transcendental judgments from their schemata mainly in the sections entitled "The Highest Principle of All Synthetic Judgments" (A154-158/B193-197) and "Systematic Representation of All the Principles of Pure Understanding" (A158-162/B197-202). It is in the former, more than other places in the Critique, that Kant gives an explicit account of how synthetic a priori judgments are possible, a goal that he set out to accomplish from the beginning. And the reason for deriving the transcendental judgments from the categories is that the former are "rules for the objective employment" of the latter (A161/B200). Since the understanding is "the faculty of rules in respect of that which happens" (A158/B197-198), and since this faculty of rules is necessary for experience to be objective, the functions of the understanding according to the categories then constitute the governing principles with which any object must conform in order to be objective.

In the same way the empirical schema also acts as a bridge between empirical concepts and representations. Kant's example of the schema of 'dog' is that it is "the figure of the four-footed animal in a general manner,

without limitation to any single determinate figure such as experience, or any possible image that I can represent in concreto, actually presents" (A141/B180). It differs from the concept 'dog' in that concept for Kant "signifies a rule" by means of which the imagination can "depict" the schema. Thus the concept is a kind of linguistic representation that could be construed as a set of conditions that are determinate enough to enable one to identify objects as falling under one common heading.

In Kant's Theory of Form, Robert Pippin claims that Kant's theory of concepts is an advance from both the empiricist and the rationalist theories. Kant, according to Pippin, does not hold that concepts are "faint copies" of the impressions as the empiricists claim, nor does he has the view that they are "somehow 'more distinct' ideas, although on the same continuum as sense-ideas" (Kant's Theory of Form 105). Pippin cites two key passages where Kant articulates his view on the nature of concepts:

Whereas all intuitions, as sensible, rest on affections, concepts rest on function. By 'function' I mean the unity of the act of bringing various representations under one common representation. (A68/B93)

But a concept is always, as regards its form, something universal which serves as a rule (A106).

From these passages Pippin concludes that concepts are not "introspectible mental contents or representations of objects in the strict sense" (105-106). That is, concepts are not the same as intuitions, and Pippin takes care to point out that concepts could not be regarded as representing abstract objects. This would certainly reduce concepts to a special kind of intuition and dissolve its role of discriminating or categorizing objects, for it would have a merely denotive function to such abstract objects. According to Pippin: "The concept is thus a rule for thinking together a number of individuals each of which possesses a 'marker' picked out conceptually (and so represented) as the principle of grouping" (106). Again, "[c]oncepts, on Kant's theory, express only the capacity of the understanding to unify and discriminate passively sense-impressions and cannot be said to represent the 'intelligible' structure of the world" (106). Note that the "intelligible" structure of the world is accessible only to those beings who possess an ability to learn about the world in itself, which humans cannot have.

I believe Pippin's account of Kant's view of the nature of concepts is in the main correct. Kant does not hold either the Humean or the Leibnizian theory of concepts, but instead presents his own original, more advanced view. Pippin sees Kant's idea as one emphasizing concepts as activities that bring together representations under common headings by virtue of the representations'

possession of "markers" (Merkmale).

A list of such "markers" would comprise a list of discriminating conditions that can identify the group. Pippin also discusses this idea of Merkmale in his book (108-112). He looks at Kant's view here from the Jäsche edition of Logik (1800). Here is Kant's passage, quoted from Pippin (108):

A marker [Merkmale] is that which makes up part of the knowledge of it, or--which is the same--a partial representation insofar as it is considered as cognitive ground of the whole representation. All our concepts are therefore markers, and all thinking is nothing but representing through markers (Logik, Gesammelte Schriften vol. 9, p. 58)

Pippin further reports that Kant claims, in his Logic, that in empirical concepts these markers are "synthetic," that is, capable of being added on. Thus empirical concepts are always indefinite, and cannot be given a precise definition which would delineate in full detail all the markers involved in an empirical concept (Kant's Theory of Form 109).

This is an important point. If we can take the doctrine in the Logic as representing Kant's view in the Critique, then concepts are to be construed as a collection of markers each of which serves to identify whether or not objects fall under the concept. In this way the markers

are remarkably similar to the members of the set of conditions employed in the modern analysis of concepts. Kant, however, claims that for empirical concepts it is indeed impossible to specify exhaustively all the members of the set of conditions constituting a concept. That is, for empirical concepts Kant maintains that it is impossible to give an exhaustive list of all the necessary and sufficient conditions.

Thus a complete definition of an empirical concept cannot be given, because such a definition means that one has to "present the complete, original concept of a thing within the limits of its concept" (A727/B755). In other words, for a complete definition one has to give a complete listing of "markers" with no more and no less than necessary, and such a list must be "original" in that they could not be gotten from sense experience, for otherwise a definition would be merely a synthetic assertion concerning what is to be defined (See A727/B755n.) Such a definition is possible, indeed necessary, for mathematical concepts, but not for empirical ones.

Kant writes:

Thus in the concept of gold one man 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; and thus the limits of the concept are never assured. And indeed what purpose can be served by defining an empirical concept, such, for instance, as that of water? When we speak of water and its properties, we do not stop short at what is thought in the word, water, but proceed to experiments (A728/B756)

This passage is very interesting. Kant claims that for empirical concepts an exhaustive and complete definition cannot be given. For the ordinary purpose of communication, a listing of the "markers" need not be exhaustive as necessary and sufficient conditions. I am said to possess the concept 'gold,' not when I have been trained as a nuclear physicist and thus understand the molecular structure of the element, but when I can recognize a piece of shining yellow metal as gold and when my recognition agrees with the members of my community. To have been trained as a physicist or a chemist is certainly not necessary for my possession of the concept as a layman. It is a fact that my understanding of gold is incomplete; I do not know the atomic number of the metal, for example. But I know that a piece of heavy, yellow, shining and valuable metal is gold when I see one. I may be deceived, of course, but so would be the overwhelming number of people. The point is: My being able to participate actively in the community at large regarding gold is

adequate to justify the claim that I do possess the concept. In fact it is well known that scientific theories are always subject to change. Certainly the current theory has changed considerably since the day when Archimedes devised his celebrated and ingenious method of separating gold from other kinds of metal. Archimedes had a list of "markers" for gold that appears decidedly amateurish when viewed against the modern theory. But this did not matter for Archimedes, for he was able to fulfil his assignment very well. His not knowing the modern theory of atoms and molecules did not prevent him from possessing the concept of gold at all. The reason why he shouted "Eureka" out of the bathtub is precisely that he had found a way to disclose one "marker" that serves to identify gold from other kind of metal. This way is works for him, and he does not need the modern theory to do the job.

Now we turn to the nature of the schemata themselves. We have had a glimpse of what a concept is like. It is a mental representation comprised of a set of linguistic rules that discriminates whether an object falls under it or not. A concept is a result of the act of synthesizing, putting common aspects of various representations together to make one out of many. The mind discerns common aspects in a group of things and having done so represents to itself a set of rules that helps it organize its material and thus cope with the world. Thus concepts are particular manifestations of such organizing activity.

However, the issue of the transcendental of the ego has again to be taken up. Kant claims that knowledge about the physiology of the brain alone would not be sufficient for a complete knowledge of the mind, for the mind itself, in its capacity as the thinker, cannot be an item of experience. If it were so it would require again another thinking agent and so on. So in the end the thinking agent itself cannot be reduced and fully explained in a "theoretical" or in Nagel's way of putting it, from "the objective, personless point of view" (see The View from Nowhere).

Now the schema has an intimate connection with concepts. To use an analogy, we could say that a concept is a set of rules laid out in language. A schema, on the other hand, is a picture or a "monogram" that is abstracted from the salient characteristics of the subsumed object.⁵

Kant writes: "The schema is in itself a product of imagination" (A140/B179). This means that it is the synthesizing activity of imagination that provides a general "picture" for a concept and thus relates it to intuition. Once again the imagination is the dynamic force that is responsible for making the process move. In its reproductive function imagination provides "images," and in its productive, a priori, function it gives rise to the schemata. The basic power that provides both images and schemata is the same; otherwise we would end up having at least two distinct kinds of imaginations and would be at a

loss to explain the unity of the entire system of the Critique.

The process of providing a schema here corresponds to Kant's own definition of the term in the second edition of the TD: "Imagination is the faculty of representing in intuition an object that is not itself present" (B151). Superficially this definition seems to apply only to empirical imagination, but as a creative faculty, it is also applicable at the transcendental level of providing objective, transcendental schemata for the categories. Without imagination, the schemata themselves would not be "present" either. The imagination in this latter case is the fundamental activity of the mind that forms judgments, which are synthetic and a priori. It achieves this goal by giving rise to the schemata, for the latter, as we have seen, are necessary for such judgments, and consequently for all kinds of empirical judgments.

The working of the imagination is extremely difficult, if not altogether impossible, to study "from a third person point of view." Kant's reason is that it is directly concerned with the condition of possibility of experience itself. He writes:

This schematism of our understanding, . . . , is an art concealed in the depth of human soul, whose real modes of activity nature is hardly likely ever to allow us to discover, and to have open to our gaze (A141/B180-181).

