

THE SIGNIFICANCE OF TIME IN KANT'S *CRITIQUE OF PURE REASON*

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I hereby declare that the research and the results presented herein are fully based on my own work. The resources consulted and included within this work have been fully cited and referenced in accordance with academic rules and ethical conduct.

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ABSTRACT

THE SIGNIFICANCE OF TIME IN KANT'S *CRITIQUE OF PURE REASON*

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The purpose of this thesis is to give an account of the significance of time in Kant's *Critique of Pure Reason* by discussing its role in the unification of sensibility and understanding. I primarily investigate the role that time plays in the constitution of objective knowledge. I discuss that since time is the necessary condition for objects to be given to our sensibility, without it any representation would be without a temporal order and perhaps would not make any sense at all. Kant claims that it is imagination that enables the connection between sensibility and understanding possible. After investigating the relation between imagination and time, I argue for the following thesis: what lies at the very heart of the possibility of the connection between sensibility and understanding must be time itself. Finally, I focus on the kinship between time and the self. I argue that when it comes to knowledge of the phenomenal world, time together with transcendental self stands as the condition of all human knowledge.

Keywords: Time, transcendental self, schema, imagination, unification.

ÖZ

KANT'IN SAF AKLIN ELEŞTİRİ'SİNDE ZAMANIN ÖNEMİ

Çifteci, Volkan

Yüksek Lisans, Felsefe Bölümü

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Bu tezin amacı Immanuel Kant'ın *Saf Aklın Eleştirisi* adlı yapıtında, zamanın duyarlık ve anlak arasındaki birleşimde oynadığı rolü ele alarak, zamanın önemini vurgulamaktır. Öncelikle, zamanın nesnel bilginin oluşumunda oynadığı rol araştırılmaktadır. Zaman, nesnel duyarlığımıza verili oluşlarının zorunlu koşulu olduğu için, onsuz tüm tasarımların zamansal düzenlenişten yoksun olacağı ve belki de hiç bir anlam ifade etmeyeceği tartışılmaktadır. Kant, duyarlık ve anlak arasındaki bağlantıyı imgelemin sağladığını ileri sürer. İmgelem yetisi ve zaman arasındaki ilişki araştırıldıktan sonra, duyarlık ve anlak arasındaki bağlantının imkanının en derinlerinde yatan şeyin zaman olduğu savı iddia edilmektedir. Son olarak, zaman ile özne arasındaki bağa odaklanılmaktadır. Fenomenal dünyanın bilgisi söz konusu olduğunda, zamanın aşkınsal özne ile birlikte insanın tüm bilgisinin koşulu olduğu savunulmaktadır.

Anahtar Kelimeler: zaman, aşkınsal özne, şema, imgelem yetisi, birleşim.

To My Family,

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CHAPTER I

INTRODUCTION

Throughout the history of human thought time has always been a charming concept for thinkers. It was always held responsible for the good and the bad things that happen. Good things such as birth, development, and growth, and the bad things like decline, corruption and death were thought to be the effects of time. It was thought so, for the reason, as pre-Socratic philosopher Heraclitus states, that “everything is in the state of flux”. Like Heraclitus says everything is subject to time. All beings’ dispositions, characteristics and determinations, namely, their actuality unfold in what we call time. The individual determination of a being finds its possibility in a temporal basis. Thus the manner of unfolding of beings in and through time, or their being temporal, would be incomprehensible as long as time remains as a mystery. Perhaps, it is time itself which renders the change and becoming comprehensible. Yet if time is to uncover the cover over this world of change and becoming, we have to first lift its veil, and release time from its mysterious character.

What is mysterious about time is that although all change and becoming assume time, and wherever we look we see its reign, when it comes to comprehend time fully and define it sufficiently, we face a trouble which is due to its slippery nature and hardly definable character. Nevertheless, time is one of the

notions that constantly attracts the attention of philosophers. It is one of the most prominent theme on which great minds spend quite a long time to reflect. Great thinkers like Plato, Aristotle, Augustine, Leibniz, Newton, Kant, and Einstein have spent their valuable time to understand *time's* true nature. But, we still have not unveiled all its mystery. The more one reflects on time the more it slips away out of the hand. Now, let us recall Augustine's response to the question "what then is time?".

I know what it is if no one asks me what it is; but if I want to explain it to someone who asked me, I find that I do not know. Nevertheless, I can confidently assert that I know this: that if nothing passed away there would be no future time, and if nothing were now there would be no present time. ... Yet if present were always present and did not go by into the past, it would not be time at all, but eternity. If, therefore, the present (if it is to be time at all) only comes into existence but because it is in transition toward the past, how can we say that even the present *is*? For the cause of its being is that it shall cease to be. So that it appears that we cannot truly say that time exists except in the sense that it is tending toward non-existence.¹

Even if we could not find a satisfying definition of time in Augustine, we could, at least, understand through his reflections perfectly that time has a slippery nature and it is extremely difficult to define it in the fullest sense. However, when we refer to Immanuel Kant, it is possible to argue that in the *Critique of Pure Reason* he treats time in an original way. His approach makes time more comprehensible by changing the commonsensical view of time which was accepted before him. He thought that time cannot be inherent in things outside us; it cannot be the property of them. He also rejected the claim that time, as being

¹ Augustine, St., *The Confessions*, trans. Rex Warner. (New York: The New American Library, 1963), pp. 167-68.

independent from the subject (independent in the sense of being transcendently real), is the condition of all objects in the world. Rather, he claimed that time must be inherent in the structure of our minds, that is, it must be a subjective condition of possible experience. If the *Critique of Pure Reason* is read carefully, one can see that Kant attributes a great importance to time by making it a pivotal point. Time is the axis of the first *Critique*.

The main aim of this thesis is to show how the constitution of the objective knowledge is possible and to claim that time as the subjective condition has a significant role in constitution of the objective knowledge. Kant claims that,

(...) there are two stems of human knowledge, namely sensibility and understanding, which spring perhaps from a common, but to us unknown root. Through the former, objects are given to us; through the latter, they are thought.²

According to Kant, sensibility and understanding are two distinct faculties that cannot exchange their function. Nevertheless, he states that without the unification of these two distinct faculties the objective knowledge can never arise. Therefore, Kant must show the possibility of the unification of sensibility and understanding though he claims their irreducibility. In the above quotation, Kant says that they spring perhaps from a common root and, in so doing, he implies that in spite of their distinctiveness, the unification of them is possible. So, this study attempts to clarify how this unification is possible by focusing on what kind of role time plays in their unification.

² Immanuel Kant, *Critique of Pure Reason*, trans. Norman Kemp Smith (New York: St. Martin's Press, 1929), A15/B29, pp. 61-2. References to the *Critique of Pure Reason* are to the standard A and B pagination of the first and the second editions.

I think, in studying a certain concept of any philosopher, to reflect back and to look at the past for trying to understand how this concept was treated before, and in what ways the treatment of this concept had an impact on the following philosopher would make a definite contribution to the study. This is the reason why, in Chapter II, I shall investigate the most popular conceptions of time in pre-Kantian modern period. In this period, there are two main conceptions of time, namely, the absolutist view and the relationalist view. These two rival conceptions of time are championed by Newton and Leibniz respectively and there was a controversy over which one is correct. I will first, explore the absolute and the relational conceptions of time. I shall then point out the influence of these two conceptions of time on Kant's own conception. I discuss whether one may consider Kant as an absolutist or a relationist in regard to time. I shall search for how close Kant's conception of time is to that of Newton. Kant, like Newton, considers time as the principle upon which all objects must depend. Yet, Kant claims that objects are appearances, and not things in themselves. Objects, for Kant, can be known only as they appear to us, but never as they are in themselves, that is, independent from our cognitive powers. Kant shows that time has a reality if objects are considered as appearances, and since all appearances must depend upon time, it has also a quasi-absolute status. I, then, investigate whether Kant's consideration of time as "the form of appearances" makes him a proponent of relational view of time. He explains that for showing what time is, we are

supposed to have an access to appearances. Later, when we take away from appearances what belongs to sensation, we have pure forms or pure relations.³ Therefore, the purpose of this chapter is to explore how heavily Kant was influenced by Newton and Leibniz with regard to the issue of time. Moreover, I shall try to find an answer to the following question: although Newtonian and Leibnizian understanding of time did have an impact on Kant, could Kant's theory of time, still, be counted as a genuine one, or in other words, could we claim that it stands on its own feet.

In chapter III, I start with presenting the elaboration of "Kant's Copernican revolution" by showing its centrality in Kant's transcendental philosophy. Then, I explore the role of time in "Transcendental Aesthetic". Here, Kant takes time as "the form of sensibility", and as a "pure intuition"; in this regard he argues that time is transcendently ideal, and empirically real. All these characteristics are attributed to time, and each of them is required for establishing the objective knowledge of experience. Moreover I shall investigate that whether the claim that "time is the formal *a priori* condition of all appearances whatsoever"⁴ shows time's centrality in the "Transcendental Aesthetic". I shall later focus on the "Transcendental Logic" to explore the role of time in the unification of sensibility and understanding. It is noteworthy that there are two versions of "Transcendental Deduction" which were written by Kant. I choose to emphasize on A Edition

³ Ibid, A20/B35, p. 66.

⁴ Ibid, A34/B50, p. 77.

Deduction for the reason that, I think, Kant focuses on the significance of time in this Deduction. In the triune synthesis, Kant shows that the possibility of the empirical synthesis of appearances depends on the synthesis of time. Moreover, for recognition of an object, the unity of time is required. I discuss that time is synthesized by imagination because without the synthesis of time, imagination cannot function at all. For functioning properly imagination must constantly synthesize time. I shall, then, try to understand what kind of relation there is between imagination and time; and whether they can be thought apart. In the “Schematism” Kant justifies the unity of sensibility and understanding by means of transcendental time determinations (schemata). I think that the “Schematism” is the most important chapter in the *Critique of Pure Reason* since the unity of sensibility and understanding, which is the requisite for objective knowledge, is elucidated here. When we take away from appearances what belongs to sensation we have pure manifold of time. This pure manifold is transcendently determined by transcendental imagination. Transcendental time determinations are called schemata because they produce a universal procedure for pure concepts to relate their objects. So, I shall investigate whether the transcendently determined time can be the bridge between sensibility and understanding. I shall try to understand how a sensible condition can be the possibility of categories’ (pure forms of understanding) relation to the objects of experience. I shall also raise the question whether or not the separate treatments of time in “Transcendental Aesthetic” and in “Transcendental Analytic” are compatible?

In chapter IV, I shall explore the relation between time and the self. Time is the transcendental basis for the connection of representations. Therefore, I investigate whether time can be taken as “glue”⁵ for connecting the dispersed representations. As far as we consider the synthesis of representations as an empirical consciousness, time is the condition of empirical consciousness. Empirical consciousness must relate to transcendental consciousness. After showing that schemata do constitute the bridge between appearances and categories, I shall be able to be in position to claim that time must be the link between empirical and the transcendental consciousness. Later, I shall focus on the close relation between time and the self. Moreover, in this chapter, I shall argue for the special status of time. To illustrate, as “the form of appearances” time is “homogeneous with appearance”⁶, and on the other hand, as a schema time is “homogeneous with the category”⁷. I think time’s homogeneity with categories implies its close relation to transcendental subject. What I would like finally to answer is that whether the close connection of time and self, which I shall try to reveal in this chapter, is sufficient to claim that they must be the complementary parts of each other, and furthermore, whether it is sufficient to declare that they are companions.

⁵ I borrow this term from Doug Mann. See, Doug Mann, “Kant's Theory of Time and the Unity of the Self”, *South African Journal of Philosophy*, vol. 15, Issue 2, (May, 1996), p. 53.

⁶ Ibid, A139/B178, p. 181.

⁷ Ibid, A138/B177, p. 181.

CHAPTER II

PRE-KANTIAN MODERN CONCEPTIONS OF TIME

This chapter serves as an elaboration of realistic (absolute) and relational (relative) conception of time. Given that these two understanding of time are attributed to Newton and Leibniz respectively, the main aim is to clarify what Newton and Leibniz think about time. I am going to limit the discussion of time in the pre-Kantian modern period to the theories of these two highly valuable thinkers whose approaches of time shaped that of Kant. In this regard, I shall make no claims of comprehensiveness and I will not provide a complete study with respect to time concerning this period.

