

A CRITICAL ANALYSIS OF KANT'S DISCURSIVITY PRINCIPLE

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ABSTRACT

A CRITICAL ANALYSIS OF KANT'S DISCURSIVITY PRINCIPLE

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This thesis takes issue with the charge leveled against Kant, that the discursivity principle, which states knowledge of objects requires intuitions as well as concepts, remains unargued for in Kant's *Critique of Pure Reason*, and therefore is an ungrounded presupposition underlying Kant's Transcendental Idealism. I argue that Kant in the Introduction to the *Critique* Kant provides sufficient tools from which an argument for this principle can be reconstructed. Kant's critique of metaphysics is taken as the first step of this argument which proceeds with an analysis of the conditions of synthetic judgments, a priori and a posteriori. This argument rests on comparing the form of thought, whose properties are investigated by the science of General Logic, with the form of knowledge, which Kant finds is displayed by synthetic judgments. The initial critique of metaphysics in the Introduction is, therefore, at the same time a critique of the science of General Logic, and the results of this critique are normatively binding as it reveals the presuppositions which are required to make synthetic judgments. As the structure of synthetic judgments is

shown to include a formal given component, it is also revealed that knowledge requires intuitions as well as concepts.

Keywords: Kant, knowledge, discursivity, intuition, synthesis

ÖZ

KANT'IN DİSKÜRSİFLİK İLKESİNİN ELEŞTİREL BİR ANALİZİ

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Bu tez Kant'a yöneltilen, nesnelere bilgisinin kavramların yanı sıra görüye gereksinim duyduğunu belirten diskürsiflik ilkesi için *Saf Aklın Eleştirisi*'nde bir argüman vermediği, dolayısıyla bu ilkenin Kant'ın Transandantal Idealizmi'nin temelinde yatan temellendirilmemiş bir varsayım olduğu, eleştirisini dert edinir. Bu tezde Kant'ın *Saf Aklın Eleştirisi* eserinin "Giriş Bölümü"nde bu ilkeyi temellendirecek bir argüman oluşturmak için gerekli araçları sağladığı iddia edilmektedir. Kant'ın metafizik bilimi eleştirisi bu argümanın ilk basamağını oluşturur ve argüman sentetik a priori ve a posteriori yargıların olasılık koşullarının analizi ile devam eder. Argüman Genel Mantık Bilimi'nin özelliklerini incelediği düşüncenin formu ile sentetik yargıların sergilenen bilginin formunun bir karşılaştırmasıdır. Kant'ın "Giriş Bölümü"ndeki ilk metafizik eleştirisi aynı zamanda Genel Mantık Bilimi'nin de bir eleştirisi ve bu eleştirinin sonuçları, sentetik yargının olasılık koşullarını ortaya çıkardığından normatif olarak da bağlayıcıdır. Sentetik yargıların yapısında verili formal bir ögenin bulunduğu

gösterilmesiyle, bilginin kavramların yanı sıra görüye de ihtiyacı olduğu ortaya konmaktadır.

Anahtar Kelimeler: Kant, bilgi, diskürsiflik, görü, sentez

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CHAPTER 1

INTRODUCTION

“There can be no doubt that all our knowledge begins with experience,” says Kant, and continues at the beginning of the next paragraph, “But though all our knowledge begins with experience, it does not follow that it all arises out of experience.” (B1)¹ With these initial words Kant begins his analysis of the notion of knowledge, announcing his commitment to the notion that reason is, insofar as its own possessions go, sovereign. However, this sovereignty demands that pure reason must show itself to be necessarily the source of a priori possessions, delimiting, along the way, how and why it possesses such sources, and what its possessions are that can be derived from these sources. The peculiarity of Kant’s endeavor is, therefore, that it first proves pure reason to be necessarily a source of a priori representations. Kant’s analysis takes the form of the analysis of the notion of knowledge in general, which, then, continues as an investigation into the possibility of a priori knowledge, and the link between a priori knowledge, and empirical knowledge of objects, which is experience. Through this analysis Kant shows that pure reason as a source is composed of a variety of faculties, which constitute the knowledge of objects through representations. Mere representations, empirically received data of the senses, cannot constitute knowledge without a formal structure in which these representations are ordered, and through which they are referred to an object of which they are representations. This formal component, according to Kant, cannot arise from experience, but must be contributed a priori by the mind, so that our empirical representations can constitute knowledge of objects. The mind, then, for Kant, is a composition of mental faculties which can be shown to contribute

¹ References to the Critique of Pure Reason are to the A and B pagination of the first and second editions. I follow the Palgrave Macmillan translation. For the other texts, I follow the *Cambridge* translations for these texts. References to these are to the volume and page of the *Gesammelte Schriften* (Kant, 1900).

certain necessary components through which we know objects through our representations.

Kant's *Critique of Pure Reason* which endeavors to limit, as well as assign what necessarily lies within pure reason, is an investigation to show how pure reason can be conceived as a source of a priori, formal representations, as well as what these representations are, and their function. The inquiry is guided by the question of the possibility of knowledge. According to Kant, human knowers, who are discursive intellects, who think using concepts, also require, for the knowledge of objects, a type of representation which Kant names intuitions. Sensibility, the faculty to be affected by an object, and to receive empirical raw data, yields intuitions; but intuition differs from mere sense data in that it contains in its constitution a formal representation through which sensibility may yield representations that are related to the object of knowledge. Mere sense data cannot accomplish this relation to the object, and it is precisely this novel conception of received data which distinguishes Kant from his empiricist and rationalist predecessors. The empiricist, in the extreme case, would hold that empirical representation in the mind is immediately related to the object, but that this is merely a subjective object, rather than an objective object, object in the stronger sense of its independent existence from an individual mind. The rationalist, to the contrary, would hold that the world, having an objective order displaying the form of a rational intellect in God's mind, allows discovery of its form and of relations between things by the limited capacities of the human intellect. Merely by thinking human knowers can acquire objective knowledge about the true states of affairs of the world and its inner constitution. Kant objects at a number of points. Neither are mere sense data object related representations, nor, however, is merely intuition sufficient for knowledge, despite being object related; nor still, is mere thought, in the absence of intuitions, capable of yielding knowledge of objects. Knowledge requires intuitions as well as concepts. Following from this limitation, which is generally named Kant's discursivity thesis or discursivity principle, Kant develops his Transcendental Idealism which holds that the human mind provides the elements which are necessary for the constitution of knowledge of objects in an a priori fashion.

Kant's Transcendental Idealism is essentially connected to Critical Philosophy, which is an investigation into the limits of pure reason, which is to say, it investigates what may be known by pure reason alone. Critical Philosophy is "a science of the mere examination of pure reason, of its sources and limits, as the propaedeutic to the system of pure reason."(A11/B25) For Kant, the accomplishment of a critique is merely negative in its outcomes in that it provides a clarification of pure reason, and thus keeps reason from error (A11/B25) To my understanding, this accomplishment is at the same time a secure grounding of knowledge from pure reason. Critical Philosophy determines the constitution of the cognitive subject, by delineating its cognitive faculties under the guidance of the analysis of the notion of knowledge of objects. In determining these faculties, critical philosophy also derives from these faculties their a priori possessions (the representations of which they are sources), and finally obtains the principles or rules for correctly thinking what constitute objects for us. A properly grounded and completed Transcendental Idealism would show the human mind as contributing necessary elements to knowledge, and derive principles for knowledge from these components. A critique of pure reason is designed to provide the argument assigning necessary formal features for representing objects to pure reason, or the human intellect itself.

Kant's Transcendental Idealism consists in the doctrine that space and time, i.e. the a priori forms, in which data received by the senses are organized in certain relations, and ultimately known through concepts. Kant conceives space and time as forms of the capacity of this receptivity, rather than as realities in their own right or as relations between things which have an existence that is independent of these sensible conditions.² While transcendental idealism is a somewhat controversial thesis in its own right, and not without merit, for the purpose of introducing my thesis in this work, first I wish to focus on what I see as two interrelated features of the interpretation of this idealism.

The first feature concerns the nature of Kant's idealism, and rests on how one understands Kant's claim that since forms of space and time are sensible

² I will discuss this thesis in more detail in Chapter II.

conditions of knowledge, things independent from these conditions cannot be known. The two most prevalent readings of Kant's idealism, in their general outline are the realist and the normative-epistemological readings. On the realist reading, things in themselves are granted existence but knowledge of their true nature is denied, while knowledge of them is limited to their appearances to the mind which is triggered by their affecting our mental faculties. Contrasted to this is a normative-epistemological reading, which argues that transcendental idealism (as anthropocentric viewpoint against a god's eye point of view) is a meta-philosophical position concerned with the conditions that must be thought as the basis of human knowledge, without making any ontological claim regarding things. All claims for transcendental ideality are to be thought as principles under which human knowers must think themselves (and their cognitive activity) as capable of representing objects for themselves, on the basis of which knowledge for human cognition is possible. The concept of a thing independent of conditions of objectivity is not knowable because of methodological reasons – since it does not satisfy the conditions of objectivity. I wish to stress that I will be committed to this latter reading, on the basis both of Henry Allison's compelling case for it in his book *Kant's Transcendental Idealism*, and also since this reading allows us to resolve certain difficulties regarding the thing-in-itself.³

Secondly, Transcendental Idealism must be considered in relation to the specific problem it is utilized to resolve, that is, the possibility of the objective reality of mathematical synthetic a priori knowledge. And this problem is essentially connected to Kant's overall project of the possibility of synthetic a priori judgment, the possibility of metaphysics as a science and the vindication of the authority of reason in human cognition. For one thing, since transcendental idealism is essential to the solution of the normative question of the need for reason to justify its claims

³ I should note here that the notion of thing in itself is not dismissed by Kant, but that Kant maintains this concept as a ground for the limiting concept of noumenon in the negative sense, i.e. the problematic concept of an object which cannot be an object of knowledge for us in theoretical science, and which limits the use of principles of experience to appearances (understanding limiting itself) (A256/B312), while also limiting the application of empirical concepts to appearances (understanding limiting sensibility) (A254/B310). Furthermore, Kant will also have something positive to say with regard to thing in themselves from the practical viewpoint.

to knowledge, it already acquires a normative sense. More importantly, on the other hand, it offers a solution to a problem Kant introduces with the principle, which is commonly argued to be based on an assumption on Kant's part, that there are two sources of knowledge, sensibility and the understanding, and two essential components, intuitions and concepts, arising from the two sources respectively, and which cannot be reduced to one another.⁴ Kant appeals to the special science of General Logic in grounding the elements of knowledge arising from the understanding. However, the special, and in a sense newly invented science of Transcendental Aesthetic, which tries to establish the principles of a priori knowledge arising from sensibility, has its justification in the transcendently ideal nature of the forms of intuition.⁵ Perhaps the use of concepts and the requirement of sense data to know about the world may be considered unsurprising. However, the notion of intuition, although perhaps not a novel one in philosophy, seems to acquire a peculiar meaning in Kant's use of it as what Allison calls an epistemic condition for human cognizers, a condition of possibility, together with concepts, for the representation of anything as an object of knowledge.

The notion of intuition is closely linked to Kant's idea that insofar as an object is to be known, this object must be given. This condition is necessary for human as well as a possible divine cognition, however with the crucial difference that while the object must be given to the human knower, the divine knower gives it to itself by creating it.⁶ Still, however, these notions are far from identical, and, I would suggest, herein lies the significance of Kant's notion of intuition. While givenness provides the material condition that something be given to cognition, the role intuition plays in knowledge of objects is also formal, rather than merely material. This formal nature of intuition can be seen in Kant's introduction of the

⁴ See for example Baur, 1999, p. 70-71; Allison, 2004, p. 13; Thielke, 2001, p. 108-109.

⁵ Kant completes the transcendental exposition of the forms of intuition with the statement that they must be forms of sensibility. This, Kant says, is the condition for the forms of intuition to be sources of a priori knowledge. These forms must be not merely sources for us but also necessarily objective. A priori knowledge through these forms must be objective.

⁶ Allison, 2004, p. 13.

term in opposition to concepts and thought through its characterization as an immediate relation to the object; in other words it is contrasted to concepts not as matter is to form, but as one form is distinct from another which displays unique characteristics.⁷ It is precisely on this form of intuition that Kant's argument for the transcendental ideality of space and time rests, from which Kant then proceeds to argue for further concepts that stress diverse roles and statuses for this form in cognition, such as the forms of intuition, form of appearances, pure intuitions and finally form of sensibility. For, with the *discovery* of the form of intuition as a necessary condition for representing objects, Kant acquires a tool which allows for conceiving of space and time in a new manner.⁸

With this point, I am now in a position to introduce my thesis, namely, that for a discursive intellect, the principle that intuitions and concepts are necessary conditions of knowledge is not, as it is commonly taken, an assumption which Kant does not provide an argument for. In this common view, Kant begins from a premise which is not established through an argument, but presupposed, and from this premise, Kant then goes on to derive conclusions which constitute much of the *Critique of Pure Reason*. I will rather argue for the claim that this principle, the discursivity principle for short, is in fact discovered through the discovery of the form of intuition. To my mind, in the "Introduction" to the *Critique of Pure Reason* Kant makes the case for the presence of a lacuna within the concept of knowledge as it has been employed by dogmatic rationalist metaphysics, which also extends to the metaphysician's conception of mathematical knowledge. Kant's awakening from his dogmatic slumber may also be thought in this sense, with the discovery of the

⁷ See for example, A19/B33, A320/B376-377, 9:91

⁸ I wish to stress here that I do not use the term discovery to mean that Kant uncovers some innate representation that lay hidden in the mind. However, this should not mean that Kant does not bring anything new to light regarding the nature of the representations of space and time. Nor should we rule out the notion that Kant lays bare some features of these representations which remained hidden. The crucial point I wish to note is that Kant contributes to the rationalist position's conception of space and time certain normative principles which should guide this conception. And this contribution proceeds by laying bare the presuppositions of dogmatic metaphysics regarding these representations. It is crucial, therefore, to note that Kant's discovery be taken in the normative sense. In our thinking about the capacity for sensibility, the representations presented to the mind through sensibility and the nature of our representations of space and time, we are bound, Kant tells us, with principles which have not been heretofore taken into consideration.

concept of synthetic a priori judgment, and hence the concept of synthesis, which plays, as I will argue, an essential role in the discovery of the concept of intuitive form. It may be argued that the notion of intuition has its ground in his pre-critical writings and that Kant's discovery of this notion must be considered in its historical dimension. I have no objection to such a suggestion; however, the point in question is not the historical dimension of Kant's discovery, but its place in the very argument of the critique of pure reason. And this place is to be found nowhere but as it is presented in the "Introduction".

To make the argument clearer, I would like to compare it to Allison's exposition of Kant's discursivity thesis, the thesis that human knowledge requires sensible intuition and concepts. According to Allison, Kant's argument begins with the presupposition that for the knowledge of an object the object must be given in intuition, which, for human cognition is only possible insofar as it is sensible, and not non-sensible or intellectual, in which case the object is generated by the knower. For the establishment of the thesis, a further premise is required, which states that sensible intuition does not suffice for cognition, but requires that the object given in intuition be thought under concepts as well. Hence sensibility, a receptive capacity, provides the data which will be ordered and thought by the understanding, the spontaneous capacity for thought. Allison then continues to underline two more premises which establish the discursivity thesis as well as Kant's brand of idealism, that is, transcendental idealism: that the data presented to thought must be orderable, that is, prepared for ordering; and that this orderability is a contribution by the mind. Allison offers two arguments against the denial of these two premises. On the one hand, if the things presented to the mind contain the forms of their orderability in themselves, then a genuine spontaneity of understanding would not be possible, since the latter would not function as a necessary condition of representing objects, but would be related to representations through which the object is already presented to the mind. On the other hand, if orderability is dispensed with, and mere raw sense data claimed to be presented to the understanding for the latter's ordering activity, the skeptical question necessarily arises whether mere ordering of subjective presentations of sensibility by the understanding could ever get hold of the object.

Therefore, the condition of orderability as a contribution of the mind necessarily follows from the discursivity thesis. (Allison, 2004, p. 13-16.)

The point in Allison's account which I wish to contest is the choice of starting point imputed to Kant's argument for the discursivity thesis and transcendental idealism, that intuition is distinguished from thought as the material element for cognition and the rather unexplained claim that human intuition is sensible on the basis of its limitedness. For one thing, the limitedness of human knowledge rests precisely on its spontaneity being discursive rather than intuitive in nature, that is, on its limitation to the use of concepts, which are representations whose form is universal. But, as Kant says in his *Logic*, the conception of understanding as spontaneity as opposed to the receptivity of sensibility belongs to metaphysics. (9:36) However, insofar as the possibility of metaphysics is in question, such an assumption cannot be made without further grounding. The claim that understanding is the faculty of thought, thinking using concepts, is, first and foremost, a thesis concerning the form of the representations through which thought operates. According to Kant, it is the responsibility of general logic to investigate the rules of thought conceived as thinking through concepts. (A50-55/B74-79, 9:11-13) However, Kant's conception of general logic seems to rest on, rather than ground the assumption that thought is thinking through concepts conceived as universal representations. Hence the original assumption with which Kant's argument is to begin, consists in the form of concepts with which thought operates. And it follows that the basis for distinguishing intuition from thought is that it has a form that cannot be reduced to that of concepts.

This outcome puts me in a rather awkward position because it expressly contradicts what Kant says right before he begins his analysis of sensibility. Kant tells us that,

By way of introduction or anticipation we need only say that there are two stems of human knowledge, namely, sensibility and understanding, which perhaps spring from a common, but to us unknown, root. Through the former, objects are given to us; through the later, they are thought. (A15-16/B29-30)

This claim is a somewhat midway between the logical distinction between the

sources of knowledge as yielding intuitions (sensibility) and concepts (understanding) which is based on the form of these representations, and the metaphysical distinction receptivity (sensibility) and spontaneity (understanding).⁹ However, the distinction is still essentially a distinction between the thought of an object and the matter of thought, hence, introduces sensibility as the source of the material element necessary for thought. (9:36) It would seem, then, that Kant does in fact begin his analysis by distinguishing the material requirement for knowledge from the requirement for the ordered presentation of this material under rules (concepts). As such, the claim that the notion of intuition is introduced under logical guidance and as to the form of the representation is against the way in which Kant's text proceeds.

I would like to contest this outcome. Firstly, Kant does not here identify sensibility as the source of intuitions through which the object is given, but merely as the source of knowledge through which the objects are given. Secondly, Kant next specifies the science of sensibility (insofar as such a science is to be possible) as concerning the "*a priori* representations constituting the condition under which objects are given to us." (A15/B29) In anticipation of what Kant will say in defining sensibility and the notion of intuition connected to it, the mere material of empirical intuition, sensation, which is received by sensibility, does not constitute empirical intuition, but intuition is possible only insofar as this material element is combined in sensibility by the formal element. This formal element is what constitutes empirical intuition as an intuition, contributing the form of intuition to the material which is given in sensibility. Hence, the material which is given and the condition in which an object is given are here far from identified. It is the condition through which sensation becomes intuition, through which the object is first given. Finally, I would like to point out that for the most part Kant refrains from using the term "given in intuition" in his discussions of the possibility of synthetic judgments as resting on the concepts being combined with reference to an intuition. And where

⁹ Kant makes these distinctions in *Logic*, 9:36, without giving explanations of why he calls them thus. To my mind, the logical distinction is so called, because it arises from intuitions taken as particulars in opposition to the universal form of concepts. (9:91) The metaphysical distinction is so called because it rests on a comparison with the spontaneity that may be said to belong to God. This latter is my interpretation. I discuss these issues related to the formulations of the discursivity principle in the final chapter.

Kant uses the term ‘given’ in B15-16, he is in fact describing an activity of synthesis in intuition through which a number is constructed, that is, an activity which cannot be accomplished when considering the concept of a number merely as a concept (hence as subject to rules with respect to the concept as to its logical form). The concept of number must be taken as a rule for constructing a determinate number by the addition of homogeneous units in intuition. Each finger or bead, with which counting of a number is accomplished, corresponds to the a priori intuition of a unit, but not to an intuition of these very same things with respect to their empirical material properties. While homogeneous units may be considered as the material from which numbers are constructed, what is required for synthesis is primarily the possibility of a relation between these material elements which are unencumbered by the logical form. The most crucial difference between number concepts and concepts in general lies in the relation of the constituent parts to the whole concept. Each mark of a whole concept is itself a concept under which the whole concept falls as an object. In number, however, this formal co-determination between part and whole is lacking. Thus, the determination of the content of number rests not merely on matter (units) but a form in which these units stand together to form a whole that is different from the determination of concepts as universal representations.^{10 11}

Hence, we cannot conclude that Kant introduces intuitions as material for thought, but to the contrary there is a strong suggestion that the discovery of intuition consists in its introduction as a formal element.

Kant’s critique of dogmatic metaphysics is at the same time the argument for the discovery of synthetic judgments. Kant’s conclusion is that metaphysics contains certain assertions which claim to extend knowledge of objects (which cannot be met with in any experience) but lacks the means to ground these claims due to its

¹⁰ In a preliminary investigation of mathematical propositions this formal requirement may be distinguished completely from the rules of thought in general. But the proceeding argument will show that thought, as spontaneity, governs activity, and the form of intuition, with respect to its unity, is in fact determined by productive imagination.

¹¹ For an alternative manner of explaining the dependence of Kant’s conception of arithmetic and number on the form of intuition, and particularly time, see Parsons, 1969, p. 64-69. According to Parsons time displays the form essential to a number series – an ordered series with successor relation between each term.

analytic method. Since analysis rests on the rules, given by general logic, according to which the understanding operates, and concerns itself with the form of thought only, treating a concept as to its matter through analysis can only allow us to make distinct this matter insofar as this matter is formally organized in this concept.¹² Or shortly, in Kant's words, we can only make clearer (appealing to logical rules) what is already thought in the concept. To extend knowledge is to add new content to the concept, and thus concerns the material for thought. However, the question regarding the content of concepts is formulated not in terms of the ordering of material of concepts, but the formation of a new concept by combining one concept with another which is not already contained in it according to logical rules. What this states regarding matter or content of concepts is merely that we must combine two concepts (which will still take place in the logical form of judgment) with an appeal to something other than the formal properties of thought. This, however, means we must concern ourselves with the ground of the matter of concepts, which also means that the combination must rest not merely on the formal rules of thought but also on the object (in some or other manner of dependence). This, however, brings us to a difference between knowledge from merely concepts as such (as to their form) and knowledge of objects by considering concepts as concepts of objects (as to how their matter is constituted as well).¹³ Hence, the question of how knowledge is extended is in point of fact the question of how genuine knowledge is possible, precisely because it requires justification by reference to the object. However, in Kant's hands the question of the possibility of knowledge does not yield the result that material for ordering by thought is required for genuine knowledge, but that a special type of judgment gives us the form of genuine

¹² Note that the logical analysis of the form of thought begins by distinguishing concepts from intuitions as regards their form, which is that they are universal representations. This is precisely the manner in which the necessary abstraction for the consideration of the form of thought is accomplished for the investigation of general logic as a reflection of the activity of thinking using rules. For Kant, concepts are rules for judging, but they are so because they represent marks common to more than one representation, that is, they are universal representations. Still, however, the form of a concept is always the form in which the matter is organized. Hence, its form is never thought in total isolation of matter, but only considered in its own determination, regardless of the grounds through which the matter of concepts may be determined.

¹³ 9:12

knowledge. The matter of thought is taken in terms of the relation of concepts combined in judgments and not as matter for ordering by thought. It is thus through a formal difference between judgments which is determined by concepts that are utilized by general logic that Kant thematizes the issue of the matter of concepts, hence knowledge of objects.

The discovering of intuition, as I will argue, rests on the prior discovery of the notion of an unspecified synthesis, this in its turn rests on the peculiar characteristics of the claims of metaphysics. Two crucial and interrelated aspects of these discoveries should be noted. Firstly, what I here term discovery is to be understood as uncovering of a necessary presupposition whose concept can then on be used to understand the cognitive activities in question. Secondly, as I have tried to indicate and here stress again, these necessary presuppositions concern the formal structure of knowledge, and through these Kant has introduced the material condition of knowledge in formal terms. Thus, the first principle from which Kant then goes on to argue should be taken to be strictly formal: The knowledge of objects requires concepts and intuitions (or, more precisely as per the theses here defended, form of intuition). It seems to me possible to go even so far and suggest that the distinction between thought of an object and the object as given in some material to be thought can be derived from the formal principle that states the difference between these two conditions.

The claim that Kant formulates the necessity of the material element of knowledge cloaked in terms of general logic and by indicating a formal prerequisite for the possibility of thought ever being directed to an object, does not constitute a claim for the transcendental idealism of the form of intuition. If the case with the synthetic a priori claims of metaphysics is a possibility, the necessary synthetic claims of mathematics are actual, which would mean that intuition is actually necessary. But from this necessity of the form of intuition for knowledge of objects, it follows neither that this form is the form of sensibility, nor that it is in any other way contributed only by the mind. At best, what it implies would be, this form is necessary for *us*, here *us* being discursive cognizers, and the ideality of the form of intuition as a contribution of the mind must still be argued for.

But the purpose of my claim is not this, after all. I wish to show that the logical principle of distinguishing sensibility from understanding on the basis of the distinction between intuitions and concepts can be shown to precede the principle of distinguishing these two sources of knowledge on the basis of how they contribute to knowledge, by thinking the object or by giving the object. The definition of sensibility as receptivity follows from these two principles. It is thus that metaphysics is grounded in general logic, but also that it is introduced as a transcendental critique, the a priori conditions of possibility of knowing objects by a discursive intellect. General logic at once finds a place in the foundation of metaphysics, but is at the same time shown its precise limitations.

I believe that this construal of the order of progression of the argument for distinguishing the contributions of sensibility and understanding reflects best the formal tenor of Kant's argument in general. And it is in line with the steps in Kant's argument and thus not merely with the spirit but also with the text itself. Even the original distinction between a priori and a posteriori knowledge itself rests more on the formal nature of knowledge (absolute universality and necessity versus contingency) than whether the cognitive subject has recourse to sensible data in providing evidence when reaching a particular conclusion. The a priori is formal and the formal is necessary. And Kant's trust in the formal arises from nowhere but General Logic. It is on this basis that reason can have any necessary authority on our cognitive endeavors, but this basis, which Kant's conception of General Logic provides, is also the point which is open to dangerous criticism, due to Kant's own conception of the science of logic.¹⁴

In what follows I will analyze Kant's argument for the introduction of the concept of intuition in the "Introduction" of the *Critique of Pure Reason* in more detail. The second chapter will be concerned with the nature of Transcendental Idealism, and introduce the key terms of Kant's analysis. The third chapter will present an overview of the core Kantian arguments first in the "Transcendental Aesthetics", and second to a certain extent in the "Transcendental Analytic". The

¹⁴ For a short discussion of problem's connected to the science of logic as Kant conceives it, see Longuenesse, 1998, p.73-79. For a detailed discussion on the distinction between synthetic and analytic judgments, see Gramm, 1980.

fourth chapter will argue that Kant's conception of the mind, as with all his key concepts rests on the presupposition of a discursive capacity of the mind, that is, Kant's commitment to an absolute distinction between matter and form. In the text, Kant does not provide a positive argument for this assumption, which Kant shares with the rationalist, and in which Kant's conception of mind diverges from that of the empiricist. Insofar as Kant's commitment to the view that human intellect is discursive is a presupposition, it would present a gap in Kant's argument in the *Critique* as it would demand, according to Kant's strict standards, a rational grounding. I will offer Kant my humble assistance on this point by showing that the empiricist conception cannot fulfill its promise to explain certain features of mental functioning, and must therefore be abandoned, in favor of the rationalist discursive model. For this purpose, I will try to argue against the empiricist view by an analysis of Hume's conception of mind, which reduces all formal elements in cognitive activity to the material. While Kant utilizes tools derived from Hume's critique of metaphysics, particularly the question of the necessary connection of ideas, Kant's own model of mental functioning is radically different in that he is committed to a discursive intellect rather than a perceptive model of cognition. This chapter intends to provide support for Kant's objections against the empiricist position, against which, I believe, Kant himself does not offer sufficient criticism, especially in order to ground why he commits to the rationalist model of mind. In addition, the Humean conception of mind will allow me to clarify, in the next chapter, the nature of mathematical judgments, and the synthesis which serves as their guide. Kant's conception of the mathematical synthesis which grounds arithmetical judgment cannot be identified with Humean association, and also the Humean ground for mathematical certainty. The fifth chapter will rest on the conclusion of the previous, that Hume's project of basing form on matter ultimately fails, and the form of concepts as universal representations is necessary for abstraction. It is precisely on this presupposition, that the human intellect is discursive, and thinks using concepts, that Kant's critique of metaphysics rests. That is, Kant's critique of metaphysics is, first and foremost, an inquiry into the limitations of the faculty of understanding in accomplishing the tasks the rationalist metaphysician demands of it. I will try to show that Kant's conception of this limitation exposes the inability of the form of

thought merely conceived as logical form to constitute the form required by knowledge of objects, which will also highlight the formal manner in which Kant conceives of the nature of the failure of metaphysics. An as yet to be determined concept of a synthesis in general will be shown to be a necessary presupposition of a special type of judgment, that is, synthetic judgments in general. I will then attempt a clarification of the notion of synthesis that is implicitly operating in the accounts Kant gives of empirical judgments and mathematical judgments and indicate that we are in fact asked to observe the form of a distinct cognitive activity. The description of this formal activity shows in what manner it differs from thinking, or judging using concepts. It will be argued that this description constitutes a preamble to the arguments for the metaphysical expositions in the “Transcendental Aesthetic”. Treating empirical and mathematical judgments together as to what they share in common and differ in will determine further what constitute the formal and material aspects of intuition.

CHAPTER 2

KANT'S TRANSCENDENTAL IDEALISM

2.1 Introduction

Kant presents his project in the *Critique of Pure Reason* as an endeavor to raise to its proper and deserved place the science of Metaphysics which has fallen into disrepute due to contradictory outcomes in the field and also due to rival arguments claiming the impossibility of metaphysical claims. Metaphysics, for Kant, has been, and is, the “Queen of all the sciences” (Aviii). And this title is not in vain, for the need for a science of metaphysics springs from the nature of reason itself, which poses to itself questions about certain kinds of entities which may never be given in any experience. (Avii; B21)

The stress on the status of metaphysics as a science is essential. While Kant defines science as a systematic unity of a body of knowledge, and assigns this unity to an idea of reason, this definition comes at the close of the whole endeavor of the *Critique* and concerns mainly the *form* of a science. The problem at the outset, and which compels Kant to the task of a critique of pure reason, however, concerns the body of knowledge, which constitutes the *content* of a science. With metaphysics, this content is a field of contest, yielding no secure or certain results. Hence, the need for pure reason to undertake the task of self-knowledge in order to “assure reason its lawful claims, and dismiss all groundless pretensions ... in accordance with its own eternal and unalterable laws” (Axi-xii). The particular significance of establishing the secure criteria for judging whether claims made on the authority of reason are lawful or groundless, which Kant calls a tribunal, arises, in this context, from the peculiar position of the nature of metaphysics. For, this is a science that arises from reason itself, asking to itself questions concerning entities which cannot

be met with in any experience, and hence which questions must be answered by pure reason alone, without consulting experiential evidence. The disrepute into which the results of metaphysics has confined the latter is, however, a danger to all sciences which base their claims on the legislation of reason, for how can pure reason which fails to ground its own claims, which falls into internal contradictions in a science of its own nature, provide the ground for science in general?

This last claim is explicitly stated by Kant when he suggests that insofar as pure reason is not in a position to supply the solution of metaphysical problems through its principles these must be rejected, since “we should then no longer be able to place implicit reliance upon it [the principle]...” (Aviii) While it may be objected that Kant himself follows in the opposite direction when he begins from actual sciences in order to answer the question of the possibility of metaphysics, it is clear that this constitutes no objection at all, firstly because it is not metaphysics as it is problematized at the outset that is to ground sciences, which task belongs to pure reason itself, and also secondly, when Kant’s method of questioning is taken in account. Regarding the second point, it should be noted that Kant’s aim is to answer the question “*how* they [sciences that actually exist] are possible; for that they must be possible is proved by the fact that they exist” (B21-22). It is Kant’s contention, as is expressed in the heading to Section V of the introduction that “IN ALL THEORETICAL SCIENCES OF REASON SYNTHETIC JUDGMENTS ARE CONTAINED AS PRINCIPLES” (B14). Kant’s project can, then, be presented as the endeavor to ground the possibility of sciences as bodies of knowledge in pure reason by showing that the principles which govern over these bodies of knowledge are themselves grounded in pure reason.

At this point, I would like to return back to the apt and rich metaphor of the tribunal for it evokes only so easily several of the points that I would like to introduce here. Firstly, this tribunal is set up by reason as a project of its own self-justification, for the very reason of showing that reason itself is a factor in objective sciences (Bix). According to Kant, knowledge can be acquired from two sources, a posteriori from experience, or from pure reason alone, which is a priori. Experience teaches only contingent things; whereas, a priori knowledge, independent of contingent facts, is necessary. (B3) Insofar as reason is to be a factor in objective

sciences, therefore, it is necessary that there be a priori possessions of reason, these elements be completely and exhaustively enumerated, and these possessions and no element from any other sources (such as the things themselves or an infinitely rational God) provide the material from which the principles can be derived. As such the sources and extent of a priori knowledge will be determined by pure reason alone, and for reason, since these principles will be binding for all human rational agents.

Secondly, as already indicated, reason will provide of itself the criteria with which to determine whether its knowledge claims are lawful or groundless. These criteria are contained in the principles which make possible theoretical sciences as objective modes of knowledge. Self-grounding and securing the possessions of reason will, therefore, supply objective sciences with the principles in accordance with which these may claim to provide knowledge of their objects. Once reason is its own judge, therefore, it may be the judge of all sciences; and conversely, to judge over all sciences reason requires a science for itself, that of the critique of pure reason, which will deliver to it its own eternal and unalterable laws.

Thirdly, and I believe most importantly, the image of a tribunal with the laws it employs in passing judgment over claims of certainty or legitimacy, is clearly evocative of the basic activity of a rational being which is, for Kant, the activity of judging. According to Kant thinking is judging using concepts, predicating a concept to another or applying a concept (a rule for judging) to an object. The crucial thing to note is that Kant's project begins with the problematization of dogmatic metaphysics and the state it is in. This critique amounts to the complaint that dogmatic metaphysics purports to produce objective knowledge by judgments, but is ultimately limited to merely an analysis of concepts, predicating concepts to concepts, or applying rules upon rules, hence remaining enclosed in thought and isolated from the object. Kant then goes on to the positive result from this critique, and introduces a novel type of judgment on the basis of the relation between the subject and the predicate. However, the very terms in which metaphysics is problematized implies that Kant is committed to a discursive model of the intellect rather than what Hume characterizes as the sensitive mode of activity of reasoning

which would display a perceptive-associative functioning of thought. (Hume, 1969, p. 234)

Kant makes basically this point, withholding the criticism directed at dogmatic metaphysics, when he allocates the science of logic to its righteous place with the following words:

But, for reason to enter on the sure path of science is, of course, much more difficult, since it has to deal not with itself alone but also with objects. Logic, therefore, as a propaedeutic, forms, as it were, the vestibule of the sciences; and when we are concerned with specific modes of knowledge, while logic is indeed presupposed in any critical estimate of them, yet for the actual acquiring of them we have to look to the sciences properly and objectively so called. (Bix)

Sciences concern knowledge of objects, whereas logic has as its object reason itself and the activity of thinking. It is thus that reason comes to knowledge of the rules of its own activity and can judge whether a body of knowledge does follow its own rules or deviates from the rules of thought.¹⁵ Since science contains a body of knowledge, and also since all knowledge involves the activity of thinking, logic provides a much needed service in securing certainty of conclusions from given knowledge. This, however, by itself, cannot give knowledge of objects or show us in what manner the rules of thought determine the objects of which this given mode of knowledge is about.

The problem with metaphysics, in its dogmatic variety, is that it disregards this limitation of logic and the method it prescribes, the analysis of concepts on the basis of the logical form of concepts, and purports to produce objective knowledge, in a field where the objects are impossible to be given in experience. The positive lesson to be drawn from this critique is that a discursive intellect requires something other than concepts for its knowledge of objects. Hence, analysis alone, which is expressed in analytic judgments, is not sufficient for the connection of knowledge to

¹⁵ The notion of error is explained in an indirect manner, for, insofar as something is thought it cannot but be thought through the activity of thinking which, in thinking, operates according to these rules. If it did not proceed in accord with these rules, it would not constitute thought at all. However, error is a conclusion which is thought to follow from premises according to the rules of thought, but which, since in fact rules from another source of knowledge, sensibility, is mistaken for rules arising from thought, in truth does not follow from these premises. Error arises from illusion, mistaking rules arising from another source than understanding as those belonging to the latter.

its object. This connection is possible only through synthetic judgments which predicate a concept to another on the basis of this third something: intuitions. Empirical judgments, involving no analysis of concepts and depending on empirical evidence (empirical intuitions) for the combination of concepts in a judgment are synthetic a posteriori judgments. Whereas, insofar as the issue is the possibility of metaphysics and of those actual modes of a priori knowledge, which are mathematical and natural sciences, and which contain a priori principles, the problem to be addressed becomes the possibility of synthetic a priori judgment.

Before entering into a clarification of the terms in which Kant re-formulates the main problem and going on to the details of his argument in the *Critique*, I would like to stress an important distinction made between the manner in which knowledge relates to the existence of its object. Insofar as a mode of knowledge determines the object¹⁶, merely, and must look to the senses for its actualization, it is termed theoretical. While that knowledge which determines and actualizes its object is practical. This latter mode of knowledge concerns the manner in which reason, as will, determines the principles or rules of actions, which latter the subject performs in accordance with these rules. This distinction is crucial for Kant for the reason of establishing the capacity of the rational being for morality. For, insofar as the rational being is considered as part of the phenomenal world, it is determined by the laws of this nature, which are the concern of theoretical knowledge. Were this the only manner of conceiving of human beings as rational agents, insofar as we are parts of the natural order and subject to its laws, then freedom and causality through freedom would be impossible. Natural laws would determine the subject in determining the rules of its actions. However, says Kant, although we may know ourselves only as part of nature, requiring for this intuitions received through the senses, and in this connection also are influenced by our inclinations or desires or emotions, we, as intelligent beings, can think ourselves as free. In such capacity it

¹⁶ Here I use the term “determination” in the loose sense that an object comes to be thought under certain rules through which the cognitive subject relates to it. A more particular sense of the term arises with Kant’s Copernican Revolution and the claim of Transcendental idealism which asserts that the conditions of the objective determination in representations, the condition for representing objects first arises from the cognitive subject, instead of objects having an existence independent of this subject whose knowledge must approximate whatever reality objects may have in their own existence.

may be possible for reason to determine the rules of its activity and hence have a different kind of causality on nature that is its own. It is perhaps in this capacity that reason may have something – this being essential to human beings – to say concerning things with which metaphysics is concerned, that is, things which may be thought but not given in any kind of experience.

This possibility is intrinsically connected with the possibility of a priori knowledge or pure reason in general, for whence would reason ever find the principles by means of which it could determine by itself principles in its practical employment, were it not in possession of principles that make a priori knowledge? The critique of pure reason is concerned to a large extent with expounding the conditions under which a priori knowledge is possible.

2.2 The Nature of Transcendental Idealism

Kant's Transcendental Idealism has been and still is a controversial and highly contested thesis. It is interesting that its earliest critics as well as supporters have objected to this model of idealism on the basis of a metaphysical understanding of things in themselves and the mind's affection thereby, assumptions projected upon Kant through a particular manner of reading Kant's argument. A series of problems have thus arisen that render Transcendental Idealism an incoherent thesis, such as the problem of an unwarranted extension of the category of causality to things in themselves, as it has been pointed out by Jacobi.¹⁷ Or that which takes Kant to be committed to an untenable notion of knowledge which holds that while we may never know how the very object of our knowledge really is, though we do hold that it exists in some manner in itself, we call knowledge of this very object what we can come to know through how it seems to us. Insofar as we can only have the semblance of knowledge due to distortion by the senses, this would by definition render inadequate the relation of what we hold to be knowledge that is possible for us and what we consider the proper object of our knowledge. Kant's conception of knowledge would, then, be internally contradictory, at once claiming that we can

¹⁷ For Jacobi's objection see Allison, 2004, p. 65.

have proper knowledge of objects but also that we cannot due to distortion by the senses.¹⁸ Even Fichte, a fervent adherent of the critical project, was compelled, in order to extract the project from what he saw as misdirected objections and Kant's own dogmatic assumptions, to reject Kant's notion of affection by a thing in itself, replacing it with his own idealism which finds a self positing itself as limited prior to its being limited by the thing through affection. (Hughes, 2007, 57); Fichte, 1982, p53-62) In any case the issue is whether one is content with Transcendental Idealism in the way and through the elements with which Kant presents it.

I find that Allison makes a well grounded case for Kant's Transcendental Idealism, and for this reason the present work will rely heavily on Allison's interpretation of Transcendental Idealism. In presenting his interpretation, Allison suggests that whether Transcendental Idealism holds as a coherent and significant philosophical thesis rests precisely on how one interprets the distinction between things in themselves and appearances. A prevalent feature of interpretations which dismiss Kant's Transcendental Idealism as incoherent hold, according to Allison, that the distinction between things in themselves and appearances rests on the notion that senses provide distorted images of things, and that since we have access to the thing merely through our representations, our knowledge is limited to the distorted image, rather than how things really are. This interpretation, suggests Allison, rests on a confluence of the empirical and transcendental distinctions between things in themselves and appearances.

The proper approach to Transcendental Idealism begins by interpreting Kant's thesis as an epistemic rather than a psychological or metaphysical thesis. A psychological thesis would investigate how we invest our representations of things with belief, whereas a metaphysical thesis would position the reality of things beyond our representations, holding that these former have an existence apart from how we represent them. The epistemic thesis is a claim to the effect that the conditions under which human knowers represent objects have their source in the mind, and the human knower can derive these principles through its spontaneity. The distinction between things in themselves and appearances rests on a manner of

¹⁸ This is Prichard's objection. See Allison, 2004, p. 6.

considering things with reference to the sensible conditions of human knowledge. This is a methodological distinction in two senses. Firstly, it provides the basis for a limiting concept for human knowledge, stating that a priori knowledge of things is not possible insofar as things under consideration rest on the concept of a merely intelligible object in general. Secondly, the principle informs us that in considering things insofar as appearances, we can ask a question of a priori knowledge coherently and that this question will yield positive results, precisely because space and time, which are forms of intuition, are forms of sensibility. The transcendently ideal nature of space and time, in their being the forms of sensibility, is the ground of our having a priori knowledge of appearances, but also the limitation of our a priori knowledge to appearances as well as the ground on the basis of which Kant claims that we cannot know things in themselves. The concept of thing in itself arises from a manner of considering things, from the understandings consideration of the object from its own resources, and independently of the conditions of sensibility. It is the concept of a thing in general, which does not denote an object or a world of objects, which exist and have a reality independent of our representations of them. This thing is not knowable, not due to the fallibility of our senses, but since the thing, considered as in itself, is a concept of a merely intelligible thing. But since the understanding is not a faculty of intuition, but concepts, furthermore, since it neither is sensible, nor spontaneously generates the object, intuition of a merely intelligible object is not possible for us.

It should be clear from the foregoing discussion that Allison's conception of Transcendental Idealism places this latter as essentially connected to the possibility of a priori knowledge. That is, the insights which a critique of pure reason yields, the a priori principles of the possibility of empirical knowledge, have, in their foundation, the Transcendental Idealism of space and time, which are also the forms of intuition, making possible our empirical intuition of objects. The limiting principle, which the critique derives from sensibility through the science of sensibility, and which distinguishes things in themselves from appearances, is methodological in the sense that it makes possible for us to determine the notion of the object of which we may have genuine a priori knowledge of objects. A priori knowledge is possible under the guidance of the critique, which reveals that space

and time are a priori representations which are also forms of sensibility, hence transcendently ideal as well as empirically real – a priori applicable to appearances, objects of empirical intuition, since they constitute these representations as intuitions. Allison's thoroughly formalist interpretation of Transcendental Idealism, which is the first and central insight of a critique of pure reason, places this thesis at the basis of all our a priori knowledge. I find that this is a crucial insight which must be maintained when considering Kant's project in the *Critique* and as Allison upholds this connection and offers a defense for this thesis, I will follow his interpretation closely.

The starting point of Kant's argument is the discursive nature of the human intellect. Human knowers think using concepts, and for the matter of their concepts look to the senses, the former being unable to provide their own content. This much has already been suggested in the previous chapter under Allison's idea of Discursivity Thesis. The capacity to think is, therefore, distinct from that of receiving representations. And with respect to knowledge, insofar as both components are required, neither intuitions, i.e. received representations, nor concepts, in and of themselves, suffice. Hence, if we reverse the role in which these play in knowledge, it appears that through senses representations are received merely, and through the understanding an object is thought which corresponds to them. (A50/B74). It is essential to note, however, that representations presented by sensibility, through which representations are received, are objective, that is, relate to the object, and do not remain mere subjective modifications, that is, mere sensations. And precisely this is Kant's point when he stresses that, sensibility, to which the understanding must look for the matter of thought, yields intuitions, and not sensations, and that empirical intuition is intuition *through* sensations. The matter for thought is seen to consist of two components: one is contingent, a posteriori representations received through affection and the other is the a priori form to which all our a posteriori representations are subjected in order to be ordered in certain relations.

It will be observed that the notion of representation has been interjected in the above exposition of the conditions of knowledge for human knowers. Kant is committed to the notion that as human knowers with limited capacity, our

knowledge of things is acquired through the faculty of representation. In Kantian terms, in order for a subject of knowledge to be related to an object in this very capacity the object must be somehow present to the former, that is, the object should be given. What is given to human cognition is, on the other hand, not objects as they themselves are, for human cognition cannot create the object by itself, but relates to it through representations, which, as a posteriori, again the mind cannot produce. So far this is not a controversial thesis. Kant's innovation lies in, what Beatrice Longuenesse has called, the internalization of the object to the faculty of representation. (Longuenesse, 1998, p. 20-26) That is, the idea of the possibility of representing an object is no longer thought in terms of the generation of representations by the object causing representations, but in terms of the capacity of the faculty of representation to represent, through the contributions of intuitions and concepts, an object. Hence, it is the appearance, i.e. the object of empirical intuition, presented through sensibility which makes possible the representation of an object, as it contains in it the necessary but not sufficient condition of representing an object. This revised thesis incorporates the conditions required by a discursive intellect to institute the relation of its representations to their object. However, as Transcendental Idealism assigns these conditions to the mind, treating the objects of knowledge as representations, there also appears the risk of interpreting Kantian idealism as a version of material idealism, limiting the mind's access to objects with its representations because it is directly conscious of these latter. As stated above, Allison's account is preferred here because it expounds the conditions of representing objects with a view to providing a coherent interpretation of the relation the proper object of knowledge has to the limiting concept of a thing in general which is a merely intelligible representation.

It is necessary to consider Kant's distinction between intuitions and concepts within the broader question he is trying to answer, that is, the possibility of a priori knowledge, or of synthetic a priori judgments. Having made this very distinction, Kant follows it with the source from which these representations may be derived, and distinguishes a priori concepts from a posteriori concepts, and a priori intuitions from those that are a posteriori. Insofar as empirical knowledge is required, a posteriori concepts and intuitions are necessary; insofar as a priori knowledge is in

question, on the other hand, the required elements are to be specified as a priori concepts and a priori intuitions. Within the framework of the question of the possibility of synthetic a priori judgment, then, the question becomes how to account for the possibility of a priori intuitions and concepts, and also for the possibility of synthetic judgments from these particular constituents. The former is the question of pure reason as a source of a priori elements or representations. The latter, on the other hand, while seemingly innocuous in this present articulation, results in the central problematic of the *Critique*, that is, the possibility that the understanding is the source of pure concepts which determine objects a priori.

Kant's purpose in abstracting from the a posteriori, empirically given elements in knowledge is to determine the contribution of the mind to the latter. In both the case of sensibility and the understanding, in order to reach the contribution to cognition by each capacity of the mind, it is first necessary to abstract from what is given in them through experience, and also to abstract from what is contributed by the other faculty. In the case of sensibility, this takes the shape of abstracting from what is given by the senses, and also from the concepts of the understanding, which will yield the a priori component. With respect to the understanding, the issue is relatively more complicated, for abstracting from sensibility altogether yields merely the form of thought that is necessarily present in every cognition, however, as such it will remain yet to be determined whether concepts based on these forms of thought do apply to the objects of the only kind of intuition possible to human intellect. It is with keeping in mind this initial ambiguity we must understand Kant's statement at the beginning of "Transcendental Analytic" that "[p]ure intuition ... contains only the form under which something is intuited; the pure concept only the form of the thought of an object in general." (A51/B75) For, insofar as the critical dictum that sensible intuition is necessary for knowledge is heeded, pure concepts of the understanding must be thought as concepts that determine a priori the object given in an empirical intuition. This will require the intricate argument that establishes the connection between concepts arising from understanding with those from which they are, as to their source, radically different. However, pure concepts have their origin in the understanding alone, and as such contain the logical form of thought, hence allow the thought of an object in general through this form, without regard as

to whether the object thought may exist for human cognition. In any case, however, Kant identifies pure intuitions and pure concepts with the form of thought and intuiting, and makes clear that the contribution of the mind is the formal component of knowledge. Pure intuition provides the form of intuiting, while pure concepts provide the form of thought of an object in general, as well as the forms, as Kant will argue, under which our concepts must stand insofar as they are to be concepts of objects.