This passage resembles the one in the *Metaphysical Deduction*--that imagination is "a blind but indispensable power of the soul" (A78/B103). Both seem to indicate that the working of the imagination is *prima facie* something bordering on the unknown or even the mysterious. In fact, however, the difficulty of knowing the imagination is the difficulty of knowing the thinker *qua* thinker. Thus it is not so abstruse and mysterious at all, if the intimate knowledge of the thinking self from the first person point of view is not. This cannot be done from the third person, scientific point of view. If we keep in mind that the working of the imagination happens at a very deep level concerning the possibility of experience itself, then at least some understanding of the passage seems to get through. I have mentioned previously that imagination is "blind" in the sense that it is an unconscious force which underlies any attempt to know it via experience.

Suppose it is possible to open up the brain of some person who at the moment is having a (private) sensation of smelling a rose and to have a good look at whatever elements in the brain are responsible for that sensation in the subject. Indeed we might be able to find the actual nerve fibers that are firing when the person has the sensation. This firing pattern is very different from the smell itself that is evident to her. Apparently the perceived firing is an item in visual experience, but the smell in the subject is not (it is instead in the subject's

olfactory experience). From this alone it is clear that the two are not one and the same, for there is a discernible difference in the subject's sensation of the smell and the firing pattern observed by an outsider. It is true that the firing pattern bears a causal connection with the feeling of smell in the subject. But the feeling itself, as a private qualia of the subject, is not something that can be thoroughly and exhaustively explained by physiology or other kinds of causal explanation.

In conclusion, then, schemata are what is required to join concepts with intuitions. They accomplish this task by being "homogeneous" with both ends. Concepts and intuitions are not by themselves alone compatible with each other; they cannot both be thought through and connected by the mind because one is general and the other particular. Kant assumes that for two things to be able to "mix" with each other, they must share some features in common. Concepts and intuitions, then, require another element as the "third thing" if they are to join together. Since the union of concepts and intuitions is necessary for having judgments and thoughts, the role of the schemata as the "third things" becomes essential. In this way, then, the imagination becomes the mediator of sensibility and understanding.

According to Kant, to say that one possesses an empirical concept is to say that one possesses a relevant schema corresponding to the concept, but this is the case

only if the individual knows how to apply the concept in actual experience. To possess an empirical concept without its schema would be to have a concept without knowing how to apply it in experience. It is conceivable how this situation is possible. I believe that I possess the concept of 'uranium;' that is, I have some layman knowledge of it and can engage myself in a conversation about uranium at that level. Hence I have an ability to understand some lay discourses about uranium, in which I can participate with many more people who are not nuclear physicists. This clearly does not mean that I do not possess the concept. However, in some situation I might not be able actually to use it. For example, when I am confronted with a piece of actual uranium I will not be able to identify it as such. Hence I do not know how to apply the concept in actual experience. This shows that it is in some cases possible that one has some grasp of a concept but not actual familiarity of the object falling under it. This means that I possess the concept (however vague), but not the schema, of uranium. However, since I know the concept, I am able to identify an element in discourse that falls under the concept as I possess it. For example in an article on a nuclear power plant if a word is missing but has the right clues, I might be able to fill in the word "uranium" if that accords with my understanding of it. Nevertheless, I would in this case be able to identify the metal only discursively, but not ostensively. The judgment

I could make about the matter will then be only analytic, since it will be a judgment whose predicate concept is already included in the concept of the subject.

If the conclusion of the Transcendental Deduction is correct, namely that the categories are necessary for any act of experiencing, then the Schematism is certainly an indispensable part of the system of the Analytic. For it is in the Schematism that the categories assume temporal character through the work of the imagination. Why this work is needed can be seen from the fact that another kind of being other than humans might be able to think in language, thus might possess the same set of categories. They, however, might be so constituted that they do not need the system of representation through synthesis and intuition as humans essentially do. This means that these beings are capable of getting at things as they are in themselves without any intervention. Therefore, they are, for example, able to think things without the employment of time which is the necessary form of inner sense for humans. In this way the cognition of these beings will bypass the need for schemata. As a consequence these beings would be capable of "discerning" things sub specie aeternitatis in a very real sense.

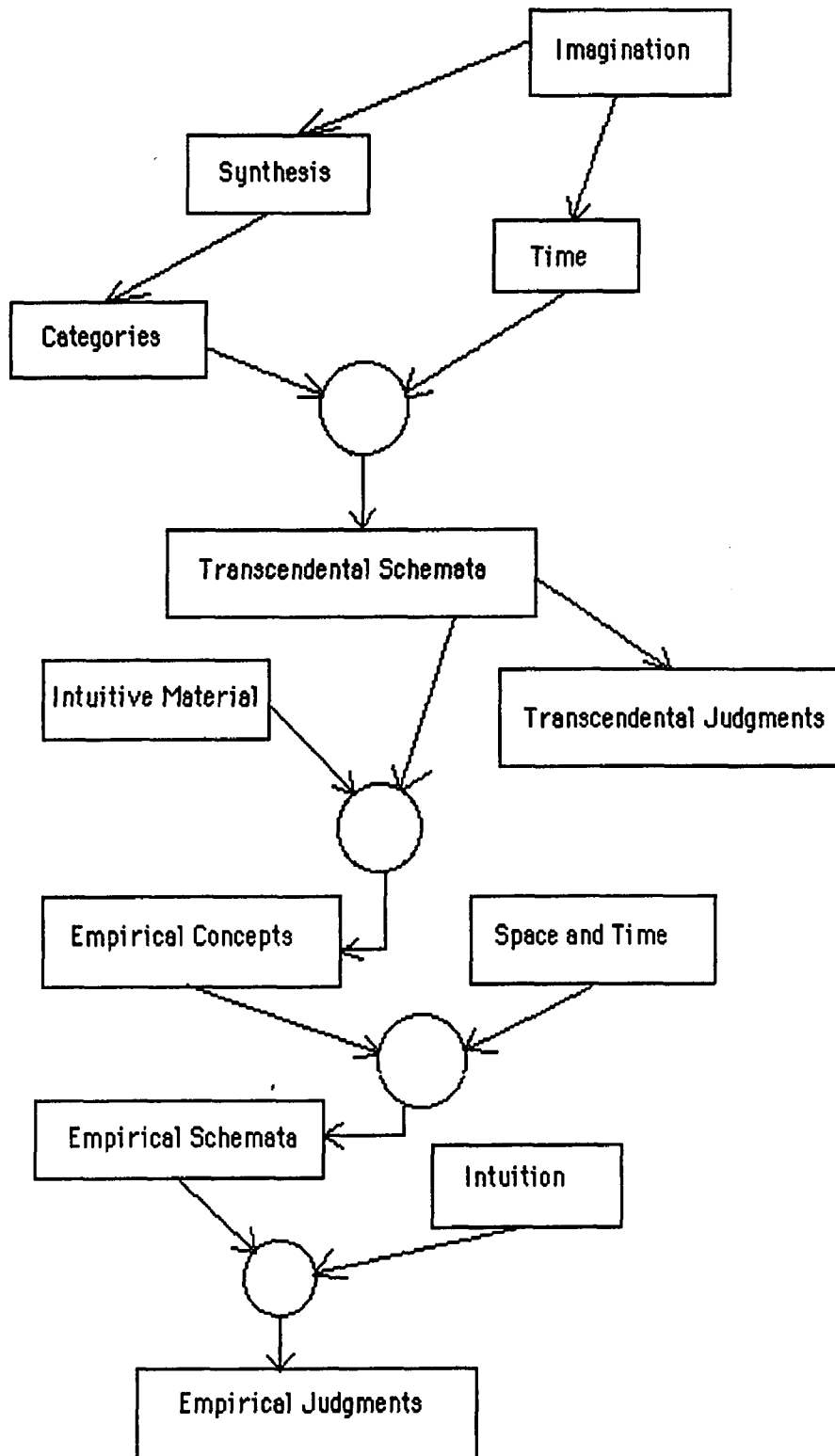
The Processing of Empirical Judgments

The Schematism argues for the necessary existence of

the schemata, both empirical and transcendental. Kant will later, throughout the the Analytic, elaborate in great detail on this theme of the actual application of the categories. He proceeds to list a set of "transcendental judgments," which are synthetic and a priori; each one corresponds to a transcendental schema. We have had a glimpse of one of them, viz. the famous judgment of the Second Analogy. According to Kant these transcendental judgments are the ones that humans necessarily make in order to know the world. The reason is that the transcendental judgments are the most general forms of judgment. Moreover, we have seen in the Metaphysical Deduction that the categories underlie every discourse, and the transcendental judgments, being directly derived from the categories, then underlie every act of judging in humans. This includes both objective (concerning public objects) and subjective (concerning private mental items) judgments.

Nevertheless, I shall not discuss the transcendental judgments in any detail, for that would take us far beyond the present scope of this study. Suffice it to say that the transcendental judgments constitute the forms for all cognitive judgments, insofar as humans use their conceptual ability to learn about the world.