Before Kant, there was a lively and an ongoing discussion between Newton (through his spokesman Samuel Clarke) and Leibniz with respect to the nature of space and time, motion, attributes of God, action at a distance, whether there is void in the world or not, etc. In the collection of papers which is known as *The Leibniz-Clarke Correspondence*⁸ the discussion concerning the nature of time becomes apparent. Kant's conception of space and time in the "Transcendental Aesthetic" seems to be heavily influenced by his predecessors Leibniz and

⁸ In the introduction of *The Correspondence* Alexander states that, actually, before *The Correspondance* there was a very important controversy between Newton and Leibniz concerning whether Leibniz or Newton was the first to invent the calculus. Most probably, this contention led to the correspondance between Leibniz and (through Clarke) Newton. See Henry. G. Alexander, ed., *The Leibniz-Clarke Correspondence*, (Manchester: Manchester University Press, 1956), p. ix.

Newton. In this regard, it serves our purpose to focus on these two predecessors of Kant in regard to their conception of time.

It is noteworthy that although their understanding of time differs in many respects they both were rejecting the view asserted by all schools of British empiricism and sensationalism.⁹ Newton, on the one hand, considers time and space as absolute entities, and thus, he thinks they must be “beyond the reach of immediate sense experience”¹⁰. Leibniz, on the other hand, thinks that time and space are “pure intellectual forms which involve a constructive power of the human mind”¹¹. They were completely sharing the idea that in defining and describing space and time sense perception is insufficient and not trustworthy.¹² However, it would be more reasonable if we set aside this negative argument and turn our attention to the positive approaches concerning the understanding of time.

2.1 Absolute and Relational Time

With respect to the answers given to the question what *time* is, there seems to be two significant points of view we should distinguish. One of them is Sir Isaac Newton’s absolute or substantial theory of time and the other is Gottfried Wilhelm Leibniz’s relational theory of time. These two rival conceptions of time

⁹ Ernst Cassirer, “Newton and Leibniz”, *The Philosophical Review*, vol. 52, No. 4 (Jul., 1943), p. 386.

¹⁰ *Ibid*, p. 387.

¹¹ *Ibid*, p. 387.

¹² *Ibid*, pp. 386-87.

were dominating ones in the pre-Kantian modern period and the main discussion was about which one was correct. Because the purpose of this chapter is to elaborate the Newton's and Leibniz's conceptions of time, it would be plausible to give the definition of absolute and relational theory of time. Absolutist theory is the view that holds "time is independent of the concrete motions and changes which take place in it; in other words, even if there were no changes, time would continue to flow."¹³ The proponents of this theory of time clearly believe that time is totally different from the events and their change. It cannot be reduced to the succession of events or it cannot be derived from them. Accordingly, time may be considered as a container which encompasses every event within. To put it differently, absolute time is taken to be a foundation or a ground of all events which take place in it.

Relational theory of time, in opposition to the absolutist view, is the view which states that "time does not exist by itself, independent of concrete physical changes, motions or events".¹⁴ So, any model according to which time cannot be thought completely separate from the succession of events can be considered as relational.¹⁵ This view does not accept the independence of time from things and temporal succession, and it asserts that time can be derived from this succession of events, thus it is reducible to temporal succession. Therefore if there was no

¹³ Milic Capec, "The Conflict Between Absolutist and the Relational Theory of Time Before Newton", *Journal of the History of Ideas*, vol. 48, No. 4 (Oct. - Dec., 1987), pp. 595-608

¹⁴ Ibid, p. 595

¹⁵ Ibid, p. 596

succession there would be no time at all, that is, it would be wrong to claim that even if we think that the universe is empty there would be time that flows without any change.

As regards to our theme, i.e., time, we can delineate two modes of approach through which we can contemplate its nature. The first approach is an attempt to understand the nature of time in and through its ontological status. And the second one is an attempt to inquire how we can have knowledge of time, that is, by questioning its epistemological status.¹⁶ It seems that Newton deals with the problem of time mostly from the ontological point of view. However, when we look at Leibniz we see that he tackles the problem partly from the epistemological view. At least, to a certain extent, he tries to give an account of how we can possess the knowledge of time. Nevertheless, both Newton and Leibniz primarily try to answer what the time is rather than how we can obtain the knowledge of it. Unlike Newton and Leibniz, Kant's primary interest cannot be limited to epistemological or ontological investigation of time. Kant's understanding of time is too complicated which, in turn, makes him to treat it from a wider point of view. In constructing his theory of time, especially in "metaphysical exposition of time" Kant deals with time from the ontological point of view by attempting to show its origin. However, in "transcendental exposition of time" his main interest is to justify why time, as a condition, logically precedes, all sense impressions. In the "Transcendental Logic", he deals with a totally different problem. In this part,

¹⁶ Henry. G. Alexander, p. xxxii

Kant tries to show that as the condition of the unity of experience, it must be showed that time can be thought in accordance with a rule, that is, its unity can be established. Furthermore, in analyzing these two models of time, he troubles himself in giving an answer to whether the time is a transcendental entity which is beyond the scope of our cognitive faculties like absolutists claim, or whether it is inherent in the objects (phenomena) and succession of them, thus, can be derived from them like relational view holds, or whether it is something different from both models.¹⁷

2.2 Newton's Conception of Time

According to the absolute theory of time championed by Newton, time is independent from the objects and events in the world of experience. In this view, a special characteristic is attributed to time. It is not difficult to see what is implied in this view is that time which has an independent existence has a priority over the objects of the experiential world, that is, its existence is taken to precede all successive events. To put it in another way, it functions as a kind of condition that makes the succession of events possible. Under these circumstances, while time stands as a condition, the objects of experience stand as what are conditioned by this condition. One should notice that two different kinds of existence are distinguished from one another here. There is an independent time on the one hand, and the objects of experience which are dependent upon it on the other. In

¹⁷ Immanuel Kant, *Critique of Pure Reason*, A39/B56-A40/B57, pp, 80-81.

Newton's absolutist or substantial model, time must be considered as a *sine qua non* condition. Newton states;

Absolute, true, and mathematical time, of itself, and from its own nature, flows equably without relation to anything external, and by another name is called duration: relative, apparent, and common time, is some sensible and external (whether accurate or unequable) measure of duration by the means of motion, which is commonly used instead of true time; such as an hour, a day, a month, a year.¹⁸

Here, Newton distinguishes the absolute and relative time, and he holds that absolute time flows in a uniform manner without any relation to any sensible objects. The absolute time is something which has reality independent from anything external to it, i.e., it is a separate thing in itself requiring no support whatsoever to keep its uniform flow. Actually, Newton distinguished absolute time from relative time, because he realized that "natural solar day is unsatisfactory as a standard of time".¹⁹ He claimed this just because he knew that "solar day varies in length at different season of the year as the earth traverses different parts of its elliptical orbit".²⁰ In what follows it is elaborated;

Absolute time, in astronomy, is distinguished from relative, by the equation or correction of the vulgar time. For natural days are truly unequal, though they are commonly considered as equal and used for a measure of time: astronomers correct this inequality for their more accurate deducing of the celestial motions. It may be, that there is no such thing as an equable motion, whereby time may be accurately measured. All motions may be accelerated and retarded, but the flowing of absolute time is liable to no change. The duration or perseverance of the existence of things remains the same, whether the motions are swift or slow, or none at all: and therefore this

¹⁸ Ibid, p. 152

¹⁹ Henry. G. Alexander, p. xxxv

²⁰ Ibid, p. Xxxv

duration ought to be distinguished from what are only sensible measures thereof; and from which we deduce it, by means of the astronomical equation. The necessity of this equation, for determining the times of a phenomenon, is evinced as well from the experiments of the pendulum clock, as by eclipses of the satellites of Jupiter.²¹

This passage is highly important in order to understand why Newton thinks that the time has to be absolute. He realizes that the length of the solar day is not the same and it differs from one another in the different season of the year. For example, just think that we constructed a precisely working pendulum clock, and if we compare the swing of this pendulum clock with the rotation of the sun we will see that they do not move along in a perfect harmony, that is to say we cannot see a hundred percent correspondence between them.²² We can say that this discovery made Newton think that if the motions of the heavenly bodies are not uniform, then there must be some other frame of reference on which we can depend while we are measuring something. He was looking for a fixed reference point according to which all measurements can be done precisely. For his mechanistic understanding of the universe it was a requirement.

In my opinion, to inquire into what Newton thinks about the creation of the world would be very useful to fully expose his conception of time. To begin with, there is no doubt that Newton, just like Leibniz, believes that the world is a

²¹ Ibid., p. 154

²² Stephen Toulmin, "Criticism in the History of Science: Newton on Absolute Space, Time, and Motion, I", *The Philosophical Review*, Vol. 68, No. 1 (Jan., 1959), pp. 1-29.

creation of God.²³ Nevertheless, it is quite clear that they have different ideas concerning the creation of time. Right here, we should ask whether Newton believed that the time was created at the same time with the universe, or whether he believed it was created before or after it. Thinking logically, we should say that Newton should not have thought that time was created at the same time with the creation of the universe. He should not have believed that there was no time before the creation. As it is mentioned earlier, time, for Newton, is an absolute and it is independent from all objects in the universe. He states;

For times and spaces are, as it were, the places as well of themselves as of all other things. *All things are placed in time* as to order of succession; and in space as to order of situation. It is from their essence or nature *that they are places*; and that the primary places of things should be movable, is absurd. These are therefore *the absolute places*; and translations out of those places, are the only absolute motions.²⁴

Now if we claim that he thinks the universe to be created before time it would be absurd. It would make no sense because if the universe was created before time, all objects and the motion would not be in accordance with the absolute time. He says that, “all things are placed in time”, and the space and the time are absolute places. We can add to these assertions that if anything is to be placed, there must be a place prior to this thing to be placed. Therefore, time, just like space, as a container or an “absolute place” has to be prior to the things which are to be placed. In the final analysis, it appears that Newton might have thought

²³ The discussion of “the God’s intervention in the universe” spreads all over *the Correspondance*, in each paper it is discussed more or less. They both agree that the universe is created by God, the thing that they do not agree is whether god intervenes in the course of the universe or not.

²⁴ Henry. G. Alexander, pp. 154-155, (emphasis mine)

that space and time were created before the universe and then all bodies were placed in these absolute containers. Although, temporal priority could be objected, it is indisputable fact that for Newton time has an absolute logical priority over succession of events.

2.3 Leibniz's Conception of Time

Philosophically speaking, it would not be an overstatement to say that Leibniz, as a contemporary of Newton, was his greatest "enemy". In *The Correspondence* there are many topics that Leibniz does not agree with Newton and keeps trying to refute. And not surprisingly, the conception of time is one of these topics. Concerning time, in opposition to Newton, Leibniz does not accept the absolute theory of time; he is the most important proponent of the relational theory.

As we mentioned earlier, according to Newton time and space are real, distinct, indiscernible entities. In this model, they are taken to be substances, Leibniz claims. However, he rejects this understanding and states that they are "ideal things" not real substances. "Leibniz declared time to be something merely relative. It is, according to him, nothing other than the order of succession of the things."²⁵ Thus, Brentano states that, according to this assertion we can never think

²⁵ Franz Brentano, *Philosophical Investigations on Space, Time and the Continuum*, trans. Barry Smith, (New York: Routledge, 1988), p. 113.

this succession without having the multiplicity of succeeding parts. If time is this order of succession of things then this makes time to be dependent upon this succession, and finally to the succeeding things.²⁶ It is not difficult to see that, thus, Leibniz does not share the same view with the absolutists who asserts that time precedes all successive events and motions. According to him, time does not precede events, quite contrary, the conception of time is acquired from successive events. It is elaborated in what follows;

If there were no phenomena succeeding one another, there would be no time, time being, in Leibniz's view, nothing more than the order of succession among events. It is not: time makes change possible—as if time could be antecedent to change, a feature of the universe that rendered it fit for the occurrence of events. Rather, time supervenes upon, indeed is created by, change.²⁷

Accepting this view, Leibniz opposes Newton's claim that if there were no succession of events or motion there would still be time that follows with no relation to anything. He finds this proposition groundless, since if there are no objects and succession of events, then it would not be possible to talk about such a thing as time. Clearly, he thinks that time and the succession of events could not be distinguished in reality. Therefore, to talk about independent and absolute time is meaningless.

When we look at Leibniz's idea about the creation of the universe, we see that he does not agree with Newton on that issue too. It is at least clear that he could not claim that the time was created before the universe. To be honest, he

²⁶ Ibid, p. 113.