Kant maintains not only that a priori intuitions are necessary for knowledge by a discursive knower, but also that, insofar as the human knower is concerned, these are space and time, and are the forms of sensibility, the former the form of outer sense through which sensibility is affected by objects, and the latter that of inner sense, through which the mind is affected by its own states. Kant's Transcendental Idealism has as its point of departure the ideality of space and time. Space and time are forms of appearances, the forms according to which sensibly received data are presented to thought in an orderable manner. Representing (subsuming) a combination (synthesis through the form of time) of these representations under pure concepts of the understanding allows the representation of objects. Kant's idealism consists of expounding the rules of this subsumption on the basis of the necessary forms of thought and the a priori conditions of sensibility that are peculiar to human beings. This yields the forms that make it possible for human subject to represent objects.

Kant himself is explicit in naming the kind of idealism he proposes formal idealism to prevent mistaking it for a kind of material idealism. Regardless, however, the text is open to such interpretation, and I would like to turn to Allison's interpretation of a key passage.

[A]ll objects of any experience possible for us, are nothing but appearances, that is, mere representations, which, in the manner in which they are represented, as extended beings, or as series of alterations, have no independent existence outside our thoughts. This doctrine I entitle *transcendental idealism*. (A490-91/ B518-19).

Kant here presents the doctrine of transcendental idealism as that which suggests that objects possible for human knowers are appearances which are presented to the

mind with the formal properties as determined by space and time. And it is to this exposition of his idealism that the note where Kant describes his idealism as formal is appended. Hence, Kant expects the reader to understand from his description its formal character. However, insofar as one takes appearances as mere representations, and reduces space and time to this status, the text can be interpreted as suggesting that the objects of which human knowers may have knowledge are mere representations, whose forms are space and time, which also are mere representations, wherefore the real constitution of the object remains beyond our representation. Against this, Allison's suggestion is to take account of the condition on the basis of which Kant's sentence predicates to objects the clause that they have no independent existence. That is, the stress is on the manner in which the objects are represented, that is, the forms of sensibility, space and time, and Kant's claim concerning mind dependence is not mind's direct acquaintance with its representations, but a peculiar constitution of the human subject, and the determination of representations by this constitution as they are presented to thought for ordering. (Allison, 2004, p. 35-36)

Allison's suggestion rests on the notion that attributing material idealism to Kant's claims is to confuse two viewpoints from which things can and must be viewed, which are the empirical and transcendental viewpoints. Viewed from these standpoints, the notions of mind dependence, being in or outside the mind, have different significations. (Allison, 2004, p. 23-25) Insofar as things are considered in the former viewpoint, things are outside the mind in space, and belong to the mind insofar as they are experienced as the mind's affection by its own states, which are perceived in temporal relations. The forms of inner and outer senses are distinct, and time has nothing external about it, nor does space represent anything other than properties of things as perceived outside the mind and the location where the body of the perceiving subject is found. Transcendental consideration of things, however, requires a radically different conception of the mind. As Fiona Hughes suggests, Allison's conception of mind, in this sense, is not psychological, as in the former case, but logical. (Hughes, 2007, p. 63) As such, the mind is the discursive intellect considered in terms of the conditions of its thinking and intuition, through which it represents objects and has knowledge of them. The transcendental viewpoint of

transcendental idealism, then, rests on the thesis that the formal conditions of representing objects required by a discursive knower have their source in the very knower itself. This claim arises from an analysis of the conditions of representing objects, the sensible conditions that are peculiar to the human knower (among other possible discursive knowers of whom we have no knowledge) and an argument which is intended to prove that these sensible conditions lie in the subject itself. The mind, in this sense, is the subject of knowledge. It is not the mind as we intuit ourselves as we are affected by representations, or as we become conscious to ourselves of our act of thinking or knowing objects. So far as I understand, this logical conception of the mind means precisely that it belongs to thought alone, through and as part of the analysis of knowledge that is possible for a discursive intellect, and thus as a concept of the subject of knowledge, and contains the rules of thought that make knowledge possible.

From the transcendental viewpoint to consider things as belonging to the mind is to consider them as appearances, in relation to the forms of sensibility, and hence things as they satisfy the sensible conditions of knowledge. To consider things as outside us is to consider them independently of these forms. This latter mode of considering is possible, says Allison, particularly because the intellect is a faculty distinct and independent from sensibility through which the mind intuits, and with its distinct forms things may be thought through a variety of possible predicates. These, however, would not, in and of themselves, constitute objects of knowledge, containing only the form of things, and are empty (lacking content which must be provided by intuition). Nor can space and time, which Kant argues are forms of sensibility, be predicated to things so considered, for these representations belong to sensibility, and by definition must be removed in considering merely intelligible things that disregards their relation to sensibility.

In explaining his conception of Kant's Transcendental Idealism, in order to explicate the common features of uncritical philosophical systems to which the former system is contrasted, Allison makes use of Kant's notion of Transcendental Realism, which, in some manner or other, assigns spatiotemporal predicates to things in themselves. This uncritical position involves the denial, or at least the ignorance, of the a priori conditions of sensibility, and also, since such conditions

are disregarded, assigning of space and time to things. Insofar as this is the case, these philosophies will necessarily consider what is appearance, in the transcendental point of view, as things in themselves. The objects of human knowledge, for such philosophies, are merely intelligible objects, of which, however, it is claimed that knowledge is possible. A variety of philosophers are treated as transcendental realists, hence Allison treats this latter as a metaphysical or meta-epistemological standpoint for considering conditions of knowledge, rather than a particular consideration thereof. (Allison, 2004, p. 4 and p. 35) An interesting case is here presented by Berkeley's denial of the existence of things in space, and assigning existence to only representations. While Berkeley may deny knowledge of things external to the mind (for the wrongs reason, according to Kant, for they are taken in the empirical sense to be in space) and grants knowledge only of representations, since he is ignorant of the notion of sensible conditions of knowledge which make possible the representation of an object in these representations, he must according to Allison, be treated as considering things as they are in themselves.

The crux of Allison's clarification of Transcendental Idealism is the norm which counts as the criterion for adequate knowledge for Transcendentally Realist systems of philosophy. Allison suggests that a common feature of this position is the denigration of discursive knowledge as limiting the cognition of human knower. Since, Allison argues, discursive knowledge is based on the use of concepts, which are abstract representations, the object, which is supposed to exist in and of itself, independent of the subject, insofar as it is known through the use of concepts is only known through these mediate (not mediating but mediate because universal) representations, and not as it is in itself (Allison, 2004, p. 27-28). The being with adequate knowledge, God or a knower endowed with infinite capacity, is held to possess intuitive, immediate grasp of the thing. In the case of Leibniz, for example, such a being would have access to all stages of the becoming of all things in all possible worlds in an intuitive and instantaneous grasp, which, for a human knower would require analysis to arrive at gradually, and is perhaps only in theory possible. Allison locates a similar concern in Locke who suggests heightened powers of

perception as requisite for the grasp of internal properties of things, which, for human knowers, are accessible only by concepts. (Allison, 2004, p. 27-32)

The main point Allison wishes to make is that, in all pre-critical or uncritical modes of philosophizing, there functions, as an implicit norm on the basis of which human knowledge is judged, an intuitive intellect, an intellect which has immediate relation to, or intuition of the object, and in this relation obtains or has adequate grasp of objects. Objects of human cognition are, then, held to have an existence independent of the human knower, and are considered as objects of an intuitive intellect. This Allison terms a Theocentric Model of knowledge, a God's Eye view of things as defining the objects that are presented to human knowledge. The norm functions as a reminder that human cognition is limited and for this reason denied access to how things really are. In contrast, Kant's novel version, Transcendental Idealism, introduces a concern with the sensible conditions required for discursive knowledge, and furthermore, discovers that space and time are these very sensible conditions in the peculiar case of human knowers. This type of knower, which is the only case that is available to us (for we as human beings are such knowers), and its conditions of representing objects as such, are taken as the norm, since its assertions regarding things are assessed with reference to these conditions. It is on the basis of things' conformity to the conditions of representing objects necessary for human knowers, that the question whether an object is adequately represented, that is, whether our representations are objectively valid, is answered.

Allison's essential contribution to the interpretation of Transcendental Idealism lies in the argument through which the norms, which govern knowledge for the human standpoint are formulated.¹⁹ I have discussed the particulars in detail since I find these crucial in grasping this rather subtle argument, to which I now turn. This argument appears regularly in Allison's presentation of Kant's claim that space and time are transcendently ideal. Allison's contention is that Kant's assigning the status of forms of sensibility to space and time, and limiting their application to the objects considered as appearances, must in no way be understood as a metaphysical thesis regarding things in themselves, but as an epistemological

¹⁹ Hughes praises Allison for rediscovering the "human focus of critical philosophy" "not covertly dependent on a hidden noumenal world of things." (Hughes, 2007, p. 61-62)

one. (Allison, 2004, p. 12, p. 120-121) Allison considers space in particular since Kant's treatment of space and time is identical for the most part, and also since space is the form in which representations of things through being affected by them are taken into sensibility. The common reading of Transcendental Idealism takes Kant's claim as ontological, as asserting something positive regarding things in themselves, which opens up the possibility that while we have a particular mode of representing things, as appearances, and in space, things only seem to us in this manner "because they are perceived through the distorting medium of outer sense." (Allison, 2004, p.121), while they have an independent reality of their own. As the argument concerns the transcendental idealism of space, the objection concerning this distortion can here be taken in the transcendental sense – suggesting that it is the form in which things are perceived as appearances, space, that is the distorting element – rather than in the empirical sense, which would highlight the senses and sensations as what distort our knowledge. So, the objection can be understood as suggesting that Kant's idealism is a version of material idealism despite its being specified as a formal idealism.

An objection in the same vein rests on the claim that Kant argues from the *representation of space* (and time) to the nature of *space* itself. While the representation of space may be shown to be the form of sensibility and objectively valid for all things that can be sensibly intuited, things as appearances, this does not preclude, the objection goes, that space itself may be a determination of things themselves. (Allison, 2004, p. 128-132) Against this objection, Allison utilizes the notion that "the form of a representation is precisely what makes it a representation and, therefore, distinguishes it from anything else." (Allison, 2004, p. 129) Hence, insofar as space and time are shown to be forms of representations, this means that these forms and formal properties are the very determining features which distinguish representations as such. Thus, they cannot correspond to the forms or formal properties of things in themselves, for if that were the case there would be nothing to distinguish representation from the thing.

However, the ultimate argument Allison resorts to, which was also used to counter the previous objection, is to stress the epistemological constraints imposed by the conditions of human cognition on knowledge claims. Human knowers, as

they know objects through the operation of their discursive intellect, are constrained by intellectual and sensible conditions through which they represent objects. It is only on the basis of this premise, which states the conditions under which an object is adequately represented by human knowers, that space and time can be predicated to objects, precisely because these representations are shown to be a priori intuitions which, in these capacities, play an epistemological role in human cognition. That is, once one acknowledges Kant's arguments for the a priori and intuitive nature of space and time, these latter are firstly specified as non-intellectual conditions that are required for, and make possible, the representation of objects by human knowers. Secondly, insofar as the said representations are a priori intuitions and human intuition is sensible, the connection between space and time and sensibility must be affirmed. The ground for asserting space and time of appearances is that these are the forms of sensibility. However, this is a conclusion which ultimately functions on the warrant of the discursivity thesis, that is, human cognition, as a species of discursive cognition, requires sensible conditions for its intuition as well. The ultimate warrant for asserting that appearances are in space and time is, therefore, the discussion of the conditions necessary for human knowers to represent objects. Once these points are established and accepted, asking about whether it can be positively asserted of things independent of the sensible conditions of knowledge that they are in space or time, becomes meaningless. With respect to things in themselves, the concept of things which are considered apart from sensible conditions, the human cognitive capacity offers neither any particular intuitions, nor any suitable capacity for intuition (intellectual intuition). To consider such things as objects of knowledge is to forego the discursivity thesis, which identifies human knowledge, and to consider things as objects of knowledge for beings other than human knowers, of whose conditions of knowledge, relation to objects, or objects of knowledge, we may have no positive conception. Where no possible warrant does, nor can exist to predicate properties to things, it is not meaningful to consider them as if they were things to which properties can be predicated.

It is necessary here to clarify the manner in which the human mind is taken to be the source of the rules on the basis of which it knows objects, that is, the normative nature of Kant's Transcendental Idealism which Allison presents. This

can be done by stressing two aspects of normativity. The first would be the manner in which the human mind is elevated to the status of being the source of the very rules it requires for objectivity. The second aspect would be to stress the thoroughgoing normativity of Kant's understanding of experience and empirical knowledge, to show how radically different his conception of mind as source of rules is to the empiricist conception of mind as a cognitive apparatus that is investigated by introspection or examining psychological processes.

With regard to the first point I will begin by reiterating the manner Kant determines the scope of human knowledge. Kant determines the human viewpoint by gradually determining the type of cognition which belongs to human knowers. Human knowers, as discursive agents, must possess a capacity for sensible intuition, which distinguishes them from knowers whose intellect would be merely intuitive. Furthermore, he specifies the conditions peculiar to the human knower's sensible intuition, showing that they are space and time, the forms of sensibility that belong to human beings. Insofar as knowledge requires intuitions as well as concepts, human knowledge must be limited with the type of intuition that belongs to human knowers.

This limitation has a twofold significance. First, through it Kant concludes (as interpreted by Allison, and which interpretation I follow) that while we may think that there may be other kinds of knowers and other kinds of intuition, human beings may have nothing positive to conclude about such entities, let alone the possible objects of such entities. It is perhaps only possible to conceive of such intellects in the terms in which we pose our own cognitive capacity. Furthermore, human intuition is determined necessarily to be sensible intuition with the forms of space and time, which precludes human beings from having any other kind of intuition, and through any other forms. This limits all knowledge human beings may have to those things of which they can have intuition according to these forms. And second, and following from the necessary claims regarding human intuition, it appears that human knowers may have necessary and a priori knowledge regarding the conditions that bind human knowers in representing and knowing objects. For one thing, it is shown through pure reason that human sensibility has a priori forms that belong to its constitution; and for another, as intuition is not sufficient for

knowledge, there arises the necessity of intellectual conditions through which the intuited thing can be known. The inquiry into the conditions under which intuitions must stand in order for the representation of an object by a discursive knower to be possible is precisely the task Kant undertakes in the *Critique*. In this endeavor no other source is sought for but the resources of the discursive intellect. It is thus that while human knowledge is necessarily limited to the things of which it can have intuition, this same limitation allows Kant to formulate all necessary conditions for objectivity with reference to the human mind.

As no positive conclusion about any type of intellect other than human is possible, no question arises as to objects other than humanly representable, or whether the conditions of representing humanly possible objects are adequate to some nature the object may have independently. Thus, what Allison terms the Anthropo-centric Model of cognition takes on a “normative sense” and “the human mind [is seen] as the source of the rules or conditions through which and under which it can alone represent to itself an objective world.” (Allison, 2004, p. 38) These conditions are formulated in order to provide the rules on the basis of which to judge whether our representations do adequately present an object to our knowledge.

In order to present the second point, a distinction must be made here between the elevation of the human mind to the sole norm on the basis of which to evaluate whether its claims to knowledge are objective and what constitutes a norm for the human mind. Kant tells us that “Reason is the faculty which supplies the principles of *a priori* knowledge.” (A11/B24) He also characterizes understanding as the faculty of rules, which are the principles of empirical knowledge in general, and reason as the faculty of principles which aim for the unity of knowledge for the rational human being. (A299/B356, A326/B383) The question is, then, what it is for a rule to be a rule for the human intellect, or how a rule is used by the intellect. The main point to notice is that human intellect is discursive, and therefore involves the use of concepts and judging using concepts. For Kant all concepts are rules for judging, and as such the source of rules. The rules or principles arising from the understanding and reason are, then, concepts from which rules are derived by means of judgments, and which, then, serve as rules for the activity of judging.

The discursivity principle, itself a rule, states that knowledge requires concepts and intuitions. For a discursive intellect this would mean that intuitions must be thought under concepts in judgments in order for objects to be represented and known. The conditions of representing objects, or the principles of empirical knowledge, which are presented in transcendental analytic, function, then, as the rules which guide the activity of representing intuitions under concepts in judgment. Only insofar as our judgments do conform to these rules may we say that we have adequately represented objects for knowledge. Moreover, the transcendental idealism of space and time are also expressed in principles which are judgments made on the basis of the arguments in the “Transcendental Aesthetic”. These principles express the conception of things to which our a priori judgments must be directed in order for these latter to ever constitute knowledge. And it is through this limitation that Kant formulates the conditions of possibility of experience, as the rules of the synthesis necessary to bring the object represented in an intuition under concepts.

It may be said at first sight that Kant conceives of empirical knowledge, whose conditions are under investigation, as an empirical process. The idea that empirical knowledge consists of the representation of actual empirical intuitions under concepts would then be taken as a psychological state. In this conception, the mind Kant is concerned with may be taken to be the cognitive apparatus that belongs to human beings insofar as it functions according to rules in representing empirical intuitions under concepts in an actual case. This would make the object of Kant’s inquiry the mind insofar as it houses the empirical cognitive process through which intuitions are brought under concepts.

Once Kant’s treatment of the category of actuality in the “Analytic of Principles” is taken into consideration, however, it is seen that Kant’s conception of empirical knowledge is rather different. Kant explains that actuality pertains to an object insofar as a connection according to empirical laws may be represented between the object and some empirical knowledge that has been obtained through perceptions, these latter not necessarily the perception of the said entity. (A225-226/B272-273) It should be clear from the above that Kant has in mind a rule for judging. It is precisely showing a connection between a thought something and an

existing knowledge that warrants the assertion of actuality to the thing. However, it is also clear that this rule is not for judging whether a psychological state, such as a belief or an actual state where one asserts one knows something on the basis of present sense data, counts as knowledge. The rule is not for judging about the empirical processes in the mind. As such, however, the rule may not be derived from empirical processes, nor may the elevation of the human viewpoint to the status of providing its own norms be thought as conceiving the mind as the house of such empirical processes. The human mind, as conceived by transcendental idealism, is the formal subject of knowledge, and the rules for judgment are derived from the consideration of the peculiar formal constitution of the human intellect conceived in this manner.

2.3 Kant's Copernican Revolution

Kant's Copernican Revolution, which he introduces in seeking to answer the question of the possibility of a priori knowledge, may be understood as providing the warrant for making a priori assertions regarding things.²⁰ The issue is to understand what this warrant consists of, and whether it can be understood as arising from limiting the possibility of a priori knowledge to the conditions of human knowledge. Kant presents this conversion as a trial occasioned by the negative results in metaphysics to obtain a priori knowledge from concepts under the assumption that our knowledge must conform to the constitution of objects. (Bxvi) It is crucial to note that when Kant goes on to outline the suggested revolution, he introduces it with a novel twist, that is, knowledge is now posed as requiring intuitions as well as concepts. This, the avowal of the discursivity thesis, constitutes the first step in setting the warrant for a priori knowledge, which already implies that the intuition in question is sensible, and that this intuition requires a priori forms by means of which sensibly received data is rendered orderable.

The impossibility of having a priori intuition insofar as intuitions are to conform to objects confirms that Kant has in mind sensible intuition, for if an

²⁰ My discussion of the Copernican Revolution is indebted to Hughes'; while she treats the object of knowledge here as the object of empirical intuition, her main concerns are quite different. (Hughes, 2007, p. 87-95)

intuitive intellect were in question, the object would be created by the subject. But the notion of object seems to be used in two different senses in the consideration of the two relations, when “intuition must conform to the constitution of the object” and when “the object (as object of the senses) must conform to the constitution of our faculty of intuition.” (Bxvii) In the former relation, the object is construed to lie outside the faculty of intuition (sensibility), wherefore only a confrontation between the object and this faculty yields intuitions. Whereas, in the second relation, the object is the object of senses, as it is presented to the senses, rather than a thing that is conceived to exist apart from the mind, which, in turn, suggests that this object is appearance, for sensation yields nothing objective to the mind. Furthermore, appearance conforming to the constitution of *our* faculty of intuition, would imply that the formal component, through which sensation is presented as the conceptually undetermined object of empirical intuition (appearance), is further specified as the form peculiar to human sensibility.

This picture is confirmed by Kant’s considerations regarding concepts. Firstly, he explicitly states that knowledge by intuition alone is not adequately determined, and that the representations should be related to the object by determining the object corresponding to these representations by means of a concept. Kant is merely following the necessary conditions of knowledge as stated in the discursivity principle. Secondly, the same shift in the meaning of object can be observed when we move from the conformity of concepts to objects, to the conformity of objects to the concepts. The latter case is described as follows: “or else I assume that the objects, or what is the same thing, that the *experience* in which alone, as given objects, they can be known, conform to the concepts.”(Bxvii) Hence the objects of knowledge are here limited to those which can be given in an empirical intuition and conform to the constitution of human sensibility. Furthermore, here the notion of experience acquires a peculiar sense. It does not correspond to empirical intuition in which an object is given, but, it is in experience that an object is known, which suggests that at this point already experience is taken in the technical sense, as empirical knowledge of objects, which requires empirical intuitions and empirical concepts. And, thus, conformity of empirical knowledge to concepts suggests that our empirical concepts, through which we determine the

object given in empirical intuition, themselves must conform to certain a priori concepts that arise from the understanding. These points Kant makes explicit when he says,

For experience is itself a species of knowledge which involves understanding; and understanding has rules which I must presuppose as being in me prior to objects being given to me, and therefore as being a priori. They find expression in a priori concepts to which all objects of experience necessarily conform, and with which they must agree.”
(Bxvii-xviii)

It is thus that empirical concepts come to determine empirical objects by determining empirical intuitions only insofar as they are in conformity with certain rules, contained in pure concepts of the understanding, which have their source in the a priori rules of the act of thinking which is the activity of the understanding. And this brings me to the third point, which is that, Kant is here, in point of fact, making explicit, although in a basic manner, the role a priori intuitions and concepts play in representing objects.

These considerations should make clear that Kant's Copernican Revolution, which is intended to provide a point of view for the possibility of a priori knowledge, in fact serves to ground a priori knowledge in the necessary conditions which make empirical knowledge possible for human beings. The warrant on the basis of which a priori knowledge claims may be made rests on the consideration of these conditions. Departing from this inquiry, considering things merely as intelligible entities, removes this warrant, since the inquiry will then have moved into a consideration of things which may not constitute objects for us. To treat merely intelligible things as objects of human knowledge, which requires us to sensibly intuit them as well as to think them, is meaningless. It is to think that there is at least some independent reality, we know not what, that corresponds to things thought in this manner, whereas, such consideration gives only concepts. It provides, however, neither any reality corresponding to the concept, nor keeps any link between the concept of a thing and the conditions under which it is possible for any reality to correspond to it. To think that a merely intelligible thing, only thought in the concept of a thing in general, may have any reality for the human knower apart from that provided by empirical intuitions, is to hold that it is still possible to assert

something a priori regarding this thing independently of the warrant provided by the critique of the conditions of human knowledge. Here, however, one is affirming both that a priori knowledge is only possible under the warrant provided by the consideration of necessary conditions of knowledge for human knowers, which is to consider the objects possible for human cognition, and also that one can meaningfully maintain some possible assertion without regard to this warrant for necessary conditions.

What is demanded in order to maintain the consistency of the inquiry, insofar as what is under consideration is a priori knowledge of things, is that a restricted point of view must be adopted, and that consideration must be limited to objects of empirical intuition. This restriction, however, does not mean that all knowledge is empirical, but that some connection must be preserved with the objects of empirical intuition. With respect to a priori knowledge, Kant's means of providing this connection is by the notion of possible experience, through which it is claimed that a priori knowledge of things is possible only insofar as this latter concerns the conditions of possibility of empirical knowledge, or objects of a possible experience. (B146-148, A153-158/B193-197, A720/B748)

Kant's contention is not, however, to dismiss the thought of merely intelligible things altogether as useless. It is obviously the case that since there can correspond no intuition to such things, these cannot be objects of knowledge. Nor are they necessary for the possibility of knowledge, for these contain nothing which is necessary for human knowers for the possibility of representing objects. Kant is rather explicit on this point when he writes merely intelligible entities, as they have been necessarily put forward by the nature of reason itself, "are not in any way necessary for *knowledge*[".]" (A800/B828) So, to claim that one may have something positive to say about intelligible things from this standpoint is to maintain an inconsistent standpoint, affirming and ignoring the only warrant for a priori knowledge of things. The lack of a warrant does not render thought of such entities impossible. One is merely reminded to refrain from making assertions with a claim to knowledge about them from the theoretical viewpoint. It is necessary to take note of the epistemologically inadequate status of such thought.

Kant's suggestion that perhaps something positive may be asserted of merely intelligible things from the practical point of view is to suggest that in this latter perhaps a new kind of warrant for a priori knowledge may be found. And in this new standpoint, this is precisely what happens. In the practical point of view, the inquiry is no longer directed at the conditions of possibility of empirical knowledge. With respect to its actions, human being is already seen to determine its actions through reason, for, as a rational being, it is not merely under the sway of its sensible impulses. Human beings make use of reason to subordinate these individual sensible impulses to a general state of happiness, considering whether the satisfaction of a particular impulse may have any future negative consequences, and acting in accordance to ensure this general state of well-being. These considerations, and the principles for action formulated to achieve the end of happiness, belong to reason. However, happiness represents desires arising from the empirical constitution of human beings as a unity and a single end. As this end aims to attain satisfaction of these sensual impulses, and these arise from the animal constitution, the principles to attain happiness are of empirical origin. We may say, then, that in the practical viewpoint the possibility of a priori knowledge is directed towards the conditions under which reason, rather than happiness, may be the sole ground for determining the rules for acting.²¹ As the object which must be determined by pure reason changes from the object of possible experience to the object of free will, pure reason's causality in nature, a new kind of warrant is clearly in the making. Subsequently, Kant will show that in the practical point of view the warrant for asserting something positive, and necessary, about merely intelligible things is granted. This requires, however, that one maintain the human standpoint, but shift from the theoretical to the practical consideration of the human knower.

²¹ As in the theoretical part, a priori principles must have an empirical application. As Kant says, "in the construction of a system of pure morality these empirical concepts [of pain, pleasure, desire] must necessarily be brought into the concept of duty, as representing either a hindrance, which we have to overcome, or an allurements, which must not be made into a motive." (A15/B29)

2.4 The Problem of Affection

The interpretation of the notion of the mind's affection by the thing which produces in the mind sensations, as also with the notion of a thing in itself, depends upon the reading of Transcendental Idealism one adopts. Insofar as Kant's system is viewed from a transcendently realist framework, where the objects of human cognition are held to have an existence and reality of their own, apart from the conditions in which they can be represented as objects by us, Kant's formal idealism will come to signify a version of material idealism. Hence, our knowledge of objects will be limited to those which can be represented through the material received via affection, that is, sensations. Beyond our knowledge of objects, however, the things which affect the senses will come to have a reality of their own, which cannot be accessed through sensations which are merely representations. Our understanding of the notion of affection, then, is deeply connected with the understanding of transcendental idealism. And, there are two strong reasons to resist the realist interpretation. First, and as argued above, once it is shown that the warrant for a priori knowledge is limited to consideration of the conditions of representing objects by human knowers, keeping in mind that it requires sensible intuitions as well as concepts, it also becomes obvious that one has no warrant to suppose that merely intelligible things, which are thought entities merely and cannot be intuited, may have any mind-independent existence or reality. Without any warrant to answer the question, the question itself loses its meaning. Hence, there is no reason to suppose that the affecting thing has any existence of its own, or that the need for affection to receive sensations points to a world of existents closed off for the faculty of representing. And second, the realist reading results in certain problems which would render the Kantian project suspect. As establishing the first point allows a reconfiguration of the problem of affection that has arisen from realist readings of Kant's idealism, and as I have followed Allison's interpretation of Transcendental Idealism, I will follow him in the clarification offered for the notion of affection. First the notion of thing in itself will be treated insofar as it is relevant to affection, and second Allison's clarification of affection will be outlined. (Allison, 2004, p. 50-73)

The main point is to see in what relation the thing in itself, as the ground of sensations, through which it grounds appearances, stands to these latter. It is necessary first, to distinguish two standpoints, from which we view things. That is, insofar as we inquire into the relations of things as they appear to our senses and constitute our world, we view them empirically. Once, however, we consider the conditions under which we may have knowledge of them, it appears that human knowers are discursive intellects, and that there are peculiar sensible as well as intellectual conditions under which we can represent objects to ourselves. Hence, the transcendental viewpoint opens up as the consideration of empirical objects – for only empirical intuition is possible for human knowers – in relation to the conditions of representing these as objects. The transcendental idealism of the peculiar sensible conditions (space and time) of human knowledge states that these are a priori conditions which have their source in the human mind, and that only things determined under these conditions can be represented as object for knowledge. Still, the intellect is an independent faculty than the capacity for sensible intuition, is the seat of thinking, and can think for itself things independently of the sensible conditions. Hence the distinction, in the transcendental viewpoint, of things as they are considered in themselves or as they are considered as appearances, determined by forms of intuition.

This layout is a rather summary presentation of the relation of several viewpoints in which Allison suggests the consideration of things takes place within Kant's critical philosophy. The crucial point to note is that in each viewpoint, the empirical and the transcendental, the empirical things are under investigation. In the former we investigate the connections and relations of things as they exist in the order of nature. In the latter, we consider empirical things with respect to the conditions of representing them as objects. Insofar as these objective conditions are an issue, it is not possible to go beyond the objects of empirical world because only of these objects is intuition possible for us. Hence, they must be treated as appearances. However, in the transcendental viewpoint, the thing which appears (the empirical object considered transcendently) can be considered with respect to the sensible conditions through which it appears to the mind and is given to thought. Or, it can be thought, through the independence of the faculty of thought itself, in

abstraction of these conditions. In any case, what is considered in certain perspectives is always the empirical object.

In this construal, the interpretation of the notion of affection involves how to understand Kant's claim that things affect the mind are the ground of appearances. Are these things empirical things? Or, are they things in themselves?

As the realist reading of Transcendental Idealism has been shown to be inconsistent, the problems arising from this former will be easy to dispel. These problems have been formulated by Jacobi, an early critic of Kant's brand of idealism. According to Jacobi two problems arise from the necessity for affection. For one, if empirical things are held to be the affecting objects which ground appearances, these themselves will be appearances, and mere representations. So, mere representations will be appealed to in order to explain the presence of representations in the mind, which will be circular. And secondly, if the affecting thing were the thing in itself, in the realist sense, then the pure concepts of the understanding, which have applicability to appearances only, will be used to explain the presence of sensation in the mind. This will extend the warrant of applicability to things in themselves, which must by necessity exceed knowledge, hence, Kant's critical philosophy will have broken its own rules.

Allison responds to each of these problems by pointing out the proposed epistemological reading of Transcendental Idealism. With respect to the first problem, Allison's contention is that, insofar as the empirical viewpoint is adopted, it is possible to consider affection by things without falling into the circle of representation, for, on this viewpoint things independent of the representing mind are in space and as part of the empirical world, the mind can be said to be affected by spatial things without falling into Jacobi's circle.

With respect to affection by things in themselves the issue is rather more complicated. The question, in its reformulated version, is whether empirical conception of affection can be admitted into the transcendental account of the conditions of possibility of representing objects. It is apparent that sensible intuition cannot generate the empirical intuitions by its own, but must be affected by the object. Hence, affection is a necessary condition of having empirical intuitions. However, this affection relation, Allison suggests, concerns "an *epistemic* relation

between the discursive intelligence and source of the matter or content of its sensible intuition” (Allison, 2004, p.67). That is, insofar as the transcendental viewpoint is adopted the consideration involves epistemic conditions. But the notion of affection concerns, rather than the subjection of the matter of empirical intuition to forms of sensibility, through which something is first presented in intuition to thinking, the ground of the matter of empirical intuitions. As something is presented in intuition only by being subjected to the forms of sensibility, something standing merely in an affecting relation to the mind is considered apart from these very forms. But to suggest that empirical affection as a causal relation between thing and mind can be admitted into the transcendental viewpoint is to say that one takes the affecting thing, which is to be considered apart from the forms of sensibility, in relation to these very forms, for empirical affection requires us to consider empirical things that are spatiotemporal. Hence, the thing must be taken to be the thing in itself. This thing is not, however, taken to possess a reality independent of the mind. It is merely empirical things considered as things apart from the conditions of sensibility, insofar as they are to be thought, in the transcendental account of the conditions of representing things, as providing the ground for the material for empirical intuitions. This explains a necessary condition, that is, the material condition of knowledge.

My one reservation regarding Allison’s clarifications lies in the ambiguity I perceive with regard to the something that affects the mind. Two possibilities present themselves. It is possible to interpret Allison as saying that the something affecting the mind is the matter of empirical intuition. Considering this matter as it affects the mind as it is present to the mind is to consider it apart from the conditions under which it is presented to the mind as appearance.²² However, it is also possible to interpret the affecting thing as something external to the mind, as the source of the matter of intuition, which generates the matter by affecting the mind. In this interpretation, the relation of the mind to the thing is not by taking it up in intuition through the forms of sensibility, but in some other relation which first produces the matter in the mind. Allison does speak of the “source of the matter of intuition” (Allison, 2004), p. 67) or “what is given to the mind as the result of its affection by

²² This is the manner which it is interpreted by Hughes. (Hughes, 2007, p. 66)

external objects” (Allison, 2004, p. 68), which clearly indicate that the something that affects the mind is not the matter present but something which affects the mind and is the ground of the matter. To this ambiguity it may be replied that in either relation the something which affects the mind is to be thought independently of the forms of sensibility. The affecting something is, in each case, a merely intelligible something, given in the concept of a thing in itself. Therefore, it does not matter which interpretation is favoured.

CHAPTER 3

THE CORE OF THE KANTIAN ARGUMENTS

3.1 Transcendental Aesthetic

3.1.1 Introduction

This discussion of the “Transcendental Aesthetic” will be rather detailed. The reason for this is that it provides an entry into Kant’s critical analysis, and rests on the previous finding in the “Introduction” to the *Critique*, that the form of intuition, distinct from logical form of concepts, is a constituent of knowledge. On this basis only, does the need arise to address the condition of representing objects, but it is precisely the novel formulation of the object of philosophy which will clarify this distinct form. The “Aesthetic” at once depends upon Kant’s original discovery of the form of intuition, and is intended to determine this form. I construe this as one convoluted argument. I will first discuss the possibility and scope of “Transcendental Aesthetic” as a science of sensibility. The argument for these I take to be located in what I name the “Introduction to the Aesthetic”. The Aesthetic teaches us that insofar as it is to constitute knowledge, any a priori claim must maintain a legitimate grounding which begins from experience. This legitimacy also determines the question posed for this science. While the possibility of this science requires a novel conception of sensibility, supported by the previous discovery of the form of intuition, the a priori nature of the form of intuition can only be explicated based on the limitation imposed by the connection to empirical knowledge. I will next consider the Metaphysical Exposition in detail, as it explicates the form of intuition and its function in representing empirical particulars. Kant’s conclusion that space and time are transcendently ideal, and the nature of this conclusion will be given shorter treatment, as the nature of transcendental idealism has been discussed in the previous section. And it will also be seen that the manner I take

Kant to be framing his question in the Aesthetic already makes the connection to his transcendental idealism.

3.1.2 Possibility of the Science of Sensibility

On the basis of the question of the possibility of synthetic a priori judgments and the complete enumeration of the elements of a priori knowledge, Kant is driven to investigating the sources of knowledge for such representations. The sources to be investigated are specified as the sensibility and the understanding. Kant distinguishes sensibility from the understanding on the basis of an introductory or anticipatory analysis of the function these serve in contributing to knowledge. (A15-16/B29-30) Through the sensibility objects are given, and through the understanding they are thought. Kant had already intimated such a distinction in the opening sentences of the *Critique*, stating that it is through the object affecting the senses and producing sensible impressions that the faculty of thought is first aroused to activity. Hence, the activity of thinking, the ordering of representations, and the material to be ordered are distinguished. The claim is relatively straightforward: the activity of ordering empirical representations belongs to the understanding, and it has a priori rules of its operation. However, this activity does not produce the material it orders, hence, while understanding is the source of the act of thinking and its a priori rules, the material is derived from another source, and this is sensibility.

The crucial step that Kant takes here is to ask whether anything a priori belongs to sensibility. This step is already directed by the question of the possibility of synthetic a priori judgment, since some extra-logical, yet a priori, element must be sought for. Regarding what he wishes to accomplish in the “Transcendental Aesthetic”, Kant tells us that “in so far as sensibility may be found to contain *a priori* representations constituting the condition under which objects are given to us, it will belong to transcendental philosophy.” (A15-16/B29-30) Now, insofar as an a priori representation is sought for, one cannot seek to derive it from experience; its source must lie in the mind, or pure reason.²³ However, insofar as sensibility is

²³ It is commonly held that ascribing the a priori to the mind is a presupposition by Kant. I believe this has its roots in Kant’s trust in general logic.

considered merely as the source of empirical representations, a science of sensibility would be impossible. So, an analysis of sensibility with an eye to discovering whether it contains any a priori representations is necessary. Still, however, it is crucial to note that sensibility will not yield this analysis by itself, that is, sensibility is not the source of thought. Even the concept of sensibility itself is derived by the understanding. So, Kant is in effect telling us that a novel conception of sensibility is required than one which only provides empirical material for thought. This conception will involve, says Kant, if not in so many words, a parallel be drawn in the case of sensibility, with the *conditions* of thinking, with which logic is concerned. Hence, the question is whether there may be a priori conditions of sensibility which would be the conditions through which objects are given to us. However, as noted, these conditions would not be rules *for* sensibility, because sensibility does not think by using rules, nor does it, in intuiting, intuitively follow the rules which an analysis of the faculty of sensibility by the understanding first sets before it. The conditions of sensibility are specific representations which have a peculiar (formal) nature and from which the understanding derives for itself rules for thinking what is provided by sensibility. It is in this sense that Kant's proclamation, "[t]he science of all principles of *a priori* sensibility I call *transcendental aesthetic*" should be understood. (A21/B35)

This peculiarity of the science of sensibility and its principles may be made clearer through the difference between the two notions, a priori knowledge and possibility of a priori knowledge. A priori knowledge, whose possibility is to be explained in the "Transcendental Aesthetic", is mathematical knowledge, as a species of a priori knowledge containing a priori synthetic judgments. Note that the principles Kant wishes to derive are not mathematical propositions, but which explain the possibility of the latter. But this task is accomplished precisely by showing that there belong to sensibility a priori representations which are conditions under which objects are given. And this distinction corresponds precisely to the distinction Kant draws between two species of a priori knowledge, between mathematical knowledge which rests on the construction of concepts in intuition, and philosophical knowledge which is a priori knowledge through concepts. (A713/B741) In the latter mode of inquiry, which Kant is undertaking in the

“Aesthetic”, the reference to intuition, and also to sensibility is only oblique, in that it involves an analysis of these notions.

Another crucial point to note is that even at this initial moment of his analysis, the aim Kant sets for himself in the “Aesthetic” commits him to limiting a priori knowledge to a relation to empirical knowledge of objects. That is, the a priori representation, which is sought, and which ought to explain mathematical knowledge, is at the same time the condition under which objects are given. Recall that the givenness of objects was formulated with reference to the empirical given. Hence, the a priori nature of mathematical science is, at this point only cursorily, but still explicitly, stated as being concerned with the nature of empirical objects. In Kant’s later terminology, insofar as mathematical science is to have the status of a priori knowledge, it will need to be empirically real, that is, there must correspond empirical objects to those which can be represented a priori in intuition. The “Aesthetic” is intended to exhibit this dual nature, the apriority and the empirical reality of the a priori representations that may belong to sensibility. However, this aim also involves an original revision of the starting-point of empirical knowledge, that empirical data which is presented to thought. That is, empirical content presented to the mind by sensibility must be thought to be presented already conditioned rather than consisting merely of sense data, as a naïve conception of sensibility may have it. This has the further consequence that, insofar as Kant’s arguments are successful, he will have also shown that the a priori condition of sensibility is also an a priori condition of empirical knowledge.

3.1.3 A New Conception of Sensibility

I propose to view the “Transcendental Aesthetic” as a two-stage argument. The first stage is preparatory, consisting of what we may call the “Introduction to the Aesthetic”, and laying out the groundwork for Kant’s positive argument, which constitutes the second stage.²⁴ The introductory stage is crucial in that it determines the novel conception of empirical matter presented to the discursive intellect, and,

²⁴ If not otherwise indicated I use the term introduction in this section to refer to the “Introduction to the Aesthetic” as presented in A19/B33-A22/B36

through an initial analysis of this conception, lays out the steps for the subsequent positive argument, through which Kant intends to prove that sensibility contains a priori representations which are conditions of sensibility. The new conception of empirical matter Kant wishes to establish is that sensibility yields neither concepts nor merely sensations, but sensible, empirical intuitions. I would like to suggest that distinguishing the two criteria of intuition, as representations of particular objects (singularity criterion) and as the object's direct presence to consciousness (immediacy criterion) plays a pivotal role in grasping the argument in the introduction.²⁵ What distinguishes the argument in the introduction from that of the positive argument is that it constitutes a grounded proposal for a conception of sensibility through which a science of sensibility may be possible. This proposal, I suggest, is put forward by means of the notion of intuition in the first sense, and which finds its ground in the very distinction between intuitions and concepts that has been provided by general logic. Intuitions are representations of particular objects in contrast to concepts which are universal representations, representing an element common to more than one particular. Within the confines of general logic, Kant seems to be suggesting, that a distinction must be made between concepts and intuitions as two conditions of knowledge, determining the latter as the reverse side of concepts.²⁶

The analysis of this new conception of sensibility rests on an analysis of the conditions for human knowers of representing particulars in empirical matter. (Allais, 2010, p.58n16; Allison, 2004, p.82) This rests on taking into consideration that the immediate relation to the object is through given representations in

²⁵ The kind of relation that concepts and intuitions stand to the object is distinct. While concepts are in a mediate relation to the object through certain marks (representations) which are common to more than one object, intuitions are immediately related to the object. There is some disagreement as to in what sense to understand the immediacy of intuitions. Hintikka (1967) suggests that we interpret immediacy as singular representations of objects, as a logical corollary of the representation not relating to the object through the mediation of common marks. As such, an intuition would be a singular term. (Parsons (1969), p.45-46; Smit (2000), p.237) Parsons (1969) wishes to distinguish the immediacy of intuitions from their being singular representations. As such, immediacy describes the direct presence of something to the mind. (Parsons (1969), p.44) I will follow Parsons in not reducing the immediacy criterion for distinguishing intuitions to their being singular representations.

²⁶ Parsons suggests that what is immediately present to consciousness is a particular, is a presupposition with which Kant begins his analysis. (Parsons, 1967, p. 45) See also 9:99 for a necessary distinction between particulars and concepts.

sensibility, through a manifold of empirical representations which, in and of themselves, would be merely subjective, having no relation to the object. For empirical matter to function as empirical intuition, and act as an element in knowledge, a formal component is required. The relation to the object peculiar to sensibility specifies the representation through which this relation is established as an appearance, the undetermined object of empirical intuition.

Kant's analysis of the objective relation through sensibility proceeds as progressive specifications of the formal component in distinguishing it from sensible representations and concepts, and finally results in making a case for conditions of sensibility that parallels the understanding which has its own conditions of thought. The analysis moves from the form of appearance on the basis of which empirical matter is constituted as an intuition, to the form of intuition, that conception of form as a representation which itself must be present to mind a priori as the form in which sensible impressions are received. In this move, abstraction is first made from the sensible components, by distinguishing the formal from the material element, and second the formal feature is distinguished from logical form of concepts. Form of sensibility completes Kant's argument by specifying that this form is a condition of sensibility and that sensibility is essentially the capacity to yield intuitions. (Allison, 2004, p.125-127)

Kant's positive argument in the "Aesthetic" determines more precisely the nature of human capacity for sensible intuition. A distinction is made between outer and inner senses on the basis of the object that affects sensibility. Outer sense is sensibility to things which are other than the mind and which produce sensations in the mind, whereas inner sense is the mind's capacity to be affected by its own states and representations. It will be seen that the form of outer sense is space, through which things are represented as outside us and external to one another. The form of inner sense is time, which makes possible the representation of simultaneity and succession. (A22-23/B37) Two crucial points must be made here. Firstly, by this new specification human intuition is said to have two distinct forms which differ from one another with respect to the relations which they make possible. While these are distinct modes or forms of intuiting, their form as intuition is common. Secondly, these forms are distinct for human sensibility. It is possible to think that

there may be other beings that possess sensible intuition with these same forms. (B72) However, we may only assert that these forms belong to human sensibility as its conditions. It is not very clear to me if Kant would provide a positive answer to a question regarding how he comes upon space and time as the candidates of forms of human sensibility, or if these should be the only forms possible. To the latter Kant's answer is that we may not answer such a question. (B145-145) It is perhaps through the analysis of the notion of sensibility that the forms are limited to two, as the affecting thing is taken as the object (for outer sense) and the subject (and its own representations for inner sense). Since the mind is sensible to the object and its own representations, constituting the two senses, there would belong two conditions to sensibility. The first question, on the other hand, is perhaps answerable by stating that the investigation of sensibility is guided by our a priori knowledge of empirical things through mathematical science. Geometry, arithmetic, and algebra constitute part of our knowledge of empirical objects in that they are seen to have a priori application to the latter objects. Hence, the possibility of mathematical science may be said to be essential not merely for the direction, but also the outcomes of this inquiry.

For both space and time, Kant separates his positive argument into two stages. The metaphysical exposition intends to show that concepts of space and time contain a priori representations which make certain relations in appearances possible and that they are derived from intuitions. This shows that space and time are a priori representations which have an original form peculiar to intuition. The transcendental exposition, on the other hand, is intended to argue for two points. First, it shows that the account of space and time provided in the metaphysical deductions explain the possibility of attaining that a priori knowledge which has been actualized in the field of mathematics. And second, it intends to show that only one way of explaining space and time, that is, as forms of sensibility, makes it possible for them to be a priori intuitions, since this latter is seen to be possible under this very explanation.

I will now consider the two stages of Kant's argument in the "Aesthetic" in more detail. I will provide an analysis of the argument of the introduction, which constitutes the first stage of the argument, which also ensures a smooth passage to those of the second stage.

The novel conception of the empirical matter presented to thought is introduced with the notion of intuition. Kant's thesis is that intuitions as well as thought constitute a necessary condition of knowledge. Intuition is a representation that has a relation to the object, and this relation is immediate. As indicated, here this notion is used in the sense that the thing presented to thought is a particular object, and is distinct from thought. It may be objected that the immediacy criterion, indicating direct presence is at play. However, the notion of immediacy is here contrasted to the mediation which thought is considered to provide. Kant explains this mediation by saying that thought relates to intuitions "directly or indirectly, by way of certain characters[.]" A19/B33. This would mean that thought relates to intuitions in judgments, directly in the subject concept of the judgment, and indirectly in the predicate, but always through concepts, hence through universal representations. So, here the notion of immediate relation to the object may be taken to imply both the immediacy and the singularity criteria.

Kant's second claim, that intuitions require the object be given to us, is rather more obscure, and does not receive the necessary explanation, which Kant only attempts to provide in a general observation on the "Aesthetic" added in the Second Edition of the *Critique*. For clarification, it is crucial to note that the statement involves a rather general claim concerning the relation of the knower and the known. With human beings the claim would amount to saying the particular object which is to be known by thinking it under concepts must be present to the human subject. However, the relation of the particular to the knower is not limited to the case of the human knower. When the limitation pertaining to human subjects is noted, in comparison to an original, infinite knower, Kant first distinguishes the latter by the fact that its knowledge would be intuitive. (B71) Hence, in intuiting, this knower would have a relation to intuitions, particular objects. Now the comparison with human knowers centers on what constitutes the distinguishing feature between these two kinds of intuition. Intuition suffices for the original intuition, God-knower, to have a relation to the object in the sense proper to knowledge, in that what the object is and its existence are determined by the knower who makes it present to itself, gives it to itself, and stands in a relation to the object as distinct from it, the knower. (B72) This original intellect, in creating its objects, is in direct relation to the

particular object of its knowledge.²⁷ With human beings, on the other hand, what is presented as the particular object to be known through thought, what object exists, is contingent. As the mind cannot in and of itself explain the presence of particular objects, however, this must be explained with reference to the extra-mental, which is the object. The object must affect the mind. Sensibility is the capacity to receive representations through being affected, and it is through these representations that intuitions are presented to the mind.

In defining sensibility as the source of intuitions, Kant makes use of two divergent factors. On the one hand, he takes the naïve conception of sensibility as the source of empirical matter through which the object is given for thought. Here the nature of empirical matter remains undistinguished. On the other, he also states that thought is directed to intuitions. Since the existence of particular objects cannot depend on the mind, but we come to know existing individuals in experience, our investigation of the a priori representations belonging to sensibility cannot begin with particulars considered independently of experience. We must begin our novel conception of sensibility with the premise that we are first acquainted with particulars in experience. But since understanding is the faculty of concepts, understanding is not the faculty of particulars. Hence, particulars must be presented to the mind through or in the empirical matter received through sensibility.