In order to illustrate the process of how empirical judgments are produced I have put a diagram on the following page to this effect. This diagram complements



Transcendental Analytic

the one we have seen on the Aesthetic.

By now most of the moves in the diagram should be sufficiently clear. What I have not discussed in detail here is the a posteriori part, i.e. the coupling of the transcendental schemata with what I call "intuitive material" to produce empirical concepts and schemata, and the coupling of the latter with a present instance of empirical intuition to produce empirical judgments. I shall try to explain these in turn.

What I mean by "intuitive material" is whatever is in the store of memory of the subject that serves as an empirical basis for the application of a relevant concept. For example, I have a concept of a magnolia. This certainly is not an a priori material for me because it is particular, and I did not acquire it in any other way save by experience. Hence I must have received the material for the concept empirically at some point in my life. Somebody has shown me a magnolia tree and I registered that in my memory together with the word 'magnolia.' This is, of course, a very crude theory of how empirical concepts are acquired, but I believe it to be on the right track, and a more elaborate theory can certainly be generated according to this guideline. Now this material that I am somehow keeping in store is the basis for my being able to use and apply the concept. That is to say, I can now recognize a magnolia when I see one. Without this starting material it seems that I would lack this capability. This intuitive

material is then coupled with a relevant transcendental schema, in this case one of substance (as "permanence of the real in time"). The coupling is necessary because without it I would never be able to integrate the material into the overall unity of my experience and thinking. Recall that this is a central point of the Transcendental Deduction, that the 'I think' must be able to accompany all my representations. The result of the coupling is that, apart from the fact that the intuitive material is now well integrated in my experience, I am now fully justified--indeed enabled--to employ the concept 'magnolia' in a way that agrees with my single framework of consciousness; that is, the concept now becomes a coherent part of my conceptual repertoire. This empirical concept then assumes a "monogrammatic" character and becomes an empirical schema when it is coupled with space and time. The idea is that a general "picture" of the concept has to be given without the "picture" itself losing the necessary generality. The picture obviously conforms to the form of space because space pervades all given magnitudes. If the concept is of an event such as water freezing or playing football, then the form of time will be another factor that is essentially involved in the same way.

Now suppose I am walking along a street and suddenly I see a tree in front of me. I now say to myself, looking at the tree, "This tree is a magnolia." I am now making an empirical judgment which is triggered by the presence of

the magnolia tree before me. The sensory input from the tree (or whatever it is transcendentally, if I were a BIV), then is processed, resulting in my having a present, occurrent empirical intuition of a certain tree with certain features. Now I invoke the empirical schemata that I have in store in my memory. (Since I am not a botanist, I do not have too many schemata of trees or plant species.) I then find one that matches the present, occurrent tree now before me. Since the schema is intimately related to its concept, I am now able to utter a thought arising in me, "This tree is a magnolia." I need the concept because the schema in itself is not a discursive faculty, so with it alone I would have only a vague, inarticulate awareness that the present intuition matches the schema, but I could not express in words that it did.⁶

NOTES

1. It is conceivable that another set of logical forms could be constructed out of our own present discourse. Kant's set seems to be rather arbitrary. If every discourse could be regarded as composed of sentences and sentences minimally of subjects and predicates, then it seems that individual and property are the two most basic "categories." (And if one takes a position that an individual is but a collection of properties, then there is only one most general category--which is the ideal situation of finding unity among diversity, akin to the Parmenidean project of reducing everything to the One). Kant, however, would counter that a minimal set of "categories" would be of little use in aiding one to understand the process of perception and recognition. If one abstracts too much, one risks the danger of losing everything altogether--everything will become one. But if one does not abstract enough, the danger then becomes one of not being able to have a sufficiently complete view, to comprehend.

So Kant's solution is to find a balance, and I think he believed that twelve is "just right." Kant almost appears to "sneak in" the categories by the back door, so to speak. But perhaps he thinks that his list should present no problems, since the logicians of his time also had such a list of logical forms. Note that Kant adopted the terminology directly from the prevailing usage at the time. This shows that at least Kant must be assuming that his readers will know the list very well and thus will be able to understand his modification. Thus he feels he is able to present the list as it is without much argument because there is no real need for it.

2. In the Anthropology Kant writes:

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

For Kant, then, it seems that thought is nothing other than internal speech; we are having thoughts when we speak to ourselves. Thus it seems that Kant would object to the idea that such mental acts as rotating images in the mind or mentally picturing oneself in a house are species of "thinking," properly so called. These acts are more appropriately called imagining. Here the point is that thinking for Kant is reserved only for discursive mental acts where language is essentially involved. Hence it is possible to say that one is "thinking" when one is dreaming that she is conversing with her friends, for example.

3. Kant's idea, as I understand him, is that judgments done "in the head" (in English, for example) bears an intimate relationship to judgments inscribed on paper or couched in a pattern of soundwave. In both cases meaning is grasped and conveyed through some medium. The point is that judgments or propositions in public language originate from a certain ability of humans as speaking animals. This ability, I submit, is represented here in the table of categories. The categories result from the primal power of synthesis, which groups representations into certain areas. This power, then, is responsible for the ability

to grasp and convey meanings.

Thus, we might say that a set of tokens representing the proposition "It is raining" in the "language of thought" (to use Fodor's terms as a heuristic device) mirrors the actual utterance that she might make to her friends in order to convey the "thought" that it is raining. This is possible only if the speaker and the potential hearer belong to the same convention (i.e. speaking the same language). Kant's point is that, in the case of the actual utterances, their most general forms are the logical forms at A70/B95. For the "language of thought," on the other hand, their forms are the categories themselves. Since Kant affirms at A79/B104-105 that it is the same basic power that is responsible both for uniting the logical forms and judgments having "transcendental content" (i.e. the manifold of space and time as well as the involvement of synthesis--these are necessary for experience and for language using ability itself), the path from the one to the other is quite clear. In fact Kant would maintain that the actual utterances are but outward, public manifestations of the language of thought. Hence the fundamental power that binds that language "in the head" also deeply influences public language. That is roughly the reason why the categories also govern the forms of public discourse.

4. An account concerning the use of the term "Deduction" in legal circles of Kant's times is given by Dieter Henrich in "Kant's Notion of a Deduction and the Methodological Background of the First Critique." In this article Henrich portrayed how the term is used by lawyers as referring to various justifications of ownership of titles or properties in case of possible legal disputes. Henrich argues that this use of the term was influential to Kant's selection of the term in

the Critique.

5. But Kant also maintains that number is a schema. At A142-143/B182) he writes: "The pure image of all magnitudes (quantorum) for outer sense is space; that of all objects of the senses in general is time. But the pure schema of magnitude (quantitatis), as a concept of the understanding, is number, a representation which comprises the successive addition of homogeneous units." Thus for Kant number seems to be in some sense monogrammatic--a representation of "successive addition of homogeneous units." This is strictly true, however, only of natural numbers, but one could also see how the other kinds of number are derived from the natural one. The passage seems to indicate that the relationship between number and space (or time) is analogous to that between an image and a schema. Earlier Kant argues that an image, such as that of the number five ("") is to be distinguished from the schema of five, which is the representation of the rule by which five things in general are given. So the point seems to be that a number-schema is a representation of successive addition in general with no regard to the material nature of the "units" to be successively added. In this way a number-schema is at a more abstract level than a pure image, such as five inkmarks or patches that I may imagine.

But then the problem is: How could such a representation of successive addition be if not something material at all? Kant seems to be mired in a dilemma here. If he puts number too far to the side of material representation, he then risks the danger of equating number with subjective images--an idea well ridiculed by Frege. But if he instead posits it as purely formal and abstract entity, he would face a

contradiction within his own theory of requiring that the categories be materially applicable to intuition via the schemata, for then number would be too remote from the mundane matter of calculation and one would be at a loss to see how cognition involving numbers is possible. In other words, number has to belong to transcendental, not general, logic; it cannot be purely formal if it is to figure in human cognition. Therefore, both horns of the dilemma for Kant are unacceptable. Kant's solution, as I understand, is to put number half way between the two poles. The strategy is to regard number as a schema lying between the two sides. As "successive addition of homogeneous units" number share an aspect with individual representations in that it is represented in adding "units" one by one; on the other hand, it is "homogeneous" with pure concepts in that it is thoroughly general and not derived from sense experience.

6. Thus the reason why I am able to recognize a magnolia is basically that I already possess the relevant concept beforehand. That is, I possess a list of "markers" that serve to identify an occurrent object as a magnolia when the object has sufficient salient characteristics that satisfy the list. This list constitutes the empirical concept 'magnolia' and is obviously a posteriori. In the second chapter I have sketched a rough idea of how I came to acquire the concept some time in my life. This view, then, is different from Strawson's in "Imagination and Perception," for I do not claim that when I see the magnolia, I have to relate this occurrent intuition to other "non-actual perceptions" in order that I do recognize it to be a magnolia at all. On the contrary, I already possess the concept, and through the concept, as the listing of relevant "markers," I am able to

match the features of the object before me with this list. Hence I am enabled to recognize it as such.