²⁷ Bede Rundle, *Time, Space and Metaphysics*, (Oxford: Oxford University Press, 2009), p. 4.

could not claim that time was created at the same time with the universe since he does not think that time is a separate entity that god created just like he created the other things. He simply thinks that time is derived from succession of events in the world. One can easily conclude that if anyone claims that time is nothing other than order of the succession of events then time could never be considered as independent from the objects and events in the world. Thus, he arrives to the conclusion that time is not an absolute, substantial entity that should be thought as independent from the world; rather it is a relational property that could only be derived from the relation among events in the world. Time is an “order of succession”. Still, if time has to be created, it has to be created at the same time with the universe since it is inherent in things. Therefore, any temporal or logical priority could not be attributed to time. Apart from these, Leibniz, in *The Correspondence*, introduces some counter-arguments in order to show that Newton’s conception of time is untenable and could not be justified. The most popular one is the counter-argument which depends upon the principle of sufficient reason. This principle states that “there must be a sufficient reason why everything is as it is and not otherwise. Leibniz in his third paper accuses the Newtonians of not understanding this principle.”²⁸ His argument is as follows;

Supposing any one should ask, why God did not create everything a year sooner; and the same person should infer from thence, that God has done something, concerning which 'tis not possible there should be a reason, why he did it so, and not otherwise: the answer is, that his inference would be right, if time was anything distinct from things existing in time. For it would be impossible there should be any reason, why things should be applied to

²⁸ Henry. G. Alexander, p. Xiii.

such particular instants, rather than to others, their succession continuing the same. But then the same argument proves, that instants, consider'd without the things, are nothing at all; and that they consist only in the successive order of things: which order remaining the same, one of the two states, viz. that of a supposed anticipation, would not at all differ, nor could be discerned from, the other which now is.²⁹

Leibniz says that if time is taken to be an absolute and independent existence, according to the principle of sufficient reason, one has to answer what is the reason for creating everything before or after. Leibniz replies that there should be no sufficient reason to be given, that is, there could not be any reason for things to be created before or after.

The other counter-argument is the one which depends on the proposition that there is no empty space and time or vacuum in the world. The idea of empty space is held by the Newton since for matters to be placed there must be void in the space, and for events there must be empty time. However, Leibniz does not accept that there is void in the universe, he rather, claims that God filled the universe with as much things as he could possibly do. Accordingly, there must be infinite number of beings in the universe. At first glance, his insistence on this claim may sound strange but, to be honest, his justification is rationally quite acceptable for anyone accepting the existing and omnipotence of God. He maintains this argument because he believes that “the more matter there is, the more God has occasion to exercise his wisdom and power”.³⁰ If there are limited beings in the universe, then God would have less chance to show how powerful he

²⁹ Ibid, pp. 26-27.

³⁰ Ibid, p. 16.

is which means, according to Leibniz, God is imperfect. For him, if we accept God to be all-powerful and all-knowing, there must be unlimited beings on which God can exercise his unlimited power. By this reasoning, he is led to the view that there must be everlasting continuum between events, that is to say, events are succeeding each other without leaving any empty time in between. To attack Newton's absolutist understanding of time and space these two above mentioned arguments were the ones which Leibniz mostly used.

So far, we have seen that Newton's and Leibniz's conceptions of time are two rival conceptions. While Newton thinks that time is absolute i.e., it is a real and distinct entity which exists independent of anything, Leibniz maintains that time is only ideal and not a real substance. For him, time is "the order of successions of events". Although, Leibniz claims that time is derived from the relation between events, he does not ignore the important role that reason plays in this derivation. Time and space "are pure intellectual forms which involve constructive power of the human mind".³¹

Time is not at all to be found in the realm of the actual world. Rather, our reason is led, in view of the greater or lesser approximation to full regularity, to form the idea of a completely regular succession which then serves as standard of measurement for all actual successions. And this standard is time. Time is therefore an ideal of completely regular succession manifesting itself to us in this finished form neither to the outer nor to the inner sense. It is rather a creation of our minds.³²

³¹ Ernst Cassirer, p. 387.

³² Franz Brentano, p. 40.

Endorsing Brentano's interpretation Leibniz's conception of time would enable us to come closer to that of Kant's. According to Brentano, Leibniz's time is our mind's demand of regularity among bodies in the actual world. And this regular succession seems to me not to be derived only from this actual world, rather it might be the result of the co-operation of the actual world and the mind.³³ On the one hand, time cannot be thought apart from actual things, and on the other hand, reason's demand of regularity leads to the conception of time. Therefore, in the constitution of time Leibniz notices the role of the reason. Although, he emphasizes reason's partial role, Leibniz's contribution to Kant's conception of time as a subjective condition seems undeniable.

2.4 Towards Kant's Conception of Time

As is pointed out earlier, it seems impossible to neglect that Kant was heavily influenced by Newton's and Leibniz's conception of time, though he directs severe criticisms to them. Their theories of time were models which Kant made use of while he was constructing his own theory. At first, Kant was one of the proponents of relational theory of time. He believed that the space and time cannot be used "in an absolute sense but only relatively", but later he abandoned it

³³ Although, it seems to be similar to Kant's conception of time, there are enormous differences between them. One is that Kant never attempts to derive time from experience. And the other is that, for Kant time has a subjective origin. Still, I think that inspite of these enormous differences, Leibniz's contention (that mind's demand of regularity leads to the conception of time) might very well contributed to Kant's conception of time.

and adopted an absolutist theory.³⁴ In spite of the fact that Kant was influenced by Newton and Leibniz with respect to the construction of his own theory of time and that there are some parts he agrees with both of them, his theory is genuine and stands on its own feet. Still, in Kant's theory we can find absolute and relational features.

Using Kant's terminology, we can say that in Newtonian account time is transcendentally real. Therefore, its knowledge has to be gained through objects independent of cognizing subject, thus it is not *a priori*— a mode of knowledge which requires necessity and strict universality. And since Leibniz's conception of time is derived from appearances and thus it is inherent in them, in the same way, this knowledge is also not *a priori*; rather, it is *a posteriori*— a mode of knowledge which depends on experience. Kant argues against these two conceptions as follows;

Those, on the other hand, who maintain the absolute reality of space and time, whether as subsistent or inherent, must come into conflict with the principle of experience itself. For if they decide for the former alternative..., they have to admit two eternal and infinite self-subsistent non-entities... if they adopt the latter alternative ... and regard space and time as relations of appearances, alongside or in succession to one another...they are obliged to deny that *a priori* mathematical doctrines have any validity in respect of real things...³⁵

The former alternative is clearly Newtonian account of time and Kant rejects the transcendental reality of time which was held by Newtonians. However, it must be noted that he does not reject the reality of time at all. For Kant, "time is

³⁴ Henry. G. Alexander, p. x1vi.

³⁵ Immanuel Kant, *Critique of Pure Reason*, A39-40/B56-7, pp. 80-1.

something real, namely, the real form of inner intuition”.³⁶ Kant only refuses the transcendental reality of time, for him time is real in an empirical sense, that is, time is real with regard to the objects of experiences but not with regard to the objects in transcendental sense. It is also claimed that “time is an *a priori* condition of all appearances whatsoever”.³⁷ Here we can see that time’s reality and its being, in a sense, absolute with regard to the objects of experience (phenomena) are kept by Kant. This shows that despite the fact that he rejects the transcendental reality of time, Kant, to a certain extent, agrees with Newton that time must be real and quasi-absolute³⁸ condition on which all appearances depend or in which all appearances stand.

The latter alternative is Leibniz’s relational conception of time. If one holds that time is derived from appearances then one accepts that it is *a posteriori*, that is, it is not necessary and apodeictic but empirical and contingent. We should realize that Kant believes that mathematical propositions are synthetic *a priori* judgments. Therefore, they have to be necessary and apodeictic rather than being contingent. In this sense, if we hold relational theory of time our mathematical knowledge loses its *a priori* character and turns into an *a posteriori* form. In Leibnizian view, as Kant would argue, because time is taken to be ideal and to be

³⁶ Ibid, A37, p. 79.

³⁷ Ibid, A34/B50, p. 77.

³⁸ I use this term to indicate that for Kant time is relatively absolute. Objects are appearances for Kant, and time is not an appearance; it has a different kind of existence from appearances. Time is real condition of all objects as far as objects are considered as appearances.

acquired *a posteriori*, it would be lacking the ability to explain how mathematics (pure concepts of mathematics) can be applied to the world of experience.³⁹

Kant does not accept Newtonian or Leibnizian account as it is. He considers it to be necessary to make certain modifications on them. Following Newton he adopts the view that time has to be a real condition of all our *a priori* knowledge. But on the other hand, he flatly rejects its transcendental reality. Following Leibniz, it is clear that, Kant adopts that time is the order or form of successions of events.⁴⁰ Nevertheless, he does not agree with him as to the claim that it is derived from the relation among objects of experience; on the contrary, time is taken to be the subjective condition inherent in mind. I should admit that Kant's attempt to preserve time's relational (formal) character without damaging its status as *a priori* is, even though being highly sophisticated and admirable, is still open to criticism.⁴¹

2.5 Hume's Contribution

Lastly, in addition to Newton and Leibniz, Hume's contribution to Kant's construction of his own theory should not be overlooked. I think, Kant owes too

³⁹ To be able to show the application of time (and space) to the objects of the empirical world is one of Kant's main aim with respect to time. I shall later explain how Kant establishes the reality of empirical world by holding that time is transcendently ideal but empirically real.

⁴⁰ In "Transcendental Aesthetic" time is considered to be "form of intuition", "form of sensibility" and "form of appearances" (A20-2, B34-6), whether these are equivalent or have different meaning will be investigated in the following chapter.

⁴¹ How Kant keeps time to be *a priori* although he claims that it is what remains after we "take away from the representation of a body... what belongs to sensation" will be treated in the next chapter when "time as a pure intuition" is explained.

much to Hume not only with respect to his theory of time but also in regard to the constitution of his transcendental philosophy as a whole. Hume argues that necessary connection between cause and effect cannot be derived from experience; rather, “necessity is something, that exists in the mind, not in the objects”.⁴² If necessary connection between cause and effect cannot be derived from experience then the necessary succession among events (causality) cannot be derived as well. For example, my throwing of a stone up to the air and its falling on to the ground always happens in succession. As a result, Hume claims, my mind constantly passes from one event to another and finally it is accustomed to the connection between these two events.⁴³ Consequently, Hume attributes the idea of causality to the mind.⁴⁴ When we analyze Kant’s conception of time which gains its meaning in the Copernican Revolution, we can reveal the notable effects of Newton, Leibniz and Hume. In the journey of Kant’s reasoning concerning time which ends with the conclusion that time is a subjective but also a real condition of all appearances, David Hume, (together with Newton and Leibniz) is the philosopher who brought the contribution regarding the claim that causality cannot be derived from experience. This idea of Hume cleared the way for Kant to see that the conditions of appearances, namely space and time and the categories (like causality) are not derived from experience but they are inherent in the subject.

⁴² David Hume, *A Treatise of Human Nature*, (Oxford: Oxford University Press, 1978) p. 165

⁴³ *Ibid*, pp. 165-6.

⁴⁴ Although Hume attributes the causality to the mind, he thinks it to be resulted from a custom. However, this kind of necessity would be only a subjective necessity for Kant. He, rather looks for an objective necessity.

Thanks to Hume, Kant realized that categories cannot be derived from experience; on the other hand, in studying Newton and Leibniz's conception of time Kant saw that time could neither be subsistent nor inherent in the objects. As a result, he must have started to see the subject as the centre of the cognitive world. Therefore, he might have thought that our minds do not have to conform to objects, but objects must conform to our minds.⁴⁵ In the end, I think, it would not at all be improper to claim that these three aforementioned thinkers (especially Hume, I suggest) have a remarkable influence on Kant not only in regard to time but also with respect to Kant's Copernican Revolution in which one can find the whole articulation of his transcendental philosophy.

⁴⁵ Immanuel Kant, *Critique of Pure Reason*, Bxvi, p. 22.