With this conception of sensibility, the source of empirical intuitions, which are necessary components of empirical knowledge, Kant has now characterized sensibility as a unique source of genuinely objective representations, or as providing a relation to the object for the knower. Kant rearticulates this point by distinguishing the merely subjective representations, which are sensations, and those which represent a relation to the object, albeit empirical, when he distinguishes between

²⁷ Kant implies in certain passages that we can think other types of possible knowers and their cognitive capacities only through the conception we have of our own mode of knowledge. (For example, B139) With reference to the mode of knowledge of God, it may be possible that all distinctions, which are marks of a limited intellect, such as contingency/necessity, intellectual/intuitive conditions, subject/object may lose their meaning. However, Kant sustains the distinction between the knower and the known, in at least postulating an infinite, original mode of knowledge. Furthermore, spontaneity, the mark of the understanding in a discursive intellect, acquires a different function with God. For the human knower, spontaneity would be the understanding's capacity of assigning rules for itself from its own nature. With God, on the other hand, the spontaneous act produces the objects themselves, through which the knowledge relation is also constituted.

sensation and empirical intuition. Sensations are not intuitions. But sensibility provides intuition through sensations, and this constitutes the relation to the object. If an analysis of the relation to the object through sensibility is to be undertaken, the proper object of this analysis must address what is truly objective in the representations that are provided by sensibility. Hence, that to which the understanding is directed in all modes of knowledge, and which must be analyzed in order to discover the objective element in its constitution is appearance, the undetermined and underdetermined object represented in empirical intuition which has its source in sensibility.

Lucy Allais suggests that the significance of distinguishing sensations from intuitions may be read as a critique of Leibnizian conception of individuals. (Allais, 2010, p. 61-62) According to Allais, Kant is here criticizing the notion that an individual may be represented by a completely determined concept, which, by its very nature would be a general representation. Leibniz's metaphysical view that individuals underlie sensible representations, which are merely confused representations of these former, and to which the only method of access is analysis, must be abandoned, precisely because the individual is conceived as a concept, which cannot fulfill this function due to its logical form. The individual is not to be taken as projected into sensations by means of the understanding. And, what is the same thing, we have no intellectual intuition through which we posit things by the intellect as the underlying reality of which our sensible representations are confused representations. The relation to the object through sensibility has its own conditions which cannot be explained on the basis of the activity and formal conditions of the understanding.

The fact that sensibility presents to the mind a component distinct from thought, but logically necessary for the knowledge of objects, requires us to rethink the notion of affection. Affection's relation to the object must be presupposed in order to explain the presence in sensibility of sensations. The relation to the object which the understanding must think through the concept of affection is the concept of a merely intellectual relation. In this form it does not present to us that object of knowledge with whose analysis we are concerned. The proper analysis of empirical

knowledge into its sources and constituent elements requires us to conceive of the relation to the object through sensibility as instituted by empirical intuitions.

The requirement for affection arises from the attempt to clarify the type of intuition human knower has of the objects of its knowledge. On the one hand, the analysis of the formal conditions of knowledge for a discursive intellect yields the result that intuition, as representation of particulars, is a necessary condition. A capacity to intuit must belong to the mind. On the other hand, from this result it may not be immediately concluded that the mind has a capacity for intuiting things independently of any experience. This would be to conclude from the logical necessity of a capacity to intuit, that human beings have a capacity to create the particulars which they come to know. However, discursive cognition implies limitation, requiring representations through which particulars are represented, and known through thinking them under concepts. Hence, as a first step, the analysis of the capacity to represent particulars must admit of a dependence upon the extra-mental. Experience is the source of our knowledge insofar as it does not arise from the mind alone, and from which all our knowledge begins. We must, then, begin with those particulars with which human knowledge is acquainted, particulars insofar as they are part of empirical knowledge of objects. So we assign ourselves a peculiar capacity to intuit on the basis of the fact that intuitions are a necessary part of empirical knowledge. By the resources of thought alone, neither can we represent particulars since our understanding is discursive, nor can we conceive of a capacity to represent particulars a priori, because there would be no basis for our assertion. Analysis of intuition must be placed within the analysis of the concept of experience because intuition is a necessary component of empirical knowledge, and on this basis only may we securely say that we have a capacity to intuit.

Insofar as affection indicates the limitation of the mind with respect to the representation of particulars, its function is to direct us to that in the particulars which constrains us to an analysis of experience. But this is nothing other than a logical analysis of the concept of empirical knowledge, admitting a limitation that must belong to the human condition.²⁸ This analysis involves determining the

²⁸ Kant characterizes the distinction between understanding and sensibility on the basis of the notions of spontaneity and receptivity as metaphysical. It may be tempting to interpret the said limitation as a

contribution of the subject of knowledge to the representation of objects, and also limiting it with what arises from the object independently of the subject's cognitive capacities. And, sensation is that element which arises from affection by the object. Within this context, which is what Allison names the transcendental viewpoint, explaining sensation on the basis of an affective relation with the object, does not provide the grounds to assert the existence of an in itself reality for the object that underlies sensibly received empirical data. For one, since this object is merely a thought entity, always to precede whatever contingent thing exists for us in intuition, we may not infer from the affective relation that it exists. But so limiting the consequences we may derive from this relation requires that we are clear about the transcendental viewpoint from which we ask the question of knowledge. That is, insofar as we are operating under the metaphysical assumption of a self-existent reality underlying empirical knowledge, that the object must precede our intuition implies that our knowledge may not extend to this object. This inquiry postpones any metaphysical commitment concerning the object until after the form of objective representation is established. And, insofar as empirical knowledge is concerned, it is seen that a material condition in relation to the object must also be thought, as mere formal conditions cannot account for the presence of contingent sense data. Hence, in this context, the affective relation only tells us that in thinking about the conditions of empirical knowledge, in addition to the subject's cognitive relation to the object, we must also conceive of a non-cognitive relation obtaining between the two.

It should be noted that here the notion of affection acquires distinct meanings with respect to several layers of analysis. In the first place, it points to the finitude of the mind and limits the analysis of the cognitive capacities of the mind. The need for affection denotes that we must seek a warrant for the kind of intuition we take as our object of analysis. And experience, conceived as a species of knowledge, presents us with this warrant. Secondly, as intimated in Kant's distinguishing sensation (as

metaphysical assertion, positing a self-existent reality. However, the postulation of an infinite knower and its comparison with human cognitive capacities are merely heuristic devices. Consider the following. While other beings may have other kinds of intuitive capacities, our conclusion that human intuitive capacity is derivative and requires affection by the object, is logical. That is, insofar as we think human cognitive capacity with the concepts we use, we cannot claim to possess a capacity of original intuition, for in that case these notions will lose their significance.

result of affection) from empirical intuition (as intuition through sensation), affection is used to explain what experience is the source of in empirical intuitions. In this sense it belongs to the first stage of the analysis of empirical intuition. Since it leaves the mind's contribution undetermined, however, it must be distinguished from the analysis proper of this notion. Furthermore, affection relation with the object denotes a relation which must be thought independently of the mind's contribution to intuitions. We must think this relation to hold between the mind and the object, since it explains the ground of the empirical element which goes into the constitution of empirical knowledge. But the relation must be thought as one in which the cognitive capacities to represent objects do not feature. This is because the empirical element exceeds the contribution of the mind, and requires the latter's dependence on the extra-mental in the knowledge relation, which is the object.²⁹ And finally, affection may still be considered within the empirical viewpoint. However, one will then no longer be considering empirical knowledge as a species or mode of knowledge, but considering the relation between the mind and the object in the order of empirical phenomena. Affection would then be an empirical occurrence which would belong to the field of natural science.

The relation to the object through the novel conception sensibility is gradually identified by differentiating sensibility from empirical intuitions, and indicating that through empirical intuition an object is represented, although remaining undetermined conceptually. Empirical intuition is the particular that is presented through sensation. And sensation is at best contingent representation. However, sensibility yields representation of a particular in empirical intuition. Now, on the one hand, empirical intuition is contingent insofar as it is empirical representation. On the other, as the representation of a particular it constitutes a relation to the object rather than a merely subjective modification of consciousness. Hence, there must be something which constitutes the objectivity of empirical intuition, that is, the relation in empirical intuition to the object. So, within the necessity of empirical particulars for empirical knowledge, there arises the question of explaining what constitutes this something necessary from merely empirical,

²⁹ This sense of affection would, to my mind, correspond to Allison's transcendental conception of affection.

contingent representations. Thus the analysis will be directed to determine the constituents of the conceptually undetermined object of empirical intuition.

The shift in the conception in intuition, or the new mode of questioning the notion of intuition may be termed a shift from the merely logical conception to the transcendental conception of this notion. Nonetheless, it is crucial to refrain from saying that this shift amounts to abandoning the former conception. Kant's aim is to explain the conditions of representing particulars, and this question itself rests on the necessity of particulars for empirical knowledge that has a logical basis. This novel question could not, however, be undertaken in general logic since the field of this science requires analysis to abstract from the object of thought. And precisely this marks the limitation of general logic, which does not concern itself with the constitution of empirical intuition that constitutes the matter of thought. Such an element there must be, since, as argued above, particulars cannot be represented by concepts, wherefore it cannot be presupposed that in sensation the concept of an individual is merely confusedly represented. Since particulars are necessary representations for thought being related to objects, if representing particulars rested merely on sensations which are merely subjective, containing nothing objective for thought, one would contradict the logical conception of knowledge. Ordering by thought would be merely shuffling with subjective representations, presenting no object to the knower.³⁰

The difficulty in determining the necessary element in the representations presented through sensibility lies in that this element is, in a sense, buried in the material presented to thought. Insofar as its presentation does not occur through the form which is peculiar to thought, it must be expected that the latter treat its matter without considering the necessary element that should, by its nature, remain veiled from it. And Kant's formulation of the relation of intuition to the object as

³⁰ Kant holds that the understanding is an objective faculty of knowledge whose laws are valid for all discursive intellects, even though their sensible capacities may differ from one another or from that which belongs to human beings. Sensibility is subjective in that it presents empirical representations to thought. However, insofar as nothing objective is presented to the mind through sensibility, thinking through the matter would produce merely the semblance of knowledge, for there would not be any legitimate ground to decide whether the order formed by the ordering activity of thought does really correspond to things presented in sense data. But Kant's analysis has shown that there is a gap between sensation and empirical particulars, both of whose source lies in sensibility, which must be explained.

immediate is crucial precisely in this respect. The task of the “Aesthetic” is to bring to thought what must remain buried in the representation of empirical particulars since it determines merely subjective representations immediately. In this connection it must also be noted that the object under analysis, appearance, is considered as undetermined conceptually, or by the understanding in any way whatsoever, precisely in order to pinpoint the contribution of sensibility alone.³¹ Kant’s subsequent arguments will reveal, however, that this is no easy task, since a pure synthesis, an activity of the imagination under the guidance of the pure concepts of the understanding, will be seen as a necessary precondition of constituting particulars. In any case, Kant’s claim is that sensibility provides a genuine contribution to objectivity.

3.1.4 Analysis of Sensibility

I would like to remain with the arguments of the introduction a little longer in order to show in what respects these former anticipate those of the metaphysical exposition.

Kant begins the analysis proper of the objective in appearance as follows: “That in appearance which corresponds to sensation I term its *matter*; but that which so determines the manifold of appearance that it allows of being ordered in certain relations, I term the *form* of appearance.” (A20/B34) The role of sensation was treated previously.³² It is the source of representations which provide for the

³¹ Allison warns against a hasty identification of what Kant calls intuitions with particulars. He suggests that we think intuitions as representations which have the capacity to become representations of particulars. This function, Allison argues, requires that these representations must be brought under concepts. The treatment of the possibility of mathematics in the Aesthetic must be taken in this light. While mathematical science requires a priori intuitions as the third thing through which concepts are combined in synthetic judgments, in the Aesthetic the necessity for construction of concepts in intuitions is not addressed, precisely because this function requires a peculiar mode of ordering, hence a synthesis under concepts. Kant addresses this component of the possibility of mathematics in the “Analytic”.

³² It is perhaps peculiar to assign a role to sensation in objectivity. However, the consideration of particulars first derives its warrant from its necessary place in empirical knowledge. To maintain its legitimacy, the possibility of a priori intuition must be limited to the analysis of particulars we represent through sensation. Sensation is assigned a determinate place in relation to the notion of intuition.

existence of the particular objects presented in intuition. Kant swiftly identifies this as matter. The role of form in appearance is distinguished from the matter in that it provides a determination of the manifold of representations, making ordering possible.

I would like to stress several points.

Firstly, the analysis rests on the primacy Kant affords to the distinction between matter and form, which concepts, indicating the determinable and the determination, Kant holds are involved in all analyses of the understanding. (A266/B322) As briefly mentioned in the previous chapter, I believe this distinction to underlie the possibility of Kant's conception of general logic as a science of the forms of thought. In this respect, it is essentially connected to the distinction between a posteriori and a priori, directing the mind's quest in determining the a priori possessions of pure reason.

Secondly, it is crucial to keep in mind that as the human intellect deals with appearances, representations rather than objects themselves, empirical particulars are presented to the mind through representations. It is by representing them as ordered in a determinate and necessary structure and under certain rules that representations are referred to objects or acquire objective validity. Representing them as particulars belongs to this structure of representing objects. The ground of Kant's introducing the distinction between matter and form in appearance arises from a need to distinguish two different kinds of representations which fulfill a role the other is not capable of. The form of appearance has the function of making possible that the order in empirical representations, achieved by the ordering activity of the understanding, does not result in merely a contingent thought, but allows the representation of a particular. Only by representing the necessity requisite for constituting particulars, which is embedded in the empirical given, can objective validity be represented in the representations ordered by thought. Hence, this necessity must be part of the representations presented for ordering.

And finally, Kant here indicates the two-fold function fulfilled by the form of appearance. We can distinguish several layers of determination. We first distinguish an ordered manifold from the possibility of ordering it. This latter is the role of the form of appearance, and it makes this possible by providing the relations in which

the ordering must take place. Secondly, we distinguish two components in the possibility of ordering the manifold. One concerns the relations in which the manifold is orderable. The other concerns the determination by form that makes an ordering of the manifold in these relations possible. This latter may perhaps be better characterized as pre-determination in comparison to the determination in ordered representations. This pre-determination by form of appearance renders certain relations (temporal and spatial relations in the case of human sensibility) applicable to the manifold. Thus these relations have a relation to a deeper form that determines the manifold and in thus determining makes these relations applicable to it.

In his next statement Kant makes more explicit the *a priori* nature and function served by the formal feature.

That in which alone the sensations can be posited and ordered in a certain form, cannot itself be sensation; and therefore, while the matter of all appearance is given to us *a posteriori* only, its form must lie ready for the sensations *a priori* in the mind, and so must allow of being considered apart from all sensation. (A20/B34)

Kant here makes two claims. That the formal cannot be sensation, and so *a posteriori*, but must be a necessary representation. And, this necessary representation must lie ready in the mind, and as such must allow of being considered apart from the contingent element which it pre-determines.

With regard to the first claim, I note again that the formal element has a necessary relation to certain types of relations for ordering sensations. If any relation is derived from sensation, this would be a contingent relation, and nothing certain. Any other relation could be derived from any other manifold or by any other subject. Furthermore, these relations would not have any connection to a deeper formal feature by whose pre-determination relations are first made applicable to the determinable, the manifold. Contingent in being derived from sensation, their application to sensation is itself a contingent matter, for sensation is not that deeper form, but these relations are imposed on sensation, determination of this imposition resting on contingent grounds, not necessary.

Now, form is a form for matter. In being a form it presents a structure distinct from matter, but its function must also be clarified in relation to this matter.

In stressing the distinction between being posited in a form and being ordered in a form, Kant points to a two-fold function belonging to the form of appearance, which arises from the intra-formal relation of the deeper form and certain relations. The latter is a content as it were, in comparison to the deeper form, which determines the types of relations that are possible in this form, but which, nevertheless, must be considered a formal content in comparison to sensation which constitutes the matter that is represented in this form. By means of this intra-formal relational structure, insofar as matter is represented in this deeper form, certain relations are applicable to this matter. This form pre-determines the manifold, and precedes the activity of the understanding, by first rendering certain relations necessarily applicable to matter. The activity of the understanding which orders the manifold must take place in these certain relations since it is in the forms that are connected necessarily with these certain relations that the matter is presented to it.

It is implicit in the term “certain relations” or “ordered in a certain form” that, while the intra-formal structure through which certain relations are applicable to matter remains the same, the type of relations so made applicable may differ. In this sense, Kant is hinting at determinate species of that which functions as a form of appearance. In the case of spatial relations, for example, relations of being outside or next to one another are made possible by space, which is a species of representation that, Kant will argue, has the structure peculiar to the form of appearances.

Kant tells us that in the form of appearances, which is the “pure form of all sensible intuitions in general ... all the manifold of intuition is intuited in certain relations” (A20/B34). So, prior to being ordered in certain relations, being merely pre-determined by the form of intuition, the manifold may be intuited in certain types of relations. Now, Allison suggests intuition, taken as representation of particulars, requires determination or conceptualization. So, representation of a particular would require ordering. Hence, intuition and ordering in certain relations must be thought identical. Thus it is ambiguous in what respects intuiting the manifold in certain relations and ordering the manifold in certain relations may differ. I will come to this shortly.

The connection of the form of appearances to the question of possibility of representing particulars through sensation, can be made clearer by considering

Kant's assertion at the beginning of the introduction, that in all knowledge thought is directed, as a means, to intuitions (representations of particulars), as an end (A19-B33). Here, it is obvious that the end of thought is not to generate these particulars out of itself, but to order them. Understanding is the faculty of concepts, and ordering through thinking involves representing relations in a logical structure. In this sense, then, the end of thought is to represent particulars under concepts. In the present context, however, Kant is telling us that the activity of ordering is to take place in certain formal relations which arise from sensibility. The manifold to be ordered is given in sensation, which corresponds to the matter of appearance. So the issue dealt with is representing empirical particulars through sense data. A form is required for the representations to constitute an appearance. But an ordering of the manifold, which will take place under the condition of this form, is also required. Here looms the spectre of synthesis, a peculiar mode of ordering sensations, which is non-logical in its ordering activity, but governed by concepts, as well as proceeding in its activity according to relations arising from sensibility. But Kant only briefly suggests that representing particulars is connected to an ordering, when he says that determination by form allows the manifold to be ordered in certain relations. As Kant is trying to isolate the contribution of sensibility from that of the understanding, the stress is shifted from ordering to that material (containing a form and matter) through which particulars are represented.

Since the something through which particulars are represented in sensation cannot be a concept, it must be something that is immanent in the material presented to the activity of ordering. As it cannot be sensation, however, the material for ordering must contain something other than sensation. This something, the form of appearance, must at once be necessary, and also necessary for the possibility of representing particulars. Kant's next task will be to determine what these necessary relations may be, how they may fulfill the task of determining the manifold of sensation immediately, and in what sense these representations make possible particulars.³³

³³ The manner in which Kant lays the ground for this task may be construed in the following manner. We represent empirical particulars through sensibility. Sensibility has a dual structure, consisting of outer and inner senses which yield outer and inner appearances respectively. Outer and inner

The second of the points connected to the quoted passage may be dealt with rather more swiftly, although it harbors some ambiguity. Here, Kant rearticulates the components of his notion of a priority of representations, which are that these are mind-dependent and that they are necessary. Formal features in which ordering may or does take place are provided by the mind. Now, insofar as the form of appearances is the pure form of sensible intuitions and as such is present to the mind independent of sensations, it is a pure intuition, and may be considered apart from sensations. But consideration of this pure form may take two courses. For one, space and time, as pure intuitions are the representations on which the synthetic a priori judgments of mathematical science rest. So, these representations are directly accessible by the understanding, which constructs mathematical concepts in and through these intuitions, and makes judgments and inferences in connection with this form. From the perspective of philosophical knowledge, however, a priori intuitions are necessary sensible conditions which arise from the nature of the limitations of a discursive intellect. They do not function in their presence to mind as pure intuitions whose forms determine the concepts that can be constructed in considering them. To the contrary, these pure intuitions are treated by thought whose analysis of the notion of knowledge and discursivity yield certain necessary features that must be presupposed as belonging to the formal constitution of pure intuitions. This is knowledge concerning pure intuition from concepts alone. Now, insofar as the “Aesthetic” is part of philosophy, the philosophical conception of considering the a priori apart from all sensation must be ascendant. In this sense, we may say that the a priori, distinguished from sensation in that it is necessary, insofar as it may be shown to be a necessary condition of mathematical knowledge, offers us a warrant for that necessity which accompanies our mathematical knowledge. We will thus be grounding our claims regarding mathematical science on a basis that is rational rather than some psychological introspection.

The purpose of the arguments of the metaphysical exposition is to establish the a priori and intuitive nature of space and time, which are the species of sensible

appearances are species of appearances which are representations of particulars. Inasmuch as these appearances represent particulars, they must contain the structure necessary for representing particulars as well. That in them which cannot arise from sensation, nor from the understanding, must be the form of appearance. This line of analysis was suggested earlier.

intuition that are peculiar to human beings. I suggest that Kant's discussion of the two aspects of these forms of appearance is intended to provide an analysis of the two-fold formal structure of the form of appearance. I hope to make this clearer throughout the discussion. I will consider the arguments for space for brevity's sake and also since the arguments for space and time are for the most part identical. The crucial difference is that space is the form of outer appearances whereas time is the form of all appearances, since it is the form through which the mind intuits itself, its states and representations. Before proceeding to a discussion of the metaphysical exposition I will first address this difference in relation to the ambiguity concerning intuiting and ordering through certain relations.

The ambiguity mentioned lies in the fact that Kant uses the term intuition to name conceptually undetermined intuitive representations as well as representations of intuitions which require the representation of manifolds by means of category governed syntheses. I suggest that this ambiguity is connected to one which may arise from Kant's characterization of outer sense. "By means of outer sense, a property of our mind, we represent to ourselves objects as outside us, and all without exception in space." (A22/B37) It is Allison's contention that here the term "outside us" is used in the sense that what is represented is something extra-mental, independent of the mind whereas the representation of things in spatial relations is precisely what is achieved through space as the form of sensibility. (Allison, 2004, p. 100-101) However, in this characterization, there is a sense that something extra-mental is represented to the mind as such. This, however, is rather difficult to reconcile with the nature of receptivity to affection by the object, in that, sensibility yields merely appearances as representations presented in certain relations. There is nothing in these relations which would refer representations as something other than the mind to the mind, since the mind does not intuit itself in space, which is precisely what seems to be required for representing *something* outside *us*. Furthermore, as Kant's argument in the analytic shows, the "I", mind's consciousness of itself, arises from the understanding. For *us*, or the *mind* to represent something as outside itself, this self-consciousness must be related to that which is extra-mental. It must be conceded that something extra-mental is presented through sensation, for sensation involves the passivity of the subject, and is not

generated by the mind. But the representation of something as extra-mental through sensation requires further determination by inner sense as well as the understanding.³⁴

The relation between inner and outer senses, and also the understanding are, in this context, rather complex. Now, insofar as outer sense is affected and receives representations, these are represented in their manifoldness in space. But these constitute determinations of inner sense since they are representational states. This should mean the mind is affected by its own representations. However, here the mind remains affected merely passively, receiving representations in inner sense, but is not affected by itself in the sense that it is self-conscious through its own activity. For this latter, the mind must affect itself with this activity, and this would require for it to affect itself with these representations. The rather ambiguous term “posit” may be clarified as well. Insofar as the representations are merely received in sensibility, they are posited, but they are not posited *by* the subject. Insofar as they are posited by the subject, the subject is active, and affects itself with these representations, and is conscious to itself of its own activity in the form of inner sense in which the activity of synthesis takes place.

Now, a crucial point to stress here is that, in this activity, the mind posits something in a form, in space or in time, only because it has already been posited in this form through receptivity. Hence, the passive receptivity as well as active positing constitute the two dimensions of Kant’s construction of the notion of “intuiting in certain relations”. We may refrain from naming a manifold represented in space passively received in the form of inner sense, the representation of a particular. But, Kant is still in a position to say that this is intuition as an immediate relation to the object, for what is presented to the mind in this passive state, when the mind initiates synthesis, is posited without any mediation in these forms and the relations made possible by them.

³⁴ I do not believe this would require the category of causality through which an objective time order in the manifold of intuition is determined. This would be opposed to our everyday experience, as well as Kant’s example of the native’s intuition of a house out there in the distance, in comparison to the modern man’s representation of the same thing there under the concept of a house. Someone who only intuits the thing as something out there need not, in this representation, represent it as apart from the self. (9:33) And also, precisely this question is answered by Kant in the Refutation of Idealism.

3.1.5 Metaphysical Exposition: A priority Arguments

Kant presents two arguments each for the a priori and intuitive nature of space. Although I call these arguments, it seems to me that their nature as an exposition of what belongs a priori to a concept renders them a kind of definition. This, the arguments try to do by showing that certain presuppositions concerning space cannot serve the functions expected from the representation of space.

Space is not an empirical concept which has been derived from outer experiences. 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 similarly in order that I may be able to represent them as outside and alongside one another, and accordingly as not only different but as in different places, the representation of space must be presupposed. The representation of space cannot, therefore, be empirically obtained from the relations of outer appearance. On the contrary, this outer experience is itself possible at all only through that representation. (A24/B38)

Although Kant begins by stating that space is not an empirical concept, his argument mainly concerns the empiricists derivation of the concept of space, and the origin assigned to the concept. The objection is against the empiricist's conception of the material from which the concept of space is derived. An empirical concept of space would be the common feature of a number of outer experiences. Obtaining a concept of space empirically from merely empirical representations requires us first to have a number of outer experiences, from which we could subsequently derive this representation. Outer experience requires that a manifold of sensations be represented in relations of exteriority. Only once we are conscious of sensations ordered in such relations, may we find a common feature between a number of instances where sensations have been so ordered. Now, insofar as outer experience is to be considered as mere sense data, it will consist merely of sensations. However, through what is presented in sensation only, sensations may be distinguished from one another merely as qualitatively different, but not as occupying different places. Hence, the order of sensation in spatial relations is not possible through sensation alone.

The empiricist requires that there be some order in representations which will be the common feature from which the concept will be derived. However, as it is not

possible to explain this order on the basis of sensations alone, another representation is necessary which would make it possible for sensation to be represented in the order that characterizes outer experience. Space is the representation which makes possible outer experience, because it is a necessary component of such experience. An empirical concept of space may be derived from outer experience on the basis of a representation of space that precedes this empirical concept. And this representation is the condition which makes possible the order of representations in those relations that is characteristic of outer experience.

Our representation of space, the representation of space that belongs to the mind, then, belongs to it necessarily in presenting outer appearances and comes prior to the concepts by which the mind would think representations under the concept of space. If space belonged to the mind originally as an empirical concept derived from outer experience, it would be possible neither to derive this concept in the said procedure, nor for it first to make the relations possible in outer experience from which the concept were to be derived.

Kant's results must be interpreted with respect to the two-fold structure of the form of appearance. To remind, this form is characterized by certain relations which it makes possible. It must, then, be possible to point out these relations to discern this form. And these relations are to be necessary, not derivable from sensation. Furthermore, this form makes possible the application of these relations to sensation. Insofar as sensation is presented in this form, these relations are necessarily applicable to sensation. And finally, this form must be connected with the possibility of representing particulars through sensation. So, which points has Kant addressed?

Kant has gradually followed the conditions under which a concept of space may be empirically obtained. The concept is based on an order recognized in more than one instance. This requires that there be an order in the representations, which in turn requires an ordering in certain relations. Ordering must take place in certain relations, and for this, these relations must be possible in the represented manifold, which, in turn, requires the representation of space, since these relations cannot be provided by sensation. For one, Kant has shown that a representation of space is connected with certain a priori relations. As the relations it makes possible are a

priori, and space is presupposed by them, space is itself an a priori representation. While space is characterized by these relations, this does not explain to us how space makes it possible for sensations to be ordered in these relations, but only that it does so. For the moment, being in space is explained only crudely. Outer experience presupposes space, since ordering of sensation in spatial relations requires that sensations be represented in space. This is what it means for space to be presupposed by and making possible outer experience. However, this characterization of being in space is merely possibility of being ordered according to spatial relations. The representation of space is characterized by these relations, and it makes these but no other relations possible for sensations that are represented in it.³⁵ So, how being in space makes possible the application of these relations to sensation, or how space is connecting to the representation of particulars remains unexplained.

The second a priori argument tells us that we cannot represent the absence of space, whereas we can represent space as empty of things. I will here follow Allison in his suggestion that this argument must not be read in psychological terms, as indicating a psychological limitation we are invited to witness through an empirical experiment. This cannot provide the required necessity. In its stead, the argument can be read as suggesting that outer experience is not possible without the representation of space, whereas space can be represented as without objects. This latter, Allison suggests, is evidenced in the fact that when we remove the marks of a concept of body arising from the understanding and sensation, there remain certain qualities which are possible only through space. The details of this argument are redundant here, as I follow Allison who concludes that Kant's argument proves as much as the previous argument, with one addition, however, which is that space presents some a priori content for analysis. With this argument, Kant abstracts from all consideration of matter in appearance, and allows the analysis to focus particularly upon the formal features of the representation of space.

³⁵ What I am trying to say is that a deeper form, due to what I have called its formal content, makes possible a type of relations rather than others, such as in the case of the difference between space and time. But this does not tell us anything about the deeper form.

3.1.6 Metaphysical Exposition: Intuition Arguments

The first a priority argument was concerned with the derivation of the representation of space from sensation as a concept. This proved impossible as it was seen that sensation could not provide the necessary relations for this derivation. In the present case, however, Kant tells us that “Space is not a discursive or, as we say, general concept of relations of things in general, but a pure intuition.” (A24-25/B39) Here, then, Kant concedes the possibility of the order from which space could be derived. For once we allow that things themselves are posited in sensation as related, a formal relation between concepts, which is other than sensation, is possible. However, at this point Kant is not so much concerned with the possibility of deriving the concept of space, as whether the representation of space is originally a concept after all. The question is, then, to see whether it does fulfill the characteristics of a concept

A concept, as a general representation, has an extension and an intension. Its extension is constituted by things or concepts that fall under it, of which it is a general representation, representing certain characteristics common to them. The intension of concepts are constituted by marks which determine their content, and which are partial concepts compared to the whole concept which they determine. The intension of a concept is determined by the concepts under whose extension it falls. With respect to their extension, concepts are located within a hierarchy of generality, ordered according to species and genera. The higher a concept, the less specific determining marks it has, and the more concepts it determines as a mark. And the lower a concept is in this hierarchy (hence the lesser extension), the more determining marks, the larger an intension it has, being more specifically determined. The intension and extension of concepts are necessarily, and inversely related. (Allison, 2004, p. 111)

With respect to extension, Kant tells us that, “we can represent to ourselves only one space; and if we speak of diverse spaces, we mean thereby only parts of one and the same unique space.” (A25/B39) The claim is that, if space is not a conceptual representation, it is an intuition, in the sense that it is a particular representation. Now, in the case of a concept, particular instances would fall under a

concept. Kant allows that we represent many particular spaces. The difference is that the representation of space itself is a single representation, and particulars belong to it not as instances, but as parts. The argument is generally construed as requiring Kant to show that relations between space and its parts distinguishes it from singular concepts such as that of the world which is a totality or that of a supreme being of which there must by necessity be one representation. (Allison, 2004, p. 109-110; Parsons, 1969, p.45) Kant is required to show precisely this difference. As the concept of a supreme being is a necessary concept, the oneness of space cannot distinguish it from this concept as an intuition. And in the present formulation, Kant has shown that the relation of space to particular spaces is only more of the same, and also that space itself is a single representation whose parts are these very particular spaces themselves. This, Allison suggests, does not allow us to distinguish it from the concept of world. So, further determination is required.

This determination is provided in considering the representation of space in relation to the intention of a concept, the relation between a whole concept and the partial concepts that constitute it. The parts which belong to the “all-embracing space” do not first precede space, from which this space is then constituted. (A25/B39) For a concept, the partial concepts precede the whole concept of which they are the constitutive marks and which they determine. With space, on the other hand, in order to represent the particular spaces that are represented as the parts of one space, space must be presupposed as that representation through which they can first be formed, and in which they will all be represented. With this determination, Allison argues, space is “presented not only as single (*einzig*) but also as a unity (*einig*).” (Allison, 2004, p.110)

The last point to be addressed is, then, how diverse spaces are represented in the one all-embracing space. While concepts are determined by their marks, and distinguished from other concepts by these determinations, distinct spaces are in a sense homogeneous with each other and the all-embracing whole in which they are represented. As determination of parts (in a sense determination of the limit between parts) is not accomplished by distinguishing marks, but as diverse spaces are represented as parts in this one space, Kant concludes that representing distinct spaces “depends solely on the introduction of limitations” (A25/B39)

According to Kant, the concept of space can subsequently be derived from these particular spaces which are first presented through limitation of the unique, all-embracing space, and of which they are parts. And this means, Kant concludes, that not an empirical intuition but an a priori intuition underlies this concept. The point is, since an empirical intuition of space would be the representation of sensations in particular spatial relations, the particular object given in sensation would be represented through the limitation of the original particular representation of space. With this point, Kant has in effect shown that the a priori intuition of space is a condition of possibility of representing empirical particulars. Empirical particulars can be represented by representing sense data in particular spatial relations. Furthermore, insofar as space and time are shown to be the forms of sensibility, it will also appear that we can represent empirical particulars only in spatiotemporal relations.

Kant provides a further conclusion which is that geometrical propositions also rest on this a priori intuition. Kant argues that geometrical propositions are not based on concepts of spaces, but the intuition of space. A question of geometry may be formulated in terms of concepts in judgment. However, it is the original intuition of space which contains the possibility of spatial relations. Spatial concepts are derived from the original representation of space through limitations which provide determinate intuitions in which objects are first exhibited in intuition. In order to answer a question in geometry, the concepts must first be constructed as a determinate intuition. Only then can an answer be sought, and in intuition, because this latter provides a priori the possibility of spatial relations, which is the ground on the basis of which the relations between these determinate spaces can be investigated.

The context of the “Aesthetic” limits the explanation of the possibility of introducing limitations on the a priori intuition of space. This topic is treated in the “Analytic”, under the “Axioms of Intuition”, since it concerns a synthesis guided by categories. Still, the structure of the representation of space is a condition that makes possible this mode of determination. And this structure is still open to clarification. This is hinted at by the concept of limitation. Insofar as particulars rest on the limitation of a single unified space, and space contains all determinate particular

spaces in itself, there will always be a greater space than the greatest, as well as a smaller space than the smallest, as this latter is also a space determinable by limitation. The representation of space is connected to the notion of the infinite.

Kant makes this case in the final argument of the metaphysical deduction whose conclusion is that space is an infinite given magnitude. Concepts may have an infinite extension of objects that fall under them, but an infinite intention would prevent a concept from being determinate and function within the hierarchy of concepts that could be distinguished from one another. However, space contains its determinate parts within itself, and there will always be a larger and smaller space than the largest and tiniest. Space will thus have an infinite intension.

I would like to consider two crucial conclusions that follow from the results of the Metaphysical Exposition.

First, note that it is not merely because space makes possible spatial relations that it is the condition of possibility of representing particulars. This rests on space being an a priori intuition with a determinate formal structure which makes certain kinds of relations (in this instance, the spatial relations) possible. This is the two-fold formal structure of the form of appearance which Kant has formulated in the introduction. Now, space is not a determinate particular, but a particular with a determinate form (that allows certain relations). In being a particular, it has the form that is peculiar to particulars, in that the whole representation precedes the parts representable in it. Having a determinate form, it does not specify what determinate relations there are, but provides the possibility of constructing relations according to this form. All representations through space will reflect the same relation to their parts, in that they will be particulars. But also, since the limitation through which particular spaces are represented takes place in the determinate form characteristic of space, all possible particulars through this representation will possess the characteristics of this form. It is in this sense that space and time make possible the consideration of the universal in the particular. It is a formal particular which makes possible the representation of determinate particulars and contains a universal characteristic in its form. This characteristic is immediately applicable to all particulars represented through it.

The second point concerns to understand how space, whose nature has been shown to be an infinite given magnitude, belongs to the mind (that is, the discursive intellect). Insofar as space is an intuition, it must be directly present to the mind; however, as it is now conceived to be an infinite magnitude underlying particular spaces, the question is whether the infinite magnitude of space is present to the mind in intuition, independently of all activity of thought. I will once again follow Allison's exposition of this question, who suggests that space must be considered "as a brute datum and, therefore, as something simply "given," though not as a distinct object that might somehow be inspected independently of all conceptualization" and as something which "guides and constrains" the activity of thought. (Allison, 2004, p. 113) It is a brute datum that guides and constrains the activity of thought as it provides thought with that two-fold form through which the logical correlate of concepts, that is, particulars are represented. Insofar as particulars are to be represented (by the human intellect), the ordering activity must follow through the certain relations made possible by space. And thus it underlies the relations which it first make possible. On the other hand, as this original representation of space itself is seen to be a particular representation, which contains all particulars represented through it through its determination by limitation, its deeper form must be presupposed to be an infinite magnitude which is merely given. This presupposition belongs to thought's considerations on how space as a formal representation is to function. Kant, then, must be taken not as claiming that we have in intuition a representation of space as an infinite given magnitude. Rather, the claim is that in our representation of particular spaces we must presuppose that space as an infinite magnitude which bounds the particular but is itself unbounded, is already intuited, of which the particular is a limitation. It must be considered as "a claim about the a priori structure of our spatial experience in general," which is arrived at by an analysis of the non-conceptual conditions of possibility of representing objects in intuition, or representing particulars. (Allison, 2004, p. 113-114)³⁶

³⁶ An interesting aspect of this interpretation of the notion of infinite given magnitude is that a brute datum presented to thought is seen to be part of the a priori structure of representing particulars. That is, there seems to be something that is at once formal and material. This point might be considered as

The detailed exposition undertaken in this section, particularly of the Metaphysical Exposition, was intended to provide the reader the context within which the thesis in this work is located. The "Introduction" to the *Critique* serves as an introduction into what I have called here the transcendental conception of intuition, as its discovery is crucial to formulating the problematic of the *Critique*. Without recognizing, and allowing the reader to recognize, although cursorily, the necessarily distinct formal properties of intuition and concepts, there would be no reason to claim that knowledge through concepts alone is not possible for human knowers. Hence, recognizing a distinct form peculiar to intuition is at once central to setting the apparatus of critical thinking in motion, and also finds its clarification in the Metaphysical Expositions of space and time. This thesis is concerned with providing this connection. Rest of the arguments in the Aesthetic fall beyond its scope. Therefore, I will briefly discuss Kant's second step in the Transcendental Exposition, and the principle of a priori knowledge derived from sensibility.

3.1.7 Transcendental Exposition

Having completed the analysis of the nature of space as a representation, Kant moves to the second step of his argument in the "Aesthetic" whose aim is to show the connection of the a priori representations found in sensibility with a priori knowledge. This step is, thus, called "Transcendental Exposition", and itself consists of two steps. The first step aims to provide a ground for what Kant has argued for in the "Introduction" to the *Critique* regarding geometrical knowledge, that it contains synthetic a priori propositions. Here his contention is that geometrical knowledge does actually flow from the nature of the representation of space as it has been put forward in the previous step, that is, as an a priori intuition. The aim of the second step is expressed in a question. "How, then, can there exist in the mind an outer intuition which precedes the objects themselves, and in which the concept of these objects can be determined *a priori*?" (A25/B41) Kant reaches a conclusion which he

where the analysis, undertaken by the understanding, of the structure of representing particulars must cease, as it hits upon that aspect which is merely given, unconditioned by any activity of thought. However, it is also not possible to intuit this aspect of representing particulars, but only an analysis by the understanding can bring it to consciousness.

sees as only too obvious, which is that “insofar as the intuition has its seat in the subject only, as the formal character of the subject...” (A25/B41) The crucial conclusion Kant draws from this is the principle of a priori knowledge which belongs to sensibility. This principle states that things, insofar as they are appearances, are necessarily and universally in space. All empirical objects are, thus, necessarily in space, hence, space is empirically real. On the other hand, as space is nothing but the form of sensibility, and belongs to the subject of knowledge who must intuit as well as to think in order to acquire knowledge, it cannot be applied legitimately to objects considered merely by the understanding in abstraction of the sensible conditions of knowledge.

Kant demands that the outer intuition belonging to the mind satisfy two conditions. The conclusion Kant reaches regarding the nature of space may be said to be obvious only following a lengthy consideration of these conditions. I will first clarify the question in which Kant states these conditions, and then give an account through which Kant’s answer to it can be reached.

First condition is stated in the first part of Kant’s question: How is it possible for an intuition to precede the objects themselves? I find that the phrase ‘objects themselves’ harbours an ambiguity. Are we to understand by it things in themselves? I would rather resist this meaning, as Kant’s question, read in this manner, would be, in some sense, admitting that there exist things in themselves. I interpret the question as meaning how it would be possible to have an intuition with a determinate form which precedes the particular empirical things that are intuited.³⁷ The question is directed at the type of intuition which we hold human beings to have. Insofar as the intuition is original, i.e. non-sensible, or intellectual, we could say that the particular object is generated as such by the knower. The latter gives the existence of its

³⁷ I would like to note that to my mind, here the distinction between *Gegenstand*, i.e. the object of sensible experience and *Objekt*, i.e., the logical object of judgment is rather inapplicable, since Kant is mainly concerned with how a priori knowledge of the object is possible where the mind’s relation to the object is first thought in terms of sensible intuition, in that this latter requires affection by the object. Here Kant is primarily concerned with the possibility of the constitution of the *Gegenstand* insofar as it is the object of a sensible intuition. The question is how a priori intuition may be possible insofar as the *Gegenstand* requires, for the material element that goes into its constitution, affection by the object. The notion of the affecting object seems to me to arise not in relation to judgment, but in relation to the generation of the particular, which, for human intuition, requires affection, since human intuition cannot give the object to itself.

objects by itself. Perhaps even a form preceding the intuited would be a contradiction in this case, for it would imply limitation of the intuitive intellect. In any case, as human intellect is discursive, for human beings intuition requires that objects be given to it through affection. So, when Kant asks how it is possible for an intuition to precede the *objects themselves*, this does not here mean the concept of things in themselves, but empirical things whose existence is contingent, and not determined by the mind alone. Hence, the question concerning the origin of our representation of space is rather better construed as how we must conceive the human knower so that to the mind there belongs a representation which is the form of intuition that comes prior to the intuited, or particular empirical object.

The second condition, contained in the second part of the question is as follows: How is it possible for an intuition to determine the concept of the objects themselves a priori? I would like to first point out that Kant here uses the term ‘concept’ in the singular rather than the plural. In this sense, then, here he has in mind not this or that empirical concept which is derived from an empirical intuition. But Kant’s meaning is not, to my mind, altogether disconnected from empirical concepts. What I take Kant to mean is this: We have a general concept of empirical objects, arising from the notion that we have empirical knowledge of objects. Now, we may derive certain empirical concepts, and all with varying degrees of generality. But, as these are contingent, and have only an assumed universality, they cannot determine our general concept of empirical objects necessarily and a priori. Something which determines all our empirical concepts also determines the general concept we have of empirical objects.³⁸

It is here, I think, the link to the notion of the thing in itself can be insinuated. That is, Kant is here in a sense asking how we are to conceive of empirical objects, which is to mean whether we take empirical objects as things in themselves of which we obtain confused representations through the senses, or as

³⁸ This abstracts from the condition that in order for our concepts to acquire the form of knowledge of objects they must be determined by the pure concepts of the understanding as well. But, insofar as our concepts are to be concepts of objects they must be determined by the form of intuitions as well as the pure concepts of the understanding. These latter provide the unity of the synthesis of empirical intuition that is required to represent an empirical object. This a priori synthetic unity must, however, be subject to the forms of sensibility, since, knowledge of objects requires intuitions as well as concepts, and the forms of sensibility are the only conditions under which we can have intuitions of objects.

appearances, as empirical intuitions. The question is already to an extent decided at this point. For, beginning with the principle that knowledge requires concepts and intuitions, it is shown that the representation of space is the condition on the basis of which we represent particulars that are given through sense data, and that this representation is an intuition. And, also intuitions are shown to differ from concepts with respect to their form and to precede the concepts that are derived from them. We are already operating under the principle that empirical objects must first be considered as empirical particulars, and are, furthermore, linked to the representation of space necessarily, which is the very condition of representing them as particulars. But, now, Kant is perhaps asking one final time, if the origin of our representation of space may lie in objects considered merely as intelligible things, once we must also think that this representation is an a priori form of intuition which determines all our empirical concepts of things.

So, now, in the case of our sensible intuition, it must be possible for the form of intuition to determine all empirical concepts of objects necessarily and even prior to our having empirical intuition of these objects. If this form were to belong to the object itself, then our having intuition of it would first require that we be affected by the object, as our sensible intuition cannot give the existence to our object and its properties. This case poses several problems. Firstly, if our representation of space is to have its origin in the object, we must presuppose that we somehow obtain the form of intuition, which we do not previously possess, by grasping it from mere sensation, either merely by the senses immediately, or by the understanding, either immediately or by some analysis. These seem to go counter to the preceding arguments in the Expositions and Kant's discursivity thesis. Secondly, the intuition would be based on empirical data received through affection; hence, it would not precede the object for us, but arise posterior to the existence of the object. Furthermore, since experience is source of contingent knowledge, the intuition would lack absolute necessity. And thirdly, since the object itself is taken to exist in itself, our intuitions depending on representations, intuition of this particular object would itself be rather impossible, for we could not determine how the particular object is in itself from mere subjective modifications of sensibility. And for the same reason it would not be possible to determine which representations are merely

subjective and which necessarily belong to the object. In comparison to the object, our concepts would remain arbitrarily determined.

Now, Kant has shown in his argument for the intuitive nature of our representation of space that it is that representation which first makes particular intuitions possible. In the case of discursive intelligence in general, in order for particular objects to be represented, a representation which acts as a form of appearance is required. And in the specific case of human knowers, and also for the specific mode of being affected that is outer sense, space is seen to be such a representation, having this necessary formal structure. It was seen that this representation can neither be derived from sensations by the understanding, nor have its origin in the understanding. And, as the considerations offered above show, insofar as the original ground of our representation of space is taken to be the object existing in itself, it will not be possible to explain the presence in the mind of a representation which is an a priori intuition that precedes the object, and which necessarily determines all our intuitions of objects. But space was seen to be a representation which determines all objects of outer sense. Sensibility has two modes of receptivity, outer and inner senses, through which it yields outer and inner intuitions. Space provides the condition under which sensibility yields outer appearances through its outer sense. So, now, the representation of space cannot lie in the object, hence, it must lie in the mind. As sensation is not generated by the mind, but is the result of affection, this representation cannot precede the object given thereby. Nor can sensation itself offer ground for the form of an a priori intuition. But, also, since intuition is formally distinct from a concept, and space is originally an intuition, from which the concept of space is derived, the origin of space cannot be sought in the understanding either. What characterizes the difference between sensibility as a source of merely empirical representations and the source of intuitions is the formal property of space which is bound up with all representations which are presented to thought through sensibility. Space must, then, belong to sensibility as a formal condition based on which it yields intuitions rather than sensations. An identical case is made for time as well. It then follows that space and time constitute the forms of inner and outer sense for human knowers, these latter constituting the modes of receptivity of sensibility.

Finally, I would like to comment on the outcome of the “Transcendental Aesthetic” for a priori knowledge. The principle of a priori knowledge derived from sensibility is the following: All things, insofar as they are appearances, are in space. Space is a necessary determination of things, insofar as they are considered as appearances, objects of empirical intuition. Now, this proposition is synthetic and a priori. It could only function as a principle of a priori knowledge if it is synthetic a priori. The general concept of things does not contain spatiality as its marks, as it is merely an indeterminate concept arising from the understanding. To assign spatiality to things would require a condition, under which the resulting judgment would be a synthesis of concepts. This condition is provided by the discussion in the Aesthetic, which has its primal ground of legitimacy in the analysis of the conditions of representing particulars. It is, then, within the context of the analysis of appearances, the possibility of representing empirical particulars, and the necessity of space for human knowers to represent these latter, that the ground is provided for making this judgment. What is more, space does not belong to the concept of appearances necessarily, but it is discovered as the condition of sensibility that belongs to human knowers. The formal structure of an a priori intuition, it seems, does belong as a necessary condition to all discursive knowers; however, the particular forms this will take in human sensibility, which is the only accessible source of intuition for us, are space and time. And it is only through presenting representations in space and time, and ordering them in these representations, that we can represent particulars to ourselves.

This result is also indicative of the difference between the critical line of inquiry and other uses of the understanding, for empirical knowledge, for mathematical knowledge, and in general logic. With respect to the first, thought is directed at empirical intuition, at representations that are presented in sensibility. Its task is to order these insofar as they represent objects under concepts. The second, mathematical science, in answering questions regarding space and numbers (extended magnitudes), constructs particular objects under the guidance and constraints provided by space and time. Its activity takes place within the limits of the form and activity (synthesis through which intuitions first come into being as extended magnitudes) in which particulars are represented. Logic deals merely with

the rules according to which the activity of the understanding must be thought to function. Its basic element is the concept and the rules which arise from the nature of concepts as universal representations. The critical inquiry, however, lies at the interconnectedness of all three fields. Its analysis takes its start from a limitation of general logic in dealing with the notion of knowledge; it takes its legitimacy from directing the analysis of the possibility of a priori representations upon the conditions of possibility of empirical knowledge; and it differs from mathematical science in that it tries to achieve an analysis of the formal structure of an a priori intuition, rather than constructing its objects in this intuition.