Chapter Five

Conclusion

Imagination in the Anthropology

Two other texts where Kant discusses his views on imagination in substantial detail are the Critique of Judgment and the Anthropology from a Pragmatic Point of View. Since there are already a number of studies on the imagination in the former work, the most recent of which is Rudolf Makkreel's Imagination and Interpretation in Kant,¹ I shall pass it over and focus my attention instead on the less known Anthropology. This by no means implies that the third Critique is not worthy of study, for it is an immensely important work in the entire critical system and contains ideas that are very important in Kant's aesthetics as well as other areas of philosophy. However, an adequate study of the imagination in the third Critique would in itself comprise an entire book, so it is beyond the scope of this study.

The Anthropology is a very different kind of work from the Critiques. The tone of the text here is much less serious and considerably less imposing. It is even at times entertaining, and contains in many places witty and humorous remarks that will make even the grimmest students

of Kant smile. Here one finds a very different Kant indeed, one who is down to earth and knowledgeable in mundane affairs. The work presents Kant in his other guise--that of a sophisticated conversationalist. This picture belies any image one might have of Kant as a grouchy and gruffy old bachelor who is out of touch with the world.²

In the note at the end of the Preface, Kant tells us that he conceived the work as a series of lectures concerning the knowledge of the world, which focussed on anthropology and physical geography. These lectures, which Kant had been giving for some thirty years prior to the publication of the Anthropology, were very popular among people outside philosophy. Unfortunately, only the part on anthropology was published; the other part on physical geography was not, because Kant was at the time very advanced in age. (The first edition of the Anthropology came out in 1798, when Kant was 74 years old, and the second edition in 1800. The Anthropology was Kant's last publication.) The work was intended as a "manual" for his course on anthropology. Thus apart from philosophical concerns one certainly sees in the work, one also finds a glimpse of Kant as a teacher, his material for the lectures as well as the popular topics of discussion at that time.

In this chapter I will refer to the page number in the text of the Anthropology in Band VII of the Preussische Akademie edition, as shown in the English translation by

Mary J. Gregor. Kant also divides the work into sections, so in what follows I shall give the section number followed by the page number, except in the Preface where there is no section number.

The phrase "anthropology from a pragmatic point of view" needs to be clarified. In the Preface (119-122) Kant says that the most important subject for man to study is man himself. Since man is "his own final end," i.e. since man serves no other purposes in nature as means and thus is "the most important object in the world" (119), the study of man then becomes "knowledge of the world." Therefore anthropology for Kant is the study of man as the final end of nature, and in this way knowledge of man then becomes knowledge of the world par excellence. Kant claims that the aim of education, which constitutes "cultural progress," is "to assign this knowledge and skill [man] has acquired to the world's use." And since the most important object in terms of which all "uses" become ultimately meaningful is man, the study of man then is the chief aim of man's own education.

This study of man is divided into the physiological and the pragmatic. Kant maintains that these are the differing "points of views" that one can adopt in studying man. The physiological point of view regards man as an object in nature, subject mainly to the laws of cause and effect. The pragmatic point of view, on the contrary, looks at man, not as a determined entity in nature, but as

a "free agent." Hence the study according to the pragmatic point of view is concerned with, in Kant's words, "what man as a free agent makes, or can and should make, of himself" (119). Kant's example immediately following this remark quite clearly illustrates the difference between the two points of view. If one studies memory according to the physiological point of view, one has to attend to such factors as the functions of the nerve fibers responsible for retention or loss of memory, or other parts of the brain that affect memory. That is to say, one studies the actual, natural causes of memory and how it is retained in the brain, and so on. Kant's point, however, is that even if we could have a definite and detailed knowledge of the physiology of memory, we would then become "mere passive spectator" to the play of the physiological elements. The interaction of these elements then would become only a part of what Kant calls "theoretical knowledge of the world," which is concerned solely with nature in its own course without direct reference to man's sense of purpose.

The study of man according to the pragmatic point of view, on the other hand, aims at understanding what elements one could use as a means to further or enhance one's purpose. In the case of memory, this is the study of how one uses the theoretical findings about memory in such a way that one knows how to improve its "scope and efficiency." In addition, in order to use memory effectively, Kant claims that one needs "knowledge of

man"--which is precisely what anthropology studies according to the pragmatic point of view (119).

Thus the study concerns man as a free, active entity in nature, possessing a sense of purpose and serving no other entities as means. In this way, such "knowledge of the world" as does not concern man, for example mineralogy, botany and the like, when done solely for theoretical purposes, cannot be practiced from the pragmatic point of view. The study from the pragmatic point of view regards man as the final end, and thus gives such theoretical knowledge no importance unless it serves man's purposes (120-121).

Kant's major discussion of the imagination in the book lies in the sections entitled "On Imagination," "On the Constructive Power belonging to Sensibility, according to its Various Forms," and "On the Power of Bringing the Past and the Future to Mind by Imagination" (§28-§36, 167-189). In this chapter, however, I shall focus only on the first two sections, since they pertain more to the issues of the first Critique. Kant begins the first section with an explicit account of imagination:

As a power of [producing] intuitions even when the object is not present, imagination (facultas imaginandi) is either productive or reproductive--that is, either a power of exhibiting an object originally and so prior to experience (exhibitio originalia), or a power of

exhibiting it in a derivative way, by bringing back to mind an empirical intuition we have previously had (exhibitio derivativa). Pure intuitions of space and time are original exhibitions: all others presuppose empirical intuition which, where it is connected with the concept of the object so that it becomes empirical knowledge, is called experience (§28, 167).

The definition of imagination as a power producing images even when their objects are not present is the same as the one Kant gives in the first Critique at B151. As such it does not get into the heart of the issue, because, as I have argued, the power of original synthesis is the result of imagination, and this kind of synthesis would not be possible if imagination were limited only to a power of producing images. The distinction between productive and reproductive imagination here also accurately reflects the same distinction in the Critique. Here Kant stresses the point that the productive imagination is an original power whose material is not received from experience; for example space and time, as formal intuitions, are the products of the productive imagination. On the other hand, the reproductive imagination is responsible mainly for association of empirical mental items, either by bringing back previously had images or by "putting together" various parts of the sensory manifold so that a unified empirical

intuition results.

The doctrine here, therefore, is basically the same as in the Critique. Nonetheless, in the Anthropology Kant shifts the emphasis to the empirical part of the power of imagination, stressing various factors that can influence the use of this power in humans. For example, he discusses the effects of certain intoxicants on imagination. Some forms of these chemical compounds hinder or weaken the imagination, while some other forms intensify it. Kant is careful in pointing out that these chemicals effect the imagination only in its practical employment in humans. Beer or wine, according to him, sometimes strengthen the imagination so that social intercourse is enlivened by them. But if these are taken in more than moderate amount drunkenness will result. Kant asserts that it is "shameful" to engage oneself in "mute intoxication," and that one loses one's self esteem when one is drunk and loses control of oneself. This and other discussions of this kind in the Anthropology are in accordance with the stated purpose of the work, that it treats of what man should make of himself. In other words, the work is a practical guide to useful and correct living.

Kant claims that the imagination has no power to create objects entirely at will, but has to make use of the material supplied by sensibility. This view agrees with the doctrine of the Critique. Recall that in the second chapter we have seen Heidegger argue that imagination is

not "ontically creative;" that is, it cannot produce objects out of nothing without some basic given material. In the Critique, this idea is strongly affirmed by Kant especially in his insistence that the imagination must be subservient to the understanding (indeed in the B Deduction Kant relegates imagination to be only a species of the understanding). In so far as the imagination is to work within the bound of objectivity, it cannot be otherwise but belong to the understanding. In Kant's words in the Anthropology, "[i]magination . . . either invents (is productive) or merely recalls (is reproductive). But imagination is not exactly creative because of its inventions; it cannot bring forth a sense representation that was never given to the power of sense; we can always trace the material of its ideas" (§29, 167-168).

Nevertheless, this is not to say that the productive imagination is limited only to inventing novel arrangements of previously given sensory ideas, for it is the transcendental synthesis of imagination itself that is primarily responsible for there being experience in the first place. The possibility of composing and arranging novel figures out of given material is precisely derived from this fundamental power that first gives rise to experience as a whole. This is the reason humans agree on the objective world. Firstly we share the same set of categories (i.e. the categories have "objective validity") and secondly the ultimate ground of sensory material is

what constrains our individual experience so that we succeed in communicating with one another. These two factors, together with the power of imagination that binds them together, are what is responsible for our ability to share the same world. That this "world" is not what it is in itself but a creation of the factors mentioned should give us a warning that the power of imagination at least has some "creative" capacity exactly in this transcendental sense, even though empirically it is not actually creative, as Kant points out here in the Anthropology. It might perhaps be the case that Kant intended the lectures comprising the Anthropology not to be an exposition of the views of the Critique, but a popular teaching on human nature. So he might have decided that a full treatment of the subject matter is beyond the level of understanding of his intended audience, which included several who were not professional philosophers (see, e.g., Kant's note at the end of the Preface at 122).