CHAPTER III

**THE ROLE OF TIME IN THE UNIFICATION OF SENSIBILITY AND
UNDERSTANDING**

The main purpose of the present chapter is to investigate the role that time plays both in the sensibility and the understanding and in their unification. Therefore, the “Transcendental Aesthetic” and “Logic” shall be investigated respectively. *Critique of Pure Reason* attempts to show how objective knowledge is possible. Kant in this great work searches for this possibility in detail. According to him, objective, necessary and universal knowledge which is the subject matter of the first *Critique*, including mathematical knowledge, must be synthetic *a priori*. Therefore, the main question Kant attempts to answer in the first *Critique* is: “how are *a priori* synthetic judgments possible?”⁴⁶

Because my main purpose is to investigate the role of time in the constitution of knowledge, the synthetic *a priori* judgments are essential for this thesis. These kinds of judgments are essential since objective knowledge of experience consists of synthetic *a priori* judgments. To begin with, Kant distinguishes two main faculty of human mind namely, the sensibility and the understanding. These two distinct faculties function separately. And, according to Kant knowledge arises only through their co-operation or unification. Kant makes

⁴⁶ Ibid, B19, p. 55.

it quite clear that the first step of what we can know must be experience itself, that is to say, every kind of knowledge begins with experience. Here, what he wants to emphasize is that our sensibility must be affected, that is, there must be something given to our sensibility to initiate the constitution of knowledge. Notice that, from this, one should not derive that all our knowledge is acquired from what is given to our sensibility.⁴⁷ In spite of that “all our knowledge begins with experience”, for knowledge to arise in the full sense the contribution of the understanding is required. Therefore, we can talk about knowledge only through the co-operation of the sensibility and the understanding. As is earlier mentioned, knowledge begins with experience but experience can only tell us what is happening in the sensible world, it can never tell us that there is a necessity between appearances. Nor we can acquire from experience universality or objectivity which are characteristics of synthetic *a priori* judgments. Kant distinguishes two types of judgment. The first one is *a priori* or pure knowledge and this kind of knowledge has necessity and universality independently of experience. The second type, on the other hand, is called *a posteriori* or empirical knowledge since it is derived solely from experience.⁴⁸ In the model Kant provides us, these two types of knowledge are indispensable. We need *a posteriori* knowledge since our mind cannot produce sense impressions. Rather, we can only have this kind of knowledge as far as our sensibility is influenced by what is given. For this affection to be possible there must be *a priori* elements of the sensibility. Space and time, as *a priori* and

⁴⁷ Ibid, B1, p. 41.

⁴⁸ Ibid, A2, p. 42.

transcendental elements of knowledge, are the conditions of our sensibility's being affected. To put it differently, everything which is given to our sensibility must be given in space and time. These pure forms of knowledge are the indispensable elements of synthetic *a priori* modes of knowledge.

Because Kant investigates the possibility of synthetic *a priori* judgments which constitute the very heart of *the Critique*, he, at first, distinguishes this type of judgment from analytical judgment. For him there are two types of judgment as far as the relation of a subject to the predicate is considered. "Either the predicate B belongs to the subject A, as something which is (covertly) contained in this concept A; or B lies outside the concept A, although it does indeed stand in connection with it."⁴⁹ While Kant calls the judgment in former case analytic, judgments in accordance with the latter formulation is called synthetic. Analytic judgments are explicative; a predicate which is thought in the concept of subject is added to it. These kinds of judgments do not increase our knowledge. However, synthetic judgments are ampliative for Kant, through these judgments our knowledge is extended since a predicate which is not included in the subject is added to the concept of it. As an example to analytic judgment Kant gives "all bodies are extended", to him the extension is already thought in the concept of body, thus, there is no need to go beyond the concept. But, in the judgment "all bodies are heavy", the predicate in no way is thought in the concept of a body. This predicate of being heavy is added to the concept, and this makes the judgment

⁴⁹ Ibid, B10, p.48.

synthetic.⁵⁰ And Kant concentrates on these synthetic judgments in the constitution of knowledge

According to Kant, “synthetic *a priori* judgments are thus possible when we relate the formal conditions of *a priori* intuition, the synthesis of imagination and the necessary unity of this synthesis in a transcendental apperception, to a possible empirical knowledge in general.”⁵¹ Pure intuitions (space and time), categories, the relation of categories to pure intuitions and their unity in transcendental apperception are required for synthetic *a priori* judgment. At first, it must be noted that Kant, in synthetic *a priori* judgments, demands *a priori* intuitions, not empirical ones. Empirical intuition is eliminated because it is the representation of a particular object which is in space and time. And as a particular representation it cannot supply necessity and universality which is indispensable for synthetic *a priori* judgments.⁵² And after this, what is required is to relate pure concepts or categories to *a priori* intuitions through imagination. In this way, the judgment becomes *a priori* for the reason that there is no empirical element involved. It also becomes synthetic judgment since the relation of pure concepts to pure intuitions is achieved. To sum up, in synthetic *a priori* judgments intuitive and conceptual elements are brought together.⁵³ The questions of how these

⁵⁰ Ibid, A7/B10-11, p.48.

⁵¹ Ibid, A158/B197, p.194.

⁵² Henry E. Allison, , *Kant's Transcendental Idealism* (New Haven and London: Yale University Press, 1983), p. 80.

⁵³ Howard Caygill, *A Kant Dictionary*, (Oxford and Massachusetts: Blackwell Publishers, 1995), p. 385.

heterogeneous elements are brought together and what kind of role time plays in the unification of these intuitive and conceptual elements shall be elaborated later.

3.1 Kant's Copernican Revolution

Kant's transcendental philosophy finds its full meaning and articulation in Kant's Copernican Revolution⁵⁴. In the history of philosophy this revolution is considered as a novelty since it not only determines what and how we know but it also changes our way of understanding the subject-object relationship radically. According to Kant, so far philosophers have attributed the source of universal necessity to the objects that lie outside of the subject. They thought necessity to be possessed by objects independent of human reason.⁵⁵ Unfortunately, this kind of knowledge is empirical, however, for Kant if it is to be an objective knowledge it must be *a priori*. Then, we must stop searching for the source of necessity in nature; it is, conversely, found in our mind *a priori* and put into nature by us, that is to say, it is prior to objects of nature. With respect to what and how we can know Kant, in a sense, makes human subject a fixed reference point. To put it simply, what is considered as Kant's Copernican Revolution is, as Paton remarks, to make the "human mind the centre of the phenomenal universe, so that things

⁵⁴ Kant's Copernican Revolution has such an effect in the history of philosophy that is similar to the effect that Copernicus has (by changing "the human perception of the movement of heavenly bodies from the assumption that they all revolve around the observer to the assumption that the observer is somehow moving while the stars are at rest") in Astronomy. See, J. Everet Green, *Kant's Copernican Revolution*, (Maryland and Oxford: University Press of America, 1997), p. 1.

⁵⁵ *Ibid*, p. 3.

must conform to our mind, rather than our mind to things.”⁵⁶ In *Critique of Pure Reason* this revolution is described by Kant himself as follows;

Hitherto it has been assumed that all our knowledge must conform to objects. But all attempts to extend our knowledge of objects by establishing something in regard to them *a priori*, by means of concepts, have, on this assumption, ended in failure. We must therefore make trial whether we may not have more success in the tasks of metaphysics, if we suppose that objects must conform to our knowledge.⁵⁷

According to Allison, what Kant tries to do here is to criticize the “standpoints” of transcendental realism and to introduce his new standpoint which is characterized as transcendental idealism. He also states that the claim that “all our knowledge must conform to objects” can be thought of as the view defended by transcendental realism. Kant’s revolutionary assumption, on the other hand, that “objects must conform to our knowledge” presents the most important principle of transcendental idealism.⁵⁸ Kant’s “shift of focus” is due to his main purpose which is to give an account of the possibility of *a priori* knowledge of objects. In this regard, endorsing transcendental realism gives rise to a certain problem for Kant. The assumption that “all our knowledge must conform to objects”, Kant argues, means that we have a capability of being in direct relationship with the objects and we are also capable of having knowledge of objects as they are. Therefore, Allison concludes, it would not be inaccurate to say that the objects in question here “must be characterized as things in themselves in

⁵⁶ Herbert J. Paton, *Kant’s Metaphysics of Experience*, Volume I (London: Routledge, 1936), p. 75.

⁵⁷ Immanuel Kant, *Critique of Pure Reason*, Bxvi, p. 22.

⁵⁸ Henry E. Allison, p. 29

the transcendental sense.”⁵⁹ If the assumption of transcendental realism is taken to be true, it can be said that all knowledge of objects we have is *a posteriori* or empirical. However, as is indicated earlier, *a posteriori* knowledge, in spite of providing us with knowledge to a certain extent, could not give us necessity and universality which are indispensable for the account of objective knowledge of objects. Thus, this standpoint is problematic for Kant’s purpose. At this point, it is noteworthy that what made Kant realize the fact that it is not possible for *a posteriori* knowledge to provide us with necessity and universality was “Hume’s influence”⁶⁰ on him. Hume was well aware of the problem that necessity (and universality) could not be derived from experience (from *a posteriori* knowledge), he knew where to look to find its source (to mind), but he could not manage to solve the problem. Inspired by Hume, Kant found an impressive solution to the problem. The assumption that “objects must conform to our knowledge” would be the only way to overcome the problem (which we face in holding transcendental realism). Objects’ conformity to our knowledge is that objects “conform to the [epistemic] conditions under which we can alone represent them as objects”.⁶¹ These epistemic conditions are claimed to be *a priori*, that is to say, they are independent of experience and they are pure conditions that constitute knowledge of the experiential world which has to be necessary and universal. And more

⁵⁹ Ibid, p. 29.

⁶⁰ Kant confesses that it was David Hume who “first interrupted my dogmatic slumber and gave my investigations in the field of speculative philosophy a quite new direction”. See, Immanuel Kant, *Prolegomena to Any Future Metaphysics*, (Cambridge: Cambridge University Press, 2004), p. 10.

⁶¹ Henry E. Allison, p. 29.

importantly, these conditions, which are pure intuitions of sensibility (space and time) and the categories of understanding, have their source in our mind. Finally, Kant's standpoint puts him in a position where he can claim the possibility of *a priori* knowledge which is necessary and universal. According to this claim of transcendental idealism, knowledge of an object (of possible experience) is presented differently than it was considered before. In Kant's conception of an object, the object is now to be considered as "whatever conforms to the mind's conditions (both sensible and intellectual) for the representation of it as an object".⁶² In this sense, the object is understood as a representation. To put it another way, an object is the re-presentation of what is directly presented to the human sensibility. An object of experience, therefore, is constituted through the contribution of our mind. Transcendental idealism which is the inevitable result of Copernican Revolution is explained by Kant as follows;

By *transcendental idealism* I mean the doctrine that appearances are to be regarded as being, one and all, representations only, not things in themselves, and that time and space are therefore only sensible forms of our intuitions, not determinations given as existing by themselves, nor conditions of objects viewed as things in themselves. To this idealism there is opposed a *transcendental realism* which regards time and space as something given in themselves, independently of our sensibility.⁶³

For Kant's transcendental philosophy, it is clear that the distinction between things as they are in themselves (as transcendently real) and things as they appear to us (as empirically real but transcendently ideal) is inevitable. Things as they are in themselves are unknown to us; on the contrary, spatiotemporal

⁶² Ibid, p. 30.

⁶³ Immanuel Kant, *Critique of Pure Reason*, A369, p. 345.

appearances are the only things which are real and knowable by us. We have transcendental epistemic conditions which are subjective, namely space and time (forms of sensibility) and categories (forms of understanding). By taking space and time to be subjective conditions, Kant avoids transcendental realism since space and time are considered no more to be the “conditions of objects viewed as things in themselves”. Later, these spatiotemporal appearances are determined by the pure concepts of understanding, and hence, this is the way the phenomena as objects of my knowledge arise.

So far we have seen that to constitute the theoretical knowledge of the objects of experience, two distinct faculties of cognition are required, namely, sensibility and understanding. However, Kant says that only through the unification of these two faculties can knowledge arise. An attempt to unify these two distinct faculties of the mind or to show their common root seems necessary, though it has its own problems which I shall treat in this thesis.

3.2 Sensibility

In the part “Transcendental Aesthetic”, Kant clarifies the nature of sensibility as follows. “The capacity (receptivity) for receiving representations through the mode in which we are affected by objects, is entitled sensibility.”⁶⁴ In this part, Kant investigates how objects are given to us. To “Transcendental Aesthetic” one should pay special attention, since for Kant, “all our knowledge

⁶⁴ Immanuel Kant, *Critique of Pure Reason*, A19, p.65.

begins with experience”⁶⁵ that is, with what is given to us. As is clarified, what is given to us always appears as a spatiotemporal object. Yet, Kant calls this part of the *Critique* the “Transcendental Aesthetic”⁶⁶. He does so for the reason that in this part he deals with the transcendental conditions of sensibility of objects which are given to us, namely space and time. The characteristic which is attributed to the sensibility is receptivity; it relates itself immediately to its object, which Kant calls intuition. In intuiting what is given, sensibility does not have any active role. The only ability of sensibility is to receive what is given. Thus, it can be called a passive faculty of mind. As a result of the capacity of sensibility, the indeterminate objects of experience (appearances⁶⁷) are produced. Appearances are, therefore, the spatiotemporally ordered sense data or impressions.