3.2 Transcendental Analytic

In the “Transcendental Analytic” Kant pursues the question of the possibility of a priori synthetic judgments and a priori knowledge, through the analysis of the notion of knowledge under the guidance of the discursivity principle. For this purpose he inquires into the “power of knowledge” or “faculty of knowledge” which belongs to the human knower. Kant progresses through the three formulations of the discursivity principle.³⁹ Knowledge requires that representations be received and the object known related to the representations; this means that the object must be given, and the object must be thought which corresponds to the representations through which it is given. Knowledge requires, therefore, intuitions and concepts. (A50/B74) It follows that, a priori knowledge requires a priori intuitions and a priori concepts, where the former give the form of intuition, and the latter contain “the form of the thought of an object in general.” (A51/B75) I would like to note here the specific nature of the form that Kant expects from the a priori concepts of the understanding. That is, the pure concepts of the understanding are expected to contain, rather than merely the form of thought, the form of thought through which an object in general is known. Hence, Kant places the form of thought, and the faculty of understanding as the faculty of thought, in its function as it contributes this form to the faculty of knowledge. This, in a sense, already limits the kind of a priori knowledge or

³⁹ See Chapter I Introduction and Chapter V Conclusion for more detailed discussion.

synthetic a priori judgment that can be derived from the pure concepts of the understanding. A priori knowledge that may be derived from pure concepts of the understanding must be firstly thought as giving us the principles through which our thought relates to objects in general.

However, in the argument of the “Transcendental Analytic” Kant further specifies the object of knowledge, and the form of thought of an object insofar as it may constitute knowledge for the human knower. That is, as per the principle which results from the “Transcendental Aesthetic,” that we may only know appearances whose a priori forms are space and time, and are contributed by the mind, a revision or a limitation must be imposed upon the form of thought of objects. Although we may possess the forms of thinking an object in general, insofar as we leave out of consideration the sensible condition, in this form, of their being given, we may not claim that that object which we think constitutes an object of knowledge for us. Therefore, while pure concepts of the understanding may provide us with the form of thought of objects in general, they, nevertheless, do not provide the complete conditions of the possibility of knowledge (either a priori or a posteriori). Hence, Kant determines that the principle which will guide the inquiry into the question of a priori knowledge, by limiting this inquiry to the a priori conditions of the possibility of experience considered as empirical knowledge of objects.

A consideration of General Logic, which is the science of the form of thought in general, shows that this science lacks the determination of the relation of concepts to objects. General Logic abstracts from all application of the understanding in special sciences, hence, from the special application of the understanding to the objects which constitute the field of these sciences, and focuses on its general application. Furthermore, it abstracts from all empirical influences in the application of the understanding, hence, from all subjective influences of thinking, such as attention, emotional condition of the thinking subject, etc., and inquires merely into the form of thought in the application of the understanding in any mode of knowledge. (A51-54/B75-78) This consideration is limited merely to the forms of thought, without regard to the connection of this form to the objects.

Nevertheless, it cannot be denied that through General Logic the understanding is shown to be a source of a priori and universal principles. Insofar as

knowledge is considered merely under the criterion of truth that is defined as “agreement of knowledge with its object” (A58/B82) the possibility of knowledge will rest merely on the particular object to which the piece of knowledge corresponds. Since every particular differs in some aspect or other, and it is rather contingent that one piece of knowledge that is true of one object may be true of another different object, we can achieve no sure universal criteria for knowledge. (A57-59/ B82-83) And, as all knowledge requires an object to be thought in it, the understanding plays a necessary part in the constitution of knowledge. And also, the object of General Logic, the understanding as to its form, contains the ground of the rules of its activity in itself. It yields universal principles of thought in all knowledge. So, the question of the possibility of a priori concepts of the understanding (which give the form not merely of thought, but of the thought of objects), and the possible application and limits of application of these concepts, constitutes the field of another science than General Logic, which, however, must have its ground in this latter science. (A59-60/B83-84)

I would like to present Kant’s argument in the “Transcendental Analytic” as consisting of three separate parts. The first part is the Metaphysical Deduction which shows the possibility of a priori concepts of the understanding insofar as these give the form of objects in general. The second is the Transition to the Transcendental Deduction, which presents the problem that faces the pure concepts, insofar as these arise from the understanding alone, which is their necessary application to appearances, which are the only objects that may be given, hence known by us. Since these objects are given through sensibility, and the conditions of their being intuitions belongs to sensibility alone, it is not at once apparent that pure concepts are necessarily applicable to appearances. The final part, and which also, to my mind makes complete Kant’s Transcendental Idealism, includes the deduction of the a priori application of pure concepts to appearances, and also the explanation of the principles of the unity of synthesis of intuitions insofar as their combination is to constitute experience, or empirical knowledge of objects. Now, I believe this is the step that completes Kant’s Transcendental Idealism, in that the understanding is shown to derive, spontaneously, from its own sources, the principles of the unity of that synthesis which underlies experience. It is evidently the case that time and

space, as forms of sensibility, have their source in sensibility. But, it is the understanding which circumscribes, as it were, the limits of sensibility as the source of a priori representations, and derives the principles which will govern its inquiry of the question of synthetic a priori judgment. Furthermore, understanding itself is the source of the first principle, the principle of the unity of apperception, which guides the inquiry by first providing the unity which must be achieved in the synthesis of intuitions, and which requires, in addition to a synthesis of imagination, an intellectual synthesis in judgment, and under the guidance of a priori principles. That a synthesis of intuition by imagination is necessary, but not sufficient for knowledge is derived by the understanding from this first principle, as well as the necessity and form (through principles) of the intellectual synthesis.⁴⁰

The understanding must be an absolute unity, for, insofar as this is not the case, it may not be possible to derive the complete possessions of this faculty, which would imply that the faculty is not complete in and of itself, hence, it may be possible that what we may at first sight think its a priori possessions are influenced by or even rest on other sources, such as experience, the sensibility, or some object (perhaps God, or an in itself constitution of the thing, or simply empirical objects). But, the understanding is a faculty of judgment, which is to subsume objects under concepts, or to represent the relation of representations insofar as they constitute a concept. Hence, as the understanding, in all its parts, has this end, it presents a system of its parts, whose particular ends are, as a unity, directed to this end. The analysis of the logical functions of the understanding in the form of judgment will, therefore, give us the necessary constituents of this faculty completely and as a unity. (A64-69/B89-94) The understanding contains the ground or possibility of a system of its elements.

This, however, does not yet complete the metaphysical deduction of the pure concepts of the understanding, as we are as yet in possession of merely the logical functions of the understanding as a unity. This is not an achievement to be underestimated; nevertheless, it does not give us the pure concepts themselves, but

⁴⁰ The “Transcendental Dialectic,” where Kant discusses the contradictions and impasses reason embroils itself in insofar as it confuses the understanding alone as capable of yielding knowledge, that is Transcendental Illusion in general, as an error in the employment of principles, will not be discussed here, as it lies beyond the scope of this thesis.

merely a source in the understanding from which it is possible to derive them. Now, insofar as we remain with General Logic, we abstract from the matter of our thought and limit our inquiry to the form of thought alone. Logical functions of the understanding in the form of judgment are seen to constitute the functional elements of which the unity of judgment is constituted. Judgment is the representation of objects under concepts. Each function in the form of judgment is a specific mode of representing under concepts, whose unity in the form of judgment brings about judgment itself. According to General Logic, representing objects under concepts rests on an analysis. Hence, each and every function of judgment, insofar as its logical form is concerned, rests on an analysis of representations. A specific analysis whose end is to achieve the specific conceptualization in a specific function of judgment guides analysis under the final end, the judgment as a function of unity. However, Kant tells us, since the understanding cannot give the manifold of its representations to itself, but merely the form, for an analysis of representations these latter must first be “gone through in a certain manner, taken up and connected.” (A77/B102) This is the act of synthesis, through which the matter to be analyzed is first presented to the understanding, and constitutes “the first origin of our knowledge.” (A78/B103) But, now, analysis is merely bringing representations to concepts, whereas knowledge requires that the synthesis of these representations be brought to concepts. But as the understanding is the faculty of thought, which has a logical form, Kant assigns synthesis to the imagination, which is “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) Still, however, for knowledge to be possible, the synthesis of representations must be brought to concepts. But, it was seen that each function of judgment is a specific manner of analyzing and bringing representations under concepts, and which guide our general endeavor to bring representations under concepts. In its most general aspect, then, abstracting from all specific modes of analysis, analysis in general requires a synthesis in general. The pure concept of the understanding is that concept which gives unity to the pure synthesis of the understanding. Pure synthesis is that combination and connection of representations which rests on the concept of the understanding which gives the rule for this synthesis. (A78/B104) And also, pure

synthesis is that combination which rests on an a priori manifold, which, for human knowers are space and time, and which are the conditions under which sensibility yields empirical intuitions.

I would like to specifically note the connection Kant establishes between synthesis and the understanding, or the pure concepts thereof. The understanding is a faculty of thought, whose form is logical, and imagination is a distinct capacity of the mind. Synthesis is not the activity of the understanding but of the imagination. But, pure concepts, insofar as they are to contain a relation to the object, must contain a relation to the synthesis. This connection cannot be established by analysis, although what is presented to the understanding is first a synthesis. Analysis treats the matter presented to the understanding merely as representations. Hence, analysis is not that act of the understanding that brings the synthesis of representations to concepts. Nor does the act of the understanding, by which it connects a synthesis to its concepts, lie in the act of synthesis. This connection lies in that the understanding gives the unity to the act of synthesis, or gives the rule to the synthesis. Pure concepts contain the unity of pure synthesis; that is, they provide the rule to this synthesis. Each specific concept, which rests on each specific analysis that is required by the logical form of judgment to be constituted as a function of unity, governs the synthesis required for precisely this logical analysis. (A78-79/B104)

Kant next specifies the problem that pertains to the categories insofar as they are to be applied to the appearances, which provides the transition to the Transcendental Deduction. This problem arises from the limited scope of the question of the possibility of a priori concepts that is answered by the Metaphysical Deduction. This argument delimits the understanding as the source of a priori concepts, and shows the manner in which these concepts must be considered as concepts of the thought of objects. Insofar as the pure concepts contain the connection of concepts to their matter, by giving the rule to a synthesis, they are concepts of objects. Still, however, these concepts have application only insofar as appearances are to be thought. But, appearances have their source in the sensibility. They are thus necessarily subject to the conditions of sensibility through which the empirical manifold is first presented as an empirical intuition, and thus constitutes a

relation to the object. The conditions of the object's being given are, thus, necessarily applicable to the appearances. But, since appearances are given independently of the faculty of the understanding, insofar as these are considered in themselves, as appearances, pure concepts of the understanding would have no necessary application to these objects.

Kant calls this the problem of the legitimate application of the concepts, which requires a deduction of the pure concepts. Kant distinguishes this question from the question of fact, as it goes beyond establishing whether something exists in the manner that a concept says it does, and requires us in the first place to establish what the legitimate grounds for our application of the concept are. (A84-85/B116-117) According to Kant this question does not arise for empirical concepts, as these are derived from empirical intuitions, and thus have at least some objects falling under them. Furthermore, the a priori concepts of space and time, as they rest on a priori intuitions, which are the forms of sensibility, are immediately applicable to appearances, of which these intuitions also constitute the a priori condition. With pure concepts this immediate certainty is not present. It may be the case that appearances exist in connection according to their own rules which have no relation to those that the pure concepts give. Therefore, our application of the categories to appearances must first be grounded. (A89-90/B122)

The guidance Kant provides for answering this question is to include it in the question of the possibility of empirical knowledge. (A94/B126) That is, empirical knowledge requires, in addition to the object being given, that it must be thought as well. But, thought itself requires the possibility of analysis, which in its turn requires a synthesis. But also, knowledge requires that the link concepts derived from the matter through analysis have to synthesis, must also be represented, for only through representing this link can the form of thought of object be represented. Thus the categories which contain the ground under which a synthesis of representations may be brought to concepts are required.

At this point it may seem that Kant does in fact provide a ground for the necessity of the pure concepts of the understanding, and that perhaps the argument is now completed. There is, however, one point that propels reason forward, and requires of it a further grounding. It is this, that as pure concepts contain the rules for

a priori syntheses of intuition, these must also be given as principles for thought so that it can judge about its analyses, the concepts it so derives from matter, and the connection of matter to its concepts, in terms of the synthesis that is first required for matter to be presented to the understanding. However, the understanding cannot derive these from an observation of some or other synthesis by the imagination, for the very reason that it is precisely the understanding itself which is the source of these rules, and insofar as it gives the rule to an activity which is, however, performed by the blind imagination (blind, that is, when abstracted from the rule), it must look to the ground of formulating these principles in itself. The first principle of the understanding, from which all further a priori knowledge is to be derived is, then, and which Kant entitles the principle of the synthetic unity of consciousness, and which states that the analytic unity of consciousness (thought through concepts) requires a synthesis, is formulated precisely as the ground the understanding gives to itself to formulate all the principles based on pure concepts on the basis of a ground and in unity.

For want of space, as well as for the fact that it exceeds the scope and aim of my thesis, I will only briefly discuss what I take to be the most important conclusions Kant draws from the principle of apperception. I focus on the “Transcendental Deduction” in the Second Edition of the *Critique*, since it offers, to my mind, a more secure argument, and simply for the reason that Kant himself saw it fit to offer a revision of the argument to accomplish the stated aim.

The most crucial consequence of the said principle is already stated in it. That is, the identity of apperception, its constitution as an identity in all representations given to the subject, rests on or is made possible by a synthetic unity. To my understanding, Kant’s meaning is not merely that in order for the subject to constitute itself as identical in a manifold, it must combine them through a synthesis, and recognize the common element in this one combined manifold. What is more is that, in recognizing the identity of the common element, what is demanded of the subject is that it recognize itself as the subject of the synthesis, an act which is distinct from the analytic activity of thought. Hence, the common element in the manifold to be recognized is an act of the subject, and furthermore this act is, by its nature, distinct from the act of thought, and is a synthesis. The subject that analyzes

must also be conscious of itself as the subject that synthesizes. It is necessary, therefore, to bring the underlying synthesis to thought, and for the subject to represent the synthesis in thought, so that it can recognize itself as the author of this synthesis. (B135-136)

As far as I understand it, the crucial consequence of this first step in the argument is that it puts the discursive intellect in the line of fire, in that it is precisely the identity of the thinking subject – which should follow as a true proposition from its discursive nature – that must be proven. The unity of this principle, and the unity of the synthesis that must be represented in thought, are nothing less than the conditions which make possible the identity of the subject, and the form of discursive thought. For discursive thought is nothing but thinking by using concepts, which are universal representations and give the identical or common element in a manifold, through which this manifold is thought under a concept.

The next step, in Section 17, explains that the synthetic unity of apperception, as first principle, is at once the principle which states that identity of apperception rests on a synthesis that must be brought to thought, but also that the understanding does, in fact, supply the rule to the underlying synthesis that is to be brought to thought. That is, concepts of the understanding, as they represent the synthetic unity of representations, are the rules of synthesis which is accomplished by the imagination. It is in this manner that the understanding is connected to sensibility, and it is only in this manner that a particular content is presented to the faculty of the understanding, which, in its functioning thinks, that is, uses concepts in judgments. As the understanding is the faculty of combination and unity in representations, but does not provide the manifold to itself, but still requires the manifold to be presented to it, concepts as rules for synthesis perform precisely this function. A manifold is presented to the understanding through a concept. Concepts are, in addition to being rules for thinking, rules for synthesis. Our concepts must, then, in addition to being universal representations, contain a synthesis of representations by giving the rule to this synthesis. With this step, Kant includes the argument of the “Metaphysical Deduction” in the “Transcendental Deduction.”

Kant’s final step is to make clear what it means for a synthesis to be brought to thought. The form of identity which the principle of apperception demands shows

the way. It must be possible for all my representations to be accompanied by the I think. The thought which expresses that all a given manifold has a common element displays the form of synthetic universal categorical judgment, such as ‘All bodies are heavy’. According to Kant,

I do not here assert that these representations *necessarily* belong *to one another* in the empirical intuition, but that they belong to one another *in virtue of the necessary unity* of apperception in the synthesis of intuitions, that is, according to principles of the objective determination of all representations, in so far as knowledge can be acquired by means of these representations – principles which are all derived from the fundamental principle of the transcendental unity of apperception. (B142)

Kant here suggests that this universal judgment which contains empirical concepts asserts that the judgment has its universal form by virtue of the necessary unity of apperception. That is, insofar as we have two concepts derived from empirical intuition, and connect these on merely the subjective unity of consciousness of the synthesis of empirical intuition, we may base our judgments only our own perceptions, which, however, do not necessarily hold for other subjects. Hence, our judgment is valid only for our own subject, since its ground is only the subjective unity of our own representations. Through the process of empirical induction, on the basis of repeated association of representations in our perception, hence through custom, we may reach merely assumed universality. This universality is never absolute. Hence, our empirical thought would lack the ground demanded of it by the principle of apperception, which states that the form of our judgment must be a synthetic universal categorical judgment.

Here the objective unity of consciousness is two-fold. Firstly, it is that unity which, as it gives the rule to synthesis of intuitions, makes possible the subjective synthesis of intuitions. And secondly, it is that unity which contains the principles of the unity of synthesis by means of which our empirical concepts are subject to a synthesis in thought, and thus are brought, in judgment, to the required form of judgment.

So, now, on the one hand we have an empirical judgment which rests on our perceptions. In this judgment empirical concepts are derived from empirical intuition. However, the combination of empirical concepts in judgment rests merely

on their unity in our subject, on our perceptions. The unity of intuitions represented in this judgment lacks the necessary unity of representations. But, it must be possible to bring all representations in a manifold to the identity of the “I think”. This is not possible through induction. There must, therefore, be rules which contain this form. It must be possible that by subsuming our particular judgments under these rules, and representing their object under these rules, we may bring the synthesis of intuition necessary for the unity of apperception to our representations. That is, there must be empirical laws with the form of synthetic universal categorical judgments, by which we represent the unity of apperception in our representations. But, as said earlier, induction cannot yield this form. Hence, a priori universal laws are necessary for the necessary synthetic unity to be accomplished. Empirical laws, or the empirical laws of nature, require a priori principles which possess the form of universality, and impart upon them this form.

Now, insofar as the synthesis of intuitions is to be mediated by a synthesis in judgment, as prescribed by the principle of apperception, concepts must be derived from intuitions. They must therefore be subject to the synthesis which is required for the analytic unity in concepts in a judgment. But, insofar as this synthesis in judgment brings the “given modes of knowledge ... to the objective unity of apperception” (B141) and establishes the unity of apperception in a manifold given in an empirical intuition, it is not sufficient for our concepts to be subject merely to the synthesis of imagination. Unity of apperception, necessary, and objective, requires an intellectual synthesis. Hence, the required synthesis must be governed by principles of thought, or a series of synthetic judgments. This is accomplished by subsuming our particular judgments, based on subjective unity of intuitions, under universal empirical laws, whose form is given by the pure concepts. Furthermore, insofar as the unity, or end, of this synthesis in judgment is to accomplish the identity of apperception by bringing a necessary synthesis of intuitions to thought, principles of the intellectual synthesis, or the synthesis in judgment, must constitute a synthetic unity directed towards this end. The pure concepts of the understanding, and the principles of synthesis derived from these concepts (and which give the form to empirical laws) must constitute a synthetic unity which is prescribed by the synthesis required to establish the identity of apperception. This will prescribe the

unity of that synthesis that must be contained in our concepts and which arises from the pure concepts of the understanding, and which gives to our concepts the form of the thought of objects.

I will leave off the exposition of my understanding of the deduction, at this point in the argument, which I believe is what has been established by the end of Section 20, and which is mainly considered as the first part of Kant's deduction. I would like to add a reminder, however, and state the trajectory of Kant's argument in the remainder of the deduction and in the "Analytic of Principles." The function of pure concepts established here takes them in their function as providing the form of thought of an object in general since they have been established as containing the synthetic unity of apperception in an intuition in general. Kant's next step will be to link this function of the categories to the a priori form of inner sense, and argue that through the synthesis in time we are conscious a priori of the synthetic unity of apperception in intuition. (B150-151) Kant will then explain the syntheses of the manifold of a priori intuition as it is given in time in the "Schematism." Kant will next explicate the a priori principles of the synthetic unity of apperception which govern the intellectual synthesis. However, according to Kant mere formal representations, neither a priori intuitions, nor a priori concepts, nor, for that matter a synthesis of intuitions, may have objective reality. This is possible only on the condition that some relation to experience, or empirical data may be maintained. (Section 22 of the deduction, as well as A139-140/B178-179 in "Schematism" and Section 2 in "The System of the Principles of Pure Understanding.") The system of the a priori principles of the understanding contains the unity of that synthesis required for the objective unity of the synthesis of a manifold in empirical intuition, which is empirical knowledge of objects, and which, in turn is, for Kant, experience. (A154-158/B193-197)⁴¹

⁴¹ "Experience depends, therefore, upon a priori principles of its form, that is, upon universal rules of unity in the synthesis of appearances." (A156-157/B196)

CHAPTER 4

THE CRITIQUE OF EMPIRICISM

4.1 Introduction

Kant's critique of metaphysics as it has been done by rationalists such as Leibniz rests, to a considerable extent, on the empiricist premise that all ideas we have of things are connected to experience and to sense data. To make it more palpable, consider Hume's understanding of the sources of ideas. All ideas are derived from impressions and must ultimately be reduced to impressions if they are to be rendered meaningful. If not, these are mere figments of the imagination and have no meaning. In a similar vein, Kant is critical of metaphysics in its treatment of concepts of things which cannot be objects of any experience whatsoever. If such is the case concerning certain objects, the metaphysician must give some ground to his judgments whereby he combines certain concepts, which are essentially distinct from one another. That is, synthetic a priori judgments must be grounded somehow, and as there is no experience or sense data to which the concepts and their relations can be reduced, there must be some other source, if any at all, on which these judgments rest. This criticism is reasonably powerful against traditional metaphysics, and Kant does rest on the just mentioned empiricist premise in its articulation. However, this does not reduce Kant's conception of the faculty of understanding (or the cognitive activities of the mind) to an empiricist conception, such as that of Hume. The distinctive feature of the Humean mind, as concerns my purposes in this chapter, is that for Hume the activity of thought may, in the final analysis, be reduced to the activity of the imagination which combines impressions and ideas, direct images of particulars, which constitute building blocks of images of objects of ever more complexity. Kant's conception could not be further, inasmuch

as it rests on the use of concepts (universal representations as to their form) as well as the subsumption of particulars under concepts.

As I have previously intimated, I here follow Kant's conception of the functioning of the understanding. With this choice, however, arises the necessity with which it is made. That is, for what reason must one subscribe to Kant's conception rather than Hume's? To my mind, this same requirement arises for Kant's own project as well, and in two crucial junctures. Firstly, and as will be shown in the next chapter, insofar as Kant takes for granted the discursive nature of thought in his critique of the metaphysician's conception of a priori knowledge, his argument rests on a tacit refusal of Hume's imagistic-associationist conception of mental functioning. This presupposition itself requires grounding if the necessity of Kant's critical project itself is to be sufficiently grounded. Kant's critique of metaphysics does not dismiss the discursive conception of the mind, but rather points to a lacuna internal to its functioning. And secondly, Kant's critique of Hume's grounding of science on the imagistic-associationist model of mind risks being misdirected in that Kant seems to impose his own criteria of absolute universality and necessity (derived from the discursive model) upon the question of necessary connection. Hume explains necessary connection by reducing it to a subjective impression rather than a necessary connection in the object, whence absolute necessity in the object is made impossible. Hume himself is satisfied by his explanation as well as the degree of necessity which this affords to science. While a radical skepticism may ensue from the imagistic-associationist model with respect to the claims of certainty by reason, Hume is at the same time quite satisfied with the rules of reasoning which can be derived from an investigation of the functioning of the mind according to this model. The Kantian position must, therefore, rest on an unsettling of the rival's claims not merely based on the former's own presuppositions with regard to the model of mind it adopts, but on a critique of the latter in its own terms.

Considering Kant's notion of the two types of representations, intuitions and concepts, arising from the two faculties of the mind, the sensibility and the understanding, and that these faculties are sources of a priori representations as well, two paths seem to be open for a Kantian critique of Hume's model of mind. Firstly,

as seen from the conclusions of the “Transcendental Aesthetic”, Hume’s empiricist explanation of the mind’s access to particulars is essentially flawed in that it not only lacks, but also denies the mind’s contribution of that formal feature through which the representation of a particular is formed out of raw sensation. This critique is deepened with the discovery, in the “Transcendental Deduction”, of the indispensability of the faculty of imagination for combining representations given in sensibility to form an apprehension of the appearance in empirical intuition.⁴²

Despite its detailed analysis of the Humean empiricist position, the problems it finds in this and the amendments it proposes, I find that this path of criticism rests on the same presupposition of the discursive nature of the understanding as mentioned above. That is, this criticism makes use of the form of intuition, and the necessity of the synthesis of time by the productive imagination. But Kant’s discovery of the notion of the form of intuition itself rests on a critique of the discursive understanding. This critique does not problematize the discursive nature of the understanding, but merely draws consequences from its limitations by comparing the form of thought with the form of knowledge. It therefore first presupposes that the understanding is a discursive faculty, operating by the use of concepts. But, then, the critique of empiricism which would be based on the notion of a form of intuition would itself first presuppose that the understanding is discursive. Making use of the notion of form of intuition in a critique of empiricism would, then, operate under a presupposition which the empiricist position of Hume

⁴² Such is Allison’s critique of the Humean derivation of the ideas of space and time. (Allison, 2008, p.52-61) Also, Longuenesse presents the “Transcendental Deduction” in the First Edition as an in detail dialogue with the process of apprehending objects through perception, which points out the a priori syntheses by the transcendental imagination to be a necessary precondition of the apprehension of an empirical particular. (Longuenesse, 1998, Chapter II, particularly p. 38-44) A criticism along similar lines is also evidenced in one of Hume’s contemporaries, Thomas Reid, who is not convinced with what he holds to be Hume’s notion of simple conception by the mind, whereby Reid finds Hume means that the mind first perceives simple sense impressions, from which it then produces the more complex impressions which yield perceptions of ordinary objects. Reid then suggests that perception itself involves a judgment, which itself involves the use of general notions (abstract ideas). This criticism, in its general outline, rests on the idea that raw sense data cannot constitute perception, while assigning the extra-sensible element to general notions rather than a priori forms of intuition or to the productive imagination according to a priori concepts. (I follow here George Davie’s exposition of Reid’s criticism of Hume as it is presented in Davie, 2001, Chapter II on Reid (1).)

essentially rejects.⁴³ Hence, this presupposition – that the intellect is discursive rather than sensitive – is still to be established, wherefore it may perhaps be better to consider another option in criticizing the Humean position.

This second option would rest on seeing whether Hume can, in point of fact, deliver upon the promised explanation of what, in the discursive understanding, would correspond to concepts. As I will try to make clearer in this chapter, here the main disagreement between Hume and Kant would be construed to rest on the model of activity of the faculty of understanding. Based on the imagistic-associationist conception of the mind, to which the representations present are always particulars, Hume first denies the possibility of concepts as universal representations, and proceeds to offer an alternative explanation of how a general signification may be accomplished through particulars by the operation of the associating imagination. While Hume denies general representations, his account is intended to remedy the gap in theory which this would create, and offers an explanation of the formation of concept-like-functioning-representations through induction and the manner of their so functioning. Now, this account may be contrasted with Kant's not only in terms of the nature of mind, but also with respect to the aims it sets out to accomplish. That is, neither in *General Logic*, nor in the "Transcendental Deduction", is Kant overtly concerned with empirical concept formation (although this process would ultimately be required).⁴⁴ In the former, Kant is concerned with the formation of concepts *merely as to their form*, and not as representations. In the latter, on the other hand, Kant is mainly concerned with how concepts as such may be representations of objects. This, however, is not identical to the question of how empirical concepts are formed, for, it concerns the form of our concepts of objects, rather than concepts as universal representations, which is already presupposed. The most Kant approaches the two-fold nature of Hume's question, is in suggesting that concepts are rules of synthesis whereby a preliminary account is provided in the manner in which a particular may be subsumed under a concept by the latter

⁴³ Furthermore, the notion of the capacity for sensibility and perception which accompanies this approach at a critique of empiricism is also tainted with the presupposition of the discursive notion of the understanding.

⁴⁴ See Longuenesse, 1998, Chapter V, for precisely such an account.

functioning as a rule for the synthesis of representations in a given manifold. This, however, presupposes the presence of the concept for application, and explains how a rule may be applied in the constitution of an intuition (a particular).

In any case, in considering Hume's own project, the issue must be taken in the latter's own terms. So, it must be expected of this account that it explains the formation of concepts as well as the functioning of general signification. Insofar as this explanation is found to be insufficient, its commitment to the imagistic-associationist model of mind must be overturned, and the rivaling discursive model would need to be accepted. This would imply the existence of a priori forms of thought as investigated by General Logic as well as the possibility of the a priori nature of certain concepts, as they are deduced by Kant. Formation of empirical concepts would, in that case, presuppose, among other things, the a priori forms of thought.

To make this argument, I will first give an account, as much as will be requisite to my purposes, of Hume's conception of human mental functioning. This intends to ground the extent to which Hume may be thought to provide a satisfactory answer to the question of general signification with the model of mind he develops, as well as to indicate what will precisely be lost if one is to refuse Hume's model. I will then concentrate on Hume's analysis of abstract ideas and a critique of this account by an avowed Kantian, Henry Allison. I will then proceed to point out a weakness in Allison's critique which, while fundamentally correct, is at least, in a sense misdirected. A Humean response to Allison's critique will then, I hope, reveal that this response itself is based upon the very presupposition Allison suggests is operating in Hume's account – that the apparatus of empirical concept formation employed by Hume, in point of fact, presupposes the very concepts whose derivation it is supposed to explain.

In the presentation and argument that will follow here, there will be no in depth discussion of Hume's derivation of the idea of necessary connection and thus the idea of causation, and also his theory of belief as an increase in the vivacity of an idea perceivable by the feeling mind as compared to a mere idea that is observable without any causal connection to another. The main reason for this omission is precisely that since Hume's theory cannot get off the ground without an account of

abstract ideas or abstraction, it is here unnecessary to make any claims for a coherent theory if this former requirement cannot be met. However, I do believe that Hume presents a very coherent theory of necessary connections between objects of experience, and also gives an explanation of a system of principles of reason based on his sensitive conception of reason.

4.2 The Humean Mind and the Problem of Abstract Ideas

Hume begins his theory of human understanding by distinguishing two types of mental representations, or, more precisely, perceptions of the mind – impressions and ideas. Despite their differences, these representations share a common feature with respect to their nature in that they are representations through which the mind grasps a particular object immediately. Impressions are those representations when the object is present to the senses. Ideas, on the other hand, are representations of the object when it is absent from the senses, and which the mind reproduces from memory, thinking and reasoning, or which it itself constructs from representations it already has of objects. (T, p. 49)⁴⁵ Ideas, simple or complex, are derived from impressions as their copies, and differ from them as to the degree of liveliness with which they present the image to the mind. (T, p. 49) Their nature as representations of particulars rests in that they are copies of the images of objects which are immediately perceived in the impression through data of the senses. The mode of representation of the object through ideas is, thus, modeled on that of the impressions of objects perceived through senses.

According to Hume, there must be some impression from which an idea is to be derived if it is to be meaningful (T, p. 52-53), hence, simple and complex ideas are derived from their corresponding impressions. Complex perceptions of the mind, that is complex ideas and impressions, are those which can be separated into their components by the imagination, and simple ones are those which cannot be separated into components any more. I would like to suggest, although this is not

⁴⁵ References to Hume's *A Treatise of Human Nature* will be given with the abbreviation T followed by the page number.

explicitly stated by Hume, that we can think of simpler ideas which are components of complex ones, but which are not absolutely simple. This would be a comparative simplicity.

Now, as stated, ideas are derived from impressions as copies of these latter, and differ from the latter in the liveliness with which they present the object to the mind. Their being copies, on the other hand, the copy principle for short, connects all ideas to their original impressions. As all ideas are derived, or should be derivable from impressions, the constitution or arrangement of complex ideas (later revealed to be ordered according to time, and disposed according to space⁴⁶) must be copied directly from impressions. This, however, does not hold immediately for complex ideas, for Hume suggests that there are certain complex ideas which are either merely imagined or which do not represent their corresponding impressions perfectly. Nevertheless, since such an imperfection, due to a limitation of the mind (to reproduce in memory the complexity of an overly complex impression) does not affect the reproduction of simple ideas, simple ideas are perfect copies of their impressions. (T, p. 51-52) And, as complex ideas are constituted by simple impressions, the correspondence or copy principle, does hold for complex ideas as well.

I would like to add two points which are important, but do not have direct relevance to my aim in this chapter. Firstly, to denounce the application of the copy principle to complex ideas seems to me too severe a conclusion to arrive at, based on the proposed counter-examples regarding complex ideas. And Hume himself also does consent to a general correspondence between complex impressions and ideas. (T, p. 51) If we did not consent to this general correspondence between complex impressions and complex ideas, and complex ideas were not copied from complex impressions, a complex idea of memory would need to be produced by the imagination from the elements each time that idea were to be recollected. For, memory would then be only capable of reproducing the simple ideas in an unconnected collection, whose order imagination would need to reconstruct. We

⁴⁶ See, first Part 1 Section III, which is later explained in more detail in Part 2, Section III.

could not picture to ourselves a past scene, but only its disconnected parts, and would need to combine them into the scene afterwards and this by the imagination.⁴⁷ The second point is more of a suggestion. We can perhaps suggest a more comprehensive term for the correspondence of impressions and ideas, once we also keep in view the causal connection between these two perceptions of the mind, in the concept of derivation. All ideas are derived from impressions. And this is already the strictest of Hume's demands from any philosophy or speaker of languages. Some ideas are derived as perfect copies, some as imperfect copies, and some are through distinctions of reason, there being no simple or complex impression from which they could be derived. And even some others are derived through fiction, which seem to have been derived as clear ideas, but mainly rest on a chain of confusions of resembling ideas.

While it is the imagination that can separate complex ideas to their simpler elements, it is this same faculty that combines them as well. That is, the mind has a capacity to effortlessly associate ideas through imagination. Although this capacity is essentially free to combine ideas in infinitely many ways, its operation mainly follows three principles, which are the principles of association: resemblance of qualities between ideas, congruity of ideas in space and time, and causation, whereby an idea follows another as its effect, or precedes another as its cause. (T, p. 60) In addition to this capacity of the mind to unite its ideas, which belongs to the freedom of the mind, there is also the capacity to compare ideas and to discover relations between them, which is what, for Hume, essentially constitutes reasoning. (T, p. 121) Hume holds that the ideas of relations, on which conclusions regarding relations that exist between things are based, are the most important *effect* of the principles of associations. (T, p. 60) Hence, the crucial role of imagination in both reasoning and understanding, that is, of conceiving things, judging about things and also making longer chains of reasonings from simpler relations of ideas.

⁴⁷ This, in fact, seems to be Hume's meaning. Consider: "Tis likewise evident, that as the senses, in changing their objects, are necessitated to change them regularly, and take them as they lie *contiguous* to each other, the imagination must by long custom acquire the same method of thinking, and run along the parts of space and time in conceiving its objects." (T, p. 58) But, in this case, the operation of memory and imagination are quite inseparably bound together in the perception of both complex impressions and ideas.

As Allison succinctly puts it, Hume's program is of "accounting for complex cognitive functions in associationist and imagistic terms, without having appeal to anything like innate ideas or a Cartesian intellect." (Allison, 2008, p. 33) Such limitations in explanation pose serious questions for Hume's account of understanding and reasoning. Insofar as impressions and ideas exhaust the representations of the mind and present to it images through which the object is immediately grasped or perceived by the mind, the only kind of representation available for cognition would be the representation of particulars. And, admitting no innate ideas which originate from the mind itself and are possible predicates of all things, hence their necessary constituents, or denying the mind a capacity to abstract from things themselves and deal with certain notions which are independent of particular things, would limit reasoning to the very particular thing and we could not form any notion of kinds or types of things, nor could we reason to discover principles that could act as laws governing a multitude of different things. Hence, abstract or general use of ideas is indispensable. Hume's aim is not to deny such use but to give an alternative empirical explanation for the cognitive processes that underlie the abstract use of ideas. As Hume traces the origin of all ideas to impressions we have of objects, what is here termed abstract ideas are derived from empirical sources. Hume endeavours to explain the formation and functioning of empirical concepts, taking sense data and copies thereof as the material from which associations of the imagination, following a determinate structure, make possible general signification.

A short comparison with Kantian concerns would be beneficial. While Hume's account, as Kant's, also relies heavily on a faculty of imagination, this faculty is construed essentially as a capacity to associate ideas. Associations are, for Hume, located within a network of causes and effects, the repeated use of an idea in a certain manner, and in connection with others resembling it, causing the desired effect, the formation of an empirical concept and its use in discourse or reasoning. This account stands in radical contrast to that of Kant who considers concepts in their logical and real signification. The former is the subject matter of the science of General Logic, which treats of the form of thought. The latter belongs to a critique of pure reason which establishes the manner in which concepts function as concepts

of objects, i.e. the conditions under which our concepts may relate to something outside of their logical form. Kant formulates this question in a rather roundabout manner. Kant first asks how it may be possible for the pure concepts which have their source in the understanding to be applicable to appearances? The answer to this question reveals that the unity of these concepts in the understanding provides the condition under which our empirical concepts may be about objects. Empirical concepts considered merely as universal representations are merely thoughts, and the conditions of their relation to the object remains unaccounted for. The objective reality of categories consists in that they contain the form which all our concepts of objects must display. For Hume this latter problem does not arise at all, since objects are immediately perceived in impressions and copied into ideas. Nor does the Logic he offers have anything to do with the form of thought; its treatment is far removed from the explanation of abstract ideas. It rests on the causal process of inferring from causes to effects (or the reverse) from empirical observation, and prescribes rules for improving these inferences.

Aside from such differences, Hume's account is at once intriguing in itself, but also, I believe, holds certain presuppositions, which it cannot explain or function without. Since it relies heavily on Hume's understanding of the faculty of imagination, I will first give a brief analysis of this faculty, as much as will be necessary for my purposes here. I will then try to put in dialogue Hume's account of the general use of ideas and Henry Allison's criticism of this account.

4.3 Imagination

Hume introduces the imagination as a capacity, in opposition to memory which reproduces them as best as it can, to separate complex ideas into simpler and ultimately simple ones, and to combine them freely into more complex ideas. "Where-ever the imagination perceives differences among ideas, it can easily produce a separation." (T, p. 57) And, "... all simple ideas may be separated by the imagination, and may be united again in what form it pleases... ." (T, p. 57)⁴⁸ The

⁴⁸ Although I will not dwell on it here, I find that Hume is relatively silent with respect to the ground of this separating capacity of the imagination. Davie (2001) gives an interesting account of this

mind unites ideas freely through the faculty of imagination. And this freedom is, in a sense, absolute, for, according to Hume, “nothing is more free than that faculty [imagination].” (T, p. 58) This, however, should not mean that imagination is in no manner bounded and that there is no observable regularity in its operations. There would, in that case, be no foreseeable results of combination for the mind, and “nothing wou’d be more unaccountable than the operations of that faculty.” (T, p. 57) There would be nothing discernible in a combination of ideas which we could attribute to imagination, and therefore, we could not speak of a faculty of the mind in the uniting of ideas; being unable, here, to attribute this combination either to chance or imagination as a faculty of the mind to unite. Hence, imagination is, on the one hand, the faculty that can combine two ideas separated by a universe, and on the other, it has a propensity to follow through certain connections among ideas. This connection produces not a necessary connection in the sense of the ideas thus united are inseparable, for, all complex ideas can be separated to their components, these latter conceived in isolation, and the components freely combined into complex new ones. Imagination combines ideas by the hand of nature, as it were, which points out to it those ideas that “are most proper to be united into a complex one.” (T, p. 58) That is, imagination moves from one idea to another, freely among a universe of ideas, but moving regularly from one idea to another based on certain associating qualities in these ideas. (T, p. 58) These associating principles constitute, for Hume, a “gentle force” in the association of ideas whose operation can be observed through the regularities in the combinations of ideas.⁴⁹

Imagination is perhaps the most basic and original faculty of the mind, but it is not, for that matter, the only one. The imagination is that faculty upon which Hume builds all further and more complex actions of the mind. Hence, a clear understanding of the faculty of imagination and the capacity that belongs to it in uniting ideas is required if we are to have a just sense of the basis of Hume’s edifice.

activity in his interpretation of Hume’s discussion of the notion of void. See particularly p. 29-30. It appears from Davie’s interpretation that the imagination is not so free to separate as it is to associate, and requires certain previous experiences whose effect on its activity is that it can make a distinction.

⁴⁹ Note that the imagination is so free as to be influenced by causes other than associating principles, such as, for example, custom or ideas of relation through which comparisons can be effected.

The main issue I would like to highlight is already implicit in the ambiguity of the terms gentle force, nature pointing the imagination, one idea naturally introducing another, used to describe the activity of the faculty of imagination which results in the association of ideas. Higher faculties of the mind, essentially reasoning, the faculty of comparison, rest on complex paths in and through which this gentle force is directed to associate its ideas. In reasoning ideas are compared according to ideas of relations, which have their ground in the principles of association that guide the gentle force of the imagination. Hence, that the mind possesses ideas of relations is to suggest that the faculty of imagination can achieve some degree of self-reflection. The matter can be summed up through the following set of questions: To what degree is the faculty of imagination capable of observing its own activity? To what degree does the mind have access to the principles of association in individual cases of association, and hence, to what degree is the mind capable, through the faculty of imagination, of observing the qualities on which its associations are based? The import of these questions will appear more clearly in the following discussions.

Hume allows certain degrees of reflection in the mind of its own operations. Impressions of reflexion would be one mode of such observation. The others are the ideas of relation. The former are impressions that are produced in the mind by ideas. As the production of these impressions rests on the mind's capacity to be affected by ideas that thus gives rise to impressions (T, p. 55) it would be appropriate to assume that this process takes place independently of the imagination insofar as the production of these impressions are concerned. Following upon the derivation of copies of these impressions, imagination can be put to task again. The second mode of self-reflection or observation takes a less direct course than an idea producing an impression in the mind, and it is introduced by Hume as a matter of wonder: "Amongst the effects of this union of association of ideas [by the imagination], there are none more remarkable, than those complex ideas, which are the common subjects of our thoughts..." (T, p. 60) Ideas of relation are effects of the association of ideas by the imagination. That the mind has these former ideas to work with would, then, mean that by certain processes the activities of the imagination are observable by the mind. Hume tries to show the derivation of several of these ideas, most importantly those of time and space and causation (and also identity, albeit by

certain unwarranted associations of the imagination), from the field of impressions that is organized in certain regular patterns by the imagination.

Since Hume holds that “[a]ll kinds of reasoning consist in nothing but a comparison, and a discovery of those relations, either constant or inconstant, which two or more objects bear to each other.” (T, p. 121) and that the ideas of relation on whose basis these comparisons are made are grounded in the principles of the associations of ideas themselves, which hints at the ground of reasoning lying in imagination, it would be appropriate to take a brief look at the interrelations of the faculties of the mind which are active in connecting ideas. I will concentrate on three faculties, the imagination, the understanding and reason.

Hume attributes to the understanding different acts, such as conception, judgment and reasoning. (T, p. 144n) While it is true that Hume denies the exactitude of this division, which he calls vulgar, on the ground that the latter two actions can be reduced to the first, he does, in any case, affirm that these are “particular ways of conceiving our objects[.]” (T, p. 145n) The different structures of these cognitive acts are different modes of conception. Hume’s main objection concerns the division of the acts of the understanding, and not the definition given of conception. It should then be possible to adopt the ordinary definition of conception. Conception, then, is a relatively basic activity of the mind and to conceive is, in general, “the simple survey of one or more ideas.” (T, p. 144n) But, then, in what sense is this survey different from association pure and simple? I will try to answer this question with a view to explaining the comparison of ideas in reasoning that discovers relations between ideas. Relation may denote a connection between ideas which rests on a shared quality by which an idea introduces another to the mind. Or, it may denote a connection based on which any two or more ideas can be compared, regardless of a prior association or even the possibility of such association. (T, p. 61) This second sense of relation may be considered as a determinate connection, such as perhaps a concept, which can be maintained as a criterion to compare any arbitrarily chosen two ideas. Hume distinguishes these two distinct senses of relation, as the popular and philosophical conceptions of relation, respectively. This distinction, however, ought also to be interpreted as implying a distinction between

modes of connection that can be effected between ideas by two different mental capacities. In addition to distinguishing these mental capacities the role played in reasoning by association by imagination based on a shared quality must not be ignored. For example, we may choose to compare two ideas based on the idea of resemblance, and prior to our decision to compare these ideas may not have been associated together. But, if, during our comparison we find no resembling quality, we would inevitably say that there holds no resemblance between these ideas, whereas a resembling quality which would be perceived through imagination would occasion us to pronounce in the affirmative this relation of resemblance.

If we think the activity of the imagination in a specific case as either associating or separating, however, how do we account for the act of the mind that holds together associated ideas in a complex, or that holds the separate constituents of a complex still in a unity? For, if mere association were the case, there would be a long series of associations until the imagination ran out of steam; and conversely, if there were merely separation, dissolution to mere elements would annul the complex idea.

I would like to suggest that the act of conception as survey of one or more ideas serves this function. Through a conception we “simply form the idea of such a being,” (T, p. 142) and survey “parts or composition of the idea, which we conceive.” (T, p. 143) To survey one simple idea, if this is possible, would be to form (or perhaps reach by separation) this simple idea and perceive it in the mind. To survey one complex idea, which is made up of a number of simple ideas, would be to make present to perception a complex one, attending to its parts or composition of these parts.

Now, if we are to compare ideas, it should be possible to make a survey of more than one complex idea, but, it seems to me, that the issue becomes relatively complicated at this point. For, Hume tells us that if we change anything in the conception of one idea (take a complex one composed of more than one complex but still posing one composition) other than the liveliness of its perception, we will have changed this idea. And, consider the converse of this principle. If we conceive two complex ideas together, by first conceiving one and then adding the other, which seems to be the mode of the mind’s introducing ideas to its perception, then, we will

have conjoined the two ideas and have the conception of only one idea. But then we are not comparing two ideas but surveying the parts of one idea. However, Hume is very liberal in his treatment of the conception of more than one idea: “Whether we consider a single object, or several; whether we dwell on these objects, or run from them to others; and in whatever form or order we survey them, the act of the mind exceeds not a simple conception.” (T, p. 145n) So, perhaps, the mind operating according to Hume’s principles is capable of conceiving two distinct complex ideas without conceiving them as parts of one idea.

I shall suggest that we keep the objection raised above, for, albeit an objection arising from minute detail, it nevertheless points to a tension between Hume’s principles. And, I also believe we can profit from this tension by raising two points. Firstly, we can suggest here that a combination of simple conception and the associative and separating activities of the imagination are themselves not capable of producing a survey of two ideas, but require comparison as a separate and distinct capacity. While, comparison might be said to resolve itself to simple conception, it may also be suggested that, as in the case of complex channels for association introduced by reasoning, here comparison is not reduced merely to a function of simple conception, but this latter constitutes a peculiar aspect of comparison. That is, the complex mental state that involves the use of a complex idea of relation and the conception of the compared ideas involves a great many constituents, but the mind is, in this state, in a simple conception of all these relations. Hence, while perhaps the whole mental state can be said to constitute one idea through this simple conception, at the same time, the perception by the mind, that it is comparing two distinct ideas is accomplished through the complexity of this mental state. This brings us to the second point, which is that, the idea of relation, which acts as a kind of concept that introduces to the perception of the mind that multiple ideas, distinct from one another, are to be compared to find if a certain type of relation does obtain between them or not, this idea of relation can be said to introduce the perception of the distinction between two surveyed ideas. So, the use of the abstract idea of relation, as it involves the notion of comparing, introduces, or at least involves, a higher capacity of the mind than that which is achievable by imagination and the understanding.

If we now turn back to the analysis of conception or survey, we can distinguish this new mode of survey as a comparing survey which should denote that it is now performed under the supervision of the abstract idea of relation. During a comparing survey, then, the mind can perceive the peculiarities of a simple idea (which will be of import in distinctions of reason), disregarding other ideas, or, as the mind will have a number of complex ideas dissolved into their simple elements, it will be possible to perceive resembling simple ideas or perhaps resembling complexes that belong to each idea. It appears that a comparing survey is a dynamic process that involves, in addition to conception, the imagination in its capacity to separate and to associate, but association is taking place within the rubric of a complex of activities. And also that a conclusion arrived through comparison involves the dynamic process of this comparing survey.⁵⁰

The functioning of imagination differs from the faculties of knowledge and probable reasoning in that it has a relatively higher degree of freedom in the connections between the ideas it combines. Expressed in popular terms “whimsies and prejudices ... [are] the offspring of the imagination.” (T, p. 167n) Hence, the freedom in producing its associations also imparts a higher degree of contingency to its products. In contrast, knowledge comprises connections between ideas which are necessary, and remain the same as long as the ideas themselves do not change, such as the conclusions of arithmetic, which are perceived by the mind as such, intuitively (by the immediate survey in the comparison) or by demonstration (artificially, that is, by a chain of interconnected ideas). (T, p. 117) Probable reasoning, on the other hand, forms connections that are based upon opposing chances or causes. (T, p. 176-177) The main issue in the opposition of imagination to reason resting in its freedom of associating ideas, can be conceived in terms of a difference between the principles of combining that belong to the imagination and reason. The principles of association differ from and produce varying results when compared to the principles of reasoning, the ideas of relations based on which reasoning (comparison) takes

⁵⁰ I would like to note that here I use the term function generally, though perhaps not completely disconnectedly from Kant use of this term to denote the activities of the mind within the uniting function of judgment. Kant's use of the term is technical and is designed to point to a precise aspect of the acts of the intellect which, however, is lacking in Hume. The complex of mental acts does not, I believe, constitute functions for Hume.

place. But, this does not mean that the imagination is no longer functioning in these latter modes of connecting ideas and discovering relations. It may be the case that when the imagination is left to its own devices, it is influenced by its own associating principles. However, this influence is characterized as guiding forces, and it is no less possible for the imagination to be influenced by certain relations that hold between ideas or certain situations that obtain between complexes (such as when contradiction creates a propensity for imagination to make an association in the production of fictions) that do not conflict with it, are favorable to or require the mind to move from one idea to another. To my mind, this point is confirmed by Hume's explaining the origin of certain ideas of metaphysical speculation precisely by situating the imagination in situations that involve complex relations of ideas. Furthermore, if our complex reasonings are to have a proper hold over our mind, Hume holds that it is necessary for the imagination to follow through the complex reasonings with ease. (See for example Hume's answer to the radical skepticism regarding reason on the basis of the natural and unnatural actions of the mind. (T, p. 236)) In both types of reasoning, i.e demonstration and probable reasonings, imagination follows and flows under the guidance of certain qualities and complexities in the ideas and arrives, or better still concludes at connections of ideas based on these. (Arrives at judgments, if you will.) While imagination considered specifically and in isolation from higher functions or faculties of the mind, cannot produce these limitations, having its three principles alone to gently force it in its association of ideas these connections, knowledge and reasoning can in essence be thought in terms of association in general (imagination considered not as a distinct faculty in opposition to other capacities of the mind, having its own principles and mode of operation, but considered generally). Hence, the presence of imagination as that act which is free and natural in the mind must be kept in mind as underlying all complex reasonings.