In the section entitled "On the Constructive Power Belonging to Sensibility, According to its Various Forms," Kant discusses three kinds of constructive power that belong to sensibility. These are "the power of forming intuitions in space (imaginatio plastica), of associating intuitions in time (imaginatio associans), and of connecting our ideas because of their affinity [Verwandschaft] for one another insofar as they have a common ground." This tripartite power, as one might now

suspect, bears some resemblance to the threefold syntheses of the first edition TD. However, there are also marked differences, as I shall presently discuss them in turn.

The first of these powers, that of forming intuitions in space, appears to be wholly an empirical power. Kant mentions examples of an artist having an image of her invention already in mind, and if this image is produced involuntarily, it is called "fantasy," and if it is produced by conscious choice it is "composition" or "fabrication" (§31, 174). The second is the same as the empirical law of association in the Critique. According to Kant, "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" (§31, 176). Thus this second power is entirely empirical, just as the first. This idea, as one can see, has a Humean origin. "Mental habit" is responsible for the present association of mental items that have occurred together in the past, and for the projection of the same type of association again into the future.

The third kind of power is more interesting than the other two. It is the power of connecting representations according to their "common origin" in objective ground, or in other words, according to the "affinity" in the objects themselves. In Kant's words, "[b]y affinity I mean the connection of the manifold by virtue of its origin from one ground" (§31, 176-177). This is very similar to Kant's

discussion of "affinity" in the A Deduction. Things have "affinity" with one another when they spring from one common ground; that is, when they are objects in nature and not in any particular individual's mental space. However, in this section of the Anthropology Kant is not concerned with the philosophical issue of the Deduction. He is instead focusing on the more mundane matter of recounting cases where this "power of connecting representations is lacking." For example, he reports that in conversation people "leap from one subject to another, quite different one, following an empirical association of ideas whose ground is merely subjective (that is, one man's ideas are associated differently from another's)" (§31,177). This situation, says Kant, "is a kind of nonsense in terms of form, which disrupts and destroys a conversation" (§31, 177). The idea is that it is natural for conversants to talk about one topic, and after that topic is exhausted then it is appropriate to move on to another one. If one talks about different topics at the same time, or jumps incoherently from topics to topics, then it will be very difficult to make sense of one's talking. The result according to Kant will be "desultory." This lack of coherence in conversation is precisely due to the lack of this power of connecting representations according to one common ground, which includes the power to stay coherent in conversation. It is clear, then, that from the pragmatic point of view man really needs to cultivate this power, for

without it one could hardly be a good and lively conversationalist.

These three powers parallel the three syntheses of the first part of the A Deduction. The powers in the Anthropology appear to be the empirical counterparts of the syntheses in the A Deduction, and it is clear that here Kant is concerned with the "pragmatic" point of how man can best cultivate these powers to man's own advantage to serve his purposes in everyday life. The first of the syntheses in the Deduction--the synthesis of apprehension--is the transcendental aspect of the first power here, namely that of forming intuitions in space. The former focuses on the totality of the entire field of experience, whereas the latter on particular items of experience. The same is the case with the synthesis of reproduction in imagination and the power of associating intuitions in time here in the Anthropology. The former, being transcendental, is concerned with association in general of objects in time. The latter, on the other hand, is concerned with the "mental habit" that produces only empirical, inductive and particular associations. Finally, the relation is also the same for the synthesis of recognition in concepts and the power of connecting ideas according to their affinity. The former is a transcendental power or relating intuitions to concepts and to the original unity of apperception. The latter is an empirical power of staying coherent within a particular theme (e.g. a conversation topic).

In conclusion, the Anthropology is an important work of Kant's that is helpful in enabling us to see some points in the first Critique more clearly by providing contrastive cases. The two works are not inconsistent with each other, and show that Kant's ideas on this are continuous. The difference between the two lies in the fact that while the first Critique attends to the transcendental concerns, the Anthropology concentrates on the issues of everyday lives, and these only in respect to the search for what man can best make of himself.

Imagination as the "Common Root"?

In the section of the Anthropology that we have just looked at there is a very significant passage:

The word affinity suggests the chemical term: when understanding combines ideas in this way, its activity is analogous to the interaction of two specifically different physical elements working intimately on each other and striving toward a union that produces a third thing, with properties that can be generated only by the union of two dissimilar elements. Understanding and sensibility, for all their dissimilarity, join together spontaneously to produce knowledge, as intimately as if one had its source in the other, or both originated from a common root.

But this cannot be--at least we cannot conceive how heterogeneous things could sprout from one and the same root (§31, 177).

In the second chapter I showed that one of Heidegger's well known claims is that sensibility and understanding spring from the same common root, and that this root is nothing other than the transcendental imagination--which he erroneously equates with original time. In this section I shall try to determine whether and, if so, to what extent, Heidegger's claim that imagination is the common root stands up against this passage of Kant's, and against my interpretation presented in the last two chapters. Hence we shall see whether imagination is really the common root, and whether any plausible justification could be given to support this claim.

Before we turn to tackle this matter it is advantageous to have before us again the passage in the introduction to the first Critique where Kant specifically mentions the common root of sensibility and understanding:

By way of introduction or anticipation we need only say that there are two stems of human knowledge, sensibility and understanding, which perhaps spring from a common, but to us unknown, root (A15/B29).

Nowhere does Kant explicitly say that the imagination is such a common root. In this way Kemp Smith takes a much more cautious approach than Heidegger, for Kemp Smith only

hints at a possibility that imagination might be such a common root, whereas Heidegger provides a full blown theory to that effect.

The passage from the Anthropology just quoted above is unequivocal in maintaining that human knowledge is the result of the "union" of understanding and sensibility. Kant gives an example from chemistry, where a new compound is synthesized from two heterogeneous elements. And Kant uses this as an analogy for the union of sensibility and understanding whose synthesized product is human knowledge. In the note to this passage at §31, 177n. Kant establishes a distinction between "mathematical addition" and "dynamic generation." He contends that the first two kinds of power of sensibility--viz. the power of forming intuitions in space and the power of association--are but species of mathematical addition, which merely puts representations together without anything radically new being generated. The third kind of power, however, is a kind of dynamic generation because it is the power of uniting representations according to their affinity, thus conforming to the law of the understanding. And it is by means of this conforming to the understanding that knowledge is produced. Kant might say that when one follows a coherent topic of conversation with comprehension, one is more likely to gain knowledge than when one jumps haphazardly from topics to topics. This is evident from the fact that the unifying factor in this kind

of power is the presiding theme or subject matter, which requires the faculty of understanding. Immediately afterwards Kant has the following words:

The play of forces in animate as well as in living nature,. . ., is based on the dissolution and union of the heterogeneous. It is true that we arrive at knowledge of its nature by experiencing its operations; but we cannot reach the ultimate cause and the simple components into which its material can be analyzed.--Why is it that all the organic beings we know beget their kind only by the union of two sexes (which we then call male and female)? We cannot admit that the Creator, just as a whim and to establish an arrangement he liked on our planet, was merely playing, so to speak. It rather seems that, given the material of our world, it must be impossible to have organic creatures reproduce without two sexes for that purpose.--In what darkness human reason gets lost when it tries to probe the source or even merely guess what it is! (§31, 177n.)

Here Kant seems to give the reason it is in principle impossible to peer into the essential nature of the common root of sensibility and understanding. It is true, as Kant says, that we can arrive at the kind of knowledge that lies at the very foundation of human knowledge itself by

observing its operation. But, as I have pointed out, observing the outward, empirical operation of the fundamental force which is the condition of possibility of observing in general, even if this is possible, is not the same as having a direct acquaintance with the force itself. The only way humans can have some knowledge of it is through its operations. More perspicuously put, humans have the ability to observe the operations of the force only when it is manifested as a pattern of empirical items; that is, humans can only infer or speculate theoretically what the real nature of the fundamental power is like in itself. Kant emphatically insists that to know this power directly is beyond the possible scope of human knowledge. This is precisely Kant's point in his criticism of Johann Herder's theory of the vital force.³

Kant is apparently convinced that there has to be an overall purpose for all beings, that everything has to fit somewhere in the grand scheme of things. He treats of this topic at length in the Critique of Teleological Judgment, which is a part of the third Critique. This idea on teleology seems to be the basis of Kant's belief that the existence of the two sexes must serve some purpose, and that it is inconceivable that God is "merely playing," leaving everything to chance only. However, to look into this matter now would take us very far afield of our present occupation, to which we now return.

It is quite clear from the preceding that the search

for the real knowledge of the ultimate origin of the union of understanding and sensibility must always stop at the level of their manifest operations, not at the real nature of the origin itself. Hence Kant would object to Heidegger's argument, contending that Heidegger's ideas are only speculations with no adequate justification.