3.2.1 Time: the “Condition of All Appearances Whatsoever”

Before starting to discuss time’s role in the sensibility, it must be noted that almost all characteristics attributed to time are also attributed to space by Kant. However, in some passages Kant explicitly express that time has a certain primacy over space. For example, he states,

⁶⁵ Ibid, B1, p. 41.

⁶⁶ “Aesthetic” is used here by Kant not in the meaning of “critique of taste” but in its ancient Greek meaning “sensibility”. And it is called “Transcendental Aesthetic” because the transcendental conditions (space and time) of sensibility of objects that are given to us are investigated. See, *Critique of Pure Reason*, A21/B34-5, pp 66-7.

⁶⁷ Although appearance and phenomenon are sometimes only used in the same meaning there is a technical difference. Appearances could be defined as an object which is given through the form of space and time (an undetermined object), phenomenon on the other hand could be characterized as an object in which besides space and time, the role of categories (the understanding) also assumed (a determined object of experience). Therefore, while an appearance is an object of the sensibility a phenomenon is an object of the understanding.

Time is the formal *a priori* condition of all appearances whatsoever. Space ... serves as the *a priori* condition only of outer appearances... [Time] is the immediate condition of inner appearance (of our souls), and thereby the mediate condition of outer appearances... all appearances whatsoever, that is all objects of the senses, are in time, and necessarily stand in time-relations.⁶⁸

Compared with space, Kant says, time has the superiority. It is not only the condition of inner sense (as the order of our representations) but it is also, indirectly, the condition of outer sense (as the order of all appearances). If we accept the proposition that “all appearances that are spatial must also be temporal, there is the additional crucial thesis that only some appearances are spatial but *all appearances are in time*.”⁶⁹ We can represent all spatial appearances in time; however, we cannot represent our mental states in space. Notice the fact that the main purpose here is neither to show that time has temporal priority nor to claim that space is worthless. Quite contrary, space is indispensable in constituting knowledge since outer appearances would not be possible without space. The emphasis here is on the fact that time comprehends all appearances whatsoever directly or indirectly. It is all-comprehensive, and its scope reaches everywhere, as far as sensibility is concerned.

3.2.1.1 Time: Form of Sensibility

It is clear that, for Kant, inner nature of things as they are in themselves is unknown to us, what we can all know is only the way they appear to us, i.e.,

⁶⁸ Immanuel Kant, *Critique of Pure Reason*, A34/B51, p.77.

⁶⁹ Charles M. Sherover, *Heidegger, Kant and Time*, (Bloomington: Indiana University Press, 1971), p. 51.

appearances. An appearance consists of two elements, namely matter of appearance and its form. Sensation, which is the effect of an object on the sensibility, is matter of appearance, thus sense impressions supply matter to appearances. Yet, these sense data are ordered in certain relations. Space and time are the only possibility of the sense data to be ordered in certain relations. Considered in this way, space and time are taken to be “the forms of appearance”⁷⁰.

Nevertheless, when we have a closer look at the “Transcendental Aesthetic” we see that Kant not only uses the phrase “the form of appearance” to define time but also he calls time to be “the form of sensible intuition” and “the form of sensibility”. It can be seen that these three phrases are used interchangeably through the “Aesthetic”, but whether they do denote the same thing is not quite clear. Paton thinks it is necessary to show that these three phrases are different from one another.⁷¹ In so doing, we may eliminate some ambiguities concerning Kant’s understanding of time. “The form of intuition” seems to be used in a very close way, or even in the same meaning with, the phrase “the form of appearance”. To clarify, our sensibility’s immediate relation to its object is called intuition, but just like an appearance, an intuition is divided into two elements, namely its matter and its form. In an intuition what belongs to sensibility is its matter, yet there is something that has no involvement with sensations and that is “the form of

⁷⁰ Immanuel Kant, *Critique of Pure Reason*, A20/B34, p. 66.

⁷¹ Herbert J. Paton, *Kant’s Metaphysics of Experience*, Volume I, p. 101.

intuition”. Notice that, here, we use an empirical intuition in the same meaning with an appearance. Given this only, it is plausible to claim that “the form of appearance” and “the form of intuition” is taken to be equivalent or can be used interchangeably.⁷²

In the “Aesthetic” Kant seems to use the term “intuition” to mean both “intuition” and “intuiting”. This dual use of the term “intuition” gives rise to uncertainty. While used in the former meaning we can take it to mean an *appearance*, the latter use certainly indicates the capacity of the sensibility to be affected immediately by what is given. To put it another way, intuition is considered both to mean an object of the sensibility (appearance) and to indicate the capacity of the sensibility. As is clarified above, as far as we use the word “appearance” synonymous with “intuition”, the phrases “the form of appearance” and “the form of intuition” mean the same thing; nevertheless if we use it in the meaning of “intuiting” then “the form of intuition” will be much closer to “the form of sensibility”⁷³. Only in the latter use we are in a position to claim that time is clearly subjective since the former use concerns the objects of sensibility whereas the latter use certainly concerns the capacity of sensibility. At this point, the fact that time, as “the form of appearances”, is totally subjective is not clear because appearances involves empirical data (which is not the product of the

⁷² Ibid, p. 103

⁷³ Ibid, p. 103

subject), however, when we say that time is “the form of sensibility” the subjectivity is crystal clear.

3.2.1.2 Time: *A Priori* Intuition

In the metaphysical exposition of time Kant explicitly expresses that time is not a concept but it is an intuition. He starts with the claim that “time is not an empirical concept that has been derived from any experience.”⁷⁴ Without giving the name, Kant criticizes Leibnizian conception of time which, according to Kant, derives time from the experience. In doing so, time loses its *a priori* character and turns into *a posteriori* form which lacks strict universality and necessity. The main aim of Kant in metaphysical exposition is to show that time is not an empirical concept. Instead of taking time to be an empirical concept, Kant, attempts to show that time is an “*a priori* intuition” which involves no empirical element. Only in so doing the purity of time could be justified. At this point, then, we should, at first, search for the distinction between intuition and concept, and after then we need to try to understand why Kant thinks time to be an “*a priori* intuition”.

An intuition is characterized to be a singular representation while a concept is taken to be a general representation in which it carries the common characters of different objects.⁷⁵ To be able to talk about an empirical concept, at first, we require many objects which share a common character. For example, to possess a concept of a table we must have seen many examples of a table. After seeing the

⁷⁴ Immanuel Kant, *Critique of Pure Reason*, A30/B46, p. 74.

⁷⁵ Herbert J. Paton, *Kant's Metaphysics of Experience*, Volume I, p. 94.

common characters which all examined tables share we can have an empirical concept of a table. Therefore, it is clear that empirical concepts depend upon appearances, that is to say, the source of possessing a concept is objects of experience, and in this sense, appearances precede concepts. This is simply a generalization from experience and a generalization may always have an exception, yet Kant looks for a strict universality which never includes any exception. Kant's denial of time to be an empirical concept depends mainly upon this formulation. Leaving aside this consideration, Kant claims time to be an intuition, a singular representation. The distinction between a concept and an intuition can be understood best if we focus on the distinction between being "a part" of and being "a limitation" from something. For an empirical concept (a common character of) every separate appearance is a part of this concept. Parts, however, are pre-suppositions of a concept, in other words, one arrives at a concept from parts. Unlike an intuition, an empirical or a general concept depends upon parts and it is constituted by aggregation of them. However considered as an intuition, every part of time is a limitation from a singular time. This singular time is pre-supposed by every part of time. In the second paragraph of metaphysical exposition when Kant says "time is a necessary representation that underlies all intuitions" what he wants to clarify is this insight that time is prior to any empirical intuition or appearance and must be pre-supposed by them. Time as an "*a priori* intuition" is not derived or gathered from separate appearances; on the contrary, it lies *a priori* in our mind as the condition of these appearances. Moreover, this condition has no parts, it is one, unique, immediate and infinite

representation. Contrary to a concept which is limited to its parts, an *a priori* intuition has no parts at all and, in addition, it is an unlimited representation that all parts must assume. Time's being a singular and infinite representation (an intuition) is clarified in what follows:

The infinitude of time signifies nothing more than that every determinate magnitude of time is possible only through limitations of one single time that underlies it. The original representation, *time* must therefore be given as unlimited. But an object is so given that its parts ... can be determinately represented only through limitation, the whole representation cannot be given through concepts, since they contain only partial representations; on the contrary, such concepts must themselves rest on immediate intuition.⁷⁶

In the above paragraph, by using the two key terms "limitation" and "unlimited" Kant manifests that time must be taken to be an intuition, that is to say, a singular and infinite representation. For emphasizing the distinction of intuition from a concept Kant says every part of time is a limitation from the singular and unlimited time. It is claimed to be a singular for the reason to show that it is not acquired through aggregation of parts like a concept, but it is given immediately as a whole. On the other hand, its being unlimited indicates the fact that as a singular whole, it does not consist of any parts, yet every determinate time is a limitation from this unlimited whole.

Still the meaning of *a priori* or pure intuition is not yet quite clear. The meaning of "the form of appearances" and "the form of intuition" were clarified earlier. Nevertheless, when Kant says time is an *a priori* intuition he denotes something quite different. He states that,

⁷⁶ Immanuel Kant, *Critique of Pure Reason*, A32/B48, p. 75.

Thus, if I take away from the representation of a body that which the understanding thinks in regard to it, substance, force, divisibility, etc., and likewise what belongs to sensation, impenetrability, hardness, colour, etc., something still remains over from this empirical intuition, namely, extension and figure. *These belong to pure intuition*, which, even without any actual object of the senses or of sensation, exists in the mind *a priori* as a mere form of sensibility.⁷⁷

In “the representation of a body” form and the matter are mixed up, if we isolate the form of this representation from its matter, that is to say, if we separate the form from what belongs to sensations we have pure relations. This pure relation that remains after the elimination of sensible elements belongs to *a priori* intuition. Now, taken to be the forms of appearances, time and space are penetrated in the appearances, but only “in pure intuition they are known in isolation”.⁷⁸ Therefore, by saying that these (pure form of appearances or intuition) belong to “pure intuition”, Kant clearly shows that these two characteristics attributed to time are totally different. The difficulty is considerably clarified by Paton.

The form of intuition is or contains the relations (or system of relations) in which appearances stand. The content of pure intuition is these same relations, abstracted from sensible appearances, and taken together as forming one individual whole. Space and time are at once the forms of appearances and the content of pure intuition.⁷⁹

It can be showed that time is *a priori* or pure, only, by eliminating the entire empirical element. As far as the pure relations, which “abstracted from sensible appearances”, are thought as a unity, we have *a priori* intuition.

⁷⁷ Ibid, A20-1/B35, p. 66. (italics mine).

⁷⁸ Herbert J. Paton, *Kant's Metaphysics of Experience*, Volume I, p. 104.

⁷⁹ Ibid, p. 104.

If we just refer back to the second chapter in which Kant's criticism of Newton's and Leibniz's conception of time were discussed, Kant's taking time both as the pure form (pure relation) and as *a priori* intuition is highly important. It is important because in each characterization of time there are some points which Kant, in his conception of time, seems to conserve. Although we cannot consider Kant to be a relationist or an absolutist with regard to time, we must realize that in his conception of time both relational and absolutist features are included. It was made clear earlier that time is "the form of appearances". Here, if we take time as embedded in appearances, then we shall claim that time is, evidently, relational. Kant, in this formulation thinks in the same way with Leibniz. Furthermore, he denies, like Leibniz do, that time exists independently as a substance. Certainly, there is a tremendous difference that causes Kant not to be classified in the relational camp. The difference is that even though Leibniz claims time to be an empirical concept derived from experience, Kant takes it to be an intuition inherent in the mind in an *a priori* fashion. In Kant, time, being a subjective condition, finds its place in the mind only, not in appearances. Kant's criticism of relational theory is that because time is derived from experience it must be *a posteriori* which lacks strict universality and necessity. In his formulation, he achieves the point through which he can claim time as formal or relational without damaging its purity and *a priori* character.