In the natural functioning of the imagination, the passage from one idea to another is through some gentle force, which comes into effect when there is a quality that connects ideas, that guides the imagination easily from one idea to the other by the hand of nature. I would like to suggest that Hume's account brings the activity of association close to the operation of instinct. And Hume suggests as much when he

explains the resemblances between languages of the world in terms of “nature in a manner pointing out to everyone those simple ideas, which are most proper to be united into a complex one.” (T, p. 58) Hume describes the operation of instincts when describing the effect of custom on association of ideas in the following manner: “All these operations are a species of natural instincts, which no reasoning or process of the thought and understanding is able, either to produce, or to prevent.” (EHU, p. 34)⁵¹ While it would not be correct to identify the operations of imagination and custom in the association of ideas, the foregoing account of imagination does point to the constitution of the former faculty as if it were a natural instinct. Further confirmation can be received for this conclusion from Hume’s discussion of the mistakes made regularly in reasoning regarding ideas resembling one another, whose conception, according to Hume, activate contiguous places in the brain. In his initial consideration of the principles of association, Hume refrains from going into the ultimate causes of these propensities. However, in his discussion of the idea of void as an extension without matter, Hume lays aside this caution, and gives a causal explanation of how similarity functions in explicitly naturalistic terms. A confusion of one idea with another arises, according to Hume, due to some unspecified organic force, animal spirits, which, while we think an idea, excite in the brain those cells which belong to the other which is contiguous to the first one. (T, p. 107-109) Although Hume’s aim here is to argue that resembling ideas can be confused with one another inadvertently and that this confusion goes largely unnoticed until some deliberate consideration, he rests this argument on a process which, Hume explicitly states, underlies simple associations. An association based on resemblance is based on a physical process whereby similar parts in the brain are alerted. The closer the traces in the brain of different ideas, the more prone the mind is to move from one to another or to confuse them. There is no need of explicit recognition of the connecting element when passing from one to the other. The mind notices no process during the transition. A resemblance between two ideas, for example, causes one idea to rouse in the mind another only by its physical resonance

⁵¹ References to Hume’s *The Essay Concerning Human Understanding* will be via the abbreviation EHU followed by page number.

in that part of the brain. The second idea is roused to perception, and an association is formed.

Based on the foregoing discussions of the functioning of association I would like to offer a brief look at three possible levels in which that connection between ideas sufficient for association can perform an associating role. In the following, I will use the term quality of association as that quality in the object based on which the association is made. This quality may be a part in a complex idea or some integral quality that an idea could, to a degree, have in common with another. This notion of quality of association should be distinguished from the associating quality, which will be clarified shortly. In the first mode I have in mind, the quality has an active role in the association. The imagination, as much a combining as a separating faculty, separates multiple ideas, dissolving each to its simpler elements, and surveys both each idea in its complexity and also the ideas in their relations through associating them to one another on the basis of separated and individually perceived qualities, which are themselves treated as ideas. The association between two or more ideas, based on the perception of the quality of association would then be construed analogous to discovering this relation through comparison of ideas, that is, reasoning. A second possible mode of association would be where the mind does make a survey of one idea at one time in some context, and another, in a context that is separate in space and time. Hence, there is no direct survey of the two ideas together, but these ideas have been attended to and surveyed as to their components. It should be possible for the mind to reproduce the memory of this survey, and, an association can be based on the results of this survey. That is, the quality of association has been rendered notable, if not by some increase in its liveliness to the mind, then, at least, by being isolated and considered in connection to the complex idea itself. Here, the quality of association is not directly perceived in both ideas, but on the one hand it has been observed as an idea in its own right, and on the other, acts as that element which ensures the natural passage from one idea to another. In a third possible mode of association, let us assume that there is no explicit survey of any idea. The mind, through the faculty of imagination, and through a process that can be reducible to the above-explained physical event, passes from one idea to another only naturally and without any perceived intermediary. Hume's explanation

of distinctions of reason where the mind is capable of finding resemblances, where there is no quality that can be separated from the original idea of the thing, are of this kind.

Based on my question, regarding the degree of perception (or awareness) of the associating quality which can be granted to imagination, and also on the explication of the comparing survey I would like to suggest that the latter two modes of combining ideas are essentially more in line with Hume's presentation of this faculty's original capacity than the first. For, in the first mode, the relation between two ideas will be constituted by an idea. Now, Hume certainly does allow such a mode, where a third idea contiguous to both ideas, acting as the link for their association, to be an act of the imagination. (T, p. 59) However, this consideration is also offered so that "we may understand the full extent of these relations [associations and principles of associations]," (T, p. 59). So we can interpret it, rather than as explaining the function of an associating principle, as paving the way for Hume's associationistic explanation of complex mental processes, where, when imagination is placed in complex relations, the path of its associating activity follows through this complexity to reach the final idea as that final link in a complex chain.⁵²

I would like to add one more point to this discussion, which, I believe, will be important in the following discussion of abstract ideas. While the first mode of association is, in essence, very similar to the comparison of ideas by means of which the types of relation that ideas have among them are established, the perception by the mind that two ideas are related to one another by means of a third, it seems to me, does not establish what relation holds between the two ideas. That is, that two ideas are linked by a third says nothing but this, that the association was based on this idea. But, that this association is an instance of one or other type of relation, given by the ideas of relation, is not yet established by this mediated connection alone. What the relation of this quality to the associated ideas is must be discoverable in order to arrive at the said conclusion. There remains, therefore, a gap between the conclusion of a survey that operates through association and the

⁵² Hume himself offers a similar reasoning, although in explaining the operations of custom, in the *Enquiry Concerning Human Understanding*. See p. 33-34.

conclusion that this association establishes a particular relation between the ideas. This conclusion is, I believe, not reachable directly by the other two modes of association either.

As hinted above, the notion of associating quality harbors certain ambiguities. It can be taken to mean, as it has been used above, as a particular quality in the object, say redness, which would act as that quality through which two ideas resemble one another. However, Hume does not intend a particular quality when introducing the notion. Consider: “The qualities, from which this association arises, and by which the mind is after this manner convey’d from one idea to another, are three, viz. RESEMBLANCE, CONTIGUITY in time or place, and CAUSE and EFFECT.” (T, p. 58) That is, resemblance, contiguity and the pair united in causation are themselves the associating qualities, and not the particular quality, such as redness. The associating quality rests on a connection of two ideas, which is, in turn, based on the particular quality. This function of particular qualities can be observed by considering the regularities in the association of ideas. Hence we have two distinct notions of quality connected to the qualities pertaining to ideas, which can be readily confused: The associating quality as the gentle force that guides the imagination, and that quality based on which two ideas are determined in a mode that constitutes the associating quality. This latter notion of quality, the particular quality is first and foremost essential to the determination of ideas themselves as particular ideas. That two particular ideas contain determinations of the same or a resembling quality can then allow these particular qualities to function as associating qualities.

Hume tells us that “when any two objects possess the same quality in common, the degrees, in which they possess it, form a ... species of relation.” (T, p. 62) Hence, ideas have qualities in degrees based on which they can be compared with one another. Hume’s discussion of particulars in his negative argument against the notion of abstract ideas representing “no particular degree either of quantity and quality” (T, p. 65) adds a further important point to the relation of quality and degree. According to Hume, “’tis impossible to form an idea of an object, that is possest of quantity and quality, and yet is possest of no precise degree of either.” (T, p. 67) That is, all determinate ideas are determined as to the degree of quantity and

quality. And, as “a strong impression must necessarily have a determinate quantity and quality, the case must be the same with its copy or representative,” which would be an idea; all ideas, simple or complex, which are derived from impressions, must have a precise degree of quality and quantity. (T, p. 66)⁵³ The offshoot of this assertion is that the mind cannot conceive of an idea, simple or complex, which has no determinate and particular degree of quality and quantity, which, in turn would mean that if an idea is to be perceivable by the mind, it must have this determinate degree. We thus have the first role for quality as has been suggested above, which is that it is that determination of the degree of which makes possible a particular idea to be perceived by the mind.

The meaning of the notion of associating qualities of ideas, based on which imagination is guided by a gentle force can also be explicated and clarified in the above manner. Associating qualities can be construed as determinate degrees of the influence of certain “species of relations” of ideas on the freedom of the faculty of imagination. That is, the gentle force, which guides imagination, is, in point of fact, a determinate degree of an associating quality. The associations of imagination can be attributed to chance insofar as we do not observe a connection between the associated ideas. This lack of connection can be an absolute lack of connection anyhow, in which case there is no degree of determinate associating quality between the ideas. If, on the other hand, there is a degree of associating quality obtaining between the ideas, based on resemblance, for example, if this degree is not strong enough, it might not guide the imagination with the gentle force, because its force would not be sufficient. It would mean that a sufficient force (degree) derived from that determinate degree of associating quality is requisite to pose as a gentle force for the imagination’s associations. Furthermore, the three distinct associating qualities are themselves each determinate degrees of associating qualities; that is, when Hume says “that there is no relation, which produces a stronger connexion in the fancy, and makes one idea more readily recall another, than the relation of cause and effect betwixt their objects.” (T, p. 59) what we are in fact being told is that causation is an associating quality which presents to the mind a higher degree of that

⁵³ This issue is examined in depth by Pappas (1977) who concludes that Hume cannot argue for the assertion that all particular ideas are determined as to a degree of quality and quantity.

gentle force than contiguity and resemblance. This same notion of the associating quality as a force that guides imagination in associating ideas can also be applied to the effect of custom.

This application is also granted to us by the fact that Hume explains the influence of causation by means of custom. The mechanism of association in the associating principle of causation rests on the influence of custom on the imagination. In this case, we have a not-so-gentle guiding force arising from the two-fold effect of this influence. On the one hand, an idea is immediately associated to a present impression according to observed past conjunctions between objects. On the other, the liveliness of the present impression is transferred to this idea, through which the mind believes in the existence of this idea as necessarily connected to the impression as cause to effect, or the reverse. Hume also admits that resemblance and contiguity may also cause the mind to transfer liveliness to an idea in the case when association is from a present impression. (T, Book I, Part II, Section VIII) But, immediately in the next section, Hume also insists that these latter principles of associations, as they rest merely on the associations of imagination rather than observation of constant conjunctions, hence not on custom's influence, produce weaker connections. (T, p. 156-160)⁵⁴

⁵⁴ Hume's aim in making this revision is to make sure that belief and necessary connection which accompany the inferences from experience under the principle of causality are distinguishable from the other two associating principles, while they may also result in certain similar outcomes in terms of the liveliness of the associated idea. If these latter principles could be said to create belief in the attending idea, causality could not be singled out in terms of necessary connection. And this objection, it may seem, anticipates the criticism of Hume's model which will be discussed later in this chapter, regarding the mind's capacity to distinguish between the actions of the principles of association upon the imagination. I wish to shortly address Hume's objection. Now, I grant that Hume's explanation of a distinction can be performed by the mind at a sophisticated level of reflection. The distinction rests on first distinguishing a system of memory/senses, resting on the belief in the existence of certain ideas of objects in their connection to the impressions from which they are derived, and a system of judgment, derived by causal connections from empirical observation. These two systems, as far as I understand, may share objects, and the latter may be an improvement on the former. Hume tells us that the mind is capable of discerning the connections between ideas that arise merely on the operation of the imagination on the former system by comparing the constancy, arbitrariness and force of the connection and attendant belief in existence. But such a comparison would require an idea of relation, in this case perhaps that of quality, as well as other general ideas, such as constancy, etc. And also, it would involve the mind observing its own activity in certain associations rather than the objects themselves. My issue with Hume is that the mind, in this complexity of faculty, is not the imagination; and, my question would be whether the imagination itself is capable of making this distinction. For, to make the distinction, a set of ideas of relations are necessary, while conversely, ideas of relations require abstract ideas, which would first require the distinction between principles of association without any help from any higher faculty, but

The notion of the gentle force that guides the imagination seems to me essential in understanding the origin of the impression from which Hume derives the idea of necessary connection. But, also, it seems to contradict the explanation of association offered earlier. It was previously said that the association need not be felt by the mind as other than a mere appearance of an idea once the mind perceives another. This contradiction can be resolved, I believe, by recourse to the absolute freedom of imagination. That is, if no gentle force guides it, the mind would not feel any activity on its behalf. There may be a mere survey (in which the imagination must also be active) but if no force guides it there is nothing to suggest that there will be any trace left of this connection. But, if the mind perceives itself as active only beginning with its associations, when we consider the mind insofar as it associates, this force should be the standard perception of the mind. Insofar as imagination is active, therefore, it should not be possible for the mind not to have perception of this gentle force. But, if this standard perception of force accompanies all association (or activity of imagination) it is nothing other than the manner of the mind conceiving its associations, and as such, akin to the ideas of space and time, it cannot be separated by the imagination alone. Perhaps, similar to but also in a crucial sense contrary to Hume's account of minimum perceptible coloured points, here the bare minimum perception of the mind always already includes imagination's gentle force. Although perceived, it cannot be perceived as a distinct impression. (See Allison, 2008, p. 190-191) Its separate conception requires a distinction of reason, which rests on comparison. But, as imagination is active in all comparisons, and for a comparing mind there is always this force, it is impossible for the mind to single out this perception through a comparison of the absence of this force and its presence. So, imagination cannot distinguish this force by comparing it to an association which is the effect of pure chance. The act of comparison itself bars from the mind the perception of the absence of this force. The possible comparison, then, would rest on a difference of degree between the forces of the three associating qualities. In any case, it would be difficult to discern the operation

by the imagination itself, so that the higher faculty of mind could itself first originate.

of this gentle force in isolation from the arousal of the idea associated with an idea or impression perceived previously.

I wish to clarify further the relation between these two notions of quality. It should be noted, first of all, that while the force with which resemblance influences association rests on the relation between the determinate degrees of some quality and quantity through which particular ideas are perceived by the mind, this is not the case for contiguity in time and space, and causation. This difference in the notions of quality, however, is secondary. It follows upon the original difference between the determinate degree of quality as it determines a particular idea and as it determines the influence that connection between determinate ideas has on imagination. This distinction might be slightly confounded in the case of resemblance and the qualities, but the case of contiguity and causation require us to be mindful of it. Hence, if we begin with this very distinction, it would be much easier to note that time and space, and also causes and effects, are not qualities in the sense a degree of colour or weight are. Hence, an impression or idea need not have a determinate degree of time and space, as a shade of colour or hardness, in order to be associated through contiguity, because this principle rests on objects being contiguous as to their existence in a determinate time and place. Insofar as things are associated as to their shape or size, however, we can say that not the principle of contiguity but that of resemblance is the cause of such connection. Causes and effects, are, in a similar manner, not qualities of things⁵⁵ but are necessary connections between things which, the mind observes, have repeatedly displayed these connections. Thus, while resemblance rests mainly on the connection between ideas based on qualities that are essential to the particularity of these ideas, contiguity and causation are, although essential to the constitution of ideas and life in certain respects, do not have this relation to the perceptibility of ideas. For these relations, a resembling quality is not itself the associating quality for the imagination, in the sense Hume uses this latter term; the associating quality is that unique nature of the connection between ideas. (There exist, according to Hume, resemblances between simple ideas which cannot be separated into their elements, such as a colour resembling one colour more than

⁵⁵ “At first sight I perceive, that I must not search for it [the impression that connects a cause to an effect, or the reverse] in any of the particular *qualities* of the objects...” (T, p. 123)

another. Hence, the resembling quality need not be a shared quality such as redness.) Having a determinate degree of a particular quality is not, therefore, the essential requisite for being an associating quality. What is required is that a connection between two ideas, which are necessarily determined as having a determinate degree of some quality or other, have a degree of some other quality sufficient to have influence over the imagination by determining a degree of gentle force. This unique quality, a capacity of influencing imagination, is not given immediately by the qualities that determine particular ideas.

4.4 Hume's Theory of Abstract Ideas

Abstract or general ideas are, for Hume, those which allow the mind to reason beyond the particular object perceived in the idea. In light of Hume's theory of how the mind is capable of such reasoning, I believe it is necessary to beware of using the term concept an equal to Humean abstract ideas. In a very general sense, the concept would give us "a rule or principle of selection" of qualities, similarities and differences based on which "diverse particulars are brought under" one title. (Allison, 2008, p. 33) This rule, and the term used for it, would represent that common characteristic by means of which diverse particulars, differing in some aspects, and resembling in some others, are brought under one title on the basis of a determinate set of qualities that can be selected from their resemblances. (What Allison terms "relevant resemblances.") Hume denies that there exist such rules which abstract from all particular instances, retaining merely common qualities, but he does not deny that the mind has a capacity to go beyond the particular to a more extensive, wider signification than the mere particular. (T, p. 64) The grounds Hume offers for the denial of proper concepts in mental functioning and the alternative explanation for such a capacity constitute the two aspects of Hume's argument. While it is possible to view these two aspects separately⁵⁶, I would like to briefly

⁵⁶ For example George Pappas (1977) claims to have exhibited the insufficiency of Hume's refutation of the possibility of concepts proper, while arguing that his positive account, in contrast to the preceding negative one, in fact provides a much better and satisfactory argument against concepts. I would argue that this latter positive argument offers no satisfactory result.

discuss the former, for I believe it will clarify for us Hume's understanding of concepts proper, and what his alternative account is to replace.

In describing the 'receiv'd opinion' in the case of abstract ideas, Hume begins by stating that "'Tis evident, that in forming most of our general ideas, if not all of them, we abstract from every particular degree of quantity and quality, and that an object ceases not to be of any particular species on account of every small alteration in its extension, duration and other properties.'" (T, p. 65) Here Hume is pointing out to us certain aspects pertaining to "the nature of abstract ideas" which arise from the conception of such an idea. The first one is the peculiarity of general ideas whereby they present to the mind not the particular degree of quantity and quality, but this quality and quantity in a more general function so as to be able to represent other possible degrees as well. The second aspect, connected to the first, but slightly different, suggests that different things with differing degrees of quality and quantity, etc. fall under one species and all individuals taken together would constitute a continuous gradation. Both types of relation between the general term and the individuals falling under it, can be conceived when we are speaking of abstract ideas. Briefly put, these two conceptions are, representing all particulars of determinate degrees of quality and quantity of a species, or, conversely, representing no particular degree of those qualities and quantities that determine a species.

From among the two alternative conceptions of abstract ideas, the received opinion opts for an abstracting capacity of the mind by which it represents no particular determination of some item belonging to a species. This conception is based on the argument that a representation of all possible degrees of quality and quantity determining particular things that belong to a species would be inexhaustible, and would require an infinite mind. As human beings possess no such mind, this option should be rejected. However, Hume's preference is for the latter alternative. Hume's negative argument is basically that the mind cannot perceive any quality or quantity of an indeterminate degree, but, perceiving a determinate degree thereof is to perceive a determinate object, which is the true and only perception (of impressions or ideas), according to Hume, the mind is capable of. In addition, Hume believes that "we can at once form a notion of all possible degrees

of quantity and quality, in such a manner at least, as, however imperfect, may serve all purposes of reflection and conversation.” (T, p. 65)

An important commitment that guides Hume’s thought in this direction seems to me to be his wish to undermine the possibility of innate ideas by means of removing the grounds of any abstraction, that is, by reducing all abstraction to an imperfect but functioning induction from a number of particular elements, which itself must be represented by a determinate particular. From this it would follow that even abstract ideas derived directly from impressions of memory, ideas produced directly from memory, would not have been *abstracted from* them. The simplest reason for this would be that, the idea having an extended significance (the abstract idea) would itself be present to the mind as a particular idea and a particular idea is far from being abstracted through any proper abstraction. Since the abstract idea is represented in the mind through a particular, and its abstract nature rests on a peculiar association between an imperfect⁵⁷ collection of particulars induced from perceived instances, it will not be possible to conceive *abstractive* concepts, that is, “relations which we need not have experienced particular instances of in order to know in general.”⁵⁸ (Cassirer, 1981, p. 102) Cassirer adds, in his description of Kant’s conception of abstractive concepts, that “[in] a certain sense we arrive at them “by abstraction,” but the material from which the abstraction is taken is not sensations, but the activity of the mind itself, which we grasp in its immanent lawfulness and hence necessity.” (Cassires, 1981, p. 102) Here it should be apparent that, in Hume’s conception of mental functioning, even if an idea reproduced from memory is not derived immediately from an impression of the senses, its use as a general term originates from and never ceases to abandon the fact that ideas

⁵⁷ Imperfect in two senses: not infinite, and also not representing all particulars as such, but only in power. See T, p. 69.

⁵⁸ Perhaps it could be objected to this conclusion on the grounds of Hume’s remarks concerning relations of ideas in the Enquiry, where he suggests that relations of ideas would hold true even if there were no instances of this relation in the universe. Still, however, it is not clear if arriving at such a relation through comparison can be said to yield an abstract idea, let alone one which displays the universal lawfulness of the activity of the mind itself. And also, the relation is quite arbitrary when compared to the idea of relation, quantity, on which it is based, rendering somewhat insignificant its scope and relevance as an abstract idea, being a particular instance of a relation of quantity. As such, it only tells us that a particular relation holds universally for all possible cases.

represent particular objects, which is what an idea shares essentially with an impression. Furthermore, even if a general term is derived from the activity of the mind, this process would require as its basis that we take the mind in a particular situation, performing a mental feat upon a particular impression or idea of an object. Hume's conception of mental functioning thus bars the possibility of innate abstract ideas.

Hume's own theory is, I believe, pretty straightforward, and throughout his exposition, receives, subtle but fairly important additions.

When we have found a resemblance among several objects, that often occur to us, we apply the same name to all of them, whatever differences we may observe in the degrees of their quantity and quality, and whatever other differences may appear among them. (T, p. 67)

Applying the same name to these objects based on a resemblance creates a custom whereby, when one object is named with this term, this act of naming triggers in the mind the whole collection of particular objects which have been previously called this name based on that resemblance. This whole collection does not present to the mind each and every individual object in all its particular details. The mind perceives the particular to which is applied the name, the general term, and the rest of the collection becomes present "but only in power;" the mind associates⁵⁹ the present idea with the rest of the collection whereby it is put in a state of readiness to consider one or another of these immediately when an occasion arises. (T, p. 68) This state of readiness through custom creates not many inconveniences (i.e., mistaken conclusions), according to Hume, and if there appear any "it proceeds from some imperfection in its [the mind's] faculties" and occurs mostly with very complex ideas. (T, p. 69) When the mind, for some reason, draws an unwarranted universal conclusion based on the particular qualities of the particular idea, when, say, it asserts, as a universal quality, that the three angles of triangles are equal to

⁵⁹ While Hume does not directly use the term 'association' in conjunction with the readiness of the mind to turn from the perceived particular to any other in the collection represented in power, in one of the four examples he later gives us, trying to show the operating of this complex process, Hume says: "Nothing is more admirable, than the readiness, with which the imagination suggests its ideas, and presents them at the very instant, in which they become necessary and useful." (T, p. 71) Hence, this process is essentially a type of association, albeit perhaps more complex than the basic association of ideas.

each other, the collection of ideas associated to the particular idea present to the mind “immediately crowd in upon us” and prevent this conclusion to be adopted. (T, p. 68)

The same idea can be associated to more than one name or general term, and the custom revived by one general term will, therefore, revive other customs as present in power for reasoning. While all terms are applied to an idea, “as they are wont to be apply’d in a greater or lesser compass” so would they recall their customs and collections of ideas in greater and lesser power of readiness to be included in reasoning.

One very crucial aspect of Hume’s theory is that it allows practice to perfect the use of these habits. That is,

[b]efore those habits have become entirely perfect, perhaps the mind may not be content with forming the idea of only one individual, but may run over several, in order to make itself comprehend its own meaning, and the compass of that collection, which it intends to express by the general term. (T, p. 69)

Hence, while the process of forming the habit begins with noticing a resemblance and applying the same name to the things which resemble in this respect, the meaning of this resemblance can be further clarified by the mind as it surveys the ideas, separates them into their elements, compares the elements, and arrives at conclusions which make more clear to the mind the possible relations of the ideas in one of its collection. The meaning of the general term and thus the association between the ideas of the collection will become clearer as it is made clearer what it means for this or that idea to be included in this collection. And, apart from very complex ideas, the custom through which an idea is associated with others through a web of resemblances, is entire (T, p. 69). Hence, I take Hume to mean, all (or perhaps most of the) possible and positively significant resemblances are exhausted, and included in the custom.

Hume is adamant that his compact theory of general ideas gives an explanation for what we observe in our ordinary reasonings, conversations, in which we witness the readiness of the mind to recall all relevant ideas when they are required in the course of the interaction, or the capacity to immediately correct

mistakes in reasoning by bringing to mind the diverse ideas associated by the same general term.

This account of abstract or general ideas is immediately put to use by Hume in explaining a peculiar mode of separation of qualities⁶⁰, which is not based on qualities separable by the imagination. These are distinctions of reason, and rest on certain resemblances which are based on inseparable qualities, qualities which cannot even be ‘dreamed’ by the mind separately from the object. The example Hume uses is a white globe of marble, a figured and coloured body, from which neither the figure, nor the colour can be separated by the imagination. Still, however, Hume allows the mind to recognize resemblances where such separation is not possible. The mind can observe “different resemblances and relations” in, what Hume calls, “this simplicity” where the imagination cannot proceed to separate the white globe of marble into these different parts.⁶¹ When, after the white globe is thought, the mind is also presented with a black globe and a white cube, it is capable of recognizing resemblances based on the inseparable qualities of white-colouredness and globe-figuredness. The mind compares these differences, Hume says, and grows accustomed to separate these on the object, which it essentially considers as a unity of these inseparable qualities, by moving its eye to the resemblance with the relevant item, based on which it considers the relevant resemblance instead of the other.

As stated, Hume does explicitly suggest that his explanation for the distinctions of reason is based on that of abstract or general ideas. But, as Hume provides no explicit comparison of the two processes, it is upon the reader to

⁶⁰ Hume does not call the basis of these resemblances, not based on a separation of complex to their parts, qualities, but one of his examples for quality, as an idea of relation, is colour, which is one of those resemblances that he names cannot be distinguished from the coloured and figured body. Hence, I will call them inseparable qualities. (T, p. 62)

⁶¹ Allison suggests that Hume is here misleading us in using the term simple to designate a coloured globe, when, in fact, the true simples are, for him, the indivisible minimum perceptible (coloured and tangible) points. I would like to suggest that the minimum perceptible point requires philosophical exegesis of this problem, a comparison of conceptions of space and time, and would, therefore be lacking in the ordinary imagination. Consider, especially, the case against certainty in ideas of geometry. It is not possible to know for certain the quantity and disposition of minimum perceptible points in an idea of a line perceived by the mind. Critical reflection points to us the minimum perceptible, but the image of a line or of a coloured patch does not present us these minimally perceptible coloured points clearly distinctly. More on this in the next chapter.

discover the relations. And, it seems to me, that when Allison tells us that “it is far from clear how custom enters into this account of distinctions of reason,” (Allison, 2008, p. 36) it is less because the role of custom is indistinguishable than because Allison holds the role of resemblance to be more important. I would like to suggest that the role of custom and some other relations to the account of abstract ideas can be discovered through a close reconstruction of Hume’s argument.

The first relation to the account of abstract ideas that can be discerned is that a distinction of reason is based on particular ideas. It is through viewing a particular in a certain aspect instead of another that the distinction of reason functions. Hume’s account implies that with regard to those inseparable qualities of things, the mind is quite strictly constricted to the perception of the determinate degree of the particular. The separation of this aspect implies no indeterminate degree of quality, but requires the recognition of differing resemblances possible for one thing, and this particular viewed in terms of one resemblance and the attending custom, rather than some other, connected to another custom. We have thus arrived at the second relation with abstract ideas – the role custom plays in the present account. This role of custom just mentioned, however, that it triggers a collection of things through one particular resemblance, based on which aspect is viewed on the object, is only one of the roles of custom. It can be termed as the readiness to consider the collection of resemblances and resembling things. To this, one must also add that when this aspect of the idea is in consideration, the other aspect, tacitly left out of consideration, when the mind tacitly moves to the relevant resemblance, must still be accessible to the readiness of the mind. For in the particular perceived by the mind, both aspects are inseparably linked. The other resemblance, that which is left out, must still remain accessible, via imagination, to reasoning or conversation. This would suggest that what is triggered here is more than merely one particular resemblance, but a custom of differentiating different customs on one particular accompanies this whole operation of distinction of reason. Through this custom, it must be possible for both collections of things associated to each aspect to be accessible to reasoning and conversation. But, it seems, this custom of distinguishing or differentiating is not a side product or some arbitrary observation. To the contrary, the very account of distinctions of reason rests on the creation of

this, as it were, split custom. That is, for example in the case of the white globe, to consider the colour of the globe it would be required to view the thing, in fact considered as a unity of the inseparable qualities of determinate colour and figure, in its resemblance to the white cube by ‘turning’ our view *to* this aspect and *away from* the other aspect, its resemblance to the black globe (on the basis of figure). The determinate quality of being a globe, however, is still present alongside the relevant resemblance in which the object is viewed, the resemblance to the white cube that is based on colour. The white globe is present in this relevant resemblance to the white cube, but differing from the latter in an inseparable quality, and in this very differing quality, as the possible member of that other resemblance to the black globe, based on figure. If this active splitting were not the case, if this turning to were not essentially accompanied by a turning away from, then, one resemblance at one time and another at another time, would have been enough to make the distinction. But for this, it would have been necessary for the mind to connect these resemblances on the same object first. And this, in turn, to make an association between resemblances experienced in dis-contiguous events, and based on a differentiation, which, I believe, Hume would not hold to be possible. Hume is particular in staging the formative event in his account as containing two resemblances, distributed upon three objects, that can be present to perception in the same event. The mind observes the resemblances and the difference between resemblances, and this, it does as against one and the other. Hence, it seems, that, in addition to the recognition of a qualitative difference, an additional signification enters the consideration of either aspect, which involves this aspect being not-the-other-resemblance.

Before turning to Allison’s critique of both of Hume’s accounts, I would like to point out one striking difference between the two explications, which, I believe, is quite relevant to the said critique. It appears from Hume’s explanations that, while in the formation of abstract or general ideas, the process of naming things plays an original role, in the account of distinctions of reason, this act of naming and applying the name is absent. We can attribute this to the fact that while a separable quality constitutes a separate idea, and thus presents the occasion for a separate name, the inseparable quality is united on the object with others, perhaps germane to resemblances, but first separable through the process of distinction of reason. Hence,

in the second of these accounts, the primary and truly crucial role rests, as Allison suggests, on resemblance. The role of custom ought not to be dismissed, however, for, here not associating with a name, but resemblance and noting resemblances is in effect the ground of the custom, which, once formed, takes the lead in the process. Once this inherent relation of resemblance and custom is admitted, answers may be given to certain of Allison's criticisms. This connection will, then, allow us to see at what aspect a criticism of Hume's account of abstract or general ideas can be fatal, and to what degree Hume is entitled to have offered an ingenious explanation of a complex mental process.

4.5 An Argument against Hume

Allison's criticism of Hume's theory of the mind has an avowed aim to question the legitimacy Hume assigns to the normative foundations of knowledge claims and truth. In addition to commenting extensively on such issues as the origins of belief and certainty with which ideas present evidence for conclusions for cognition, Allison provides a detailed reading of Hume's theory of ideas concerned with the combination of ideas, the cognitive functions which can be attained by such combinations, and the derivation of certain ideas from impressions or their construction by the imagination by means of fictions. My main focus here will be an analysis of Allison's criticism against Hume's theory of abstract ideas. While I am in total concord with Allison's final verdict, concerning several details and the source of Hume's weakness, I wish to make certain comments. According to Allison, Hume's theory of abstract ideas as based upon an imagistic and associationistic conception of the mind, cannot function without presupposing, yet at the same time, disavowing a conceptual basis. Here a concept is taken as "a rule or principle for select[ing]" those marks in an empirical manifold by which it will come to fall under that rule. (Allison, 2008, p. 33) Allison suggests that Hume's explanation of the subsumption of an object under a rule on the basis of noticing resemblances, and associating these resemblances with collections of objects formed by similar associations, is insufficient. This explanation does not suffice, because it cannot explain how precisely those very marks that the rule prescribes must be

sought for (what are essential to an object falling under a concept) will be noticed, and no other, or no other combination of marks. The rule must precede the noticing of resemblances, and guide the seeking. Allison concludes that while Hume's explanation thus presupposes a concept as rule, Hume's conception of mind would not admit the use of concepts, since it only allows that particulars are present to perception by the mind. Although I agree with Allison's overall criticism, what I find lacking in Hume's model of mind is the mind's capacity for reflecting on its mode of activity. This would be Kantian spontaneity understood as the understanding's capacity to take itself as its object and derive the rules of its functioning from itself.

I believe Hume's explanation of the derivation of ideas from mental images and through associations can answer some of the serious objections Allison raises. I find that the Humean picture of the mind, as has been explicated above, proves capable of a kind of concept formation and formation of more general and abstract ideas from more specific ones, which Allison denies on the said grounds. However, to grant such a capacity, Hume's mind requires that it have the basic idea of resemblance, based on the corresponding principle of association. This point is briefly mentioned in Allison's critique, but, it seems to me, a generous reading of Hume's theory of the mind would be satisfied with merely this criticism, which, I find, is already, in and of itself, fatal to the theory at hand. That is, without an adequate idea of resemblance, which ought to be derived, according to Hume's theory, from an impression, itself through connection with a general term or distinction of reason, but from a suitable impression, nevertheless, the whole edifice of abstract ideas collapses. The effects of this collapse extend to the explanation of the sources of the idea of causation and to the principles supplying normativity to scientific inquiry into nature in general, simply because, no abstraction (of sorts) means no general ideas and no general principles, let alone the possibility of the transfer of belief upon them.

Hume's theory of abstract ideas, and Allison's critique, can be viewed in three dimensions. First, an abstract idea is to be formed. Second, it must be possible for a particular object to be subsumed under, or at least, included in or added to the set of associations that are revived under a name. Third, it must be possible to arrive

at higher abstract ideas by recognizing resemblances between the relevant features of more specific abstract ideas. I will quote several passages in full from Allison's discussion and comment upon them.

The process begins with the noting of resemblances among distinct objects, which leads to the collecting of them under the same name, in spite of the manifest differences in degrees of quantity, quality, etc. Expressed in non-Humean terms, these resembling particulars are taken to constitute a kind or sort in virtue of their resemblance, which is then codified by the act of naming. (Allison, 2008, p. 32)

The problem starts with Hume's appeal to resemblance, which both provides the basis for the classification under a common name and triggers the custom. Not only does Hume assume that the mind can recognize resemblances among its distinct impressions (even though there is no such thing as an impression of resemblance), but also that it can pick out those that are relevant and disregard irrelevant differences, without already having the concept or general idea in question. (Allison, 2008, p. 33)

These passages relate to the first two aspects, which were just mentioned. The problem with regard to the third aspect, according to Allison, is again the same issue where

the resemblance in virtue of which [more specific abstract ideas] are brought under the same name and thereby united in the same custom ... presupposes a grasp of the relevant similarities on the basis of which diverse particulars are brought under the name in the first place." (Allison, 2008, p. 33)

The main problem, which connects all three aspects, then, appears to be that prior to having an awareness of which collection of marks permits the mind to apply a particular name to a collection of diverse objects, collecting under this name would not be possible. Which resemblances and which differences are relevant and which are non-relevant to this particular classification must be given in order for a classification to function. For, otherwise, within the arbitrariness of the multitude of marks on the object and thus the possibility of a multitude of resemblances, it is not clear how the mind could select the resemblances that contain the marks that are connected to this particular name.

A first objection to this criticism of Hume's explanation of general ideas would concern the first stage of the process – the origin of a general term. Insofar as

there is not yet a general term through which a particular idea fulfills a generalizing function, the marks relevant to the application of a term to the objects are posterior to the noticing of the resemblance. The connection of the term and its meaning, the marks it signifies, will be established once a term is applied to a resemblance. As this application is repeated on the basis of noticing similar resemblances, so will the name be established as a general term which will be associated with resemblances that are relevant to its application and some others which are not. Hence, at this stage, it makes no sense to criticize Hume's explanation on the basis that it requires a prior awareness of the relevant resemblances to apply a name. This is the primitive stage of naming resemblances, and resemblances become relevant only by the naming itself.

With respect to the other two stages of the functioning of abstract ideas, on the other hand, Allison's criticism is directly applicable. In order to subsume an object under a general term and also to arrive at higher abstract ideas (which are common to more particulars and are meaningfully so) a distinction between relevant and non-relevant resemblances is crucial. In my opinion, once an awareness of the associations based on resemblance as such is granted, it may be possible to counter Allison's criticism, since it will be possible for the mind to achieve a capacity of a comparing survey of ideas based on resemblance and thus to elaborate on the resemblances of the ideas it associates. The gentle force of association will, then, have a much securer hold on the mind, for the mind will thus have the capacity to observe this principle in action. The flow of associations will itself be observable, for during this flow an awareness of the acts of the mind would also accompany the mind. During the course of associations, the idea of resemblance itself would gradually form as the original or primordial abstract idea, for this idea will bring to mind the previous points of resemblance between the ideas it associates. Once resemblance begins to act as an abstract idea, which it would necessarily do in such a reflective mode of mental functioning, this would be resemblance as an idea of relation. The mind would thus come to have, what we might call a system of resemblances based on memory impressions of its past acts of associations by resemblance, parallel to the systems of memory and senses, and the system of

judgment. (T, p. 158) Hence, a web of resemblances would already be present in memory.

In such a reflective mode of consciousness, where not only are associations based on the principle of resemblance but the association is recognized as an act of association by resemblance, various ideas can be compared in order to discover the associating link between them, for, it would be possible, through the survey of ideas, to notice the resembling peculiar as resembling. If, now, we also grant time and patience to the mind, as Hume does, to perfect its customs, I believe the mind should be able to come up with connections between a finite number of ideas where the resemblances relevant to the use of a general term are clearly delineated. As the number of resemblances must be finite, and the mind is aware of these in applying the name, it should, in principle, be possible to compare the application of the name to a number of particulars and distinguish the incidental from essential resemblances.

This suggestion is intended to show that an answer to Allison is at least possible on the basis of the idea of resemblance as derived from an impression of resemblance. This answer covers the formation of new collections of ideas and also the formation of more general ideas from more specific, since these pose the same requirement, according to Allison, which is the possession of a concept that delivers to the mind the marks based on which to produce from a selection of ideas a specific and determinate collection.

In a compact but suggestive essay, *Explaining General Ideas*,⁶² Janet Broughton tries to counter the charge against Hume's explication of abstract ideas. Her strategy seems to display a similar overall structure to the explication undertaken here. Broughton separates the framework in which an association of ideas can produce a number of resembling instances that can admonish illegitimate generalizations by recalling counter-examples, from the act of recognizing features of things as resemblances. In short, the question of the content of the concept is separated from the question of the functioning of a concept as a general idea. If, Broughton suggests, the problem Hume wishes to explain is the puzzle of the

⁶² Broughton (2000)

functioning of the particular as a general idea, then, charging Hume with not explaining how the particular is subsumed under the concept does not hold, for Hume's problem is the mechanism of association that is triggered when the concept is applied.

In the explanation I tried to give, I have tried to indicate the possibility that the mind can, with certain tools granted (impression of resemblance), produce more complex concepts from simpler ones. The charge against Hume may be appropriate when a concept is taken to be already formed and complex, and the mind has but one shot at arriving at the relevant features in the object through which it falls under the concept. But, the formation of a complex concept in the making, beginning with an association based on basic, even perhaps misinterpreted (not relevant but misrecognized as such), resemblances and the survey of ideas in order to discover further features, might serve to fill that gap which is seen to be lacking in Hume's explanation. For, Hume is explicit in stating that there is a time for us that comes before the "[a]fter we have acquired a custom of this kind." Hence, the custom, or the general use of a particular, which involves a web of associations, is acquired through a propaedeutic naming followed by a clarifying survey of resemblances. (T, p. 67-68)

Allison points out, however, that the mind has no such impression of resemblance, hence no such idea is immediately derivable as a copy from such an impression. Derivation of the idea of resemblance from impressions in the mind ought still to be explained, and this explanation would need to make use of distinctions of reason. Now, based on the explication of the gentle force that imagination has on the mind in making associations, I would like to suggest that a degree of force seems to be attributed by Hume to resemblance. Hence, it might be deemed possible to point to an impression of reflection from which this idea may be ultimately derived. It must be stated, at the outset of such a proposal, however, that Hume does not assign to the mind qualitatively different feelings of its associations based upon resemblance, contiguity and causation. So, the impression from which to derive the idea of resemblance is to be treated as a degree of that impression from which Hume proposes to derive the idea of necessary connection that is inherently connected to the idea of causation. Nonetheless, for the case of resemblance, Hume

considers this degree to be much weaker, and the propensity to associate ideas based on resemblance, or the union thus achieved, to be much less fixed than in cases of causal associations. These former two, Hume dismisses as too arbitrary to form any fixed connection. Furthermore, if it is to be possible to draw a distinction of reason here, and in this case an original distinction which might be said to underlie reason itself, then, a number of instances of association based on resembling qualities ought to be contrasted with causal associations, through which it must be possible to bring to notice the difference between the strength of forces that pertain to the bond that unites ideas in the two cases. Such is the functioning of the distinction of reason. It seems to me that in the present case such a comparison would not be possible for at least two reasons. Firstly, the gentle force assigned to imagination seems to permeate the mind in an unrecognizable manner. Any stronger case of such resemblance or contiguity is, as Hume says, only arbitrary. The imagination need not connect another time any two ideas previously connected by these principles. That regularity of connection which, in the case of causation, is said to build into a custom through constant connection in observed instances, and which is the basis of a strong propensity to move from one idea to its regular attendant, is, in this case, not present. Hence, it would be the case both that the degree of force is unstable and fluctuating, and also that the ideas which are combined are not supported by the resemblance of previous combinations observed in perception which have been collected into a custom. Hence, due to its arbitrary qualities, the gentle force is too gentle a candidate to activate the associating principle of resemblance that operates in custom, and to create a collection of associations as resembling as to their principle. And, secondly, let us presuppose some stronger impressions of resemblance. As these are higher degrees of an all permeating force, of which the causal principle is of the highest degree, it seems, these instances, instead of being differentiated from the stronger sense of force that arises from associations based on the principle of causation, would be more prone to be misrecognized as causal relations.⁶³

A possible Humean response to this criticism, which I find interesting and would like to address here, might be that we might not be able to find the ultimate

⁶³ This argument, if it holds, seems to me to put into question the derivation of the idea of causation from the relevant impression.

causes of things, and thus we better stick to what can be explained. To this call to moderation it can be responded that this particular point does not yet lie beyond that limit to which inquiry ought not to be pursued. For, as per the copy principle, Hume has already set the stage of explanation of mental phenomena as the derivation of ideas from impressions, the latter being the causes of the former. As the idea of resemblance is to be derived from an impression, this derivation must also be shown. Hume has undertaken this explanation for the other ideas of relation which have their corresponding principles of association by imagination, that is, for principles of contiguity of time and space, and causation. Furthermore, Hume's dictum is mainly intended to ultimate causes that are to explain the sources of those perceptions of the mind to which all ideas can be reduced, that is, the perceptions which are called impressions. In its explanations, the mind cannot go beyond its impressions, but the question of how the mind comes to perceive an impression can be asked. The idea of resemblance must also be reduced to an impression from which it can be derived. The unanswered (and perhaps, even, unasked) question is not what the cause of this impression is, but what this impression is, or how the impression is found out to be related to resemblance, or how the idea is derived from the impression. Insofar as Hume cannot provide a satisfactory causal explanation for the idea of resemblance, the complete grounding of the ideas of relation will have to remain unsatisfactory by the standards of Hume's theory itself.

I would like to call this outcome the collapse of the Humean project. This project can be summed up as providing causal explanations, derived from the observation of perceptions of the mind, for the principles of sciences. These principles would have provided a field of relative necessity, through principles arrived at by induction based on observations from experience. Due to the lack of a satisfactory explanation of abstract or general use of particular ideas, however, this project is doomed from the outset. For, without abstract ideas, no general principles can be abstracted, as it were, from sense perceptions and ideas. And, without general principles no kind of necessity, let alone relative necessity is to be found. For when general signification is not possible, the impression and idea of necessity must remain connected to each particular case, and the mind will not be able to obtain the idea of causation as an idea of relation. In a sense, the idea of necessity is rendered

impossible. The model of the mind and the method of explanation based on this model of the mind ought to be abandoned. This, I would suggest, is the first outcome for the feasibility of the Kantian project, of founding necessity and the field of the sciences in pure reason alone. In the wake of the collapse of this empiricist skeptic's edifice, then, if there is to be any necessity, reason can be conceived once again to take up the responsibility of grounding the necessity required by science. At this stage, it is an issue not of the manner of conception of the project, but its mere conceivability.

Furthermore, the point of collapse of Hume's project is also instructive, for it determines what precisely his method of explanation lacks. Two features are striking. Firstly, the timeworn criticism against Hume, that his explanation of abstract ideas presupposes the concept which it purports to explain, can be rethought in light of the argument presented above. Here, what Hume's explanation lacks need not be any particular concept of some object, such as triangles, chairs, plane figures, etc.; for the derivation of these concepts from impression of the senses and ideas according to Hume's explanation seems to me to be possible – once, that is, the consciousness of, what I believe is for Hume, the most basic associating activity of the imagination is granted, which is the consciousness of associations based on resemblance. This would suggest that the concept that is lacking is precisely a concept of the activity of the mind, which would amount to a concept derived spontaneously from the activity of the mind. In this sense, it seems, the story of intentionality comes too late in Hume's project. This then would suggest that certain acts of the mind ought to be conceived at once as distinct from one another (as in functions) and also available for spontaneity to be conscious of them. A second aspect, and connected with the first, is that Hume's argument against abstract concepts should be reversed. That is, Hume had argued against the conception of abstract ideas representing no determinate degree of quality or quantity of a particular object, based on the assumption that whatever are present to the mind, as impressions and ideas, are particulars. With this conception of mental functioning, to make the claim that no particular is represented by abstract ideas is same as claiming that a particular have no determinate degree of a quality and quantity, which, would be absurd. The collapse of Hume's explanatory project leaves open the question of

the nature of abstract ideas, and reintroduces the possibility of conceiving a discursive mind, which would grasp formal relations and the general in particulars. The explanation of knowledge would, then, be required to take into consideration concepts as universal representations. And with such a move, it appears, that the view which conceives reasoning as a sensitive rather than cogitative aspect of the mind should be abandoned in favour of the discursive intellect whose basic action is passing judgment on objects based on rules that are determined in accordance with, if not merely by, logical rules.

CHAPTER 5

DISCOVERY OF THE FORM OF INTUITION

5.1 Introduction

From Kant's presentation of his understanding of the "a priori" in the opening sections of the "Introduction" to the *Critique*, it appears that, even prior to a completed proof, Kant firmly believes there to be possessions of "our faculty of a priori knowledge" (B6), and that these are derived from the understanding as well as other sources. This is intimated in Kant's choice of concepts which he strips off of all empirical elements in order to reach that concept which imposes itself to us with necessity – removal of the empirical from the concept body yields that of space, and from any thought of an empirical object there remains the concept substance (B5-6). For a reader of the *Critique of Pure Reason*, it would be apparent that the concept of space has its source in a priori intuitions. Still, Kant himself suggests this possibility merely in passing, when he is discussing how traditional metaphysics could pass over the essential feature of mathematical science – that it constructs its objects in intuition – as merely analytic precisely "since intuition can itself be given a priori, and is therefore hardly to be distinguished from a bare and pure concept." (B8) A corrective admonition to this error comes after Kant has introduced the notion of synthetic a priori judgments and the source of necessity for mathematics: "And even these [analytic] propositions, though they are valid according to pure concepts, are only admitted in mathematics because they can be exhibited in intuition." (B17) Still, however, such mentions, if they do rest on proper argument, are ungrounded assertions. In any case, the project of the critique develops from what, I believe, is a rational necessity Kant recognizes in the principle of the two sources of knowledge, which is then utilized to reformulate and provide an answer to the question of synthetic a priori knowledge. So, when, by the end of the "Introduction", Kant has

finally come to set out the project of the possibility of synthetic a priori judgments in terms of the two faculties of pure reason – sensibility and understanding – as two sources of knowledge from which two distinct types of representations – intuitions and concepts – arise, we must take him to have established this latter distinction at least in some general outline.