According to Kant, ". . . we cannot reach the ultimate cause and the simple components into which its materials [i.e. of the forces in nature and living organisms] can be analyzed" (Anthropology §31, 177n.). That is to say, it is in principle impossible to have knowledge of the real nature of the fundamental force of life, which certainly includes the imagination. Apart from the teleological concerns Kant appears to have in the passage, that the "ultimate cause" might refer to some grand scheme in which all beings have their places, Kant seems to have in mind the idea that since living beings are not "mere machines" they cannot be analyzed totally as thoroughly passive entities determined solely by nature. The self-acting force in living organisms, according to Kant, is not analyzable in this way. In the case of the common root of understanding and sensibility, therefore, it is impossible to know the root directly by scientific, objective view. Another reason especially for this case has been given before, concerning the impossibility of the transcendental apperception to be an empirical, perceptible item. Thus, an identification of the common root could be nothing but

speculative; this is necessary because of the limits of the human ability to know.

Nevertheless, even though humans have no capacity to know the common root directly, they still possess the ability to make inferences and to employ the rules of logic in order to give a rough estimate of what it should be like. Heidegger's argument then could be reinterpreted along this line, but this is to accept fully that the theory proposed must be only a reasoned speculation. Heidegger, however, does not seem to limit his claims in this way in his Kantbuch.

So is the imagination really the common root? The obvious answer is that we do not know. But this does not (and should not) hinder us from reflecting on the nature of sensibility and understanding, as well as the role of imagination in it. Kant's point is that he is presenting an admonition against elevating theories and views on this subject to the status of knowledge. Even now, with all the advancement in science, we are still a very long way from knowing exactly the real nature of the power of imagination, of the vital force in general, and whether it is actually responsible for both the faculties of knowing and sensing. However, with the power that humans have it is at least of some advantage to have an understanding--which is necessarily limited--of the issue.

Having Kant's admonition firmly in mind, I would like to submit that the course of my study on imagination shows

that if there is any likely candidate for being the common root, then the imagination is the most plausible one. That imagination could be the root of understanding might be seen from the conclusions of the fourth chapter. Since imagination effects synthesis, it is necessary for the process of abstracting and uniting representations into judgments. And this act of uniting then results in twelve ways of uniting according to Kant. These ways are represented in the Table of Categories. This is what the Metaphysical Deduction tries to show. Moreover, imagination is also crucially involved in the act of the understanding of molding the sensory input in three different stages, namely apprehension, reproduction, and recognition in concept. These stages are the three syntheses of the A Deduction, which in B Kant groups together under the heading of figurative synthesis. Finally, in the Schematism Kant argues that the schema "is in itself always a product of imagination," and this includes both pure, transcendental, as well as empirical schemata.

On the other hand, it is more difficult to see the role of imagination as the root of sensibility. In fact I would like to show here that it is in the Aesthetic that imagination can be seen not to be the complete root of sensibility, for we always depend on the input from nature as material by means of which intuitions could be produced. It is true that intuitions always require synthesis, as I

have shown in the third chapter. But the material for intuition itself does not depend on imagination at all, otherwise imagination would acquire the power of creating things entirely out of nothing. Therefore it seems that imagination is but one part of the roots of sensibility, and the other is the material from nature itself.

However, it is clearly the case that since the mind can have access only to intuitions, the imagination is essentially involved in its capacity as the originator of intuitions themselves. As the power of synthesizing the raw sensory input into intuitions, imagination could be regarded as the root of sensibility if one is careful to bear in mind that the imagination only has the power to work on and modify the sensory material; it does not have the power wholly to create such material. Owing to the fact that it is only through sensibility, and not understanding, that any a posteriori material could be given, this latter material must actually be an essential part of objective intuitions. Nevertheless, one could assert that, if one attends to the pure synthesizing power of sensibility apart from its material, this power naturally is rooted in the imagination.

Kant would maintain that the preceding is all we know about the common root, and what I have shown so far is only an attempt to employ the available tools to probe into the nature of the condition of possibility of experience and of thinking itself. Does this mean that we can with available

justificatory means conclude that imagination is, if not a full common root, only a partial one? I would think so. But does this mean that we know already the real nature of imagination in the same manner as we have knowledge of an empirical item? Absolutely not, for we always have access only to the manifest operations of imagination. We will need an unassailable theory showing that these manifest operations are absolutely identical to the power of imagination to be able to conclude that imagination is nothing but a functional operation in a causal network of the mind (or brain). Kant would maintain that such a theory could not be given, for the manifest operations are empirical items, whereas the ultimate cause of these operations is in itself their condition of possibility and thus is not one and the same with them.

In conclusion, if the imagination is the most likely candidate to be the common root of sensibility and understanding, then its role as the "mediator" of the two heterogeneous elements becomes much more visible. If it is the case that the same basic power gives rise to the two faculties, then they are much more closely related than they first appear. This is the fundamental way of looking at the imagination as the mediator, but one always has to keep in mind that Kant himself claims that the real nature of the common root could not be directly known. The other way that the imagination could be seen as the mediator is already given in the fourth chapter. As the power of

producing the schemata, the imagination in this aspect has the direct role of joining together concepts and intuitions. This latter role, however, would be made possible in the first place by the common root of the two "stems" if the imagination were indeed such a common root of both understanding and sensibility.

Imagination in Other Places in the first Critique

So far I have treated mostly of imagination in its transcendental function. Nevertheless, Kant does mention the imagination in several other places in the first Critique which have not been discussed in the thesis; in these places, however, he discusses the role of imagination only as an empirical factor. In the Aesthetic, we have seen that Kant explicitly mentions the imagination only with respect to the Leibnizian theory of space: "On this view [i.e. the Leibnizians'] the a priori concepts of space and time are merely creatures of the imagination" (A40/B57). The imagination in this sentence is only an empirical, abstracting factor. This does not mean that Kant contradicts himself at all when he takes imagination to be ultimately responsible for the pure intuitions of space and time. For the latter kind of imagination is transcendental, and is primarily the necessary condition for the possibility of any act of empirical abstraction.

In the Second Analogy Kant shows that the empirical

imagination alone is not sufficient to provide a grouping of two temporally related events in such a way that one necessarily precedes the other. To be able to justify a claim that two temporally related events are necessarily connected, one needs to subsume the claim under the transcendental judgment of the Second Analogy, which itself is the condition of possibility of such a claim. That is to say, imagination in its empirical role in itself cannot give a guarantee that its object is what is really at work in nature. One can certainly imagine, for example, both that event A precedes event B or B precedes A. There is nothing objective that can determine which of the two corresponds to nature. Only when one puts the claim under the rule of the Second Analogy can one be certain that one's perception relates to the objects "out there" and is not merely one's own imaginative invention. For example, in the case of a ship moving downstream, which is Kant's own example at A192/B237, the ship's position upstream necessarily precedes its position downstream. Indeed the transcendental judgment of the Second Analogy is the condition of possibility of representing an event (whose constituent parts are necessarily related in a definite temporal order) as objective at all. The transcendental judgment, then, is required in all acts of objective judging. As we have seen, the transcendental judgments are derived from the transcendental schemata, which are the pure products of the imagination. This latter kind of

imagination is in the transcendental role, and hence is not to be confused with the merely empirical one of picturing to oneself with no basis in reality.

In the section on the Ideal of Pure Reason in the Transcendental Dialectic there is a very interesting passage:

Such is the nature of the ideal of reason, which must always rest on determinate concepts and serve as a rule and archetype, alike in our actions and in our critical judgments. The products of the imagination are of an entirely different nature; no one can explain or give an intelligible concept of them; each is a kind of monogram, a mere set of particular qualities, and forming rather a blurred sketch drawn from diverse experiences than a determinate image--a representation such as painters and physiognomists profess to carry in their heads, and which they treat as being an incommunicable shadowy image of their creations or even of their critical judgments. Such representations may be entitled, though improperly, ideals of sensibility, inasmuch as they are viewed as being models (not indeed realisable) of possible empirical intuitions, and yet furnish no rules, that allow of being explained and examined (A570-571/B598-599).

Kant is here giving a contrast between the ideals of reason and of sensibility. The former serves as a "rule" or an "archetype" whose purpose is to be the ideal or the exemplar that humans can aspire to and try to emulate. Kant's example is that of a "wise man of the Stoics" who is the "ideal" of the "idea" of virtue. The ideals, however, are not to be found in experience, for they are contained in reason alone, and they are what supply the latter with the absolute standard by which human conduct can be judged (A569-570/B597-598). This ideal of reason is completely different from the "ideal of sensibility," which for Kant is the product of the imagination and is peculiar to individuals only. The ideals of sensibility also serve as a paradigm, but in this case they are the paradigm of artistic creation; they are employed to provide "pictures" or "monograms" which an artist can use as models for her work. The imagination that creates such an ideal of sensibility, then, is not in itself transcendental, because such an ideal is non-discursive; one who has it cannot tell exactly what it is like. Another reason is that, like other mental images, it is a kind of "picture" which belongs only to particular individuals, and not to everyone as a rule.

In the part on the Discipline of Pure Reason at A769-770/B797-798 Kant gives a distinction between visionary and inventive imagination:

If the imagination is not simply to be

visionary [schwärmen], but is to be inventive [dichten soll] under the strict surveillance of reason, there must always previously be something that is completely certain, and not invented or merely a matter of opinion, namely, the possibility of the object itself. Once that is established, it is then permissible to have recourse to opinion in regard to its actuality; but this opinion, if it is not to be groundless, must be brought into connection with what is actually given and so far certain, as serving to account for what is thus given. Then, and only then, can the supposition be entitled an hypothesis.