When we look at the relation of Kant's conception of time to Newton's we face a similar story. In terms of space and time, Kant is very close to Newton's

insight that they are principles according to which all objects of experience are ordered. For Newton time and space have absolute reality independent from objects. In a similar but not the same way, according to Kant, time and space are the conditions of all objects as far as these objects are considered to be appearances. To take time as *a priori* intuition that all appearances presuppose is clearly the declaration of its being absolute. Thus, Kant accepts the reality of time, that is, its empirical reality, only on the condition that it is the form of the objects as appearances. When carefully examined, it is seen that the insights of both Kant and Newton are the same, that is to say, both think space and time to be principles that all objects of experience must presuppose. The point which they differ results from the fact that while Newton is considered to be a transcendental realist, Kant describes his position as transcendental idealism. Newton's stance compels him to think space and time as existing independently from objects. In so doing, his conception of time and space does not gain *a priori* characters; moreover, they are unable to provide necessity and universality. Kant's transcendental idealist position, on the other hand, enables him to claim that time is both subjective and absolute (real) as far as appearances are considered to be objects of experience. Considered in this way, Kant can say that time is real and subjective at the same time, though he can still claim its being *a priori*, necessary and universal. In the final analysis we can claim that in Kant's conception of time one can find the combination of certain modifications of Leibniz's and Newton's time conceptions. The complexity of Kant's conception of time results from his tremendous effort to

be able to show time's relational and real features without losing its *a priori*, necessary and universal character.

3.2.1.3 Transcendental Ideality and Empirical Reality of Time

Kant's transcendental philosophy is caused partly by taking space and time to be subjective conditions and partly by considering pure concepts similarly. Because we are now dealing with the sensibility, our main concern is space and, especially, time. To tell the truth, if we accept time (as Kant claims) to be the subjective condition, we face the following question; how an account of the objective validity of a subjective condition can be given? The answer to this question is given by Kant in what follows,

What we are maintaining is, therefore, *the empirical reality* of time, that is, its objective validity in respect of all objects which allow of ever being given to our senses. And since our intuition is always sensible, no object can ever be given to us in experience which does not conform to the condition of time. On the other hand, we deny to time all claim to absolute reality; that is to say, we deny that it belongs to things absolutely, as their condition or property, independently of any reference to the form of our sensible intuition; properties that belong to things in themselves can never be given to us through the senses. This, then, is what constitutes the *transcendental ideality* of time. What we mean by this phrase is that if we abstract from the subjective conditions of sensible intuition, time is nothing, and cannot be ascribed to the objects in themselves...⁸⁰

Kant's claim that time is both *empirically real* and *transcendentally ideal* rests on the distinction between things as they appear to human mind and things as they are in themselves. From the perspective of appearances time is claimed to be

⁸⁰ Immanuel Kant, *Critique of Pure Reason*, A36/B52, p. 78.

real, whereas from the perspective of objects as they are in themselves time is taken to be ideal. Simply, to think that time is *empirically real* is to say that, Paton asserts, time is “objectively valid so far as all sensuous experience is concerned”.⁸¹ Thus, time is applicable only to the objects as far as the objects in question are considered to be appearances. Kant says all objects must be “given to our senses” and these objects must “conform to the condition of time” since time is the “condition of all appearances whatsoever”. Evaluating the issue in the light of what has just been said, why Kant thinks time to be *empirically real* and what he means by this can be seen clearly. When we recognize why Kant attributes *transcendental ideality* to time, we see that, here, he thinks the relation of time to objects as they are. To say that it is transcendently ideal means that it is nothing, if we stop thinking it as a condition of sensuous experience.⁸² Apart from the cognizing subject, time is nothing and it cannot be the condition of objects which are considered existing in themselves totally independent from the subject. Thus, time is real as far as by object we mean appearances, and it is ideal if by object we mean object as the way it is in itself.

3.2.1.4 Mathematical Knowledge

Before Kant, mathematical propositions have been thought to be, in Kant’s terminology, analytic *a priori* propositions. With regard to their being *a priori* there is no dispute at all, nevertheless, concerning whether mathematical

⁸¹ Herbert J. Paton, *Kant’s Metaphysics of Experience*. Volume I, p. 143.

⁸² *Ibid*, p. 144.

propositions are synthetic or analytical Kant is distinguished from the rest. Undoubtedly, mathematical knowledge is claimed to be necessary and universal. As is discussed earlier, this kind of knowledge can only be obtained in an *a priori* fashion. Otherwise, the knowledge we possess would depend on experience, and thus it would be contingent which could not be classified as a characteristic of mathematical knowledge. Kant believes the possibility of pure mathematical knowledge, and he, naturally, claims that it is gained *a priori*, that is independently from experience. The account of the possibility of pure mathematical knowledge is what, in the first place, Kant tries to give. After this, however, he goes further in claiming that his concept of space and time not only shows the possibility of pure mathematical knowledge, but also they are the conditions of the applicability of pure mathematics to the world of experience.

Why Kant thinks mathematical propositions to be *synthetic a priori* depends on his distinction between synthetic and analytic judgments. Kant thinks that mathematical knowledge must extend our knowledge. The only type of judgment which is capable of extending our knowledge is synthetic judgment. Although mathematical propositions do not depend on the empirical world, Kant claims that they can tell us something about this world and they can extend our knowledge. This also explains why he thinks mathematical knowledge to be synthetic. Kant clarifies why he thinks mathematical judgments to be *synthetic a priori* by using these two examples,

1- “ $7+5=12$ ” and

2- “The straight line between two points is the shortest”⁸³

Kant argues that even if at first sight we tend to think that the arithmetical proposition “ $7+5=12$ ” is an analytic proposition, it is *synthetic a priori*. The concept of the union of “ $7+5$ ” is not contained in the concept of “ 12 ”. Kant thinks that no matter how deeply we analyze the concept of the union of “ $7+5$ ” we will never find in it the concept of 12 . This kind of judgments do not just analyze a concept. What we need to do is to synthesize the subject and predicate by going outside each concept and showing that 12 is not contained in “ $7+5$ ” but is added to it. This is the reason why Kant claims this kind of judgment to be synthetic. He asserts that this synthesis can only be achieved by means of intuition.⁸⁴ However, what Kant means by saying this, I think, is uncertain. I think to be able to show that “ $7+5 = 12$ ”, Kant believes we must presuppose time as the *a priori* intuition. It seems that only by assuming this *a priori* intuition as a ground of the possibility of the proposition in question, it is possible to show its validity. Kant manifestly says that the concept of 12 cannot be thought by merely thinking the union of 7 and 5 .⁸⁵ Because the predicate is not contained in the subject we need the help of intuition. Only through intuition the addition of 5 to 7 can be showed and only in this way we can arrive the 12 . To put in another way, only if we take time, which is an *a priori* intuition, to be a ground according to which we can establish the addition of five to seven, we can establish “ $7+5 = 12$ ”. In short, for arriving 12 we

⁸³ Immanuel Kant, *Critique of Pure Reason*, B15-16, pp. 52-3.

⁸⁴ Ibid, B15-16, pp. 52-3.

⁸⁵ Ibid, B15, p. 53.

need to add 5 to 7, this addition is simply a successive act and this act is possible only in time which is *a priori* intuition.

For the judgment “the straight line between two points is the shortest”, Kant argues in the same way only with one exception, that is, the intuition which is concerned here is not time but space. This geometrical judgment is also considered by Kant to be synthetic *a priori*. When we take “the straight line” to be a subject and “the shortest” to be a predicate, we see that the predicate is not contained in the subject. By means of the analysis of the concept of “the straight line” we cannot see the concept of “the shortest”; it, clearly, is not found in it. According to Kant, in this example the predicate is added to the concept. This addition is only possible, as we have showed it for the arithmetical judgment above, only by the help of intuition.⁸⁶ Just like in the first example, for Kant if we are to show that “the straight line between two points is the shortest” we need to presuppose space. In thinking space to be the condition of every geometrical proposition we can go beyond the concepts and can add the predicate to the subject. Without supposing space and time to be *a priori* intuition neither pure mathematical knowledge nor the syntheses of concepts could be elaborated.

After what has been claimed, it should be asked how it is possible for pure mathematical knowledge which has nothing to do with empirical realm to claim anything about it. Kant argues that pure mathematical knowledge depends on pure, *a priori* intuitions which are space and time. It seems that there is an impassible

⁸⁶ Ibid, B16-17, p. 53.

abyss between pure mathematical knowledge and empirical world. Nevertheless, if we take space and time as “form of appearances”, we can see that the abyss which seems impassible is not that impassible. The objective validity or the applicability of our mathematical knowledge to empirical world is justified by Kant through the claim that space and time are also “forms of appearances”. As is elaborated before, space and time are claimed to be both “forms of appearances” and “pure intuitions”. By means of the latter Kant has showed the possibility of pure mathematics, and by means of the former, he attempts to show that pure mathematics is applicable to sensible world. To clarify, space and time as forms are embedded in appearances. When we take away what belongs to empirical world from appearances there remains space and time as pure forms and these forms function as content of *a priori* intuitions.⁸⁷ It is now clear that the form of appearances (sensible intuitions) is also the content of pure intuition.⁸⁸ It cannot be doubted that there is a relation between “*a priori* intuition” and “forms of appearances”. Likewise, it is clearly seen that all pure mathematical knowledge which is only possible in an “*a priori* intuition” can be related to empirical world through “forms of appearances”. Therefore, space and time as “forms of appearances” can show the applicability of pure mathematics which rest upon pure intuition.

⁸⁷ Herbert J., Paton, *Kant's Metaphysics of Experience*, Volume I, p. 105.

⁸⁸ *Ibid*, p. 105.

Kant's formulation of time, therefore in the "Transcendental Aesthetic", is as follows; it is (1) a condition or a form of sensibility, (2) pure intuition, (3) real in an empirical sense (in the sense that it applies to objects viewed as appearances), (4) but it is ideal in a transcendental sense (which means temporality only belongs to objects of experience, not to things-in-themselves).

3.3 Unification of the Sensibility and the Understanding

3.3.1 Understanding

Although, knowledge begins with what is given to us, for it to arise in the fullest sense the contribution of understanding is required as well. Sensibility and understanding are characterized by Kant as two different faculties. And they cannot be reduced to each other. Both faculties are indispensable in the constitution of knowledge and each has a completely different role in that constitution that cannot be performed by the other. Kant says that;

Without sensibility no object would be given to us, without understanding no object would be thought... these two powers or capacities cannot exchange their functions. The understanding can intuit nothing. The senses can think nothing. Only through their union can knowledge arise.⁸⁹

As is clarified earlier, the only ability of sensibility is receptivity, that is, it receives what is given to us. Our faculty of sensibility relates to an object immediately which is called by Kant intuition. Sensibility does not have any active role; its only role is to receive what is given. In this sense, it is a passive faculty of the mind. And objects of this passive faculty are appearances (indeterminate

⁸⁹ Immanuel Kant, *Critique of Pure Reason*, A51, p. 93.

objects of experience). For them to be determined and to be objects of experience in the fullest sense the contribution of the understanding is required. The indeterminate object is a manifold (various separate impressions in spatiotemporal form); whereas understanding is the faculty that turns this manifold into a meaningful unity. To put it differently, the faculty of the understanding, through its pure concepts (categories), determines this indeterminate object (appearance). This determined object is called phenomenon. Our faculty of understanding, thus, can be seen as an active faculty that functions as determining what sensibility provides. Unlike sensibility it relates itself to its object indirectly – through the mediation of sensibility. Thus, understanding exercises certain kinds of operations on what is given. These two faculties of the mind cannot produce knowledge on their own, they need to co-operate. Sensibility cannot do anything other than receiving passively what is given, and the understanding cannot supply from itself the content of knowledge upon which it will exercise its own activities.

It is clear that the faculties of sensibility and understanding are two distinct faculties and they function separately, that is to say, each has nothing to do with the function of the other. However, these two distinct faculties should be united to constitute knowledge. Allison remarks that in the chapter “Transcendental Deduction” “the central problem is the demonstration of a connection between the intellectual and the sensible conditions of human knowledge.”⁹⁰ How Kant gives an account of their unity while claiming their complete difference with regard to

⁹⁰ Henry E. Allison, p. 133.

their function might seem problematic. However, in “the A-Deduction”, in elucidating the threefold synthesis, Kant shows that this could be achieved by virtue of placing the imagination between the sensibility and the understanding, or taking the imagination as the common root of both which mediates between them. How this unification is achieved is of the great value for this thesis since, I believe, time plays a significant role in this unity.