In this chapter I will try to follow, or better extract an argument from the “Introduction” of the *Critique*, that may serve the ground for the principle of the two sources of knowledge. The discovery of the two sources of knowledge⁶⁴ follows upon the discovery of the form of intuition, and is inherently connected with Kant’s diagnosis of the problem that lies at the heart of the failure of traditional metaphysics.⁶⁵ According to Kant’s critique of metaphysics, traditional metaphysics has been unable to recognize that it is making “assertions of an entirely different order” (B10) than analysis through judgments (which it considers the sole method for arriving at knowledge that is certain a priori) when concluding that some of its combinations are necessary, rather than merely possible. Through this critique, then, Kant arrives at the notion of synthetic judgments, which have a peculiar grounding that is distinct from logical principles. I will show that Kant’s analysis of this grounding peculiar to synthetic judgments yields a notion of synthesis. I find that Kant has better grounds in the “Introduction” to ground synthetic assertions by recourse to the notion of synthesis rather than a still to be clarified notion of intuition. The clarification of the notion of synthesis yields a formal notion which has a striking affinity to Kant’s conception of intuition as it is presented in the “Transcendental Aesthetic”.

⁶⁴ Kant names sensibility a source of representations. This is rather uncontroversial when the term ‘representation’ is taken as sensation. However, Kant’s meaning is that sensibility is a source of a priori representations which constitute knowledge of objects, rather than mere subjective determinations.

⁶⁵ Kant’s full-blown criticism involves the diagnosis that the metaphysician confuses appearances with things in themselves or takes the former for the latter, or neglects the dictum that we can only know appearances, and applies the principles of possible experience to merely intelligible things. These criticisms, however, Kant arrives at following a thorough investigation of the sources, possessions and functions of the possessions of pure reason. To my mind, the critique of metaphysics in the ‘Introduction’ stands alone as a preliminary to this more developed critique, and offers a rather truncated version of the latter. Its essential link to the developed critique would be to indicate certain insufficiencies that arise for the claims of reason when understanding, the faculty of thought, is taken to be the sole source of a priori knowledge.

Now, Kant's analysis of the constituents that are required to make synthetic a priori assertions is in point of fact an analysis of the sources and limits of pure reason. This analysis has its secure starting point in the formal structure of thought that arises from the discursive nature of the human intellect, and goes on to formulate the conditions that are required by a discursive intellect to make synthetic judgments. Kant's analysis proceeds as giving rational grounds required for these latter types of assertions, and these grounds offer a revision of the conception of pure reason as adopted by the metaphysician, and which Kant sees faulty. At this point, I will introduce the notion of 'model of mind' with reference to an essay by Graciela De Pierris, which I believe is precisely what corresponds to Kant's understanding of pure reason. De Pierris (2002) considers empiricist and rationalist's models of minds as different conceptions of the manner of operation of the intellect, and suggests that these are derived from clarifications of Descartes' own model, where clear and distinct intellectual apprehension from ideas is offered as the model of certainty. The empiricist may be considered to limit pure reason to a very restricted field, and the rationalist to extend it without limit (if not for human intellect, at least in God's apprehension). I find it crucial to situate Kant in this quarrel, and also that the comparison with certain aspects of these models will offer valuable insight into the nature of synthesis.

The comparison between Kant's, and the empiricist and dogmatic rationalist's models of mind will revolve around the conception of arithmetical judgments. The reason for this is essentially that Kant's critique of metaphysics also involves the dogmatic rationalist's misconception that judgments of mathematics are analytic. Kant offers a corrective to this error in explicating the synthetic a priori nature of arithmetical judgments. On the one hand, insofar as synthesis is to be seen as a non-logical or extra-logical ground, its ground must be sought beyond the understanding. On the other, as this synthesis is necessarily binding for the judgment's of the understanding, and in the case of mathematical judgments provides a priori certainty to the judgment, it must also contain some connection to the understanding. Kant's conception of arithmetical judgment lies, then, in the mid-lands, between Hume's reduction of mathematical certainty to an immediate intuitive perceptive grasp, and the rationalist's (here Leibniz's) claim that the rule

governed activity of counting rests on, or is governed by, the principle of contradiction and logical rules. I will then link the synthesis of counting to an infinite given magnitude under whose horizon this act of combination is performed, and which may be conceived as a formal property parallel to intuition. Following this, I will show that in the “Introduction” Kant explains the a posteriori synthesis, which acts as the extra-logical ground for synthetic a posteriori judgments, on the basis of the mathematical synthesis that is operative in arithmetic – namely, counting, or adding unity by unit. This will allow me to conclude that the formal properties which we may find linked to an a priori synthesis are also applied to the empirical synthesis. The formal properties found in the empirical ground for synthetic posteriori judgments rest, then, on a necessary, extra-logical rule governed activity that belongs to the mind. This, then, extends the limits of the rationalist’s conception of pure reason.

I wish to note here that the argument of the present Chapter does not conclude that the formal property discovered in connection to the synthesis of counting belongs to the mind. I wish not to provide an alternative to Kant’s argument for the Transcendental Idealism of the forms of intuition. The form here discovered is devoid of the determinate forms which characterize space and time. It merely indicates a requirement to conceive of such a form, and that a synthesis occurs in the horizon of this form. Whether it arises from the object or the discursive intellect must be treated separately, for, to my mind, with the notion of an infinite given magnitude, the analysis of the notion of mathematical synthesis, as it is undertaken in the “Introduction”, may be concluded.

5.2 Kant’s Critique of Metaphysics

The main problem with traditional metaphysics is, according to Kant, that it has not clarified its relation to the task it sets for itself. It sets out to “[extend] the scope of our judgments beyond all limits of experience, and this by means of concepts to which no corresponding object can ever be given in experience” (B6). But although it necessarily deals with the production of knowledge independently of experience, and thus must take care how to proceed in attaining such knowledge, “its

procedure is at first dogmatic, that is, it confidently sets itself to this task without any previous examination of the capacity or incapacity of reason for so great an undertaking.”(B7) For Kant there appears to be a mismatch between the greatness and difficulty of the task and unclarity whether its procedure is suitable for the task; of which issue, however, metaphysical inquiry is completely unaware. Now, while the charge Kant levels at metaphysics, that it has not ascertained the limitations of its procedure, not refraining from “making use of any knowledge without first determining whence it has come” or from “trusting to principles without knowing their origin” (B7), it seems to me, from what Kant tells us, that the lack of an inquiry into the sources is less a result of a complete ignorance of the necessity to ground its claims, than a strong confidence in the proof procedures derived from pure reason on basis of results achieved in the fields of mathematics. Kant’s remarks suggest that, with respect to its conception of the form of knowledge that belongs to its field, mathematics is in error as much as is metaphysics and is, nevertheless, as confident of its results. However, the consequences of this confidence in the method of analysis are more serious in the case of metaphysics. For, while geometry may find instances corresponding to its ideal objects in experience, and could thus have the chance to compare its results with empirical cases for the possibility of some mismatch, metaphysics deals with knowledge claims regarding objects which cannot be compared with these objects. This character of its object requires metaphysics to ensure that all its conclusions are necessary. This makes it all the more necessary for metaphysics to compare its object with the procedure by which it intends to produce knowledge of this object.

In its current state, metaphysics deserves, according to Kant, the sternest criticisms because it is filled with fabricated claims and fabricated proofs of such claims. The reason for this state is that the procedure of grounding which metaphysics transfers for itself from its conception of mathematical sciences is in point of fact at one and the same time misconceived and, as so conceived, not suitable for its specific endeavor. This procedure consists of analysis, which rests on the principle of contradiction, and conceives of the understanding as the sole source

of a priori knowledge which, furthermore, furnishes reason with innate, a priori ideas whose a priori application to all objects is immediately certain.⁶⁶

The “procedure [of metaphysics] is at first dogmatic, that is, it confidently sets itself to this task without any previous examination of the capacity or incapacity of reason for so great an undertaking.” (B7) However, it is not analysis as such that is dogmatic; analysis is an indispensable procedure for a priori knowledge and it is possible for analysis to yield real knowledge of objects. The issue, therefore, is whether analysis is applied dogmatically or critically, something which the endeavor of producing a priori knowledge through analysis cannot give to itself without first taking itself as the object of analysis.

Kant’s critique of dogmatic metaphysics in the “Introduction” is presented in a general and somewhat allegorical form. Still, however, the points Kant makes already contain the core of his criticism, that is, dogmatic metaphysics has lent too much confidence in principles of pure logic and analysis, and has remained ignorant of the form of intuition. And the point at which error starts creeping into the products of metaphysics due to an inadequate understanding of its procedure is clearly formulated in Kant’s argument.

I will first present the general steps in Kant’s critique of metaphysics and then try to show in more detail the point of entry for error into metaphysical discourse. Firstly, as metaphysics deals with objects which cannot be given in any possible experience, the concepts of these metaphysical entities are not first given to the understanding from empirical sources. Hence, it is not the case that the object is first given to the understanding whose concept is then analyzed. It is the pure understanding itself which constructs the concept of this entity, so that its very concept first originates as an extension of knowledge through the concept. It is thus that metaphysics claims to extend our knowledge beyond the field of experience.

Secondly, analysis can and does yield real knowledge a priori. That is, it is relatively clear that analysis of an empirical concept will yield real knowledge, for

⁶⁶ For Leibniz’s view on the correspondence of ideas to things consider the following: “That the ideas of things are in us means therefore nothing but that God, the creator alike of the things and of the mind, has impressed a power of thinking upon the mind so that it can by its own operations derive what corresponds perfectly to the nature of things. Although, therefore, the idea of a circle is not similar to the circle, truths can be derived from it which would be confirmed beyond doubt by investigating a real circle.” (Leibniz, 1989, p. 208)

the concept is of an object which is given in experience. And, while the concept may be contingent, explicating the distinguishing marks of a concept produces necessary knowledge. The point becomes more complex with regard to mathematical knowledge, since mathematics presents a priori knowledge about things which can also be compared with empirical objects, and found to be true of them. A problem arises, when reason, considering mathematical reasoning as consisting merely of analysis of concepts which are constructed using resources of logic (B8)⁶⁷, attributes real knowledge to analysis itself which is performed a priori. According to Kant, over-confidence in the reliability of the analytic procedure to produce real knowledge a priori, results in the transfer of this procedure to the science of metaphysics.

Thirdly, the form of knowledge produced by analysis is misrecognized as discovering something new about the object, whereas analysis can do nothing but make explicit the content of the analyzed concept. And Kant believes the reason for this mistake is that analysis takes up a large part of reasoning and produces considerable amount of knowledge. This assertion, it seems to me, is quite ambiguous. A rigorous analyst ought to know the distinction between analysis and synthesis, and the kinds of knowledge they produce. According to Kant, however, the analyst, while practicing analysis, believes that he is extending knowledge, and this through analysis, whereas, what he is doing is only elucidating concepts.

Fourthly, and finally, the procedure that is held to produce real, “assured and useful” (B10) results, in point of fact, yields mere fictions. As Kant does not doubt at all the certainty and reality of mathematical knowledge, here the fictions and errors arise in the metaphysical use of mathematical procedures that are held to consist in analysis. The error consists in the insinuation of a type of knowledge, synthetic assertions, into the discourse of metaphysics without being so recognized. The peculiar requirements of grounding such knowledge are, therefore, left unaddressed.

⁶⁷ See Section 3.3.2 below for a more detailed discussion.

In the passages quoted below Kant gives that criticism against the discoveries of dogmatic metaphysics through which the space for the requirement of a critique of pure reason is gradually prepared.

Once we are outside the circle of experience, we can be sure of not being contradicted by experience. The charm of extending our knowledge is so great that nothing short of encountering a direct contradiction can suffice to arrest us in our course; and this can be avoided, if we are careful in our fabrications – which nonetheless will still remain fabrications. (B8)

The light dove, cleaving the air in her free flight, and feeling its resistance, might imagine that its flight would be still easier in empty space. It was thus that Plato left the world of the senses, as setting too narrow limits to the understanding, and ventured out beyond it on the wings of the ideas, in the empty space of the pure understanding. (B9)

It is apparent that, according to Kant, once the field of experience is left behind, propositions will need to be grounded a priori, having lost the objects given by the senses, with which they could be compared to see whether they are true or not. However, once the need of a priori grounding is assigned to the principle of contradiction, all logically possible constructs will be admitted into proofs of pure reason. And, Kant suggest allegorically, in the non-resisting air of mere possibility, the dove of reasoning carries on its flight, not realizing that it has not moved an inch, and that its fabrications remain fabrications. It should be relatively clear that the reason for the slumber of metaphysics being so deep and sound that it confuses fabrications with proofs lies, according to Kant, in the unshakeable confidence in the analytical method, and its principle, the principle of non-contradiction. I venture below Kant's argument as to why the assertions of metaphysics are groundless fabrication, and nothing but, (mainly) from the tools Kant's criticism of metaphysics in this section provides us with.

- a) The problems of pure reason concern concepts whose objects cannot be any part of experience. Due to this peculiarity, they are to be known without comparison with their objects, whence the sole criterion of truth will rest in pure reason itself. Metaphysical knowledge is produced independently of experience, that is, a priori. It has already been stated that necessity cannot be grounded in empirical

things. If there is any grounding at all, it must be in some faculty of a priori knowledge.

- b) Analytic judgments have a priori necessity. An analytic judgment follows the principle of contradiction. If the contrary of a proposition is a contradiction, then the predicate must be ascribed to the subject. Through this procedure the predication of a concept to another can be shown to be necessary, and thus we may know that this predicate necessarily belongs to the concept. This is the manner in which the principle of contradiction allows us to arrive at necessary judgments on the basis of the logical form of concepts.
- c) Dogmatic metaphysics suggests that if it is proven that combination of concepts involves no contradiction, the idea it expresses is logically possible and the proposition can be admitted into a proof. This proposition can then be used as a premise in the argument. It thus happens that merely possible propositions are admitted to the proofs which are claimed to contain and sustain logical necessity in the sequence of inferences.
- d) Proof of mere logical possibility is not analysis of a concept to the predicates which necessarily belong to it. The proof of the non-existence of contradiction does not prove that the predicate necessarily belongs to the subject. It has not been shown that the original concept cannot be thought without the predicate. What is asserted is that two concepts can be combined in a proposition. Hence, in the a priori discourse of dogmatic metaphysics there appears a type of judgment which is essentially not properly analytic and lacks such necessity.
- e) However, if necessity is to be derived from a proposition for one which is contingent, the prior proposition should be necessary, for insofar as a proposition is contingent, it is possible that its contrary is true as well. Therefore, the merely logically possible proposition which dogmatic metaphysical proof may use to infer the necessary connection in another contingent proposition must itself be proven.
- f) Analysis can only make clear what is thought in a concept. To add a predicate to a concept which does not contain it cannot be accomplished by analysis.
- g) In the procedure of dogmatic metaphysics, proof that a mark can be predicated to a concept not contained in its intension can only be accomplished based on that

type of proposition which is possible by involving non-contradiction. However, this proposition itself requires similar grounding, and ad infinitum. As a solid basis for this type of propositions cannot be built upon analysis and proof of necessary connection will be delayed ad infinitum, such propositions lack a sound basis in proofs of dogmatic metaphysics. (B14)

- h) A type of justification is to be possible for propositions which are logically contingent, although they are in accord with the law of non-contradiction.
- i) If metaphysics is to provide such a ground, it cannot appeal to experience, because the objects of metaphysics are such that objects for their concepts cannot be given in experience. And, the type of knowledge that metaphysics sets out to produce requires it to provide grounds for the necessity of propositions where the predicate is combined to a concept which does not contain the concept. This problem in dogmatic metaphysics highlights a form of assertion its discourse has ignored. Thought of the necessity of such propositions has the form of synthetic a priori judgments, which assert, where analysis does not find that the predicate is contained in the subject, that the subject and predicate necessarily belong together.
- j) Not only does metaphysics lack the resources to provide such grounds, it also does not ask this question.

Not all possible propositions, whose possibility rests on the absence of a contradiction, are synthetic a priori judgments. That is, in them necessity of predicating one concept to another is not also thought; they are merely contingent. Analysis itself cannot be the basis of the necessity on which two or more isolated concepts can be added together; it, and the principle of contradiction, can only provide the ground for asserting the logical possibility of the proposition. Necessary connection between the concepts requires an additional assertion. This assertion, in its turn, requires a ground. A ground may be provided by the assumption of another logically possible proposition; however, this proposition itself must also be shown to contain necessary connection between its concepts in addition to not involving contradiction. Otherwise, the synthetic a priori judgment will rest on the assumption that another contingent proposition obtains.

The result of this preliminary critique of dogmatic metaphysics, which I have presented here as the discovery of the synthetic a priori form of judgment, should be understood as the discovery of a type of assertion rather than merely a type of relation between the subject and the predicate in a judgment. Kant himself is quite explicit, when he announces that “assertions of an entirely different order” (B10) enter into the discourse of metaphysics, and that it is not merely the relation of concepts in a judgment, but an assertion related to this judgment, that the critique discovers as lacking in metaphysics. The containment or non-containment relation between the concepts brought together in the judgment is clearly an indispensable element in this discovery; however, its function is primarily to indicate the peculiar modes of assertion with reference to the concepts combined in judgments. I would suggest to interpret Kant’s discovery of the peculiar type of assertion as consisting of two aspects. For one, a judgment in subject-predicate form is an assertion where the predicate is asserted of the subject whereby it is asserted that the subject, the object of the judgment, falls under the predicate concept. Insofar as the judgment is understood, what is understood is this assertion. But Kant here indicates to us a further assertion, which arises from considering the grounds that are presented for this judgment-assertion. That is, when one asks by what grounds a predication is justified, one can point to the logical principle of contradiction as the ground. In this case, this justification is analytical, and allows the necessity of the connection to be thought in the judgment. However, in certain cases of predication, this type justification is not sufficient to ensure the thought of a necessary connection, hence a peculiar type of grounding is required.

It should be stressed that dogmatic metaphysics is not guilty of not seeking grounds for its judgments. To the contrary, albeit fictitious according to the critique, in the eyes of the metaphysician, these constructs are, nevertheless, proven, hence grounded. Furthermore, in analyses, the metaphysician does make assertions about necessary combinations of concepts. The problem lies in the fact that merely logical possibility yields neither a necessary predication, nor, therefore, a sound basis for deriving further synthetic proposition.⁶⁸ The metaphysician’s error consists not in

⁶⁸ As far as understand, a merely logically possible judgment does not allow either a priori or a posteriori synthetic judgments to be derived from it. For, since this former judgment has no ground

ignoring the demand for grounding at all, but in not having discerned the demand for a peculiar type of grounding in his discourse.

Analytic and synthetic judgments have distinct types of grounding. Through analysis, a concept is predicated to another necessarily. Analysis asserts, on the basis of the principle of contradiction, as the negative of the judgment in question implies a contradiction, that the predicate necessarily belongs to the concept. The principle of contradiction makes possible for this proposition the assertion that, as the subject cannot be thought without the predicate, these concepts are related according to the logical form of concept containment. Therefore, the assertion is that a necessary relation obtains between these concepts. The principle for analysis, however, is not a suitable principle for synthesis. “For though a synthetic proposition can indeed be discerned in accordance with the principle of contradiction, this can only be if another synthetic proposition is presupposed and if it can then be apprehended as following from this other proposition; it can never be so discerned in and by itself.” (B14) We can say, in the terminology introduced by Kant, that an analytic assertion can be discerned from the proposition itself by the principle of contradiction, but the same will not hold for synthesis. The most that the principle of contradiction can do for what may be a synthetic judgment, or a combination of concepts which are not related in a containment relation, which gives a possible combination of concepts, would be to make it possible for us to discern a ground for the assertion that it does not imply a contradiction. As the negative of the judgment does not imply a contradiction, the proposition is contingent. So, the predicate may as well be affirmed of the subject as denied of it. It cannot be asserted with necessity that these concepts belong together.

Let us follow Kant’s suggestion that, on the basis of the principle of contradiction, a synthesis cannot be discerned in a proposition, from the proposition alone, but requires the presupposition of another proposition, whose syntheticity is asserted. I will substitute ‘judgment’ for ‘proposition’ in the first sense of assertion (judgment-assertion) mentioned earlier. Insofar as a judgment does not involve a contradiction, it offers a possible combination of concepts. Kant uses the notion of

for justifying a predication, but merely asserts that the predication is possible, it has nothing to do with synthesis at all.

‘discerning a synthesis’ to indicate that mere logical possibility, or the principle of analysis, the principle of contradiction, do not allow us to decide whether the judgment is synthetic. This cannot be decided from the judgment itself and the concepts it contains. What is required is to go beyond the judgment itself. In this instance, Kant suggests that we are to ground the synthetic nature of the judgment on another judgment in which a synthesis is already discerned. The ground of discerning a synthesis in a judgment lies outside the judgment itself, and this ground itself being a synthesis (discerned in another judgment), the grounding synthesis lies outside the judgment, but is still a synthesis of concepts in another judgment.

Although perhaps it was not Kant’s intention in the present remark whose explication I have tried to give, I would like to make more direct the relation of ‘discerning’ and ‘asserting’ a synthesis. This should act as an explicatory tool in the analysis of the nature of synthetic judgments. I suggest reading the ‘discerning’ of a synthesis as providing the ground for ‘asserting’ a synthesis, which is the consequent. In this sense, then, we can understand the grounding of the assertion of a judgment that it is synthetic as resting on a chain of synthetic judgments, each deriving the ground of this assertion from a previous where a synthesis is discerned. The same argument with recourse to infinite regress may be applicable here as it were in the case of the critique of metaphysics. Insofar as each synthetic judgment requires a prior one in which a synthesis is discerned that serves as the ground for asserting the synthetic nature of the present one, we lack an ultimate ground for these judgments, and require a first synthetic judgment. The grounding required by metaphysics directs us, then, to a priori principles which ought to supply the first a priori grounds for further synthetic a priori judgments.

Now, however, an interesting problem emerges with respect to this first judgment, that, insofar as it is a judgment, it is still subject to the same requirement that asserting that it is synthetic requires the discerning of a synthesis in it, hence first a synthesis outside of the judgment, with reference to which this latter act can be performed. But also, insofar as it is the first judgment, that which is external to it and in which a synthesis is to be discerned may not be a judgment. Hence, a synthesis not-of-concepts is necessary to assert a synthesis with respect to this first judgment.

This synthesis, required by the first principle, is peculiar in its own right. This must be an asserted synthesis. That is, insofar as a synthesis is to serve as the ground of a first synthetic judgment, the synthesis must be asserted and discerned as asserted. For, we may imagine a synthesis, whatever this is, but there would be no necessity in such something. We could as well imagine something where it is not, or not have imagined it at all. But, insofar as a synthesis is to be asserted, or better still, insofar as it asserts itself on us, it will inevitably be discerned as such. Only insofar as something is discerned by us necessarily as a synthesis (and is connected in some manner or other to the judgment) that we may say it acts as a ground for asserting of the judgment that it is synthetic.

In seeking the ground for synthetic judgments Kant asks, “What is here the unknown $=X$ which gives support to the understanding when it believes that it can discover outside the concept A a predicate B foreign to this concept, which it yet at the same time considers to be connected with it?” (B14) From the above discussion it should be clear that in this discovery stage of the synthetic judgment, we are in a position to say that, something outside a given judgment is necessary, hence an ‘ $=X$ ’ is necessary, and that ultimately, this ‘ $=X$ ’ is necessarily something outside of any judgment and concepts. This, however, does not tell us anything positive about the nature of this ‘ $=X$ ’. Something about this nature begins to be clarified as we now think that this ‘ $=X$ ’ which is necessary, necessarily involves a synthesis. This we derive still from the ongoing discussion. We also have ground enough to insinuate that a synthesis is a connection of non-conceptual somethings, as it is related to the connection of concepts in a judgment, but that it does not display the form of concepts. Furthermore, insofar as this synthesis is necessary as a ground for the combination of concepts in a judgment, these concepts must have a necessary connection to, in a sense some root in, the synthesis.

With respect to the pressing question of the possibility of metaphysics, and hence the possibility of synthetic a priori judgment, this synthesis itself must be a priori. An a priori synthesis is necessary for a judgment which would be the first synthetic a priori principle which ground a priori syntheses of concepts in judgments.

Now, the analysis of the question of the possibility of metaphysics, and its connection to the possibility of making a certain type of assertion can, at first sight, be taken as hypothetical. That is, if metaphysics were possible, it would rest on such assertions, and the presuppositions on which this form of assertion is based. In addition, however, Kant has also shown that, although the dogmatic metaphysician is not aware of it, the discourse of metaphysics is already littered with assertions of this form. The problem Kant discerns is that these assertions remain ungrounded, hence inadmissible. Since dogmatic metaphysics views all assertions as resting on analysis of concepts, and hence on logical principles, synthetic judgments and their grounding are not conceived as requiring attention. However, as synthetic judgments, as well as judgments based on analyses, are seen to be crucial for the very possibility of metaphysics, the heretofore conception of assertions must be amended. It is with this intention, and also to discover whether there exist actual synthetic a priori judgments, that Kant offers an analysis of the types of grounding judgments by considering knowledge from various sources (experience and pure reason) and by various sciences (mathematics and natural science).

Kant makes this said analysis using a matrix of two axis: Judgments (as grounded assertions) are either synthetic or analytic, with regard to the relation of the subject to the predicate in the judgment; and, they are either a priori or a posteriori, with respect to the certainty they contain, being either necessary or contingent. Analytic judgments are always a priori as they rest on the logical form of concepts they analyze and the principle of contradiction. There are, according to Kant, no analytic a posteriori judgments, for analysis does not require that we ground our judgment in experience.⁶⁹ “Judgments of experience, as such, are one and all synthetic.” (B11) For synthetic a priori judgments, Kant gives examples from mathematical sciences, arithmetic and geometry, and natural science, certain of whose principles are a priori. Kant’s conclusion is that, as per this amended schema of types of judgment based on the type of grounding a judgment has, it is shown that

⁶⁹ While judgments which analyze empirical concepts yield necessary results in that through them the marks which necessarily belong to a concept are distinctly represented, they are still based on experience in that the concept itself is derived from experience. Still, however, experience here does not provide the basis for making the assertion, but rather the material for the concept, which is not identical to grounding an assertion.

there are actual synthetic a priori judgments. Analysis of the conditions which make these possible will guide the way for the question of the possibility of metaphysics.

I have given merely the schematic division of types of judgment as I will discuss these in detail.

In the “Introduction”, Kant distinguishes two sources of knowledge, experience (B1-3) and pure reason (B6, A11/B24) based on the type of certainty that pertains to knowledge. That is, empirical knowledge is a posteriori and has its source in experience, and a priori knowledge, which is necessary, has its source in pure reason. Now, logic, according to Kant, is a science of the understanding which has its ground in the faculty of knowledge in general, and the faculty of understanding, in particular. But, in any case, it lies in the field of pure reason. That analytic judgments afford us a priori knowledge, then, has its ground in this faculty of pure reason. Kant’s addition of synthetic a priori judgments as an amendment to the conception of types of judgments, on the other hand, introduces the question regarding whether the heretofore admitted limits of pure reason are, in point of fact, perhaps incorrectly determined. For, insofar as metaphysics is first to be grounded, then, we may not have recourse to any transcendent object to guide us in our quest to discover the essence of the world. Knowledge a priori, then, has its source in the formal structure of the human cognitive apparatus, which is, precisely, pure reason. But, now, insofar as a priori knowledge has the form of synthetic a priori judgments, in addition to that of analytic form, we must at least conceive of a source of a priori certainty in pure reason that is other than the understanding, which is the source of thought and its a priori principles. Kant explicitly states this in the concluding section of the “Introduction”, and also adds that the object of analysis for the critique is in point of fact pure reason itself, which must be pursued insofar as the principles of a priori synthesis may be discovered. (A12/B25-26) I find it crucial, therefore, to stress that the question of synthetic a priori judgment, and hence the nature of synthesis (in general, that is, a priori as well as a posteriori) must be conceived as the clarification of a new source of representations that belongs to pure reason.⁷⁰

⁷⁰ As I have said earlier, in the main text of the *Critique* Kant freely calls sensibility ‘a source of representations’. To my mind, if this is taken literally, Kant’s meaning would be lost. For the sensibility, conceived merely as the source of sensations would still be a source of representations,

5.3 Models of Mind

In the preceding chapter and also the foregoing Section of the present chapter I have tried to present Kant's position as a confrontation, but also a negotiation with empiricist and rationalist models of the mind. We can take the term model of mind as indicating the manner in which a conception of mental functioning conceives of the activity of thinking. Kant himself proposes that the question of synthetic judgment in general (and of the synthetic a priori judgment in particular) is a novel problem in philosophy. This question concerns the possibility of a type of thought which displays a peculiar structure, and thus demands a peculiar mode of mental functioning. In this sense, then, Kant's question must be taken in connection to the empiricist and rational models of mind, for it is a development from a critique of these latter. In this section, I would like to briefly connect these separate discussions on the basis of De Pierris's essay, *A Fundamental Ambiguity in the Cartesian Theory of Ideas*.⁷¹

Here, De Pierris suggests that empiricist and rationalist models of mind may be construed as two paths of further disambiguating a model which has first been suggested by Descartes in his endeavor to find a secure foundation of positive sciences in the model of mathematical cognition. De Pierris explains Descartes' conception of intellectual apprehension of certainty from innate ideas as what she terms the phenomenological presentation model. De Pierris finds an ambiguity in Descartes' account which prevents the latter from distinguishing clearly the grounds

which, even in this format, may be taken in opposition to the understanding, which is the source of concepts. However, this would not tally with Kant's view that sensibility does not yield sensations, but intuitions, and that the representation through which we are related to the object through sensibility is appearance, not sensation, nor the thing itself, as it would be for an intuitive intellect. But, then, Kant's meaning when he terms sensibility a source of representations has its ground in the fact that sensibility is a distinct faculty, or at least a source of a priori, formal representations. Hence, the proposed analysis of pure reason is inherently and inseparably connected to the conception of the mind's contribution in receiving and processing empirical data. In the "Introduction", while these details are not as yet clear, a parallel distinction is made between a priori and a posteriori synthetic judgments. That synthesis is that common feature for empirical judgments and judgments belonging to mathematics and natural science, and this regardless of the a priori or a posteriori nature of the judgment, already hints at a connection. Even in the limited extent of the "Introduction" it is possible to ask whether it is not the same feature that makes an a priori and an a posteriori combination a synthesis.

⁷¹ DePierris, 2002. Henceforth *Ambiguity* for references.

for intellectual certainty from certainty derivable from other modes of evidence, such as the senses or corporeal imagination. This ambiguity, she then explains, is connected to the mode of presentation that belongs to mental content derived from senses or imagination, being extended to ideas, the sources for error-free certainty. This ambiguity is then clarified into two divergent models of mind by empiricist and rationalist positions. The former keeps the presentation model of cognition, but abandons the claim that clarity and distinctness through an intuitive grasp of ideas belong to an intellectual apprehension characterized as the function of the rational faculty. The latter, on the other hand, offers rigorous clarification of criteria to distinguish intellectual apprehension through ideas from evidence that may be derived for knowledge from other sources in the mind. This clarification stresses that the formal features of thought are essential to intellectual certainty regarding representations in the mind. Presenting faculty merely presents material which must be subjected to logical analysis for clear and distinct knowledge to be possible through it. Now, presenting Kant's position as resting on the collapse of the Humean project would include it in this rationalist conception of mind. However, Kant's position also involves a clarification of the formal features that belong to the presenting faculty of the mind, the sensibility. The main arguments in Kant's *Critique* must be seen as proposing and rigorously arguing for a new dual-faculty model of mind which could not be envisaged in either of the previous empiricist or rationalist models.

De Pierris' main argument is that, while Descartes claims to have found in innate ideas and their apprehension by the intellect, a type of evidence that guarantees certainty in knowledge, he gives a clear account neither of the distinctive features of these ideas nor the apprehension through them, which would distinguish knowledge attainable through them from those attainable by evidence from the senses or the imagination. The absence of such a distinguishing feature, coupled with a characterization of the apprehension of the evidence from innate ideas in terms which are equally applicable to presentations through sensation or imagination, result in an ambiguous conception of certainty for knowledge through the intellect. According to De Pierris, Descartes' rejection of defining certainty through apprehension of any form or structure in innate ideas, and a lack of any

alternative explanation of certainty, results in heavy reliance on a mode of presentation of mental content that is modeled on presentation by imagination and sensation. The suggestion that clarity and distinctness of the presentation of innate ideas to the mind is the ground of certainty of knowledge attainable by them cannot dispel this ambiguity. For Descartes cannot explain what feature of the presentation of these ideas facilitates a clear and distinct grasp of the things these ideas represent and which would prevent falling into error when arriving at conclusions from them. The suggestion of an intellectual intuition reintroduces the same problem, instead of solving the difficulty. This problem, then, renders Descartes' achievement open to development in two contrary paths: first is along a rationalist approach which addresses and tries to remedy this ambiguity by explaining the distinguishing feature of intellectual apprehension as distinct cognitions based on logical relations, De Pierris' example of choice being Leibniz; the second, an empiricist development of the perceiving mind, which culminates in Hume's theory of ideas. Not only does Leibniz define the characteristics of intellectual apprehension, but he also explains the precise detail which distinguishes reasoning based on sensible evidence from reasoning purely from ideas.

De Pierris suggests the term 'phenomenological presentation model' for the mode of presentation which Descartes transfers from sensible apprehension of images to the intellectual apprehension of innate ideas. As the ambiguity arises, according to De Pierris, from this transfer that does not alter any essential features that are derived from sensible apprehension, it is important to note the characteristics of this latter mode of presentation. De Pierris writes,

Sensible apprehension relies on the immediate acquaintance with items which are phenomenologically and ostensibly present before the mind as given particulars. The phenomenological presentation model takes its clues from sensible apprehension, although the items present before the mind might themselves be either ideas of the understanding, images of the imagination, sensory impressions, or material external objects. (Ambiguity, p. 108)

The apprehension of images contains the main characteristics of what I call the sensible mode of apprehension: something appears ostensibly before the mind, the mind is in direct acquaintance with it, by focusing on it the mind can immediately apprehend and exhaust its features, no generality of concepts or of formal structure needs to be detected. (Ambiguity, p. 110)

For, the phenomenological apprehension of a logically unstructured content turns out to be crucially tied to ostensive apprehension. (Ambiguity, p. 140)

So the items presented to the mind are images of particular things which present before the mind an unstructured content. The mind is construed as being able to grasp the features of this unstructured content without having the need to recognize a formal structure between the features by which it organizes the image in certain relations. The mind is directly and immediately acquainted with the image, and has an exhaustive grasp of the connection of the features in the presentation. It seems that mere presentation and grasp are indistinguishable.

In expounding intellectual apprehension based on a phenomenological presentation model of the mind, Descartes removes certain aspects which pertain to sensible apprehension of images. That is, the notion of images, in its application to innate ideas, is thought to exclude spatial images of the corporeal imagination. (Ambiguity, p. 110-111) Innate ideas are also disconnected from ideas of the senses, which have properties derived from evidence of senses, and which have a causal connection with external things affecting the mind. (Ambiguity, p. 121-122) However, these differences do not change the essentials of the model of apprehension or grasp of the presentation by the mind. This model remains the immediate apprehension by the mind of an image which presents before the mind something particular and whose features are unstructured. In addition to what constitutes, in the case of intellectual intuition, the clarity and distinctness of innate ideas, the essential features that occasion mind's grasp of the presentation or the kind of image that is presented to the mind (from which corporeality and sensible attributes are removed) are also ambiguous. Still, Descartes insists on an intuitive grasp of ideas which is clear and distinct, and guarantees certainty to all knowledge derived from this apprehension. And, it seems that Hume is as much indebted to Descartes in the phenomenological presentation model of the mind in general, as he is in the model of intuitive apprehension which results in knowledge, which is for Hume, through its certainty, the foundation of sciences.⁷²

⁷² As they rest on an immediate grasp of relations which preclude any possibility of error,

Leibniz's significant contribution to the notion of intellectual apprehension is, according to De Pierris, in making more determinate the essential features of the mode of presentation that belongs to intellectual apprehension, whereby the clarity and distinctness of representations is made possible. This consists in the possibility of representing the distinguishing marks of ideas through "a finite analysis that reduces them to primary identical propositions. This analysis consists in finite deductions and finite definitions ..." (Ambiguity, p. 128) For Leibniz, to have a clear and distinct grasp of an idea is to present a complete enumeration, as it were, of the distinguishing marks this idea contains. Each mark of this idea is distinguishable from others on the basis of the marks it itself contains. To have a clear and distinct apprehension is to have a grasp of all marks and marks of marks, and so on, until one reaches simple marks from which certainty arises immediately.⁷³

This requires first treating an idea to be a complex, constituted by simpler elements according to a structure. Intellectual apprehension proper is considered to be that apprehension of ideas which can reduce a complex to its simplest elements through judgments by a finite analysis. The process of analysis is governed by the logical law of non-contradiction. Each proposition, from the most complex, to identical judgments where the predicate is immediately contained in the subject, and even the apprehension of the most simple elements, simple notions, through the connections of which truths of pure reason can be derived (pure intellectual apprehension), rest on the principle of non-contradiction. (Ambiguity, p. 138) Thus, "Leibniz provides resources to distinguish content from form." (Ambiguity, p. 127) The intellectual grasp of content rests in the structuring according to form, and the ostensive presentation model enters into consideration as reserved particularly for presentations which are derived from the senses. (Ambiguity, p. 144)

mathematical sciences, and particularly arithmetic and algebra are "the only sciences, in which we can ... preserve a perfect exactness and certainty." (T, p. 119)

⁷³ The immediately certain marks, which are required for clarity and distinctness, arise, for Leibniz, from their connection to the logical principle of contradiction. They are immediately certain for the rational mind.

Kant's amendment to this Leibnizian position is to suggest that the things which we come to know through the evidence of our senses are not things in themselves, i.e. merely intelligible things which underlie and are given through sensations.⁷⁴ Objects of our senses are appearances. Appearance is the object of empirical intuition, and as it involves the form of intuition, presents an a priori, formal component which is lacking in the Leibnizian model of mind. Furthermore, this formal component does not arise from the object itself, but has its ground in sensibility. Kant also proposes the reversion of Leibniz's claim that the universe displays the logical form which springs from the infinite mind of its creator, and reduces the form of knowledge to the form of the faculty of understanding. The formal conditions of faculties are, then, shown to be the conditions of the possibility of an objective world order; hence, the world may still have the formal features which Leibniz claims that it does, but the reason it has this form rests on the conditions of the human subject's representing objects rather than on the presupposition of an infinite intellect. Now, this is a concise formulation of Kant's considered position in the *Critique*. The starting point of Kant's criticism of Leibniz's model of mind and conception of the world begins, to my understanding, with the suggestion that judgments of experience are synthetic a posteriori judgments, rather than analytic. To discover anything in the world we make use of synthetic judgments.

I would like to add some comments about Hume's empiricist development of the phenomenal perception model of mind, as it is in and through this model that Hume first formulates the necessary (synthetic) connection between ideas, which is then taken up by Kant as the question philosophy must strive to answer. Now, it has already been argued that Hume's model is associationist as well as imagistic, which would mean that while it does rest on the presence to mind of image-like representations, it also has an active component, the imagination, through which the formation of complex ideas and functioning of higher faculties of cognition are explained. Hume makes use of an amalgam of these two capacities – perception of

⁷⁴ "Even if we could bring our intuition to the highest degree of clearness, we should not thereby come any nearer to the constitution of objects in themselves. We should still know only our mode of intuition, that is, our sensibility." (A43/B60)

images of particulars and association by imagination – to explain the notion of necessary connection and the origin of the idea of causation. This constitutes the explanation of the subjective grounds of probable knowledge, which rests on evidence from senses and empirical observation. However, Hume reserves a special place to the type of certainty belonging to knowledge, and is met with in the fields of mathematical sciences, arithmetic and algebra. His explanation of the source of this kind of certainty, however, makes less use of the associating capacities of the mind than the perceptive. This type of certainty in mathematics rests, to a considerable extent, on capacities of the mind which are not so distinct from Descartes' notion of clear and distinct intellectual intuitive apprehension from ideas. Hume assigns the highest mode of certainty to this type of evidence, and as such the evidence derived from its sources is closer to Kant's notion of a priori than that which probability may provide from experience through the idea of causality. However, Hume's conception of the ground of knowledge certainty lacks the synthetic nature which is characteristic of mathematical judgments for Kant.

Hume's question concerning necessary connection is important for Kant in that for Kant it asks about the possibility of combining two unrelated concepts without recourse to a logical basis. Hume's method, of seeking the ground of this combination in experience is flawed, according to Kant, and so is the mechanism of custom which Hume uses to explain the origin of necessary connection. The issue of necessity is, then, treated as an empirical question. This would mean, for Kant's own question of the possibility of synthetic a priori judgment, that we will have learned from Hume all that is possible, once we find that Hume's answer to the question is insufficient, and that the question is still highly relevant, deserving our attention.

There is one point that is of interest in Hume's conception of inferences from experience, which is that, according to Hume the faculty of associating imagination plays a crucial and positive role in our doing natural science. Hence, imagination has a role not merely as underlying the activity characteristic of thought and the understanding, but also in deriving knowledge from experience. Although such knowledge does take note of regularities in nature, and provides ground for inferences which allow the continuation of life, the process of association belongs to the mind empirically conceived. As such it is essentially subjective, not offering a

type of evidence indicating how representations may be connected in the object independent of the representing mind (which itself is essentially taken to function under the empirical processes of perceiving and associating). Nevertheless, the imagination has a pivotal position in the formation of knowledge about the order of the world. This heightened role for the imagination may be taken as an indicator, for, a non-logical combination of representations is also essential for synthetic judgments. So a consideration of the relation of association with synthesis would be in order.

Nevertheless, heed must be taken of Kant's criticism that Hume conceives of and answers this very question merely in empirical terms. According to Kant, Hume is unable to conceive of either a priori concepts of the understanding, or a priori synthesis according to such concepts, and the synthetic unity of these concepts in the understanding. But, now, if we remain in the context of Hume's problem, we would need to consider whether there exist pure concepts of the understanding, and whether these apply necessarily to empirical objects. This limits the question of a priori synthetic judgments to those which Kant suggests belong to Natural Science as its first principles. And here we have nothing more to learn from Hume. And, my aim here is to clarify the nature of synthesis insofar as this is possible in the "Introduction". It was already shown that the understanding, in its capacity for analysis, is not able to effect a synthesis of concepts, unless it possesses some first synthetic a priori principles. But, now, insofar as syntheses according to pure concepts of the understanding are in consideration, we are treating of principles of a priori syntheses where the synthesis that will act as a basis for a synthetic a priori judgment still lies in a judgment. Whereas, what we need to clarify is the nature of a synthesis that is non-conceptual and which is not to be discerned in a judgment, but is asserted and discerned in its own right. Prior to having some grasp of this notion of synthesis in its peculiar details, it would remain unclear how a pure concept of the understanding may be connected to a synthesis, and act as the ground for a first synthetic a priori judgment. I suggest, therefore, seeing whether the second point of contact between Hume and Kant's models of mind may not be of help. That is, whether the place mathematical knowledge occupies in the Humean model of mind could have anything to contribute to the clarification of the nature of synthesis.

Accordingly, I will explicate what I take to be Kant's proposal for a novel model of mind in the "Introduction", by comparing it with that of Hume in two respects. First I will consider whether association may be identified with an a posteriori synthesis. Second, I will give an outline of Hume's conception of the grounds for mathematical certainty. It will be seen that much can be gathered from this second path to clarify the nature of synthesis.

5.4 Types of Synthetic Judgment and the Nature of Synthesis

5.4.1 Empirical Judgments⁷⁵ as Synthetic a posteriori

After introducing the distinction between synthetic and analytic judgments, Kant immediately suggests that the constitution of empirical judgments is synthetic a posteriori. I find that Kant's argument is slightly awkward. For, he argues that empirical judgments are not analytic, and therefore synthetic, because analytic judgments do not rest on empirical data. Kant's contention is that, since analytic judgments extract from the subject concept the predicate according to the principle of non-contradiction, and since this requires no appeal to empirical evidence, analytic judgments are a priori, in the sense that they are made independent of experience, and also that they make us conscious of the necessity of the conclusion. If this is the case, as empirical judgments do not yield any consciousness of necessity based on conceptual containment or the principle of non-contradiction, which are the grounds of analytic judgments, those kinds of judgments which appeal to empirical data in order to combine concepts, are synthetic. It is following from this argument that Kant then develops the notion of empirical judgments as synthetic

⁷⁵ Kant uses, instead of the term 'empirical judgment', 'judgments of experience'. This latter term is also found in Kant's *Prolegomena* in opposition to judgments of perception, which are judgments derived from mere subjective perceptions, rather than resting on an a priori synthesis according to the pure concepts of the understanding. (4:300-301) Judgments determined by the categories are objective empirical judgments, and what Kant means by experience is empirical knowledge of objects. In this chapter, I use these two terms interchangeably. For, firstly, the "Introduction" does not seem to me to be the place to make such a technical distinction, for it is the synthetic nature and extra-logical grounding of empirical judgments that is introduced here, and not their epistemological status in terms of their determination by the categories. Secondly, Kant's explanation of the synthesis to which empirical concepts are related is modeled after the mathematical synthesis, rather than the synthetic unity of the concepts in the understanding, and the synthesis of intuition thus necessitated. (The relation of empirical to mathematical synthesis will be explained in the following sections.)

judgments, by making clear the manner in which these judgments are constituted. Based on this argument, I would like to suggest that Kant feels, in classifying empirical judgments as synthetic, that the synthetic nature of judgments which are based on empirical data is not obvious or immediately apparent. Furthermore, since this argument is essentially based on implications of the relation of analysis to empirical data, and that empirical data do not provide a basis for conceptual analysis or logical certainty between concepts, I would suggest that Kant is here pursuing the consequences of his critique of metaphysics, and the implications this latter has in relation to a metaphysical conception of nature, in high probability, that of Leibniz.

Since the critique of metaphysics in the "Introduction" is of a preliminary nature, this critique need not appeal to Kant's distinction between things in themselves and appearances, which characterizes the more technical statement of the *Critique*. Kant's basic criticism would be that the epistemological ground Leibniz offers for empirical knowledge is based on certain metaphysical assertions whose grounding is questionable. Based on a proof of the existence of an infinite understanding, Leibniz asserts that the inner essence or reality of the things human knowers have access to through their senses, has a logical constitution. Furthermore, human reason is capable of grasping certain truths of reason, through reason alone, by reducing them to their simplest logical elements. As the nature of the things given in experience is logical, and human reason has this logical capacity, it is possible to know these things by logical means; and despite the finite capacities of human being, the infinite complexity or series of causes and effects are, in principle, knowable for an infinite cognizer who could undertake an infinite analysis. Therefore, although these things are, as such, as they are, inaccessible to the mental capacities of human cognizers, who employ logic through finite analysis, the latter can come to know them as best as possible through analysis. The inner constitutions of things which are given in experience are, for Leibniz, conceptual in nature, and knowledge of empirical things, or empirical judgments are, in this sense, analytic, and not synthetic.

Once the critique of metaphysics suspends any judgment regarding metaphysical entities, however, it will appear that judgments that are based on empirical data will not be referred to an inner constitution of things or to some

metaphysical infinite understanding. Hence, the constitution of empirical data as such is, first and foremost, what is present to the senses, or sensations. It follows that, while on the one hand, Kant's critique of empiricism has uncovered the need to retain a capacity for conceptual grasp of things, independent of the presentations of sensations, and also independent of an associative imagination, on the other, Leibniz's model of mental functioning is modified in such a manner as to confront the discursive capacity with merely empirical data itself in order to derive conclusions. At this point, Kant's argument tells us that since analysis does not appeal to empirical data, but there is empirical judgment which does so, and this latter yields no conceptual analysis, since it does not refer judgment to an underlying inner constitution of things that is of a logical nature, but yields merely contingent connections, empirical judgment is synthetic and rests on an a posteriori synthesis. If we remain in Leibniz's framework following this outcome of its critique, however, we seem to receive no clue as to what may constitute the synthesis, which ought to involve empirical data, that underlies synthetic a posteriori judgments.

5.4.2 Synthesis and Association

Insofar as empirical judgment, judgment based on empirical data, is taken to be synthetic, it follows that this judgment rests on a synthesis, which involves, in some manner or other, a combination of empirical data. The nature of this synthesis, and the connection of the concepts combined in the judgment to this empirical data and its synthesis, are two issues that must be explicated. A first candidate in understanding the nature of synthesis, suggested by a transfer from the Humean model, would be that this a posteriori synthesis is identical to association. This would mean that this synthesis by association rests on the triggering of the free faculty of imagination by certain qualities in the matter to be combined, which are the causal principles of association. We may separate empirical data from the synthesis thereof, and while assigning the latter to association by imagination, conceive of the connection of the concepts to empirical data as arising from analysis. I will argue against both points. Firstly, identifying association with a posteriori synthesis brings us close to having to reduce the function of judgment to the mere

expression of a combination effected by association, which is, to my mind, the role which Hume's model assigns to words which express ideas (general terms or names) and are combined in propositions. Secondly, and more importantly, this identification makes impossible answering the normative nature of Kant's question, and renders a posteriori synthesis ineffective. The normative nature of the question arises from Kant's conception of the distinction between analytic and synthetic judgments, which itself arises from inquiring into the grounds of these types of assertions when their formal features are taken into consideration. As an associating imagination involves introducing causal explanations to such a question, certain ambiguities and impasses arise, based on which, I believe, it is best to abandon the identification. Although there may be some causal element in a posteriori synthesis which may be linked to an associating imagination, this element does not, in and of itself, constitute the dimension of synthesis required by the synthetic a posteriori judgment.