The idea is that in the act of hypothesis making one must also be constrained by the conditions according to which possible objects are presented if the hypothesis one is making is to have any credible force. Kant is emphasizing the point that the conditions for the possibility of knowledge must also be applicable to hypothesis, otherwise any opinion one ventures to make would be "groundless" and would thus be entirely the result of the visionary imagination. For imagination to be inventive, however, it must conform to the conditions of possibility of objectivity in its act of hypothesis or opinion making. Only in this way can the power of imagination here be of real relevance to the advancement of knowledge by positing

justifiable and hence satisfiable hypotheses.

Kant's use of the term "imagination" in this section in the *Discipline of Pure Reason* is therefore quite different from his use in the other places. For here Kant's attention is on the power of imagination to provide opinions and hypotheses. However, this is clearly not a transcendental function, for even the inventive imagination has to make use of the material provided by the necessary condition of knowledge, and has to conform to the latter.

In sum, Kant has a number of uses for the term "imagination" both in the first Critique and in the Anthropology which can be divided roughly into transcendental and empirical. Imagination in its transcendental role is necessary for outlining the conditions for knowledge, and in its empirical function is the same as the role with which we are familiar. Kant's point is that the two share one common aspect in that in both roles the imagination is a power to unify or to select and arrange; it is the basic force of the mind that groups representations according to the forms. These forms, if they are to be presentable at all, owe their origins to the imagination as the results of its spontaneous forming power. At the transcendental level the forms are a priori, but they can also be a posteriori and so depend on some given material, such as ordinary empirical concepts. Thus the difference between transcendental and empirical imagination is not on the level of its nature per se, but

on the level of generality to which the basic power is applied.

NOTES

1. Recently there has been a lively interest on Kant's Critique of Judgment and his ideas on aesthetics and its ramifications in literary theories. Rudolf Makkreel's book is a new study on the imagination in the third Critique and its role in theory of interpretation. In the first part of the book Makkreel has a brief discussion of imagination in the first Critique. Bernd Küster also has a brief discussion of the role of imagination in the third Critique in his Transzendentele Einbildungskraft und ästhetische Phantasie. H. W. Cassirer, in A Commentary on Kant's Critique of Judgment, has a more extensive treatment than Küster. Cassirer's comparison of the third with the other two Critiques is especially valuable not only for the study of imagination alone, but also concerning how the three Critiques are related to one another. Donald Crawford's Kant's Aesthetic Theory concentrates on Kant's view on aesthetics. In the book Crawford has a section on "Imagination and Understanding," which is a good brief comparative look at imagination in the first and the third Critiques. Other works are Mary A. McCloskey, Kant's Aesthetics; Salim Kemal, Kant and Fine Art: An Essay on Kant and the Philosophy of Fine Art and Culture; and Ted Cohen and Paul Guyer eds., Essays in Kant's Aesthetics. The latter is an anthology that contains many articles on the third Critique, including Crawford's "Kant's Theory of Creative Imagination."

2. The idea one might have of Kant that he was a bachelor who is totally wrapped in the ivory tower having no contact to the outside world is shattered by accounts of his personality in Arsenij Gulyga's

very good biography entitled Immanuel Kant: His Life and Work, and excerpts from Kant's works themselves. Gulyga gives a large amount of evidence showing that Kant was anything but aloof and demure. According to him, Kant was "much in demand, and he never refused an invitation. As a clever and lively conversationalist Kant was the life of the party. He was natural, easy-going, quick-witted" (Immanuel Kant 52). Immediately following Gulyga tells this charming story:

Once, at a dinner, a young lieutenant spilled red wine in the presence of a senior officer and was ready to fall through the floor with embarrassment. Magister Kant, who was talking with the senior officer about a battle, calmly spilled some of his wine on the tablecloth and began to draw red lines to represent movements of troops (52).

In the Anthropology Kant discusses the important role of laughter as follows:

. . . good natured laughter (not cruel laughter combined with bitterness) is more endearing and more beneficial: I mean the kind of laughter that someone should have commended to the Persian king who offered a prize to anyone "who would invent a new pleasure."--In laughter, the exhaling of air by fits and starts (convulsively, so to speak) strengthens our feeling of the vital force by its salutary movement of the diaphragm. . . . It does not matter who makes us laugh--a hired jester (harlequin) or an artful scamp among our circle of friends, "a sly dog" who seems to have no mischief in mind and does not join in the laughter, but with seeming simplicity suddenly releases out

strained anticipation (like a taut string). [Whatever provokes it,] laughter is always a shaking of the muscles involved in digestion, which promotes it far better than the physician's wisdom would do (§79, 262).

Even in such an august work as the Critique of Judgment Kant has these words to say:

Suppose this story to be told: An Indian at the table of an Englishman in Surat, when he saw a bottle of ale opened and all the beer turned into froth and overflowing, testified his great astonishment with many exclamations. When the Englishman asked him, "What is there in this to astonish you so much?" he answered, "I am not at all astonished that it should flow out, but I do wonder how you ever got it in" (Critique of Judgment §54, p. 178, according to the Bernard edition).

Again:

The heir of a rich relative wished to arrange for an imposing funeral, but he lamented that he could not properly succeed, "for (said he) the more money I give my mourners to look sad, the more cheerful they look!" (§54, 178)

I would like to thank Professor Caraher for directing my attention to this important section of the third Critique.

3. See Frederick Beiser, The Fate of Reason, pp. 149-153.

WORKS CITED

Works by Kant

- Kant, Immanuel. Anthropology from a Pragmatic Point of View. Trans. Mary J. Gregor. The Hague: Martinus Nijhoff, 1974.
- . Critique of Judgment. Trans. J. H. Bernard. London: Haffner, 1951.
- . Critique of Practical Reason. Trans. Lewis White Beck. New York: Macmillan, 1985.
- . Critique of Pure Reason. Trans. Norman Kemp Smith. New York: St. Martin's, 1929.
- . Logic. Trans. Robert S. Hartmann & Wolfgang Schwarz. New York: Dover, 1974.
- . Kant's gesammelte Schriften. Ed. Königlich Preussischen Akademie der Wissenschaften. Leipzig: de Gruyter, 1922.
- . Prolegomena to any Future Metaphysics that will be able to Come Forward as Science. Indianapolis: Hackett, 1977.

Works by Others

- Allison, Henry E. Kant's Transcendental Idealism. New Haven: Yale UP, 1983.
- Aquila, Richard E. "Matter, Form, and Imaginative

- Association in Sensory Intuition." In New Essays on Kant. Ed. Bernard den Ouden. 73-109.
- . Matter in Mind: A Study of Kant's Transcendental Deduction. Bloomington, IN: Indiana UP, 1989.
- . "Imagination as a 'Medium' in the Critique of Pure Reason." The Monist 72(1989): 209-221.
- . "Self-Consciousness, Self-Determination, and Imagination in Kant" Topoi 7(1988): 65-79.
- Behler, Ernest ed. Philosophy of German Idealism. New York: Continuum, 1987.
- Beiser, Frederic. The Fate of Reason: German Philosophy from Kant to Fichte. Cambridge, MA: Harvard UP, 1987.
- Bird, Graham. Kant's Theory of Knowledge. New York: Humanities, 1962.
- Brittan, Gordon. Kant's Theory of Science. Princeton: Princeton UP, 1978.
- Bruce, Vicki and Green, Patrick. Visual Perception: Physiology, Psychology and Ecology. London: Lawrence Erlbaum, 1985.
- Cassirer, H. W. A Commentary on Kant's Critique of Judgment. New York: Barnes & Nobles, 1938.
- Castañeda, Hector-Neri. "Philosophy as a Science and as a Worldview." In The Institution of Philosophy. Eds. Avner Cohen and Marcelo Dascal. La Salle, IL: Open Court, 1989.
- . "The Role of Apperception in Kant's Transcendental

- Deduction of the Categories." Nous 24(1990):
147-157.
- Cohen, Ted and Guyer, Paul eds. Essays in Kant's
Aesthetics. Chicago: U of Chicago P, 1982.
- Coleman, Dorothy P. "Hume's Philosophy of Imagination"
Ph.D Diss. The Pennsylvania State U, 1983.
- Crawford, Donald W. Kant's Aesthetic Theory. Madison, WI:
U of Wisconsin P, 1974.
- . "Kant's Theory of Creative Imagination" In Essays in
Kant's Aesthetics. Ed. Ted Cohen and Paul Guyer.
Chicago: U of Chicago P, 1982.
- Ende, Helga. Der Konstruktionsbegriff im Umkreis des
deutschen Idealismus. Meisenheim am Glan: A. Hein,
1973.
- Engell, James. The Creative Imagination: Enlightenment to
Romanticism. Cambridge, MA: Harvard UP, 1981.
- Erdmann, J. Die Entwicklung der deutschen Spekulation seit
Kant. Stuttgart: Holzboorg, 1977.
- Eucken, Rudolf Christof. Die Träger der deutschen
Idealismus. Berlin: Ullstein, 1919.
- Fodor, Jerry. The Language of Thought. New York: Thomas
Y. Crowell, 1975.
- Fogelin, Robert J. Hume's Skepticism in the Treatise of
Human Nature. London: Routledge, 1985.
- Förster, Eckart. ed. Kant's Transcendental Deductions:
The Three Critiques and the Opus Postumum. Stanford,
CA: Stanford UP, 1989.