3.3.2 The Threefold Synthesis: Intuition, Categories and Imagination

“There are three original sources (capacities or faculties of the soul) which contain the conditions of the possibility of all experience, and cannot be derived from any other faculty of the mind, namely, sense, imagination, and apperception.”⁹¹ Kant considers imagination⁹² as one of the three “conditions of the possibility of all experience”. In threefold synthesis, its prominence could be seen quite clearly. The faculty of imagination is indispensable since it mediates between the sensibility and the understanding which is the requisite of the constitution of knowledge, that is to say, it is only through their union that knowledge arises. In each of the three syntheses, the imagination plays a certain role, yet our main purpose is to unfold the role of time which is highly valuable. In the *Critique* there are two versions of “Transcendental Deduction” which are

⁹¹ Immanuel Kant, *Critique of Pure Reason*, A95, p. 127.

⁹² Unlike Kant, Heidegger attributes a special property to imagination, he claims: “transcendental imagination is not a merely faculty which appears between pure intuition and pure thought, but, together with these, it is a “fundamental faculty” inasmuch as it makes possible the original unity of the other two...” See, Martin Heidegger, *Kant and the Problem of Metaphysics*, trans. James S. Churchill, (Bloomington: Indiana University Press, 1962), p. 141.

found in the A (the first) and the B (the second) editions of the book. While in the A-Deduction Kant emphasizes the crucial role of imagination, he seems to neglect its role in the B-Deduction. Because I believe that there is a strong connection between imagination and time, and thus, the A-Deduction contributes to the purpose of this study too much, I prefer focusing on the A-Deduction. Moreover, when we read the “Schematism” right after the A-Deduction we see that there are both a smooth transition from A-Deduction to the “Schematism” and integrity between them with respect to the role of time.

3.3.2.1 The Synthesis of Apprehension in Intuition

Actually, in this synthesis Kant talks about the synthesis of what is given to us as discrete manifold. Not surprisingly, what is given to our sensibility, as is clarified earlier, has to be given in the form of space and time. Its being given under the spatiotemporal form is called, by Kant, *synopsis*, and there must be a synthesis which must always correspond to this *synopsis*.⁹³ The mentioned synthesis is the synthesis of apprehension in intuition. In threefold synthesis Kant attempts to show the unification of the sensibility and the understanding through three syntheses which are the result of the spontaneity of the understanding. He remarks that,

Every intuition contains in itself a manifold which can be represented as a manifold only insofar as the mind distinguishes the time in the sequence of one impression upon another; for each representation, *in so far as it is contained in a single moment*, can never be anything but an absolute unity. In order that unity of intuition may arise out of this manifold... it must first

⁹³ Immanuel Kant, *Critique of Pure Reason*, A97, p. 130.

be run through and held together. This act I name the synthesis of apprehension...⁹⁴

As Morrison states, Kant “believed, as Hume did, that the sensation is a matter of discrete atomic impressions”⁹⁵. Given this, I believe, it would not be wrong to claim that these separate impressions would not make any sense at all without time. As clarified earlier, all appearances stand in temporal relations, that is to say, they are conditioned by time. “In [time] they must all be ordered, connected, and brought into relation.”⁹⁶ Thus, we could say that, the impressions of an object are received through sensibility as separate from each other. However, they cannot be presented to understanding as completely separate parts. In ordering and bringing them into relation, time enables them to appear us as a manifold in intuition. “It is the form of time which accounts for the gathering up of discrete impressions into a manifold.”⁹⁷ To bring them into a manifold is crucial since understanding cannot come into relation with impressions unless they are taken, or apprehended as a manifold. Only under the form of time (in temporal relations) can impressions be organized into a manifold – the form upon which understanding can exercise its operations. In the synthesis of apprehension, therefore, discrete sensuous experiences are ordered in time. In the first synthesis the role of time is to turn impressions into a certain form for the understanding to

⁹⁴ Ibid, A99, p. 131

⁹⁵ Ronald P. Morrison, “Kant, Husserl, and Heidegger on Time and the Unity of Consciousness”, *Philosophical and Phenomenological Research*, vol. 39, No.2 (Dec., 1978), pp. 182-198.

⁹⁶ Immanuel Kant, *Critique of Pure Reason*, A99, p. 131.

⁹⁷ Ronald P. Morrison, p. 182.

be able to exercise its functions. This role is inevitable for making the unification of sensibility and the understanding possible.

It must be noted that the synthesis which has been considered so far is empirical. However, for Kant, the synthesis in which empirically given data are unified does not make sense unless *a priori* synthesis of pure manifold of time takes place in this synthesis. Therefore, for a manifold which is contained in intuition “to be represented as a manifold”, that is, to be a unity of intuition, the unity of time is required. For a manifold of intuition to “be ordered, connected and brought into relation”, the pure synthesis of time is needed as the condition of this ordering. In the synthesis of apprehension, therefore there is not only empirical synthesis of a manifold of sense impressions which is “held together” in time but also an *a priori* synthesis of time itself as the condition of this empirical synthesis. At this point, it can be better understood why Kant makes a distinction between space and time to be “pure forms of appearances” and “*a priori* intuitions”. *A priori* synthesis is possible only by means of a pure manifold of time which is not empirical. In the end, *a priori* representations of space and time “can be produced only through the synthesis of the manifold which sensibility presents in its original receptivity”⁹⁸.

The purpose of this synthesis is to give an order to the empirical manifold of appearances. However, imagination requires a ground on which it can exercise this empirical synthesis. At this point, the role of time becomes apparent, since

⁹⁸ Immanuel Kant, *Critique of Pure Reason*, A100, p. 132.

imagination gives unity to pure manifold of time so it produces “*a priori* representation of time” only in which the empirical synthesis is achieved. Therefore, both empirical and transcendental (pure) syntheses are contained in the synthesis of apprehension, and transcendental synthesis of time as an “*a priori* representation” is the condition of empirical synthesis.

3.3.2.2 The Synthesis of Reproduction in Imagination

The second synthesis is the synthesis of reproduction in imagination. It is crucial because, I believe, imagination should be characterized as a distinct human faculty mediating between sensibility and understanding, or as their common root, without which unification would not be possible. In the first synthesis a single moment of time, as being a unity holding sensible manifold together, was considered, in this synthesis, however, our main consideration will be that time is the form in which appearances are intuited as following one another. What is done here is “to get the time into the picture.”⁹⁹ By time it is meant, in this synthesis, that time as the form in which appearances follow each other, not time as a single moment. In this sequence of appearances imagination has a fundamental role. If it is examined closely, it is seen that imagination accomplishes this synthesis always together with time. Without the companionship of time, this synthesis of imagination is impossible.¹⁰⁰

⁹⁹Jay F. Rosenberg, *Accessing Kant. A Relaxed Introduction to the Critique of Pure Reason* (Oxford: Calderon Press, 2005), p. 114.

¹⁰⁰ Kant realizes the fact that the only possibility of the unification of sensibility and understanding (the application of categories to intuition) is nothing other than time for the reason that time, as a pure form of sensible intuition, is contained in all inner and outer appearances, and as being a pure intuition which has nothing to do with empirical data, time’s connection to pure concepts does not

It should be noted that “imagination is the faculty of representing in intuition an object that is *not itself present*.”¹⁰¹ Kant, thus, concludes that because all our intuition must be sensible, imagination, in this sense, belongs to sensibility.¹⁰² Kant says that imagination belongs to sensibility since in giving a unity to sensible and pure manifold of intuitions, imagination is directed to sensibility.

When I seek to draw a line in thought ..., obviously the various manifold representations that are involved must be apprehended by me in thought one after the other. But if I were always to drop out of thought the preceding representations (the first part of the line the antecedent part of the time period, or the units in the order represented) and did not reproduce them while advancing to those that flow, a complete representation would never be obtained...¹⁰³

In the synthesis of apprehension we perceive separate sensible data in different moments of time, and because we cannot connect them constantly through time, it is not possible to create an image of an object out of these sensible data. Imagination constantly re-produces every discrete sensible impression of a manifold in a time sequence. For example, every sensible data of a table is apprehended in intuition separately in a certain moment of time. In apprehending

lead to a problem. Nevertheless, it is clear that Kant thinks that for the determination of the objects of experience, time must be unified in accordance with a rule. This is the problem of Kant, since time cannot synthesize its pure manifold, and thus, cannot be a unity. In other words, Kant could not attribute the “activity” to time which is a sensible condition, he rather introduces the imagination as a faculty which synthesizes the pure manifold of time and, finally, generates the unity of time. This unified time is the condition of empirical synthesis, namely, the application of empirical concepts to intuitions. In the “Schematism” through “transcendental determination of time” by imagination, Kant also shows the application of pure concepts to intuitions in a similar way.

¹⁰¹ Immanuel Kant, *Critique of Pure Reason*, B151, p. 165.

¹⁰² Ibid, B151, p. 165.

¹⁰³ Ibid, A102, p. 133.

one datum the preceding one goes out of my apprehension. Thus, I cannot produce an image of a table. However, in perceiving one datum, imagination re-produces every preceding one constantly. Therefore, we sense every impression of a manifold altogether in connection. Only in this way, it is possible to produce an image of a table. In this sense, the imagination is productive since “it produces the sensible form in which the appearances turn out to conform to the categories.”¹⁰⁴ With regard to this function imagination belongs to the spontaneity of the understanding. It can then strengthen the claim that imagination is the condition of the possibility of unification of sensibility and the understanding. It is such a faculty that can be in connection with both sensibility and the understanding. Furthermore, if we could not perceive all appearances in a time sequence as following one another, it would not be possible for imagination to re-produce preceding appearances and keep them together in producing an image. It is very important that in the synthesis of reproduction not only “a succession of representations” but also “the representation of a succession” are justified.¹⁰⁵ By always carrying antecedent part or a past moment of time to the present and keeping past and present moments together, the imagination produces “the representation of a succession” i.e., time as a “flow”. Here too, one can see the dual function of imagination. Imagination exercises, one the one hand, an empirical synthesis of empirical data, and on the other hand, a pure synthesis of

¹⁰⁴ Beatrice Longuenesse, *Kant and the Capacity to Judge: Sensibility and Discursivity in the Transcendental Analytic of the Critique of Pure Reason*, (New Jersey: Princeton University Press, 2000), p. 44.

¹⁰⁵ Jay F. Rosenberg, p. 114.

the manifold of time. Although there seems to be two separate syntheses, there is in fact only one synthesis. These seemingly different syntheses are due to the way in which imagination synthesizes pure manifold of time and empirical manifold of appearances simultaneously, just like it does in apprehension. Actually, there are transcendental or pure and empirical synthesis combined in one synthesis.

The transcendental synthesis conditions the empirical synthesis, that is to say, without constant reproduction or synthesis of time, the imagination can never function properly. In this synthesis, time constantly accompanies imagination, since without always carrying time from the past up to the present (without reproducing the past moments of time), the unity of time and, eventually, the successive unity of representations in the unity of time would be impossible. Thus, it is clear that without the constant reproduction of time, the succession of representations can never be shown. Therefore, I conclude that imagination accomplishes this synthesis by virtue of time, that is to say, time must be the ground of the reproduction of appearances of a manifold.

3.3.2.3 Synthesis of Recognition in a Concept

The third and the last synthesis is the synthesis of recognition in a concept. Only after this synthesis we can have knowledge of an object in the fullest sense (as phenomenon). Because only then, Kant asserts, “I ascribe all perceptions to one consciousness (original apperception) that I can say of all perceptions that I

am conscious of them.”¹⁰⁶ The two syntheses that have been mentioned so far are mainly imaginative syntheses. For recognition, a pure synthesis of the understanding, namely a conceptual synthesis is required. In this synthesis also imagination has a certain function with one exception that its function is rendered intellectual. Synthesis of recognition is performed by pure apperception through pure concepts (categories). All the elements of knowledge of an object have to be subsumed under a category in order to be determined, that is, to become a determined object. A manifold of successively apprehended and reproduced representations in order to construct a unity have to be combined by a unitary consciousness, namely a concept.¹⁰⁷ For Kant, only through a pure concept of the understanding the representations can be recognized as the representations of the same and the identical object of experience. He states that “a concept is always, as regards to its form, something universal which serves as a rule”¹⁰⁸. The pure concepts of understanding according to which all representations are unified are the sole reasons for claiming this unity to be a necessary unity. The aim of this synthesis is to become conscious that the reproduced representation is not a new production but it is the identical with the past representation. Moreover, it is crucial to realize that both representations must correspond to the same object. What this “object of representations” is and how our representations correspond to it are essential. In Kant words it is explained as follows,

¹⁰⁶ Immanuel Kant, *Critique of Pure Reason*, A122, p. 145.