Hume construes the imagination as a faculty that is free to combine any idea, but is guided by a gentle force based on certain associating qualities in the impressions or ideas that are presented to the mind. The imagination is triggered to act by associating qualities, which, according to Hume, constitute a determinate set of associating principles. Furthermore, according to Hume, association underlies all mental activities in that the associating imagination is induced to action by causes other than the three associating principles, such as custom or rules of reasoning, the subject's psychological state, etc. Associating principles, ideas of relations or other general rules derived from experience guide the associating imagination through certain paths and constitute thought and reasoning. But as the collapse of Hume's model demands, thinking must be ascribed to a faculty distinct from associating imagination, and which has its own formal conditions of functioning. This, however, does not annul the existence of a faculty of associating connection in the mind; Kant's intention is not to deny such a faculty, but to deny that it is possible to reduce the function of the understanding to complex associations. We may, therefore, still keep the notion that sense data are combined by the imagination through association, and suggest this combination (in the manner conceived by Hume, in the absence of any a priori forms of sensibility or schemata) as a candidate for an a posteriori

synthesis. But, now, the two faculties, associating imagination and understanding, possess distinct principles of functioning, one mainly principles of the causes that trigger association and the other a priori principles based on formal features. Hence, the relation that representations in the understanding have to those given by the senses and connected by association poses a question. At first sight, following the rationalist's conception of the understanding, it seems probable to resort to analysis as instituting this connection. In its capacity for analysis, then, the understanding would derive concepts from empirical data for its empirical judgments, whose synthesis by association provides it ground for synthesis of concepts in judgments.

I find there to be several reasons to object to this model. Firstly, in a broadly Kantian criticism, insofar as analysis provides the grounds for deriving concepts from empirical data, this latter must first be given to the understanding for analysis in a connected manner. Insofar as association is to fulfill this function of connection, it becomes suspect if or whether this model could at all accommodate a synthetic combination of concepts in judgment. For, as analysis is to derive concepts from sensible data, and sensible data will be presented for analysis as combined through association, it will be analysis itself which derives (what we hold to be) the synthetic concept from the associated complex, and not a synthetic judgment, which will be made redundant.⁷⁶ We may not consistently hold that concepts are derived from combined sense data by analysis, and also that an extension of empirical knowledge is made through synthetic a posteriori judgment, whereby these very concepts (derived by analysis) are combined on the basis of an association. We would be claiming that empirical concepts are formed by synthetic judgment, while also stating that the same are formed by analysis of a synthesis of sense data accomplished by association, which would be a contradiction.⁷⁷

⁷⁶ Note that analysis of empirical concepts is not concerned with the nature of the connection the concept has to empirical data. For logical analysis, an empirical concept is merely a thought, whose form is the form of concepts, regardless of whatever source from which its matter may originate, and thus is treated according to principles of logic. Knowledge through analysis of empirical concepts as such has its ground in the principles of logic, and not in the evidence which the concept derives from empirical data. It is in this sense that analytic judgments, even if they are concerned with empirical concepts, yield a priori knowledge (if not absolutely a priori knowledge, that is).

⁷⁷ As per the transcendental deduction, Kant holds that analysis and synthesis cooperate in forming concepts and synthetic judgments. But the present model, it seems to me, cannot conceive of such a

The second objection is again connected to the distinction of the two faculties. As the associating imagination can be considered as capable of performing combinatory activity independently of the capacity for judgment, the function of judgment, in its connection to an a posteriori synthesis, would be to take up this combination of empirical elements and to express it in logico-linguistic form. Such a mere reflecting (not reflexive but mirroring) or expressive function, however, it seems, would bind judgment with whatever combination results from the operation of the causal principles of imagination only. However, in this case, empirical judgments as synthetic would be mere expressions of imaginary or subjective combinations.

As the faculty of thinking has been de-sensitized, that is, isolated from imagination, and its merely subjective principles, the proper mode of thinking the object as it is given through sensibility would belong to analysis, done independently of the synthesis (if this were possible). This would render empirical thought capable of yielding empirical knowledge (or thought objectively based on empirical data), analytic. Such, however, is not Kant's conception of synthetic judgments. Empirical judgments are neither analytic, nor are they mere expressions of an imaginary combination to whose consequence they are bound. On the contrary, it is the judgment of experience itself which asserts that a combination of empirical data is combined in the object, and thus constitutes empirical knowledge of objects.

A third, and perhaps more important reason to resist this identification of a posteriori synthesis with association is closer to the nature of Kant's project in the *Critique*, since it rests on the nature of the question of synthetic judgments. Synthetic judgments are introduced through a critique of a certain type of claim by metaphysics which differs in form from analytic claims. Kant's main point rests on the formal analysis of the act of judgment in general, which requires a ground on the basis of which is made a predication in a subject-predicate form judgment. Insofar as a combination of heretofore unrelated concepts is to be effected, the ground cannot rest in the principles based on which analysis is carried out. The requirement of a ground is a logical necessity, derived from the analysis of the concept of judgment,

dual functioning, as it completely separates the faculties of imagination and the understanding. (See, for example, B133n)

and rests on the normative nature of judgment itself, that is, a predication must have a basis. Otherwise, the assertion would lack a rational ground, hence could not belong to reason. Since the necessity for a synthesis, as the basis of synthetic judgments, follows logically from the concept of the latter, and as empirical data must be presented for judgment in an a posteriori synthesis, the question of the nature of a posteriori synthesis is no less a normative issue.

Insofar as a causal mechanism is to underlie an a posteriori synthesis, the derivation of judgments from this synthesis would itself require a ground, so that the empirical evidence can be shown to be resting on that causal mechanism. In empirical judgment, the principles of association, as rules according to which the imagination functions, would serve precisely this purpose. However, as these principles are causal, and derived not from the nature of the understanding, but from that of imagination, based on whose combinations judgments form combinations of concepts, these principles must first be provided to the understanding. But this is the field of natural science rather than of philosophy, and since it is the legitimacy of empirical judgments that is in question, based on which natural science first produces knowledge, we would be looking for a science for answers which, in its turn, expects its secure basis from our endeavor. And, if we assume certain principles to have been derived from empirical sources, it is not clear based on which principles these former can claim to be precisely the principles of association.

The same point can be formulated in a manner that will highlight the contrast between the normative question Kant asks, and the inadequacy of the answer provided by the causal principles of association. Let us assume that certain causal principles underlying a causal mechanism, on which the combination of concepts in judgment are based, have been offered as the normative ground for making synthetic a posteriori judgments. These principles are to provide the understanding with the ground to discern a synthesis in the combination of sense data. Understanding must be considered a faculty isolated in the rules of its functioning from causal processes. The ground of its rules is rooted in its spontaneity, which it provides from itself, and with a priori certainty. If, then, the principles of a posteriori synthesis are those of a causal mechanism, that of the imagination, which is a faculty independent of the understanding, and these causal principles are derivable from observation of

connections in empirical data only, it is not possible to acquire absolutely necessary assurance regarding the principles of association. The contingency pertaining to these principles may be considered in a two-fold manner. On the one hand, a principle is necessary for the understanding to discern a synthesis. But, the origin of the principle lies in the imagination, a distinct faculty, and it is by no means necessary for the principles grounded in the functioning of imagination to be necessary for the task for which the understanding requires them. On the other hand, while the necessity required by the understanding is absolute, as the origin of the evidence for these principles will be empirical, hence contingent, the certainty with which the understanding may adopt the principles of association will have only assumed necessity for it. Hence, the required grounding and that which can be provided are disparate. Association, thus conceived, then, cannot be identified with a posteriori synthesis.⁷⁸

5.4.3 Synthetic a priori Judgment: The Case of Judgments of Arithmetic

While Kant praises Hume for having first stumbled upon the question of synthetic a priori judgment (although it differs extensively from Kant's conception of the problem) Kant is also critical of the answer provided by the latter from an empiricist's standpoint. According to Kant, Hume formulates the question particularly in terms of the concept of causality, and the answer he provides reduces the origin of this concept to empirical observation and custom, which also renders the necessary connection between ideas into mere assumed or comparative necessity. (B3-4) The same question is rather more complex for Kant, and has a two-fold nature (if not a manifold one). According to Kant, experience can provide the knower evidence merely for contingent knowledge; however, in that case, necessity (which for Kant is modeled on logical necessity, (B3-4) hence is absolute for a rational knower) cannot arise from experience. But, insofar as empirical science is to

⁷⁸ Here I am indebted to Allison who discusses the notion of giving right and wrong kinds of reasons when confronted with a question of grounding. When the question is of a normative nature, giving causal reasons as explanatory grounds is a confusion of grounds or reasons. See, for example, Allison, 2008, p. 4.

be possible, some form of necessity must be applicable to our empirical knowledge. This necessity, however, must be sought in a source which is pure, but such that this necessity is also necessarily applicable to our experience. For Kant, Hume's primary error is, beginning from an empiricist standpoint, to denounce the possibility of the faculty of understanding which is spontaneous, the source of its own rules. Hume is, therefore, unable to recognize the faculty of understanding as an absolute unity⁷⁹, nor to find that causality is only one among the pure concepts of the understanding which are necessarily united in this faculty.

As I have tried to argue in the previous chapter, the main source of Kant's disagreement with Hume rests in the latter's imagistic-associationist model of mind which admits the presence to mind only of particulars, and reduces all combination to that of an associating imagination. Kant, of course, does not put this in so many words. And the choice of disagreement he wishes to pursue is mainly necessary connection, which is a notion Hume finds is connected to the idea of causation, and on which inferences from experience are based. However, a notion of certainty, which is much closer to Kantian a priori, is present in Hume's discussions in the *Treatise* of the different degrees of certainty in the relations of ideas. Knowledge is that type of certainty which, for Hume, is indubitable, and has its evidence in the mere ideas that are present to the perceiving mind. These, he distinguishes from inferences from an observed object (an impression of an object) to an unobserved, which is immediately triggered in the mind by the presence of the former, and from that type of evidence which may be derived from the impressions themselves. Although Hume's distinctions rest on a categorization of relations that are possible between the particulars present to the mind, Hume is, I believe, quite rigorous in distinguishing the types of evidence. Nevertheless, as Hume is dealing with ideas, which are image-like particulars that have their source ultimately in impressions of the senses, of which they are immediate copies, he is unable to come up with a source of necessity (or certainty) which would be satisfactory for Kant.

In the following I will give a short account of the salient features of Hume's conception of knowledge in arithmetic and geometry. My purpose here is to

⁷⁹ In discussing self-identity of the subject I, he even reduces the latter to a bundle of perceptions, and the subject's identity to a mere fiction. See Book I, Part IV, Section VI of Hume's *Treatise*.

supplement Kant's own argument against the dogmatic metaphysician's conception of mathematical science, according to whom the method of mathematics is analysis, with a comparison to the empiricist conception of this same science. This will allow us to situate Kant's position as a negotiation between two models of mental functioning and also to get a better grasp of Kant's notion of synthesis.

5.4.3.1 Humean a priori: Knowledge

It must be noted that there appear, at first sight, certain features that closely resemble in Kant's conception of necessity and Hume's conception of knowledge. Firstly, Hume characterizes as having the certainty of knowledge those conclusions which are reached from ideas alone. (T, p. 118) Even if all ideas must be traceable to impressions from senses or reflection, the conclusions that have this said certainty are reached neither from these impressions, nor inferred from an impression to something unobserved but has been regularly connected with the impression in past instances. So, the conclusions are derived independently from experience, without any reference to the connections of objects given through the impressions from which the ideas are copied. Content of the idea, inasmuch as it is a copy of the impression, is sufficient. While independence from empirical grounds is the characteristic of a priori certainty for Kant as well, Kant's notion of absolute independence from experience cannot be covered by Hume's position. Secondly, Hume, like Kant, ascribes non-contingency⁸⁰ as a criterion for distinguishing knowledge from other kinds of certainty which have their basis in experience. Relations between impressions of senses, such as contiguity or identity, are not so much results of reasoning but immediate grasps of things as they stand to the senses, according to Hume. Furthermore, causal grounds underlie all states, changes or non-changes in such relations. So, that these relations come to exist or not is always contingent. And, a causal relation cannot be established between objects from ideas alone. To imagination any object can exist when another is posited in imagination.

⁸⁰ Hume says of knowledge certainty obtained from ideas alone, and according to certain relations of ideas, "this relation is invariable, as long as our idea remains the same." (T, p. 117) I interpret this statement as stating that the opposite of a relation or a different outcome in this very comparison is not possible. This is also Kant's definition of non-contingency.

Hence, from ideas alone, the relation between the existence of one and another always remains contingent. Thirdly, Hume finds among the relations that afford knowledge certainty, mathematics, especially arithmetic and algebra, based on the fact that these relations which are reached through comparison according to quantity, have as for certainty the criterion of unit. Unlike Kant, however, Hume does not consider geometry as capable of strict certainty, for, it lacks this precise unit. (T, p. 93, 118-119) Hume's divergence from Kant in not attributing geometry the certainty of knowledge is a conspicuous difference, and the reasons for this view is the best point to discover the underlying difference between Kant and Hume's conceptions of the science of mathematics.

Hume holds that space, along with time, is the manner of appearing of impressions in the mind to perception, and it pertains to impressions received through senses of sight and touch. (T, p. 85) The idea of space is derived from impressions of objects which have this manner of appearing as a common element in which they resemble. The nature of space, according to Hume, is highly contested among philosophers. Hume's own view, at which he arrives after a critique of previous conceptions of space, is that space is constituted of minimum perceptible points. For Hume, as ideas are copied from impressions, and human beings are of a finite capacity, the idea we have of space must depend upon an impression which is finitely divisible. (T, p. 88) This would mean it is divisible to an element which is not constituted from elements and is no longer divisible. Infinite space would, then, imply being composed of an infinite number of elements. (T, p. 75-76) If a finite line segment were infinitely divisible, then, it would need to be formed by an infinite number of points, which would be a contradiction. Hume believes space is not composed of mathematical points, because in this case something unreal would yield, by combination, something real. (T, p. 88) Neither can space be made up of physical points, because physical point implies extension which requires that the physical point itself be extended which, in turn, implies that there are elements (still physical points) of which it is constituted, hence, a regress to infinite of the division into elements, despite the requirement of a simple element at which division must cease. (T, p. 89) Against these options, Hume offers his own view, the minimum perceptible points.

At a distance, or at a certain feeling to touch, the sight or touch is no longer able to perceive its object. There is a distance, says Hume, at which the point is perceivable, and exceeding which perception ceases. (T, p. 75-77) Complexes composed of this sensible entity constitute space. The point is not spatial, however, for space is finitely divisible to its indivisible parts, and it is these parts that constitute space. If these parts were spatial, this would require they be divisible as well. Furthermore, as to the composition of complexes from these points, they may not touch one another. For this would imply points touching at parts, but without parts, a point touching another would be overlapping, and no extension could be achieved, for no point would be distinguishable. (T, p. 89) Hence, it is necessary that a minimum distance be present between the points themselves, which, however, is subject to the same condition of being or not being perceived according to the distance from which it is present to perception. As in our perception of colored patches individual points separated by a distance are not immediately presented to perception, we must presuppose that this distance between the points is not perceivable. But, as it must be presupposed, we must also presuppose that what we hold to be continuous coloured patches must, in essence, be composed of coloured points. As the distance between the points also remains unperceivable, the points themselves do not stand out individually. It is therefore that Hume calls a spatial object simple.⁸¹ Any geometrical object - a line, a triangle, a circle - is given to perception, in impression or idea, as composed of such points and can be perceived as the object it is by the geometer. But, since it is not possible, for the senses or the imagination, to discern the parts which constitute this shape-object, it is not possible to pronounce with certainty the exact magnitude of the object. It is particularly difficult for the imagination to separate the idea of a whole line, triangle or a circle, into its elements, for if it were separable, according to Hume's separability principle, it would be given as composed of its parts. It may be said that, once the geometer has the idea through which to think the nature of space, that it is composed of

⁸¹ This last point is rather how I understand Hume to construe the relation between minimum perceivable points, the distance that separates them and coloured or tangible patches which allow a perception of distance. See for an alternative, Davie (2001) p.36, who thinks that to distinguish the spatial nature of a visible or tangible object we must perceive each point and their relations.

perceptible minima, the imagination does possess a ground to distinguish the parts of space. But Hume's contention is that the mind is not able to perceive the perceptible points themselves, but only a combination thereof. Hence, geometry, which deals with images of things given to perception or imagination, does not possess an exact criterion, such as the unit, which would allow it to give an exact measure of its objects.

This should make clear that Hume is in fact operating within a perceiving-associating model of mind where the spatial objects to be compared must be presented as composed of, or must present to the perceiving mind, the elements based on which a precise measure of their magnitude may be taken. It is precisely because the images of spatial objects available to the mind do not present these features, and the objects of arithmetic do so, that geometry lacks the precision and certainty that can be expected from the latter. That is, the decision of a precise relation is conceived based on the requirements of a perceiving-associating mind, which must perceive, through the idea of unit, each and every separate element that can act as a unit, by means of which a precise comparison can be made between the elements that constitute two ideas.⁸² The elements that act as units belong to the particulars present to the mind, and they themselves are present as images, of which the complex particular is composed. The mind immediately perceives a relation between the units of two multiplicities. Here the relation whose contrary is inconceivable is so constituted since the image itself allows no other relation.

Once this structure is seen to underlie Hume's notion of knowledge certainty, the relation between apriority as independence from experience and non-contingency also become distinct from Kant's conception of this relation. For, non-contingency is, for Kant, the sure criterion of a piece of knowledge being a priori, that is, having an origin independent of experience, for experience only yields contingent knowledge. This is ensured by two logical criteria, necessity and absolute universality. These are the grounds based on which one can be sure that knowledge

⁸² An immediate decision is made according to Hume "at first sight, without any inquiry or reasoning" where the mind can "at one view observe" a relation of quantity (of being greater, smaller or equal) between two numbers. For the first two kinds of relations, an immediate decision is possible where the difference between quantity is so great as to be easily conspicuous. For the latter, equality of numbers, it is more easily decided in the case of "short numbers" (T, p. 118) of which the mind has an "adequate idea" (T, p. 70).

has arrived at the conclusions a priori, through pure reason. Underlying a priori analytic judgments is the grasp of the conceptual form of the representations. Synthetic a priori judgments are based on a priori syntheses, which are expressed by schema, rules of combining representations in a manifold given in an a priori intuition, rather than images or their feeling to the mind. In the limited context of the “Introduction”, we may say that, a synthesis necessary for some or other end, and which is performed in isolation from empirical data or independent of the qualities that are contained therein, ensures the a priority of the judgment.

For Hume arriving at conclusions independent of experience consists mainly of the activity of the mind being occupied with ideas instead of impressions. An idea has less vivacity than an impression, while presenting the same complex object to the mind. What determines the modes of a priori reasoning, then, is essentially the difference between ideas and impressions, a quality in their presentation to the mind.

Still, however, according to Hume, not all connections from ideas alone, independently of impressions, may count as knowledge. Knowledge also denotes relations which do not or may not change if the compared ideas remain the same. So, when a comparison between objects is made only based on their ideas, if the relation conceived between the ideas is merely arbitrary, if another relation can be conceived, this relation may not constitute knowledge. In specifying a priori knowledge, then Hume does have recourse to types of relations, which are given by ideas of relations and which produce unalterable relations between unchanging ideas. In addition to deriving conclusions from ideas alone, knowledge also requires the unchangeability criterion. The specific relations of ideas, which determine unchangeable relations from ideas alone, produce knowledge certainty. And, these results, the unchangeable relations present to mind a high degree of certainty when compared to those which yield connections that could change even if the ideas remain the same. Hence, there appears to be a non-contingency criterion, which may reflect Kantian necessity.

But, as indicated above, such a result would be premature. For Hume’s idea of unchangeability of the relation does not entail the grasp that the opposite would involve a logical contradiction. Non-contingency, unchangeability of the judgment with regard to the relation that holds between the ideas, arises from the nature of the

mind which perceives images. Insofar as the images remain the same, no other relation is conceivable since this is unimaginable by the mind when it is confronted with the images of these particulars. The decision of the imagination, which is the basic ground through which the judgment is reached in the comparison of ideas, need not take into consideration the taxonomy (and criteria thereof) of the types of certainty acquirable from ideas alone by specific types of relations of ideas. However, that Humean knowledge certainty is not analytic does not mean that it has the form of synthetic a priori judgments, and this for the same reasons. That is, as Hume construes it, the model of certainty acquired by judgments using these particular types of relations, rests on the imagistic mind and its intuitive perception of relations between images, which has recourse to neither an a priori synthesis nor a logical conception of judgment which is based in this extra-logical a priori ground.

A look at the procedure of arithmetical decisions according to Hume will make clearer the difference from the Kantian system. For this I will concentrate on a comparison of the quantity as to equality. I would like to first note that while Hume does allow an immediate grasp of relations of equality with certainty in the case of smaller numbers, the decision procedure requires the mediation of a chain of ideas, in which case the judgment will be reached through a demonstration. Conservation of necessity in demonstration is made possible through each step in the demonstration being an immediately perceived relation whose certainty is guaranteed.

Secondly, it is crucial to understand Hume's conception of numbers. The mind has, according to Hume, an adequate idea of small numbers, which it perceives or grasps as a multiplicity. In the case of the multiplicity of objects, "[t]he mind always pronounces the one not to be the other, and considers them as forming two, three, or any determinate number of objects, whose existences are entirely distinct and independent." (T, p. 250) So, insofar as the mind is presented with a number of objects separable from one another, and insofar as this multiplicity does not consist of so many objects as the mind loses track of them, it can consider them as two, three or any determinate number. For arithmetic what the mind is concerned with is the unit, that there are objects of this or that many, rather than the grounds based on which these objects are distinguished. When the number is high, the mind does not

have an adequate idea of this number, the precise imagining of the multitude of units being not possible. However, although this may be the case, the mind has an inadequate, but operable idea of this multitude, which it can construct by means of the idea of decimal, of which it has an adequate number. According to Hume this latter mode of representing numbers is accomplished by a process of association and custom similar to that which makes possible the use of general terms. (T, p. 70)

Now, this suggests two things. First is that Hume clearly construes the mind to have the capacity of an adequate idea of a multitude of less than ten units. This, the mind can perceive clearly and with certainty. And second, large numbers are present to the mind, although inadequately, but in power, with reference to the decimal system and the adequate idea of the decimal. The decimal notation is present to the senses, represented through symbols, which would act as names connected to the numbers. This would present clear ideas of the quantities for each decimal place value. The exact value given by each decimal place other than tens would be inadequately represented, but still the magnitude is present to mind in power, through association. If I am not mistaken, Hume's meaning would be that, for example for the tens, the mind could have an adequate idea of, for example the multitude named by the symbol 9, where each unit is to contain ten units. Of that each unit in the nine must contain ten units, the mind has an adequate idea. But of the multitude that would come to represent this number, the mind has only an inadequate idea through associating only in power with each unit in the nine the ten it should contain. The complex idea that denotes the large number through the decimal system keeps the multitude ready for operation by separating it into parts which stand in an association relation to one another. The mind has the multitude ready in power, if not a precise image of it.

The reason I give this detailed explanation is that demonstrations in arithmetic must be composed of steps which are of immediate certainty, which, nevertheless, involve, in each case, operations upon the very large numbers that are inadequately represented. That is, in each step in a demonstration, a certain immediate perception of a relation must be possible from the idea of a large number. The manner in which immediate certainty is sustained in demonstrations will allow a better comparison with Kant's notion of mathematical construction. I will use the

example which Allison employs in explicating the issue, the decision procedure for “the proposition ‘ $3,467 = 2,895 + 572$ ’.” (Allison, 2008, p. 82)

The goal of the demonstration is to match the number of units on the two sides of the equal sign; and since each step in the demonstration must itself be intuitively certain, the proof proceeds by a repeated series of intuitive judgments. We begin with the judgment that $3,647 = 3,646 + 1$, which, in turn, is equal to $3,465 + 2$, etc. The process continues until we arrive at the judgment $2,896 + 571 = 2,895 + 572$. (Allison, 2008, p. 82)

Now, Allison suggests that here Hume makes use of “a rule-governed decision procedure, namely counting, for determining its [equality relation between two numbers] presence or lack thereof” (Allison, 2008, p. 84-85) Allison’s contention is that Hume’s making use of such a procedure does not tally with the model of mind Hume endorses, and renders suspect this very model itself. This is a quite potent criticism which Allison employs in several junctures against Hume. In the present case, this criticism replaces for Hume’s criteria for distinguishing the certainty in geometry and arithmetic, the unit, with the use of a rule based procedure. It is the use of the unit in this procedure, and not merely the unit itself that allows a precise determination of the relation. I would suggest, however, that the procedure for demonstration is determined to a much greater extent by the nature of certainty. That is, insofar as we accept Allison’s criticism, Hume’s procedure would be indistinguishable from Kant’s, where the former is tacitly assuming the use of such a rule, while denying it in formulating the procedure of the demonstration according to his perceiving-associationist model of mind. But, the procedure is decided not simply because the rule for counting is adding homogeneous units one to another in succession, but because certainty requires adequate numbers to be present to perception. In each step, the procedure requires an increment and a decrease that is so small that it can be perceived immediately and intuitively. But for this, it is not even necessary to have any reference to the numbers in decimal positions which are not affected by the change. In each step, the greater number may be considered as operated upon in two senses. Certain components are merely copied to the next step, and those where the change takes place are pictured adequately. The greater number, by means of which it may be said that a counting according to a rule is performed, is, therefore, only in part taken as a proper number. Part of the number is constituted

through a dormant (but ready) association (although it uses adequate ideas of numbers in decimal places), while in another part a relation of equality is pictured. This procedure in the demonstration is a rather convoluted conception of counting. I would suggest, as before, that as a demonstration must make sure that each and every one of its steps contains an immediately and intuitively certain decision, here the procedure that is adopted does not arise from counting as a rule governed decision procedure which stands in its own right. The procedure is governed by the demand for precision, whose criteria rest on the imagistic-associationist model of mind. Counting as a rule governed procedure may be thought to be discovered through retrospective reflection on demonstration and the overall structure it displays, which rests on clearly imaginable increments and decreases in numbers. Furthermore, it is also the case that counting does not characterize the essential structure of number which has the above explicated dual nature.⁸³

5.4.3.2 Judgments of Arithmetic and the Nature of a priori Synthesis

Before a comparison between Hume and Kant's conceptions of the activity of thought in the summation operation I will first consider Kant's critique of the rationalist's conception of arithmetical judgments. The rationalist, in opposition to which Kant introduces his own conception, views arithmetical judgments as based on the principle of contradiction, and analysis. The comparison with Hume's views on the subject will take the form of situating Kant's views in a negotiation of those of the empiricist and the dogmatist rationalist. I will quote the passage in full where Kant argues for the need to go beyond the concepts in an arithmetical concept of the sum of two concepts, and resort to the aid of intuition, whence the judgment is

⁸³ See Longuenesse (1998), p. 272-274 for a discussion of how the immediate apprehension of an image may come to serve as a unit in an empirical synthesis. According to Longuenesse's interpretation, the imagination blindly and arbitrarily selects an image which it can take in a glance and uses this to apprehend the object presented in intuition. Here, the term 'take in a glance' may perhaps evoke similarity to Hume's conception of what occurs in each step in the demonstration procedure. But, Kant is here not concerned with arithmetic as such but the role of a quantitative synthesis in perception of an empirical object. Nor is selecting an image as unit for empirical synthesis since it can be taken in in a first glance, a comparison of numbers whose certainty is secured in the first glance.

synthetic. In this passage Kant first gives the reasons for why he thinks these judgments are not analytic, and then explains how he thinks the judgment is actually made, and is synthetic.

We might, indeed, at first suppose that the proposition $7+5=12$ is a merely analytic proposition, and follows by the principle of contradiction from the concept of a sum of 7 and 5. But if we look more closely we find that the concept of the sum of 7 and 5 contains nothing save the union of the two numbers into one, and in this no thought is being taken as to what that single number may be which combines both. The concept of 12 is by no means already thought in merely thinking this union of 7 and 5; and I may analyse my concept of such a possible sum as long as I please, still I shall never find the 12 in it. We have to go outside these concepts, and call in the aid of the intuition which corresponds to one of them, our five fingers, for instance, or, as Segner does in his *Arithmetic*, five points, adding to the concept of 7, unit by unit, the five given in intuition. For starting with the number 7, and for the concept of 5 calling in the aid of the fingers of my hand as intuition, I now add one by one to the number 7 the units which I previously took together to form the number 5, and with the aid of that figure [the hand] see the number 12 come into being. That 5 should be added to 7, I have indeed already thought in the concept of a sum $=7+5$, but not that this sum is equivalent to the number 12. Arithmetical propositions are therefore always synthetic. This is still more evident if we take larger numbers. For it is then obvious that, however we might turn and twist our concepts, we could never, by the mere analysis of them, and without the aid of intuition, discover what [the number is that] is the sum. (B15-16)

In analytic judgments there is no need ‘to go outside the given concepts’ in order to predicate one concept to another since the judgment rests on what is already thought in the subject concept. Insofar as the judgment ‘follows by principle of contradiction’, it tells us something about what is thought in this concept. This, then, is the ground of analysis. To say that $7+5=12$ follows from this principle, is also to say that it follows according to concept containment. So, Kant asks what is thought in the ‘concept of a sum of 7 and 5’, to determine whether the number 12 is contained in this concept. According to Kant, the following are what we may say are thought in this concept: the single numbers 7 and 5 (this Kant does not say explicitly), that 5 should be added to 7, that the union of two single numbers equals one single number. I take Kant’s argument to be that in the concept $=7+5$, we think that we must add the particular number 5 to 7, and that this will give us a particular number that unites the two (or is equal to their sum), but we are not in possession of this number through the concept alone treated as a general representation, and analyzed to its marks.

Now, I find that Kant's analysis of this concept of a sum of two numbers is rather peculiar. This rests in, what Longuenesse calls, the notion that a concept, as a universal representation, is an aggregate of marks, whereas a number is not such an aggregate, and is not an ordinary concept. (Longuenesse, 1998, p. 276-277) To clearly state what kind of a concept a number concept is, falls outside the scope of the "Introduction", and Kant's intention is to argue in basic terms. So, now, what are thought in a concept are the marks which give it meaning. And according to Kant, the marks which are thought in the concept of a sum contain only that 5 is to be added to 7, and that the sum is to be a single number, but not the sum itself. And the reason it does not is, to follow Longuenesse, because concept as a universal representation does not deal with particular multiplicities or describe a set of items. Insofar as we take a concept as universal representation (and not as a rule for synthesis in intuition) we can merely think the marks which belong to it as partial concepts under which it falls as object.⁸⁴

This portrayal of the rationalist's position seems to differ from the proof the rationalist would offer for this judgment, $7+5=12$. The dogmatic rationalist's conception of judgments of arithmetic, which finds that their nature is analytic, rests on a proof which utilizes definitions of numbers, and substitutions based on numbers. I will here follow Longuenesse's discussion of Leibniz's proof for the judgment $8+4=12$, applying the underlying procedure to Kant's example.⁸⁵ The

⁸⁴ Here it is rather difficult to see the reverse relation between a concept's intension and extension, where a concept is an object which falls under the partial concepts that make up its intension. And this would be an ambiguity in Kant's argument, as analysis rests on the logical form of concepts. For, to think 5 and 7 in $=5+7$, need not mean that $=5+7$ falls under 5. It is perhaps that I am at fault in saying that the single numbers themselves are thought in the concept. But, what is more, the thought that 5 should be added to 7 seems to me as little a universal representation under which $=7+5$ must fall as 5 itself. We could perhaps render Kant's example a universal concept by removing the particular numbers, whence the concept would be 'the sum, which equals to a single number added to another single number is a single number'. Then, $=7+5$ would be an instance of this general concept, but the sum being a particular number, may not yet be given by substituting particulars for the two numbers to be added, nor from the general concept itself. In any case, I think these problems arise because when thinking a number concept or an arithmetical sum as a thought to be analyzed, we are in fact misconstruing the form of the activity of our thought, and removing what makes it a thought in the field of arithmetic. That is to say, while we do actually think a number as referring to a multitude of units, in treating it as suitable for analysis, we necessarily misconceive it as a representation whose form is that of concepts, instead of taking it as a concept which contains a rule for a synthesis or instructs us to carry out a synthesis in a particular manner. These considerations should perhaps simply tell us that the form of our thought is not that of a universal representation.

⁸⁵ See Longuenesse, 1998, p. 277-280. My rendering of the proof will be highly simplified, and I will only note the points relevant to the "Introduction".

rationalist would also begin with number 7, where $7=7$, and also that number 5 is to be added to it. The number 5 is defined as $=4+1$. So, $7+5=7+4+1$, as the sum is equal when equal quantities are added to equals. Now, another definition is given where $8=7+1$, and thus, by substitution, $7+5=8+4$. Such a procedure is followed until the addition of units is completed, and the number to which the summation is equal is found.

I find that Kant's original criticism can still be brought to bear upon this proof and in fact works better in this application. The proof proceeds as an addition of units to a given number through which the sum is brought about. Hence, it purports to be a unit-by-unit addition, or a counting operation. This addition proceeds, however, according to given definitions, which themselves contain a sum of two numbers. For the dogmatist the truth of these definitions follows from the principle of contradiction. This would render the definition an analytic truth, the definition purporting to give an analysis of a given number to the most basic units it contains. Kant's criticism regarding what is and is not thought in the concept of a sum of two numbers would be applicable here. Although in a definition such as $8=7+1$ the equality may seem immediately certain, as we are quite immediately certain that the opposite would involve a contradiction, the act of thought in the judgment would be better represented in comparison to what we must do when we are confronted with summation of larger numbers. In both the definition where one unit is added to a number and also in the problem set before us by large numbers, the act of thought demanded of us is always to add unit by unit, or to continue counting, after the given number, until the added number is extinguished. This is in fact precisely what the dogmatist's proof is trying to accomplish. But, while the proof rests on a procedure of counting, the definition, which also consists of the concept of telling us to add one more unit to 7, is treated as an immediately rational truth, resting on the principle of contradiction, and thus giving us an analysis of the number 8 to its constituents in terms of summation, 1 and 7. As the basic definition rests on an analysis of a given number to its units, the dogmatist claims that, in the final analysis, counting rests on logical rules. But, to conclude that the truth of the definition $8=7+1$ follows from the principle of contradiction, as, for example does the truth of $A=A$ (B17), would be to mistake the act of thought. The definition is

properly understood as an injunction to count one more unit. And, it follows from Kant's original critique that the truth of the judgment (definition) cannot be derived from an analysis of the concept ($=7+1$) that is the injunction to count one more unit after 7. What is though in the concept $=7+1$, considered as a universal representation, may not contain the sum, which is a particular multitude. The truth of the definition rests on nothing but the counting of one more unit. Treating the definition as an analysis of a number to its units, and its truth as resting on the immediate recognition of a contradiction if the judgment is negated, merely misconstrue the act of thought. The important consequence that follows from this conclusion is that while the rationalist conceives of counting as reducible to a proof from definitions and substitutions, and as resting, in the final analysis, on the principle of contradiction, and thus logical rules, this proof in point of fact presupposes the act of counting which it purports to explain.⁸⁶

I have undertaken this detailed exegesis of the views of mathematics by the empiricist (Hume) and dogmatist rationalist (Leibniz) in order to show that, even in the "Introduction", Kant's view of the dual nature of the mind's cognitive faculties, as it rests in sensibility and understanding, which provide intuitions and concepts, is traceable in outline. This latter will be more conspicuous as Kant's position is situated in comparison with the two opponents Kant sets for himself, and is seen as a negotiation with these two models.

Both Hume and the rationalist conceive of summation in the form of a step-by-step procedure of proof or demonstration. In this overarching form, firstly a type of (act of) basic increment (and decrease) is formulated through the unit, whose step-by-step repetition yields, in the procession of the demonstration the act of counting, or summing up unit by unit. Here, it seems to me, the form of the act through which the basic increment is formulated and the demonstration whose overall structure corresponds to the act of counting, have different forms. That is, the demonstration has the form of the repetition of the basic increment act, whereas, this

⁸⁶“Thus, according to the critical Kant, the proof of *Mathematik Herder* was both useless and deceptive, for its validity was derived from the very operation whose validity it was supposed to ground. This is what Kant's presentation of addition in the introduction to the *Critique* makes apparent.” (Longuenesse, 1998, p. 282)

latter has a form of its own owing to the peculiar needs of the model of mind for attaining certainty. So, for Hume, the basic increment is explained through an adequate image of a multiplicity of objects, which allows for the immediate and intuitive grasp of an equality relation. The immediate and intuitive grasp of the relation grants the basic increment its indubitable certainty. For Leibniz, on the other hand, the basic increment is derived from a definition of a number viewed as an analysis of the number and which derives its certainty from the principle of contradiction. It seems that Leibniz uses one definition to dissolve a number, and another to construct another, both by substituting the definition for a number, and these two steps constitute the basic increment by one unit in the demonstration. The repetition of these basic increment steps, then, constitutes counting. So, Leibniz is seen to conceive of arithmetic as having its ground in purely rational principles and operations. Whereas, for Hume the rule of counting rests on immediate and intuitive perceptive certainty, which rests on the presence to the mind of images which are modeled on sense perceptions.

Kant's position seems to agree with those of both Hume and Leibniz on certain aspects. Kant agrees with Leibniz that counting acquires its a priori certainty from a rule, and in this respect differs from Hume who seeks the ground for its certainty in the relations of particular objects which are presented to the perception of an imagining-associating mind. The image of a hand with five fingers comes in only subsequently, and as an aid, and only insofar as it has the capacity to duplicate, as it were, the formal aspect of the rule of counting. It is not the image which confers certainty to the operation of counting, but the form of this activity which finds a suitable representation of its a priori certain operation in using fingers of a hand as an image of this activity. Furthermore, insofar as the understanding is considered as a faculty of rules, this rule for counting ought to be ascribed to this faculty; for the senses may present material for deriving rules, but not the rule itself. Here, the determining role of time, as form of inner sense, is not yet clear, but the rule-governedness of the activity of counting ought, in any case, have its ground in the understanding. This faculty is the source of rules; its application may take a different form than the logical, but this does not change the source of rules. But perhaps more importantly (and convincingly), and this can be inferred directly from the

“Introduction” itself, since arithmetical judgments are synthetic a priori, and counting is shown to underlie the certainty of such judgment, this activity must be considered as the a priori synthesis that underlies this type of judgment. If this is the case, the concepts combined and the concepts that come into being through their synthesis in judgment, must have a necessary relation to this a priori synthesis. But only insofar as this rule arises from the understanding (or is discovered as a necessary rule by the understanding along with another source of a priori representations, which is the case with the argument in “Transcendental Aesthetic”) can it be necessarily binding for the understanding as a ground for its judgments.

That the rule governed synthetic activity of counting cannot be reduced to the principle of contradiction, hence conceived as resting on analysis, disagrees with Leibniz’s view. Counting thus presents a problem to the conception of mind as operating merely according to the logical rules of the understanding. Insofar as this a priori synthesis is an a priori, rule-governed combination, there seems to belong to the mind a form of activity which is distinct from analysis or reasoning according to rules of inference. The critique of the dogmatist’s view of arithmetic, then, adds to the results of the critique of metaphysics, in that it clarifies the nature of the a priori synthesis required for synthetic a priori judgments, by showing that it is modeled on the combining activity of counting. This model is displayed both in the synthesis required for judgments in geometry as well as judgments of experience.

While Kant’s disagreement with Hume should now be clear from the preceding discussion, the exact nature of his agreement with the latter is not yet discoverable. Kant’s considered view regarding mathematics is that it requires recourse to a priori intuition and construction of its concepts in intuition. However, in the “Introduction”, the notion of intuition itself is very far from clear. For Kant, the faculty of sensibility is a source of representations insofar as it is considered as a source of representations of objects, and not merely sensations. In this respect it is the source of intuitions, empirical and pure, and also the source of that a priori element through which sensation is received in the mind as empirical intuition. While Kant may share with Hume the view that the receptive faculty is in fact a source of representations of objects, Kant does not view impressions, considered without forms of sensibility, as objective representations. Hence there is a significant

disagreement as to the nature of the representations presented to the mind by sensibility. However, this view requires grounding which is provided by the argument of the “Transcendental Aesthetic”. The context of the “Introduction” is to problematize the empiricist and dogmatic rationalist’s positions in order to formulate the question of the *Critique*, and is not yet the place to adopt Kant’s considered view on the issue of what may be called the picturing faculty. Furthermore, in my opinion, within the arguments of the “Introduction”, Kant has better grounds to ground synthetic judgments of mathematics in an a priori synthesis rather than in a priori intuition. And in this section I have tried to follow in this direction. I will try to indicate a relation, if not an agreement, between Kant and Hume’s views on arithmetic by recourse to the notion of synthesis, and its relation to Hume’s picturing imagistic-associationist model of mind.

Kant’s argument contains, in addition to a critique of the analytic conception of an arithmetical judgment, and the suggestion that counting is the a priori synthesis that is the ground for the synthetic judgment, an invitation for us to consider in imagistic terms the calculation of a sum. Although the appearance of the activity makes use of images, or a multitude of perceivable objects, the underlying structure of the example is far from reducing the activity to mere images. We take 5 fingers as an empirical representation of the number, without regarding all that we can learn about the fingers from experience. Kant does not tell us how we grasp the concept 5 in intuition, but the rest of the example is illuminating. We add the number represented by the fingers of one hand, one by one, to the concept of 7. The number 7 is not present to the senses, while the fingers represent to us the number of units which will be counted from 7. The concept of number 7 is not treated as a universal concept, but as part of the act of counting, the number from which counting is to begin. As each unit in the hand is removed from view and added to the number 7, a number comes into view. The final sum itself comes into view where there is no longer a sensible image of a number. A grasp of the act of counting in concept, therefore, precedes and also survives the absence of the image of a number. Insofar as the sum comes into view through adding unit by unit, then the number of fingers themselves, which present a sum, must also be considered to rest on this grasp. Now, insofar as we are to get the aid of empirical objects, such as beans, sensible dots or

fingers, we must first prepare that many objects before us. The sensible support of counting must have first been prepared for our operation through counting. This is perhaps more conspicuous in the case of points, than the fingers. For, we could perhaps immediately answer, without counting, that we have five fingers in our hand, but to describe 5 points on paper, which we will then use to add five units to 7, we must first produce them by counting each that we place on the paper.

From these considerations, it should be apparent that, Kant is in fact offering a revision to the Humean notion of the picture of a number of objects. The picture of a number is not immediately perceived by the mind, but it is constructed through a synthesis which is the act of counting. Each object, present to perception, is counted one after the other and the sum is the number of objects. That certainty which judgments of arithmetic possess arises from the a priori synthesis of counting, which is also the activity through which the picture (or image) of a number comes into being. This notion of the construction of a figure will be crucial in the a posteriori synthesis as Kant describes it in connection to judgments of experience, and which I will discuss shortly.

I would like to draw attention to one other aspect of the synthesis in counting which I believe is the element which may indicate the way from the notion of synthesis to that of intuition in general. This is connected to what Kant, in the “Transcendental Aesthetic”, terms the nature of intuitions as infinite given magnitudes. The act of counting takes units and adds them one to another successively, and in this activity reaches sums of numbers. The act of counting, or adding more units to any one sum is still possible. We may first conceive that a sum is always greater than its parts which are added together to constitute it. This is for Kant an analytic truth. (B17) But, it is a different thought that there is always a greater possible sum once a whole is generated from the union of particular numbers. In this sense, then, this always-possible-greater-sum lies beyond the synthesis of counting, as well as the sum reached through termination of the synthesis. This is a feature that necessarily belongs to synthesis, and must be thought with it. So, this much of Kant’s argument in the “Transcendental Aesthetic” as to the essential feature of intuitions may also be gathered from the notion of synthesis,

although this lies implicit in the “Introduction”.⁸⁷ But we then have an infinite possible magnitude, a whole which always contains each and every previous act of counting as its parts, which, however, is not generated by the synthesis itself through addition, lying in the horizon of each and every further synthesis. And thus, underlying, or at least implicit in the notion of an a priori synthesis modeled on counting, which will also be seen to confer upon any empirical combination the nature of being a synthesis (for association itself was seen to not be able to accomplish this), we reach a necessary formal relation between whole and parts which exceeds that which is possible through the form of universality that belongs to concepts. As this whole is deferred indefinitely in each sum as greater than it, it is an infinite magnitude. And as it arises as a presupposed whole connected to the extra-logical activity, and is, furthermore, not constructed through synthesis but presupposed by it as lying at the horizon of each synthesis, it is neither conceptual, nor a product of spontaneity as such, but given.

5.5 A posteriori Synthesis

Judgments of experience, being synthetic a posteriori judgments, require an a posteriori synthesis. I have argued earlier that the combination of empirical data implied by this synthesis cannot belong to the operation of association. In the foregoing discussion on the form of a priori synthesis, it was briefly intimated that a posteriori synthesis is modeled, according to Kant, on that of a priori synthesis. In this section I would like to explain and substantiate this claim.

[T]hough I do not include in the concept of a body in general the predicate ‘weight’, none the less this concept indicates an object of experience through one of its parts, and I

⁸⁷ This notion must be distinguished from the absolute concept of reason, which give a totality of grounds and consequences, as the first ground or the complete set of grounds. (B378-379) The main point of divergence would be, I believe, the origin of the concept. The pure concept of reason has its ground in the syllogism (B363), where the relation of condition and conditioned are carried to infinity, upon which the demand of reason to gather as many knowledge under higher unities is imposed (For example, B361). This suggests a concept with an infinite extension. With the present notion, however, we have no such requirement as in the syllogism, but the possibility of counting more. We could distinguish this from the concept with an infinite intension as well, in that in this latter concept there would be infinitely many elements, whereas in the presently suggested notion, the infinite is a whole always already deferred beyond the present, or any present sum.

can add to that part other parts of this same experience, as in this way belonging together with the concept. From the start I can apprehend the concept of body analytically through the characters of extension, impenetrability, figure, etc., all of which are thought in the concept. Now, however, looking back on the experience from which I have derived this concept of body, and finding weight to be invariably connected with the above characters, I attach it as a predicate to the concept; and in doing so I attach it synthetically, and am therefore extending my knowledge. The possibility of the synthesis of the predicate 'weight' with the concept of 'body' thus rests upon experience. While the one concept is not contained in the other, they yet belong to one another, though only contingently, as parts of a whole, namely, of an experience which is itself a synthetic combination of intuitions. (B12)

I would like to begin by noting that a synthetic combination of empirical concepts rests on experience in that they are derived from the parts of one and the same experience, which constitutes the whole to which parts belong. It is through these concepts being derived from different parts of one and the same experience that they may belong together in judgment as subject and predicate. Whatever the concept will be is contingently determined by the contingent nature of the empirical data that will belong to the experience. That is, the content of the parts which will belong to the whole, or the overall content of the whole containing these parts is contingent. But for the judgment to add two isolated concepts on the basis of experience, it is required that they indicate parts of the same experience. This experience, "is itself a synthetic combination of intuition," a synthetic combination of the parts that constitute it. Furthermore, predicating a concept to another in the synthetic judgment is, according to Kant, an extension of knowledge, through which we know more in one concept than we did when we first had this one concept prior to the synthetic judgment. We have, in this concept, more marks than before; or, more partial concepts make up the intension of this concept. There is no mistaking that Kant is here talking about a quantitative increase in knowledge.

From these peculiarities we can derive important consequences regarding the a posteriori synthesis which underlies judgments of experience. This judgment achieves a quantitative increase in knowledge through addition of one concept to another, and is made on the basis of the parts necessarily belonging to the whole. The judgment may be contingent, but its grounding in experience rests on this necessity. So, inasmuch as the whole of experience is considered merely in terms of the sense data it contains, this is a whole that contains all the contingent parts.

However, insofar as it is considered as a ground for a judgment which extends a quantity, the parts must necessarily belong together, for from mere contingent parts, nor from an association of such parts based on their empirical qualities, understanding cannot derive a ground for its synthetic judgment. It is therefore that experience is a synthesis of parts, which we add together to form a whole, and on the basis of which relation of whole to the parts, we derive a judgment which extends our knowledge. The whole, which is the experience of an object (if not yet experience proper, as empirical knowledge of the object), consists of parts which the subject adds together and forms into a whole. These parts, whatever multiplicity of parts there will be, is contingent, since these do not rest on a homogeneous unit as in an arithmetical synthesis, but on empirical data. However, for these to be parts of a whole that will be ground for a synthetic judgment, the subject must add them together through a synthesis (to achieve a synthetic unity of intuitions). The whole achieved through this combination is the sum, the whole consisting of parts from which different empirical concepts may be derived. Whatever the concept will be is contingently determined by the contingent nature of the empirical data that will belong to the combination. But, that the parts added through a synthesis belong necessarily to the whole constituted from this synthesis is certain, also determines that the concepts combined in the judgment belong to one another necessarily insofar as they are derived from the parts of this synthetic whole.