- Furlong, E. J. "Imagination in Hume's Treatise and Enquiry Concerning Human Understanding." Philosophy 36(1961): 62-70.
- Gore, W. C. The Imagination in Spinoza and Hume. Chicago: U of Chicago P, 1902.
- Gulyga, Arsenij. Immanuel Kant: His Life and Work. Trans. Marijan Despalatovic. Boston: Birkhauser, 1987.
- Hartmann, Nicolai. Die Philosophie des deutschen Idealismus. Berlin: W. Gruyter, 1929.
- Hendel, Charles. Studies in the Philosophy of David Hume. New York: Garland, 1983. (Reprinted of Indianapolis: Bobbs-Merrill, 1963.)
- Heidegger, Martin. Kant and the Problem of Metaphysics. Trans. James S. Churchill. Bloomington, IN: Indiana UP, 1962.
- . Kant und das Problem der Metaphysik. Frankfurt am Main: Vittorio Klostermann, 1951.
- Henrich, Dieter. "Kant's Notion of a Deduction and the Methodological Background of the First Critique." In Kant's Transcendental Deductions: The Three 'Critiques' and the 'Opus postumum.' Ed. Eckart Förster. Stanford, CA: Stanford UP, 1989. 29-46.
- . "The Proof-Structure of Kant's Transcendental Deduction." In Kant on Pure Reason. Ed. Ralph C. S. Walker. 66-81.
- Hochberg, J. "In the Mind's Eye." In Contemporary Theory

- and Research in Visual Perception. Ed. R. H. Haber
London: Holt, Rinehart & Winston, 1968.
- Howard, Claud. Coleridge's Idealism: A Study of its
Relationship to Kant and to the Cambridge Platonists.
Boston: Gorham, 1924.
- Hume, David. A Treatise of Human Nature. Penguin Books,
1969.
- Kearney, Richard. The Wake of Imagination: Toward a
Postmodern Culture. Minneapolis: U of Minnesota P,
1989.
- Kemal, Salim. Kant and Fine Art. Oxford: Clarendon, 1986.
- Kemp Smith, Norman. A Commentary of Kant's 'Critique of
Pure Reason.' 2nd ed. New York: Humanities, 1962.
- Kipperman, Mark. Beyond Enchantment: German Idealism and
English Romantic Poetry. Philadelphia: U of
Pennsylvania P, 1986.
- Kronenberg, Moritz. Geschichte des deutschen Idealismus.
2 vols. München: C. H. Beck, 1909-1912.
- Küster, Bernd. Transzendente Einbildungskraft und
ästhetische Phantasie zum Verhältnis von
philosophischen Idealismus und Romantik.
Königstein: Forum Academicum, 1979.
- Laird, John. Hume's Philosophy of Human Nature. London:
Methuen, 1932.
- Lineback, Richard H. "The Place of Imagination in Hume's
Epistemology." Ph. D. Diss. Indiana U, 1963.
- Lütgert, Wilhelm. Die Religion des deutschen Idealismus

- und ihr Ende. Gutersloh: C. Bertelsmann, 1923.
- MacFarland, Thomas. Coleridge and the Pantheist Tradition.
Princeton: Princeton UP, 1969.
- . Originality & Imagination. Baltimore: The John
Hopkins UP, 1985.
- Makkreel, Rudolf. Imagination and Interpretation in Kant:
The Hermeneutical Import of the Critique of Judgment.
Chicago: The U of Chicago P, 1990.
- McCloskey, Mary. Kant's Aesthetic. Albany, NY: State U
of New York P, 1987.
- Mörchen, Hermann. Die Einbildungskraft bei Kant.
Tübingen: Max Niemeyer, 1970.
- Nagel, Thomas. The View from Nowhere. New York: Oxford
UP, 1986.
- Neisser, Ulrich. Cognitive Psychology. Englewood Cliffs,
NJ: Prentice Hall, 1967.
- Newton, Natika Waterman. "Imagination and Logical
Possibility." Ph. D. Diss. State U of New York at
Stony Brook, 1980.
- den Ouden, Bernard and Moen, Marcia. eds. New Essays on
Kant. New York: Peter Lang, 1987.
- Palumbo, Margherita. Immaginazione e matematica in Kant.
Roma: Laterza, 1984.
- Pilot, Harald. "Kant's Theory of the Autonomy of
Reflective Judgment as an Ethics of Experiential
Thinking." Nous 24(1990): 111-135.
- Pippin, Robert. Kant's Theory of Form: An Essay on the

- Critique of Pure Reason. New Haven: Yale UP, 1982.
- Putnam, Hilary. Reason, Truth and History. Cambridge: Cambridge UP, 1981.
- Rorty, Richard. Consequences of Pragmatism. Minneapolis: U of Minnesota P, 1982.
- . Philosophy and the Mirror of Nature. Princeton: Princeton UP, 1979.
- Sellars, Wilfrid. Science and Metaphysics: Variations on the Kantian Themes. London: Routledge & Kegan Paul, 1968.
- . Science, Perception and Reality. New York: Humanities, 1963.
- . "Scientific Realism or Irenic Instrumentalism." In Boston Studies in the Philosophy of Science. Vol. 2. Eds. R. S. Cohen & M. W. Wartowski. New York: Humanities, 1965. 171-204.
- Schaper, Eva and Vossenkuhl William. Reading Kant: New Perspectives on Transcendental Arguments and Critical Philosophy. Oxford: Basil Blackwell, 1989.
- Schaper, Eva. "Kant on Imagination." Philosophical Forum 2(1971): 430-445.
- . Studies in Kant's Aesthetics. Edinburgh: Edinburgh UP, 1979.
- Sperling, G. "The Information Available in Brief Visual Presentations." Psychological Monographs 74, whole no. 498.
- Strawson, Galen. The Secret Connexion: Causation, Realism,

- and David Hume. Oxford: Clarendon, 1989.
- Strawson, Peter F. The Bounds of Sense. London: Methuen, 1966.
- . "Imagination and Perception." In Kant on Pure Reason. Ed. Ralph C. S. Walker. 82-99.
- Stroud, Barry. The Significance of Philosophical Skepticism. Oxford: Clarendon, 1984.
- Taylor, Harold. "Hume's Theory of Imagination." University of Toronto Quarterly. 12(1943): 180-190.
- Tomberlin, James E. Ed. Hector-Neri Castañeda. Dordrecht: D. Reidel, 1986.
- Turvey, M. T. "Contrasting Orientations to the Processing of Visual Information" Psychological Review 84(1977): 67-89.
- Von Wright, J. M. "On Selection in Immediate Visual Memory." Acta Psychologica 33(1970): 280-292.
- . "Selection in Visual Immediate Memory." Quarterly Journal of Experimental Psychology 20(1968): 62-68.
- Wadsworth, David Milton. "Critical Reflections on Hume's Treatment of the Imagination." Ph. D. Diss. Boston U, 1980.
- Walk, R. D. and Gibson, E. J. "A Comparative and Analytical Study of Visual Depth Perception." Psychological Monograph. No. 75, 1961.
- Walker, Ralph C. S. Ed. Kant on Pure Reason. Oxford: Oxford UP, 1982.
- Warnock, Mary. Imagination. Berkeley: U of California P,

1976.

Wellek, Rene. Immanuel Kant in England 1793-1838.

Princeton: Princeton UP, 1931.

Wilbanks, Jan. Hume's Theory of Imagination. The Hague:

Martinus Nijhoff, 1968.

Winkelmann, Elisabeth. Coleridge und die kantische

Philosophie: erste Einwirkungen des deutschen

Idealismus in England. Leipzig: Mayer & Muller,

1933.

Young, J. Michael. "Kant's View of Imagination."

Kant-Studien 79(1988): 140-164.

Curriculum Vitae

Personal Information

Name: Soraj Hongladarom

Address:

Home:

695 Ladprao 11, Bangkok 10900, Thailand

Office:

Department of Philosophy, Faculty of Arts,
Chulalongkorn University, Phayathai Road,
Bangkok 10500, Thailand

Birthdate: February 15, 1962

Marital Status: Married to Krisadawan Metavikul

Educational Background

1991: Ph.D. (philosophy) Indiana University

1987: M.A. (philosophy) Indiana University

1983: B.A. First Class Honors (English) Chulalongkorn
University

Area of Specialization

Kant, Epistemology

Area of Competence

Metaphysics, Greek philosophy, Early modern
philosophy, aesthetics

Major Awards

1985: Chulalongkorn University Scholarship for Higher
Degree