What I would like to suggest here is not that an a posteriori synthesis is an a priori synthesis, but that an a posteriori synthesis contains, or presupposes an a priori synthesis. But the a posteriori synthesis does not contain the latter in the manner of one feature among other incidental features with which it may be compared. The same rule, which goes into the making of a number, operates in the combination on which an a posteriori synthesis is based.⁸⁸ Therefore, in more Kantian terms, we may say that this latter type of synthesis contains the unity which gives the rule to an a priori synthesis, and is constituted through the application of this rule in an empirical combination. In the exposition of judgments of experience, then, Kant models the a

⁸⁸ The argument here parallels Kant's "Transcendental Deduction" in the First Edition of the *Critique*. This may be so, and I can find no need to object to such a parallel argument; moreover, I find it makes the interpretation of the "Introduction" presented here all the more compelling.

posteriori, empirical synthesis on the a priori synthesis. What renders the former a posteriori is that the parts which are to be combined are empirically given, and are not homogeneous units. The activity of combination, on the other hand, whose form is an addition of parts to one another, as in counting, has an a priori source (which may, in a preliminary analysis, be traceable, or linked to the understanding), it forms a unity of act, and follows upon a necessary rule. Experience, as it thus contains a union of parts based on a rule governed combination, is a synthesis, and can serve as that ground necessary for a synthetic judgment. As the parts which are so combined are not given a priori, but derived from empirical sources, the concepts to be combined are contingent upon empirical data. As the empirical manifold is united part by part into a whole, the concepts which are derived from one and from another part of this one whole belong to one another.

In light of Kant's exposition of the ground of synthetic a posteriori judgments, we can consider experience as a whole composed of parts, from which latter concepts are derived. But the whole is composed of these parts through addition of each to the other, and in this manner invites the possibility of still further parts to be added to the whole. Hence, the whole, which is experience, is viewed within the horizon of an infinite possibility of adding new parts. The ground for arriving at this notion, however, does not arise from the empirical manifold itself, which would merely present a medley of qualities. The infinite possibility of new empirical parts belongs to the a posteriori synthesis, but, as the synthesis is made possible by the underlying rule for a priori synthesis, it must be traced to the notion of counting.

CHAPTER 6

CONCLUSION: SYNTHETIC JUDGMENT AND THE TWO SOURCES OF KNOWLEDGE

I have suggested in Chapter I that Kant gives priority in the *Critique* to the three formulations of the principle of the two sources of knowledge, the understanding and sensibility. These formulations are metaphysical, material and formal. The first distinguishes these faculties as spontaneous and receptive, respectively. According to the material principle, the object is given through sensibility, and is thought by the understanding. The formal principle, on the other hand, distinguishes these faculties on the basis of the types of representations which arise from each, and states that the sensibility is the source of intuitions, while the understanding is the faculty of concepts or rules. This last is, to my mind, the primary one among these three formulations. Now, commentators observe it to be a problem with Kant's argument in the *Critique* that he begins from this principle, rather than arguing for it, or establishing this duality. We must presuppose this distinction, and these three formulations. And this problem is made rather more poignant with the ambiguity surrounding the notion of intuition, and its a priori variety, whether it denotes something present to the senses, or is merely some formal element, and what the nature of this formal element may be, and how it is present to the mind. The reason for this is that in each formulation of the principle, the requirement for intuition (or sensibility) is thought on the basis of different grounds.

As my main concern is with this problem, I will simply state the manner in which I conceive of the notion of intuition, and proceed to the first problem. I suggest that the notion of intuition is first and foremost a part of a principle for the understanding for conceiving of the representations the mind receives through sensibility, and states that they are to be thought not as sensations but as intuitions.

Hence the notion is inherently normative and also indicative of the conditioning of the material of senses by a form. Furthermore, this form is mainly argued for, and clarified in contrast with the form of concepts (as per the “Transcendental Aesthetic”) and is not grounded on observations of objects from senses. Therefore it is not modeled on perceptions. And here, perhaps, is the source of the confusion, since, while Kant’s dictum is still a principle for us (discursive intellects) to think the nature of space and time, that it states that it has its source in the mind compels us to picture what it would be like for space and time to be present in the mind a priori. While Kant himself seems to steer towards such an observational attitude in the second a priority argument for space and time, the principle is intended for use by thought whereby the transcendental distinction between things in themselves and appearances is introduced. It seems to me that we may keep this ambiguity, which arises from trying to picture what we are obliged to think through this thought, and still make use of the thought as a principle for further reasoning.

To my understanding, and I think the first sentence with which Kant opens the “Transcendental Aesthetic” corroborates this view, the formal variation of the two sources of knowledge, as knowledge requiring two types of representations, intuitions and concepts, is Kant’s point of departure for the whole argument of the *Critique*. This means that the formal principle has ascendancy over the material and the metaphysical. I will try to clarify what this means and its consequences by first considering what it would mean for the other principles to have ascendancy over the formal. I think that the material and metaphysical principles are closely connected. I should first note that Kant calls the distinction between spontaneous and receptive faculties as a metaphysical distinction in his *Logic* (9:36), but not in the *Critique*. I use this distinction in spite of its not being used in the *Critique*, since it seems to fit in with Kant’s considerations on the representational capacities attributable to God. (B71-72). Since God is a transcendent entity, thinking about it is nothing but doing metaphysics. But, insofar as the consideration is merely to explicate the mental capacities of the human intellect, we may consider it as a propaedeutic to a critique of pure reason. Here, Kant compares the kinds of spontaneity we may think belongs to the human intellect and to an original intellect which generates its object. The human intellect is spontaneous in that it generates rules; the understanding thinks

according to rules, which are the forms of its thinking, and these lie in the understanding itself, which this faculty can, then, formulate by taking itself as its object. This is the ground of a science for General Logic. The understanding can further generate empirical concepts from empirical data; however, the object (in intuition) or the empirical data itself cannot be generated by the mind. The material for concepts must be given to the mind, and this is only possible by affection. The human mind must, therefore, have a receptive capacity when it comes to the material for its thoughts.

I wish to note two points here. First is that, I find the object being given to the mind and the empirical representations being given to the mind as constituting two distinct relations to the object. The first has reference, I think, to a formal component whereby the representation contains a relation to the object, and therefore must be considered an intuition. And it is the case that, in his discussion of spontaneity, Kant assigns an intellectual intuition to the original intellect. Hence, we are making use of the notion of intuition, and therefore maintaining some reference to a type of representation. But, in any case, if we take sensibility as the source of intuitions through which the object is given, we consider it still as material for thought, which the latter cannot provide from itself, and what may constitute the nature of intuition as such is still unclear. If we follow General Logic, then what is given to the mind is still considered merely as representations, without the slightest consideration of some formal property, and we are still in no position to discover the role of intuition or its essential constitution. General Logic's treatment of the matter to be ordered by thought seems to involve no considerable difference from treating this matter merely as empirical data. In each case, then, we have a version of the material principle, and in neither do we have a sufficient ground to distinguish intuitions from raw empirical data. Secondly, the metaphysical principle attributes spontaneity to thought, and receptivity to the senses, on the basis of the principle that the human mind must be affected by the object, and receives representations through affection. This is the controversial problem of affection, and the controversy may be thought to rest on the fact that we take a principle as true which involves the notion of a merely intelligible concept of thing which we cannot intuit. This principle, I believe, is the reverse side of the thought of the original intellect which

generates its object. But it is utilized not as a metaphysical principle, but rather as an epistemological one, the metaphysical tendency kept in check by either the formal or material formulation of principle of the two sources of knowledge. It seems, that the metaphysical principle itself requires the other two formulations; as per the first point, as the basis of comparing two types of intellects, one human, and the other possible, and as per the second point, to keep it in check from falling into ungrounded metaphysical assertions. Still, however, the material principle itself gives us no ground to distinguish in the material given to thought for ordering some formal feature.

The formal principle puts forward the knowledge of an object as requiring intuitions and concepts, and traces their sources to sensibility and the understanding. This principle involves the notion of knowledge, whose analysis shows that it requires a subject which knows, something, the object, which is known, and the medium, knowledge, through which the subject is directed to the object. Knowledge, thus, has subjective and objective aspects. Knowledge, subjectively considered, is the manner in which the subject relates to the object, or knows the object. The principle states that, intuitions and concepts are modes of knowledge, representations through which the subject relates to an object. For Kant, it also includes the stronger claim, however, that knowledge of an object requires both intuitions and concepts. Since this assertion is included in the formal principle, I would suggest that the reason why both types of formal representations are necessary for knowledge of an object should also be, in some manner or other, thought in it.

That concepts are required for knowledge follows from the discursive nature of the human intellect. We always think something through concepts. The manner we construe the necessity of the material element of knowledge makes all the difference. If we say that our concepts are universal representations and contain merely the form of thought through which representations are ordered, and must look to the senses for their matter, which will be ordered by thought, we will remain with the material principle. And I rather align the material principle with the uncritical – as they yet do not possess the notion of a priori intuition as a necessary component for knowledge – positions of the dogmatic rationalist and empiricist. To

distinguish some formal feature in the matter for thought, and thus to distinguish sensations from empirical intuitions, or to say the matter for thought is intuition, we would at least need to say that thought requires the matter to be prepared for ordering, made orderable, preconditioned to be ordered in the form of thought. From the mere assertion that thought orders, and for the material to be ordered, thought must look to the senses, there arises no ground for presupposing a requisite of pre-ordered matter. But the material principle itself must be considered in the context of the analysis of knowledge. So, the question would better be why ordering by thought is required at all? To my mind, the most basic response would be that the human intellect learns about the world, nature and the universe through first encountering empirical data, and ordering it. To read the manifest book of nature, as it were, raw data must first be understood.

The following and more pressing question is, and which Kant insists on vehemently, asks whether the discursive form of thought is sufficient or at all suitable to understand the order in nature? So a pre-existing order, as it were, an order that precedes the ordering of thought is presupposed, since the world as the object of knowledge is not created by the knower. The dogmatic rationalist and the empiricist have diverging attitudes towards this question. The former suggests that the form of the universe reflects that of an infinite intellect, and has a logical form. This suggests that there is at least an independent reality or an objective order which is discoverable through analysis, and to its formal constitution we may have access through reason. The empiricist, essentially Hume, suggests that from the philosophical viewpoint we must relinquish a claim to objective knowledge, for this must always lie beyond our representations, but our ordinary grasp of the world, although it rests on subjective ordering of representations, does allow us to function perfectly well to further life. I have tried to argue in the preceding chapters that, the empiricist must reconsider the model of mind he proposes, and must admit a discursive faculty of intellect with its a priori rules. In this case, mere belief in certain concepts cannot attain the status of knowledge, whose demands will need to be formulated from the requirements of the discursive intellect. Against the rationalist, Kant directs a critique of metaphysical assertions, and requires the former

to suspend seeking metaphysical grounds for knowledge of nature until the possibility of objective knowledge for the discursive intellect is first clarified.

The novelty Kant brings to these considerations seems to me to be that he makes explicit what remains implicit in the relation of thought to an object through concepts. A concept is a universal representation, but it is so insofar as it is a representation which is used to subsume other representations under it. So, to think something by using a concept is to apply it to that something by subsuming it under the concept. A concept is, then, a rule for judging about an object, through which certain marks are thought to belong to the object. But, thinking as judging using concepts has the form of subject-predicate judgments, and here the object to which a concept is predicated is still another concept. If, however, the object is something other than our thoughts, and therefore an object of knowledge to which the subject is directed, and whose knowledge of it must conform to it, it must be possible to go beyond the concept. If we consider the logical form of concept to be sufficient, however, our objects will remain merely other concepts, and thought will not attain the status of knowledge. Kant thus introduces the notion of a synthetic judgment where a predicate which is not contained by the subject is, nevertheless, predicated upon the latter with reference to an extra-logical ground. The judgment is directed beyond the concepts themselves. Furthermore, the concept that is formed by the judgment is itself synthetic, or contains this reference to the extra-logical ground. Hence, the question of synthetic judgment is, in one respect, the manner in which Kant asks the question nothing less than of the form of knowledge of objects. This question is coupled with the question of the possibility of metaphysics in that, insofar as this latter purports to be an a priori science of reason, hence a source of a priori knowledge of objects, it must first be possible to ascertain whether the assertions of this science may attain the status of knowledge. The question of the possibility of knowledge may not rest on metaphysical assertions; to the contrary, the possibility of metaphysics must wait until the form and limits of knowledge of objects is first established without doubt.

In the previous chapter I have tried to show that Kant's discussions in the "Introduction" to the *Critique* gradually introduce the possibility of inferring an extra-logical formal structure. This structure first became possible with reference to

the a priori synthesis of counting, and it was also shown to be present in Kant's conception of experience as an a posteriori synthesis. This extra-logical formal structure displays a similar form of that whole-part relation which is essential to Kant's argument in the "Transcendental Aesthetic" whereby intuitions are distinguished from concepts as to their form. It was shown that counting, the rule according to which the act of synthesis is performed, operates under the horizon of an indefinitely deferred possible sum, always greater than the greatest sum which is computed by the synthesis. This displays a form akin to an infinite magnitude, and also, since it is not presented by a synthesis of units but a deferred possible sum when a sum is reached by synthesis, it is not a product of spontaneity. This notion lies implicit both in the a priori synthesis of counting, as well as in the a posteriori synthesis which is modeled upon the former. It is peculiar to this notion that it is related to its parts in a manner different from the intension and extension of concepts. Neither are the parts prior to and make up the whole, for it exceeds these parts always, nor do its parts fall under it as objects. Now, I wish to refrain from immediately identifying such a notion with Kantian intuitions. Still, however, as it lies implicitly connected to a synthesis that is necessarily tied to a synthesis of concepts and judgments, which first gives the form of knowledge, it at once offers a determinate, extra-logical form, that is not generated spontaneously following the rule of counting, and also takes part in the constitution of the form of knowledge. Hence, it is necessary in the constitution of the form of knowledge of objects, and is necessarily connected to the form of concepts.

The ascendancy of the formal principle ought perhaps not be understood merely as a denial of the material principle (as well as the metaphysical) but as determining the limitations of both. It shows that it is a mistake to treat metaphysics as a field of knowledge without first inquiring into the limitations of the form of thought, and whether its form is the form of knowledge proper. To my mind, demanding this inquiry from metaphysics first allows inquiring into the constitution of knowledge in the abstract (in isolation from all material from the senses) and thus with respect to its form. This provides a necessary ground to think that thought first requires of the sensibility an orderable manifold, and that this orderability has a determinate form, or at least, implies a determinate structure which must be

explicated. The formal structure of knowledge for a discursive intellect, and for the human mind, which is a species of this latter, then, becomes the issue. The material principle is not altogether denied, for it itself rests on the distinction of matter and form, and is, in point of fact, the underlying principle of General Logic, which gives the a priori structure of the understanding as the faculty of thought. To my understanding, as it would be expected from a first principle, the formal principle of knowledge assigns to the remaining principles their proper place and function in the field of theoretical knowledge.

The main concern of this thesis sprang up from the criticism leveled at Kant, that he does not provide an argument for the discursivity principle, which states that knowledge of an object requires that we intuit it as well as think it under concepts. I have tried to argue that the “Introduction” to the *Critique* can in fact be interpreted as containing the resources for such an argument. Furthermore, this argument, as it is based on the critique of metaphysics, abstracts from all objects of experience and allows for the consideration of the form of knowledge in the abstract. This is accomplished by the two-fold nature of Kant’s critique of metaphysics. Firstly, putting metaphysics into question as to whether it is in fact capable of knowledge through the understanding alone, suspends all commitment to metaphysical objects, and formulates the question as requiring a consideration of the faculty of thought isolated from all empirical influence. Secondly, the limitation of the faculty of thought is considered precisely through comparing the assertions metaphysics claims to be making (regarding the objects of which it claims to know), and the form of the activity of cognition in these assertions. In line with the formal nature of Kant’s Transcendental Idealism, the argument which has been reconstructed from the sources of the “Introduction” follows the analysis of the formal constitution of knowledge claims. That this analysis reveals the limitation of thought alone in making these latter claims is intended to mean that the conceptual nature of human thought is placed in its function in knowledge claims, and reveals the necessity of a non-logical component. The successive steps of this argument, from the relation of subject to predicate in the subject, to synthetic judgment, and to a synthesis, and finally to a formal component given but not constituted by thought or through

synthesis itself, intend to present a gradual analysis of presuppositions underlying the form of knowledge.

I wish not to be hasty in identifying the formal component, i.e. an infinite given magnitude that is necessarily thought together in connection to an a priori synthesis which is modeled on an arithmetical synthesis, with the notion of intuition Kant develops in the “Transcendental Aesthetic.” It is crucial to note that the infinite given magnitude necessarily thought in connection with counting does not seem to contain each and every number in itself as its parts, which is the case with the representations of space and time. Nor does this given magnitude seem to be presupposed for or makes possible counting. Nevertheless, it involves the necessary limitation of thought, in a synthetic judgment, by a representation whose form is neither logical nor produced through synthesis. That such a representation of non-logical form must be thought in relation to synthesis is enough incentive to consider its source and peculiarities. And also, it is enough ground to state, if not that knowledge requires intuitions as well, but then at least an extra-logical given component. To my mind, this lays, to a large extent, the groundwork for the discursivity principle.

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APPENDICES

APPENDIX A: TURKISH SUMMARY / TÜRKÇE ÖZET

Kant'ın teorik bilimlerin temellendirilmesini amaçlayan Saf Aklın Eleştirisi adlı eserindeki argümanı literatürde diskürsiflik tezi olarak adlandırılan bir ilkeye dayanır. Bu teze göre sadece kavramlar bilgi için yeterli değildir. Bilgi hem kavramlara hem de görümlere ihtiyaç duyar. Kant yorumcuları çoklukla Kant'ın bu tezi temellendirmeden kabul ettiğini, bu nedenle de bu ilkenin Saf Aklın Eleştirisi'nin altında yatan bir önkabul olduğunu belirtmektedir. Bu eksiklik veya itiraz önemlidir, çünkü Kant'ın Saf Aklın temellendirilmesi projesi bağlamında düşünüldüğünde, herhangi bir gerekçe gösterilmeden kabul edilen bir ilk önerme tüm projenin a priori geçerliliğine gölge düşürebilir. Kant'ın çağdaşı takipçilerinden Reinhold ve Fichte fark ettikleri bu eksikliği herhangi bir argüman gerektirmeyen bir ilk ilke belirleyip Saf Aklın tüm öğelerini bu ilkedен çıkarmaya çalışarak gidermeyi denemişlerdir. Onların Transandantal Felsefe ve saf aklın eleştirisine verdikleri yön bir yana, bu tezin iddiası, Kant'ın bu ilk ilkesinin *Saf Aklın Eleştirisi*'nin “Giriş Bölümü”nde temellendirildiği, veya en azından Kant'ın bu temellendirmeye dair ipuçları sunduğudur. Kant'ın bu bölümde projesini ortaya koyarken verdiği ipuçları takip edilirse, diskürsiflik tezi için bir argümanın yapı taşlarının bulunabileceğinin yanı sıra, bu argümanın tam da Kant'ın Transandantal Idealizm'i için gerekli olacak en uygun argüman olduğu, yani bilginin bir formal değerlendirmesi ile edinildiği görülecektir. Bilginin kavramlar ve görümlere gereksinin duyduğu tezi en başından itibaren ve öncelikle bilginin formuna dair bir önermedir.

Kant *Saf Aklın Eleştirisi*'nde bu ilkenin farklı formülasyonlarını kullanmaktadır. Bunları formal, içeriksel ve metafizik formülasyonlar şeklinde ayırabiliriz. Bunlar aynı zamanda temsillerin kaynağı olan alımlama ve anlama yetilerinin birbirlerinden ayrıştırılması için de farklı dayanaklar sunar. Formal

formülasyon bilginin koşullarını formları itibariyle iki farklı temsil, yani görüler ve kavramlar, olarak ortaya koyar. İlk bakışta materyal olarak niteleyebileceğimiz formülasyon ise bilginin nesnenin düşünülmesi ve verilmesi gerektiğini belirtir. Metafizik formülasyon ise pasif bir alımlama ve spontanlığı birbirinden ayırır ve bu iki yetinin de bilgi için gerekli olduğunu söyler. Bu formülasyonlar arasından Kant'ın aynı zamanda Formal Idealizm olarak da adlandırdığı Transandantal Idealizm'i için en uygun temeli formal ilke verir. Sonuçta Transandantal Idealizm kavramlarımızın bir nesnenin kavramları olması, yani nesnel geçerlilikleri olması ve bir nesneyi bilmemizi sağlamaları için gereken formal yapının yine zihnin kaynaklarından ve zihnin düşünme edimi yoluyla elde edilebileceğini söyler. Transandantal Idealizm bilginin formal yapısını ortaya koymaktadır.

Materyal ilke ilk bakışta nesnenin verilmesini nesnenin düşünülmesi için gerekli olan malzemenin verilmesi şeklinde kurgular. Fakat bu düşüncenin formu ile bilginin formunun birbiri ile örtüştüğünü söylemekten başka şey değildir. Bilginin formunu düşüncenin malzemeyi düzenlemesi verecektir. Ama sadece anlama yetisinden kaynaklanacak kurallar ile düşünülen malzeme sadece kavramsal analize tabidir. Sadece düşünmek bu malzemede verili nesneyi bilmeye yetecektir. Bu formülasyon ile Kant'ın ondan önce gelen rasyonalistlerden bir farkı kalmaz. Formu malzemeden ayırdığımızda Genel Mantık bilimi elde edilir. Ama bu bilim sadece düşünmenin formu ile ilgilenir, nesnesi ile ilgilenmez. Metafizik formülasyon ise Kant'ın projesini tanıtırken başvurduğu metafizik eleştirisi ile ters düşer. Kant bu ilkeyi tanrının ve insanın bilme biçimlerini karşılaştırarak ortaya koyar. Eğer deneyimde hiç verilemeyecek şeyler ile ilgili yargılarımızı durdurmalı ve metafiziğin mümkün olup olmadığını inceleyecek isek, bu formülasyonun olası metafizik çıkarımlarını zaptetmek için düşünmeyi yönlendiren sınırlamalar olmalıdır. Ancak ilk ilke metafizik bir önerme ise, ve bundan yola çıkılacak ise, böyle bir sınırlandırmadan yoksundur. Dolayısıyla metafizik formülasyon Transandantal Idealizm için uygun bir başlangıç sağlayamaz.

Daha önce de belirtildiği gibi, bu ilkenin formal formülasyonu Transandantal Idealizm projesine en uygun başlangıç ilkesini verecektir. Ve *Saf Aklın Eleştirisi*'nin "Giriş Bölümü"nde Kant, metafiziğin eleştirisi ile başlayarak sentetik yargıların doğası ile devam eden tartışmasında, bu formülasyonun altyapısını da kurmaktadır.

Kant'ın sentetik yargı tartışması sadece metafizik bilginin veya a priori bilginin olasılığına dair bir tartışma olmakla kalmaz, aynı zamanda genel olarak bilginin formunun da bir analizini içerir. Çünkü, sadece kavramsal ilişkilere dayandırılmayan, tersine kavram-dışı bir temeli olan bir yargı tam da kavramların kavramlar ağı dışında bir şeye işaret etmesini sağlar. Burada bilginin formu dendiğinde anlaşılması istenen düşüncenin sadece subjektif bir kurgu olarak kalmaması, düşüncenin sadece düşüncede kalmayan birşeye dair, yani bir nesnesi olmasını sağlayan formal yapıdır. Metafiziğin eleştirisi ve metafizik bilginin olasılığı bağlamında analitik ve sentetik yargıların birbirinden ayrılması düşünce ve bilginin formlarının birbirinden farklı olduğuna dair bir uyarıdır.

Metafiziğin eleştirisi her ne kadar dogmatik rasyonalistlerin metafizik bilgi için seçtiği zeminin, yani analiz metodu ve bunun dayandığı mantık biliminin, amaçlanan bilgi çeşidi için yetersizliğini gösterse de, Kant insan aklının diskürsif, yani kavramlar ile düşünen bir yeti olduğunda bunlarla hemfikirdir. Kant bu düşüncesi ile rasyonalistler ve empiristlerin zihnin işleyişine dair geliştirdikleri iki modelden, rasyonalistlerden yana olduğunu gösterir. Bu tezde Kant'ın asıl önkabulünün diskürsiflik tezi (insan düşüncesinin kavramsal bir işleyişi olduğundan daha kapsamlı bir tez olan bilginin kavram ve görümlere ihtiyacı olduğu tezi) yerine düşünce ediminin kavramlar ile, yani genel temsiller ile gerçekleştirildiği tezi olduğudur. Kant, düşünce ediminin spontan, yani çağrışımlar temelinde açıklanamayacak bir edim olduğu, ve bu edimin düşünülen malzemedan bağımsız ve bağımsız olarak da ele alınabilecek formu olduğu görüşündedir. Mantık Bilimi bu anlamda bilginin analizini önceler; Kant'ın a priori bilgiye veya en azından bunun olasılığına olan güveni, mantık biliminin ortaya serdiği bilgiye dayanır. A priori olan formaldır, formal olan zorunludur. Düşüncenin formuna dair a priori bilgi mümkündür. “Transandantal Analitik” içerisinde Kant Genel Mantık biliminin olasılığını Transandantal Mantık içinde bulmaktadır. Her analiz bir sentez gerektirdiğinden, bir sentezin kavramlara taşınmasını inceleyen bilim, aynı zamanda da temsillerin analizinin olasılığını açıklayacaktır. Ancak bu Genel Mantık biliminin kendi sınırları içerisinde ve kendisine belirlediği nesne ile ilgili a priori bilgi verebileceği fikrini değiştirmez. Genel Mantık bilimi kendisine sadece düşünceyi, ve düşüncede de bunun formunu nesne olarak seçen bilimdir. Düşünce bu bilimde

kendi formu üzerine düşünürken bu forma dayanan ve tüm düşünme için kesinlikle geçerli kurallar ortaya koyar. Bunu yapabilmesinin koşulu da öncelikle her düşüncede form ile içeriğin birbirinden ayrı olduğu ve ilkinin ikincisine indirgenemeyeceği ilkesidir. Kant *Saf Aklın Eleştirisi*'nde zihnin işleyişine dair bu önkabulü temellendirmez. Hatta bu temel Genel Mantık biliminin kendisi tarafından da verilmemektedir; keza bu bilim bu temel üzerinde durur.

Bu temel rasyonalistlerin ve empirisistlerin, özellikle radikal bir empirisist olan Hume'un, karşı karşıya geldiği önemli bir ayrıma işaret eder. Soyut veya genel (evrensel) temsiller mümkün müdür? Bu tezde bu fikre şiddetle karşı çıkan Hume'un zihin modeli empirisist iddianın örneği olarak alınır ve Hume'a şu soru yöneltilir: Eğer zihne verilen tüm temsiller tikellerden ibaret ise, soyut veya genel temsil etme açıklanabilir mi? Hume için bu oldukça önemli bir sorudur ve o bu soruyu olumlu yanıtlar. Genel temsil hayal gücünün çağrışımları ile açıklanan bir karmaşık idea prosesi olarak mümkündür. Hume'a göre zihin birden fazla nesnede bulunduğu benzerlikleri adlandırmak suretiyle bunları birbirine çağrışım ile bağlar ve bunlar arasında kurulan alışkanlık ilişkisi onları bir seri olarak birbirine bağlar. Aynı ad ile adlandırılan benzerlikler ile benzer bir şey ile karşılaşp onu bu ad ile adlandırdığımızda, bu benzerlik zihnimize temsil edilen bir tikel ile bağlantılı şekilde tüm bu seriyi zihnimizin kullanımına sunulur. Bu sayede birden fazla şeyde ortak olan birşey düşünülebilir ve akıl yürütmelerimizde kullanılır. Bir nesne farklı benzerlik serileri ile ilişkide olabilir. Ve benzer şeyler birbirlerinden farklılıklar gösterebilirler. Tüm bu detaylar çağrışım yoluyla kurulan serileri zihnin kullanımına hazır eder.

Hume'ın açıklaması bir ölçüde tutarlı olmakla birlikte önemli bir sorunu da içinde barındırır. Zihnin genel temsil için gerekli serileri kurması için iki ide arasında bir benzerlik ilişkisi algılaması gerekir. Ancak bunun için öncelikle zihnin iki ide arasında bir çağrışım kurmasının aralarında benzer bulunan bir özelliğe dayandığını ve hatta bu çağrışımın benzerlik temelli bir çağrışım olduğunu algılaması gereklidir. Yani öncelikle benzerlik temelli çağrışımın kendisine dair bir ide gereklidir ki genel temsil mümkün olsun. Bu temelde Hume'ın açıkladığı zihinsel süreç kanımca tutarlı olacaktır. Benzerlik zihnin işleyişinde en fazla iş gören ilkedir; genel temsil açısından da kritik önemdedir. Ancak Hume çağrışımlarda

zaman ve mekansal yakınlık ve nedensellik ideleri için sunduğu gibi bir açıklamayı benzerlik idesi için vermez., benzerlik idesini bir izlenime indirgemez. Fakat bu ide olmadan da genel temsil mümkün olmayacaktır. Genel temsilin mümkün olmamasının en önemli sonucu Hume'ın nedensellik kavramına dair açıklamasının da altını oyması olacaktır.

Hume'ın sistemi ve genel temsil açıklaması benzerlik idesinin indirgenebileceği bir izlenimi izah etmeden ayakta duramaz. Bunu başaramadığı takdirde zihnin çalışmasını açıklayamadığını söylemek ve zihnin düşünme ediminin kavramlar ile işlediğini savunan rasyonalist geleneğin tarafını tutmak gereklidir. Bu demek değildir ki zihin tikel nesnelere algılamamaktadır ve sadece genel temsillere sahiptir. Çıkarılacak sonuç tikel temsillerin kavramın veya genel temsilin olasılığını açıklayamayacağı, dolayısıyla düşüncenin düşünmeye verilen malzemeden ayrı bir formu olduğudur. Form içerikten bağımsızdır. Form içerikten bağımsız olarak ele alınabilir.

Bu temelde Kant Mantık Bilimi'nin geçerli temeli olan ve kesin geçerlilikte bilgi üreten bir bilim olduğunu söyleyebilir. Bu sayede diskürsiflik ilkesinin ilk ögesi olan, bilginin kavramlara ihtiyacı olduğu önermesi de kesin olarak benimsenebilir. Kant'ın metafizik eleştirisi bu önermede kabul edilen düşüncenin formunun bilginin formunu tümünden karşılayıp karşılayamayacağı sorusunun yanıtını aramakta kullandığı bir basamaktadır.

Metafizik, deneyimde asla verilemeyecek nesnelere dair bilгимizi genişlettiğini iddia eder. Deneyimden kesinlikle bağımsız olarak bu bilgi üretilmelidir, çünkü, hem bu nesnelere deneyimde hiçbir zaman verilemezler, hem de deneyimden edindiğimiz bilgi olumsaldır. Fakat, bu nesnelere deneyimde verilemeyeceklerinden deneyim onlara dair bir bilginin de kaynağı olamaz. Dolayısıyla sadece saf akıl bu bilginin kaynağı olabilir. Saf akıl olumsal olmayan, zorunlu ve evrensel geçerlilikte bilginin kaynağıdır. Metafizikçi, matematik biliminin elde ettiği bilgilerin kesinliği ışığında kendisine bu bilimin metodunu benimser. Bu metodun, mantık biliminin kurallarını verdiği analiz olduğu düşüncesiyle, onun sayesinde bilгимizi deneyimin dışında genişletebileceğini düşünür. Ancak bu analiz ile verilen yargılar ile elde edilemez. Bu iddiaları temsil eden yargılarda özne ve yüklem birbiri ile ilişkisi belirli bir formdadır. Analiz bize

sadece düşündüğümüz kavramın içeriğini belirginleştirir, fakat bu şekilde bilgi genişletilmez. Bilginin genişletilmesi, özne içinde daha önce düşünülmemiş bir kavramın özneye yüklendiği bir yargı ile verilebilir. Özne ve yüklem birbirine daha önce kavramsal olarak bağlı değildir. Yargı bu bağlantıyı kuracaktır. Bu yeni bağlantı bilgimizi genişletir. Fakat bu tip bir bağlantı analiz ve analitik yargılar ile oluşturulamaz. Analitik yargılar kavramların analizinin sonucudur ve kavramların mantıksal bağlantılarına dayanan kurallar temelinde verilebilirler. Bilgimizi genişletecek yargı ise daha önce bu ilişkiler içinde bulunmayan iki kavramın yine de yargı içinde bu mantıksal ilişki içinde bulunduğu iddiasını taşır. Yani yeni bir bilgi elde eder ve bir kavramın içinde düşündüğümüzü arttırarak bilgimizi genişletir.

Analiz temelini kavramların ilişkilerini inceleyen mantık biliminin verdiği kurallardan alır. Ancak, daha önce bu kurallar ile birbiri ile ilişki içinde olmayan iki kavramı sadece bu kurallara dayanarak birleştirebileceğimizi söyleyemeyiz. Dolayısıyla metafizik bilimi analitik yargı ile temsil edilen bir iddiadan farklı bir formu olan bir iddiada bulunmakta, ancak bunu yine yalnızca analitik yargıları temellendirebilecek analiz metoduna ve bu metodun kurallarını veren mantık bilimine dayandırmaktadır. Fakat bu dayanak kendi doğası ve iddianın doğası dolayısıyla, verilen iddiayı temellendiremeyecektir. Şu ana kadar yapılagelen şekliyle metafizik bilimi iddialarının bu yapısına dair bir soru sormamış, bunların özel bir yapısı olduğunu gözlemleyememiş, ve bundan dolayı da onların özel bir temellendirme gereksinimi olduğunu görememiştir. Matematik biliminden devşirilen metodu bu temellendirmeyi başaramamaktadır.

Sentetik yargı kavramların analizi ile temellendirilemez. Sentetik yargı kavramların sentezidir. Sentetik yargı kavramların analizi ile temellendirilemese bile kavramların sentezi ile temellendirilmez diyemeyiz. Sentetik yargı kavramların sentezi ile temellendirilecekse, bu sentetik bir yargıyı sentetik bir yargı ile temellendirmek demektir. Fakat her sentetik yargı bir önceki bir sentetik yargıyı gerektireceğinden bir ilk sentetik yargı gerekir, aksi takdirde temellendirme gereksinimi sonsuza kadar sürecek, ve sentetik yargılar tümünden temelsiz kalacaktır. O nedenle bir ilk sentetik yargı olmalı ve bu tümünü temellendirebilmelidir. Ancak bir ilk yargı kendisi bir yargı olmayan bir senteze ihtiyaç duyar; bu kavram-dışı bir sentez olmalıdır. Dolayısı ile zorunlu olarak söyleyebiliriz ki, sentetik yargı kavram-

dışı bir senteze ihtiyaç duyar ve bu sentezin yargıda birleştirilen kavramlar ile ve onların birleştirilmesi ile zorunlu bir ilişkisi vardır. Bunlar, sentetik yargının bir normatif zemini olduğunu gösterir.

Sentez, kavram-dışı bazı şeylerin bir birleştirilmesidir. Bu birleştirmenin doğası nedir ki kavramların sentezinin dayanağı olabilsin? Kant *Saf Aklın Eleştirisi*'nin "Giriş Bölümü"nde bu soruya bir yanıt vermektedir. Bu yanıt matematik yargıların, özellikle aritmetik yargılarının incelenmesinde bulabiliriz.

Kant'ın matematik yargılara dair görüşü Empirisitler ve Rasyonalislerinkinden ayrılır. Burada Hume'un görüşü Empirisitler için örnek alınırken, Rasyonalist görüş Leibniz tarafından temsil edilecektir.

Hume için aritmetik kesinliği tartışılmaz bilgi verir. Hume'a göre bu zihnin algıladığı bir çokluğun kaç birimden oluştuğunu dolayumsuz bir görü ile algılaması yetisine dayanır. Küçük sayılar için bu algı dolayumsuzdur. Küçük çokluklar arasındaki nicelik (büyük veya küçüklük ve eşitlik) ilişkileri dolayumsuz olarak ve ansızın algılanabilir. Daha büyük sayılarda yapılacak işlemler için ise, yine bu dolayumsuz algıya indirgenebilecek nicelikler arası ilişkiler kullanılır. Büyük nicelikleri oluşturan küçük nicelikler ile hesap yapılır. Küçük nicelikler arası ilişkiler, ve bir adımdan diğerine geçişteki ilişkiler doğrudan ve ansızın olması sonucun kesinliğini sağlar.

Leibniz de aritmetikten edinilen bilginin kesinliğini tartışma konusu yapmaz. Ve ayrıca büyük sayılar üzerinde yapılacak hesapların onları oluşturan daha küçük sayılar yoluyla gerçekleştirileceğini, ve kesinliğin de bu şekilde sağlanacağını da söylemektedir. Ancak, Leibniz için en küçük ögeler hep analiz yolu ile elde edilir ve bunlar çelişki ilkesi altında duran mantıksal doğrulardır. Yani, Leibniz için dolayumsuz olarak ve ansızın doğruluğunu kavradığımız küçük nicelik ilişkileri aslında mantıksal olarak doğrudur. Sayıların belirttikleri niceliklerin içerdikleri birimlere ayrıştırılması kavramların mantıksal analizi modelinde tasarlanır.

Bu tartışmadan edinebildiğimiz sonuç şu olacaktır: Hume ve Leibniz, her ikisi de, belirli kurallara uygun bir ispat tasarlamaktadır. Büyük sayılar arası ilişkileri veren hesap adımlara bölünmüş kurallı bir sayma işlemi olarak tasarlanır. Ancak bir Empirisit ile Rasyonalist'in bu işlemi dayandırdıkları temeller farklıdır. Empirisit açıklaması güç, çokluk içeren bir imgede çokluktaki birim adedinin doğrudan bir

görü ile algılanması şeklinde bir açıklama getirirken, Rasyonalist analiz modeline göre tasarlanmış, kavram ilişkilerini aritmetiğin temeline koyar.

Kant için aritmetiğin temeli bu iki modelin birlikte düşünülmesi gereken farklı bir zihin modeline dayanır. Kant, aritmetiğin temelinde, “Transandantal Estetik”in sonuçlarına ek olarak, “Transandantal Analitik”de doğrudan bir görüye ek olarak bu görüde yapılan bir sentezi bulunduğunu söyler. Bu sentez özdeş birimlerin ard arda eklenmesi ile gerçekleştirilen sayma edimidir. *Saf Aklın Eleştirisi*’nin “Giriş Bölümü”nde aritmetik yargılar tam da bu sayma edimine dayandırılırlar. Bu açıdan bakılınca Kant için aritmetiğin temelinde açıklaması güç bir algılama değil, kurallı bir birleştirme olan sayma yatar. Yani aritmetiğin temeli özünde bir kuraldır ve bu görüş onu Rasyonalist’e yaklaştırır. Ancak bu kural mantığın temel kuralı olan çelişki ilkesi değil, ard arda eklenme biçiminde bir birleştirmedir. Yani Kant için bu kural kavramsal ilişkilerin temel kuralı değildir. Buna ek olarak, Kant için zihinin işleyişi kavramlar ile düşünme şeklindedir ve burada Rasyonalist ile aynı görüşü paylaşır ve Empirisit’den ayrılır. Ve buna göre aritmetik bilgi de kavramlar içeren yargılar yoluyla üretilir. Aritmetik bilgi safi sayma edimini ile değil, sayıların kavramlar ve yargılar ile ifadesini de barındırır. Burada görülür ki sayma edimi aritmetik yargıların altında yatan ve bu yargıların içerdiği kavram sentezine dayanak olan bir birleştirme edimidir. Sayarak bir araya getirdiğimiz çokluklar arasında, saydığımız kadar birim bulunduğundan bu çoklukları kavradığımız kavramlar kesinlikle bu kadar birim içerir. Yani hem kavramlar sayma ile oluşturulur, hem de sayma edimi onlara bir kesinlik atfeder. Örneğin, iki sayının toplamı bir sayının kavramının belirttiği niceliği saymak ve buna ek olarak, ilk sayıya eklenecek sayının belirttiği niceliği tüketene kadar sayma işlemine devam etmek yoluyla elde edilir. Sentez bu yargının içerdiği kavramların her ikisini belirli bir kural çerçevesinde içinde barındıran kurallı bir birleştirme edimi olan sayma edimidir. Ve ulaşılan toplam da iki sayının sayılmasını belirttiği birimleri tek tek sayarak ve tüm birimlerin birlikte sayılması ile elde edildiğinden kesindir. Aritmetiğin içerdiği sentetik a priori yargının kavramları bir araya getirmek için ihtiyaç duyduğu mantık-dışı birleştirme edimi sayma temelli bir a priori sentezdir.

Bu sonuç ile bu tezin iddia ettiği teze ulaşmış bulunuyoruz: Kant “Giriş Bölümü”nde sentetik yargının analizi ile görü formunu ortaya çıkarmaktadır. Buna

dayanarak, Kant'a yöneltilen, bilginin diskürsif bir aklın bilme ediminin kavram ve görümlere ihtiyacı olduğu tezinin temellendirilmeden varsayıldığı eleştirisinin geçerli olmadığını söyleyebiliriz. Öncelikle, daha önce belirtildiği gibi, sentetik yargı en basit halde bir kavramın kavramlar ağı dışında birşeye dair olabilmesinin formunu verir. Kant bu bölümdeki tartışmalarında sentetik yargıları mümkün kılan koşullara dair bize bazı ipuçları vermektedir. Bu ipuçlarını takip ederek görü formuna ulaşırsa bilgi için görü formunun gerekli olduğu da kesinlikle söylenebilir. Yukarıdaki tartışma bize sentetik a priori yargıların temelinde sayma edimi formunda kurallı bir birleştirmenin yattığını gösterdi. Ancak bu edim görünümünün formu değildir ve bu forma erişmek için bir adıma daha ihtiyacımız var.

Sayma edimi özdeş birimlerin ard arda eklenmesi edimidir. Her sayma ediminin birliği sayılan kadar birimin oluşturduğu bir çokluğun birliğidir. Her saymanın sonunda elde edilen sayıdan sonra saymayı sürdürmek mümkündür. Bu şekilde sayma ile elde edilen bir sayıdan her zaman daha büyük bir sayı mümkündür. Hatta, şu veya bu sayıdan değil sayılarak elde herhangi bir sayıdan, her sayıdan hep daha büyüğü vardır. Bu "her zaman daha büyük sayı" Kant'ın "Estetik Bölümü"nde görü formunu nitelikle için kullandığı sonsuz verili nicelik kavramı ile büyük ölçüde örtüşmektedir. Her zaman daha büyük sayı sadece kavramların mantıksal formundan çıkmamaktadır. Demek ki kaynağı anlama yetisi değildir. Buna ek olarak, herhangi bir sayma edimi ile erişilemez, her sayma edimi ile birlikte varsayılan olası bir çokluktur. Dolayısıyla kaynağı sayma ediminin dayandığı spontanlıktan da ayrıca düşünülmelidir. Bu şekilde bu kavramın verili sonsuz bir nicelik olduğunu söylememiz gerekir. Sentetik a priori yargıların altında yatan a priori sentez ile birlikte bu verili sonsuz nicelik her zaman zorunlu olarak birlikte düşünülmektedir. Demek ki bu tip yargıların formal yapısı bu formal ögeyi zorunlu olarak içinde barındırır.

Kavramların sadece kavramlardan oluşan bir ağ dışına işaret edip kendileri dışında birşeye dair olmaları, yani bir nesnelere olmasının formu sentetik yargılardır. Sentetik a priori yargıların analizi bilginin koşullarının analizidir. Diskürsif bir akıl için bilgi yargı yolu ile mümkündür. Bilgi düşünme ve kavramlara ihtiyaç duyar. Ancak sentetik a priori yargının analizi bize gösteriyor ki, en azından a priori bilgi, aynı zamanda bir başka formal yapıyı da içinde barındırır: bir a priori sentez ve bu

sentez ile birlikte düşünülmesi gereken verili bir form. Dolayısıyla bilginin kavram ve görümlere ihtiyacı olduğu, “Giriş Bölümü”nde verilen bilginin formal bir analizi ile belirli bir ölçüde ulaşılan bir ilkedir. Bu verili formal öge tam olarak görü formunun özelliklerini barındırmamaktadır. Zaman ve mekanda olduğu gibi her bir sayı bu her zaman daha büyük sayının içinde veya onun bir parçası değildirler. Ancak, herhalükarda, bu verili formal ögenin düşünülmesi gerekliliği, tam da böyle bir formun incelenmesi gerektiğine işaret eder. “Transandantal Estetik”in amacı da bu zorunlu formun doğasını incelemekten başka birşey değildir.

Bu sonuç sadece a priori bilgi için değil, aynı zamanda empirik bilgi için de geçerli olacaktır.

Kant, Giriş bölümünde, sentetik a posteriori yargılar olduğunu belirttiği deneyim yargılarını betimlerken bu yargıların gereksinim duyduğu kavram dışı şeyin sayma modeli temelinde bir sentez olduğunu ima eder. Bu sentez bir çağrışım olamaz, çünkü sentetik yargı sorunu normatif bir sorun olarak ortaya konur ve bu yargıların ihtiyaç duyduğu birleştirme yargıyı kesinlikle temellendirebilmelidir. Bu sentetik a priori ve a posteriori yargılar için de geçerlidir. Yargı olumsal olsa bile, sentetik yargı mantık-dışı birşey tarafından temellendirilebilmeli, bu temele dayanarak da bu yargı kesinlikle verilebilir olmalıdır. Aksi takdirde yargının bir temeli olduğunu da söylemek mümkün olmayacaktır. Ama çağrışım yargıları veren düşünme yetisinden farklı olarak, hayal gücünün gerçekleştirdiği bir birleştirmedir. Çağrışımın kuralları ile düşünmenin kuralları farklı olabileceğinden çağrışım ile oluşturulmuş bir birleştirmenin doğrudan doğruya düşüncenin iki kavramın sentezini gerçekleştirmesi için yeterli bir temel oluşturabileceğini söylemek mümkün değildir. Duyumların birleştirilmesinin anlama yetisini ve yargıyı bağlayacak bir geçerlilik içermesi gerekir. Belki anlama yetisi çağrışımın kurallarını gerekçe göstererek, bu kurallara uygun bir birleştirmeyi kavramları birleştirmek için kullanabilirdi. Bu durumda anlama yetisinin bu kurallara sahip olması gerekir. Fakat çağrışım anlama yetisinden bağımsız gerçekleşir ve anlama yetisi bu kuralları kendi kaynaklarından çıkaramaz. Aksine hayal gücünün incelemesine gereksinim duyar. Hayal gücü ve çağrışımın kuralları ise doğa bilimleri tarafından ortaya konabilir. Ve bu kuralların kesinlikle çağrışımın kuralları olduğu doğa bilimindeki kesinliğe gereksinim duyar. Fakat burada öncelikle sentetik a priori yargıların da temeli sorulmaktadır, yani doğa

bilimlerinin temelinde yatacak ve ona kesinlik verecek ilkelerin kaynağı sorgulanmaktadır. Doğa bilimlerinin temeli incelenirken, bu temel daha temellendirilmemiş olan doğa bilimleri ile ulaşılan bir temel olamaz.

Kant “Giriş Bölümü”nde sentetik a posteriori yargıların görümlerin sentetik birliğı olan deneyim tarafından temellendiğini söyler. Deneyim sentetik olarak birleştirilmiş parçalarını içeren bir bütündür. Bu deneyimin bir parçasından alınan bir kavram ile bu deneyimin bir başka parçasından alınan bir kavram birbirlerine aittirler, çünkü bu iki kavram aynı bütün içinde yer alırlar. Deneyimin teşkil ettiği bütünün içinde sentez ile bir araya getirilmiş iki parça temelinde bunlara dayanan bir sentetik yargı vermemiz mümkün olur. Bu temelin formu sayma modelindedir ve sentetik yargı vermemiz için gerekli temelin formudur. Sentetik a posteriori yargıyı olumsal kılan ise bu temelde birleştirilen duyuların ne olacağına bu birleştirme edimi tarafından verilmemiş olmasıdır. Birleştirilecek içerik olumsal olduğundan buradan çıkarılacak ve bir araya getirilecek kavramların neler olacağı da olumsaldır. Herhalükarda, Kant’ın “Giriş Bölümü”nde sentetik a posteriori yargılar olan deneyimin yargılarını verilmesini nicelik temeli üzerinde açıkladığı aşıkardır.

Ve işte buradan çıkarabileceğimiz önemli sonuç sentetik a posteriori yargılar olan deneyim yargılarının altında yatan a posteriori sentezin, aritmetik yargıların altında yatan a priori aritmetik sentez modeline göre tasarlandığıdır. A posteriori sentez sayma modelinde bir birleştirme olduğundandır ki a posteriori sentetik yargıların verilmesini mümkün kılar. A priori sentez ile düşünülmesi gereken verili sonsuz çokluk a posteriori sentezin de ufkunda yatar. Bu şekilde a posteriori bilgi için de kavramlar ve görünün (veya en azından verili formal bir ögenin) gerektiğine dair formal bir ilk argüman ortaya konmuş oldu.

Görülüyor ki Kant’ın diskürsiflik ilkesi formal bir ilke olarak formüle edilebilmektedir. Hatta bu temelde diskürsiflik ilkesinin materyal formülasyonuna dair de bir düzeltme yapılması gereklidir. Bu formülasyona göre bilgi nesnenin düşünülmesinin yanı sıra nesnenin verilmesini de gerektirir. Ancak elde ettiğimiz sonuca göre bu koşul sadece düşünme ediminin içeriğı kendisinden veremediğı, içeriğın ona verilmesi gerektiğı düşüncesi değildir. Tersine, nesnenin verilmesinin gerektiğini söylememizin dayanağı, düşüncenin bir nesnesi olmasını sağlayan sentetik yargıların temelinde verili formal bir ögenin varsayılması gerektiğidir.

Dolayısıyla diskürsiflik ilkesinin materyal formülasyonunun da formal bir zeminden kurulduğunu, ve bu ilkenin içerik ile ilgili formal bir önerme olduğunu da göstermiş oluyoruz.

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TEZİN ADI / TITLE OF THE THESIS :

A CRITICAL ANALYSIS OF KANT'S DISCURSIVITY PRINCIPLE

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