¹⁰⁷ Ibid, A103, p. 134.

¹⁰⁸ Ibid, A106, p. 135.

At this point we must make clear to ourselves what we mean by the expression ‘an object of representations’ ... It is easily seen that this object must be thought only as something in general=x, since outside our knowledge we have nothing which we could set over against this knowledge as corresponding to it.¹⁰⁹

Only insofar as we can relate our representations to this object=x, we can prevent the relations of our representations to each other “being haphazard and arbitrary” and can show the unity they constitute to be necessary.¹¹⁰

Furthermore, all of my representations must belong to a transcendental consciousness. In addition to the identity of an object, the identity of the subject is required. To put it another way, the unification and synthesis must be conditioned transcendently from subjective aspect. Kant explains this as follows,

The original and necessary consciousness of the identity of the self is thus at the same time a consciousness of an equally necessary unity of the synthesis of all appearances according to concepts, that is, according to rules, which not only make them necessarily reproducible but also in so doing determine an object for their intuition, that is, the concept of something wherein they are necessarily interconnected.¹¹¹

For the full recognition of the unity of the synthesis, one needs to be capable of becoming conscious that all temporally ordered and reproduced appearances belong to “the I” or “the subject”. The consciousness of a “necessary unity of the synthesis of all appearances” necessitates the consciousness of “the identity of the self”. Only in this way, the full recognition or knowledge of an object as a phenomenon can be established.

¹⁰⁹ Ibid, A104, p. 134.

¹¹⁰ Ibid, A104, p. 134.

¹¹¹ Ibid, A108, pp. 136-7.

3.3.3 The Schematism

Kant makes it clear that categories are “quite heterogeneous from empirical intuitions”¹¹² and he showed in the Deduction(s) that the categories, though “quite heterogeneous” from intuitions, can be applied to sensible intuitions. However, in the “Schematism” he shows the possibility of the application of each category one by one.¹¹³ The “Schematism” part of CPR is of great importance for my purpose since in this part time is considered as central and crucial. As Paton asserts the “Schematism” chapter “suggests the possibility of ... justifying the categories from the nature of time without any reference to the forms of judgment.”¹¹⁴ Here, Kant specifically focuses on time. Kant’s aim here is open to criticism for the reason that it can be claimed that what is attempted to be shown in the “Schematism” has already been justified in “Transcendental Deduction(s)”. However, Allison states that in the former the “logical use” of the categories is shown, whereas in the latter their “extra-logical or real use” is justified.¹¹⁵ The reason why “Schematism” is necessary is due to the fact that the result it achieves is different from the result of the “Deduction(s)”. While the desired aim of the “Deduction(s)” are to show the objective validity of the categories, the aim of “Schematism” is to justify their objective reality. In objective validity, only the role of the categories in judgment is concerned. Categories are taken as “necessary

¹¹² Ibid, A137/B176, p. 180.

¹¹³ Michael Woods, “Kant’s Transcendental Schematism”, *Dialectica*, Vol. 37, No. 3 (1998), pp. 202-219.

¹¹⁴ Herbert J. Paton, *Metaphysics of Experience*, Volume II, p. 20.

¹¹⁵ Henry E. Allison, p. 176.

conditions for the representations of objects.”¹¹⁶ In the Deduction(s) only the logical conception of an object, the representation is emphasized. “However, objective reality is connected with a ‘real’ sense of object, that is, with an object in the sense of an actual entity or state of affairs (an object of possible experience).”¹¹⁷

It was mentioned earlier that for having knowledge of an object the sensibility (intuitions) and the understanding (categories) must be united. This unification is achieved, Guyer says, only through an intermediary.

Categories are not self-evidently applicable to the objects of experience, because the categories have merely logical content... but our experience does not immediately presents itself in logical terms; it presents itself in spatio-temporal terms... thus, in the case of the categories our concepts are not “homogeneous” with our objects, and some intermediary has to be found in order to make them so.¹¹⁸

Concepts and intuitions need a “third thing” to make their connection possible. This intermediary (third thing) is characterized as the transcendental schema by Kant. He claims that this third thing has to be “homogeneous on the one hand with the category and on the other hand with the appearance, ... which thus makes the application of former to the latter possible.”¹¹⁹ In showing the centrality of time in the application of a-temporal categories to temporally ordered appearances or intuitions, the schemata play an important role. The schema is “the

¹¹⁶ Ibid, p. 135.

¹¹⁷ Ibid, p. 135.

¹¹⁸ Paul Guyer, *Kant* (London and New York: Routledge, 2006), p. 96.

¹¹⁹ Immanuel Kant, *Critique of Pure Reason*, A138, p. 181.

representation of a universal procedure of imagination in providing an image for a concept.”¹²⁰ It should be noted that the image considered here is different from the image considered in the synthesis of reproduction. An image “is created out of a collection of impression which we happen to have at any particular time”.¹²¹ Considered in this way, an image is the result of the empirical function of the imagination, that is to say, it depends upon the empirical rule of association (reproduction). The schema, on the other hand, is the product of productive function of the imagination and it has nothing to do with the empirical rules. To clarify briefly, an image is a procedure for empirical concepts; a schema is, however, a universal procedure for pure concepts (categories). Sherover states,

[A Schema is] a diagrammatic procedure by means of which the abstract concept and a particular percept are brought together in the temporal form in which the percept is recognized as an object of perception. The schemata are thus nothing but *a priori determinations of time* in accord with rules.¹²²

Sherover’s definition of schema is quite illuminating. He clarifies that a schema is the condition of both sensible intuitions and non-temporal categories to stand on the same basis. It is “a general model or pattern” that enables the application of pure concepts to (temporally ordered) sensible intuitions or the subsumption of the latter under the former. Still, by “*a priori determinations of time*” it is not quite clear what is meant, and so it needs more articulation. Kant asserts that it is “the determination of representation of a thing at some time or

¹²⁰ Ibid, B180, p. 182.

¹²¹ Michael Woods, p. 212.

¹²² Charles M. Sherover, p. 105 (italics mine)

another.”¹²³ For example, the schema of reality is “being in time”, that of negation is “non-being in time”, and that of substance is “permanence of the real in time”.¹²⁴ Although it gives us a hint to understand what is implied, consulting Allison on this point might considerably clarify the issue.

A transcendental determination of time must be conceptualization of time in accordance with an *a priori* concept, which refers time to an object or objectifies it, while also providing objective reality for the concept involved. To objectify time means to represent a temporal order as an intersubjectively valid order of events or states of affairs in the phenomenal world, in contrast to a merely subjectively valid order of representations in an individual consciousness.¹²⁵

We can, therefore, conclude that the schemata as transcendental time determinations are universal and necessary characteristics of objective time (and objective relations of appearances in time).¹²⁶ In this sense, schemata are homogeneous with appearances because all appearances stand in temporal relations (objective temporal order). Furthermore, the schemata are homogeneous with the pure concepts (categories) “since these concepts provide rules whereby this order is determined.”¹²⁷ Actually, that pure manifold of time is transcendently determined by transcendental imagination is the reason why schemata are homogeneous with the pure concepts. The schemata thereby can mediate between categories and intuitions, and we could say that they are what make the unification of the sensibility and the understanding possible. Therefore,

¹²³ Immanuel Kant, *Critique of Pure Reason*, B184, p. 185.

¹²⁴ *Ibid*, A143, B183.

¹²⁵ Henry E. Allison, p. 183.

¹²⁶ *Ibid*, p. 183.

¹²⁷ *Ibid*, p. 183.

we can argue that if the schemata are the determinations of pure content (pure forms) of time through which the application of categories to intuition possible, then it follows that this application could be achieved only through the temporalization of concepts, that is to say, through a “temporally modified or schematized category”. Apart from temporal modification, “the pure concept is empty and devoid of meaning, content, and significance.”¹²⁸ But by means of time it gains significance. “It is through time that the categories organize our intuitions into coherent intelligible experience.”¹²⁹

One must notice that there is a parallelism between the “Aesthetic” and the “Schematism” with respect to time’s priority over space. Kant claims, in the “Aesthetic”, that “time is the condition of all appearances whatsoever”. Likewise, he says, in the “Schematism” that the pure image of “all objects of the [inner and outer] senses in general is time”¹³⁰ The conception of time in “Transcendental Aesthetic” and “Transcendental Logic” is consistent. The relation between Kant’s treatment of time in “Aesthetic” and “Logic” parts can easily be understood by means of the analogy of the relation between appearances and phenomenon. In the former part, Kant concentrates on appearances which are the indeterminate objects of experience. However, in the latter, he focuses on the phenomena which are the determinate objects of experience. In a similar way, in the “Aesthetic”, Kant deals with time as “pure forms” (pure content) which are not determined yet. However,

¹²⁸ Charles M. Sherover, p. 112.

¹²⁹ Ibid, p. 104.

¹³⁰ Immanuel Kant, *Critique of Pure Reason*, A142/B182, p. 183.

in “Schematism” Kant considers time as “the transcendental determination of pure forms”. It is clear that although Kant uses many phrases for time, these various phrases do not refer different times. With respect to time, there is integrity between “Transcendental Aesthetic” and “Transcendental Logic”¹³¹. There is only a single time that all phrases refer and throughout the text Kant’s conception of time consistent.

¹³¹ Although Kant deals with time as “pure intuition” in the “Transcendental Aesthetic” and with time as “schema” (transcendental time determination) in the “Schematism”, Allison and Longuenesse state that “pure intuition” and “schema” must be the same thing. This interpretation points out that Kant’s conceptions of time in “Aesthetic” and “Logic” cannot be different time conceptions. Yet, they are the same “times” which are evaluated from different levels. See, Henry Allison, *Kant’s Transcendental Idealism*, p. 181. And see, Beatrice Longuenesse, *Kant and the Capacity to Judge*, pp. 212-228.

CHAPTER IV

THE RELATION BETWEEN TIME AND THE SELF

‘The self’ is probably the most important aspect in Kant’s project insofar as one realizes that his philosophy, in a certain sense, is “self-centered”— space, time and categories are all conditions that find the seat in the subject. In this regard, I shall explore the significance of time in Kant’s first *Critique* by paying a special attention to his understanding of the self. My main aim is to understand the relationship between time and the self, which, I believe, would reveal, to a certain extent, some mysteries about time. Given this, in this part my purpose will not be a detailed investigation of the self, but rather to find a way of understanding time and the self as companions.

When Heraclitus stated “the only thing that does not change is the change itself”, he emphasized on something which is crucial. He saw that there was something in the universe that endured; and this something was not subject to time. So far, it is doubtless that he is right. However, at this point, the following question must be raised: what is the “hidden thing” that makes the whole change permanent? It is true; change endures, but what makes it to do so? What is responsible for the fact that change does endure? For the answer to make sense we need to abandon the commonsensical or traditional explanation of time in which time is conceived as “flow”. This understanding of time should be set aside here. Quite contrary, time does not flow; rather it is the sole reason for everything to

flow. To put it differently, if anything is to change it must be in time or subject to time. In the synthesis of reproduction, I have clarified that the imagination by its reproductive synthesis makes possible not only “the succession of representations” but also it makes possible “the representation of succession”. In so doing, imagination enables us to think time to be flowing as the condition of the flow (succession) of every representation in it. To think time to be flowing is to objectify it which is the necessity for us to understand time since it does not make sense otherwise. However, to objectify time is nothing other than to temporalize time (because anything we can possibly know must be in time as stated in the “Transcendental Aesthetic”) and it is not difficult to see that if something is temporalized it must be put into time. Considered in this way, it would be absurd to state that time is in time. Therefore, if time is not subject to itself, it does not flow, rather it remains unchanged. This is what I mean by time does not flow. Thus, I think, the answer to the question asked above must be that *time*, as non-empirical yet sensible condition, is the “hidden thing” that makes everything change while it remains unchanged or permanent.

Heraclitus’ other mostly quoted statement that “you cannot step twice in the same river” is necessary to understand how deeply time involves in everything. We cannot step in the same river twice because “everything is in the state of flux”. Apparently, Heraclitus means that everything is subject to time, that is to say, there is nothing in the universe that stays in the same condition at different moments. Therefore, change seems to belong to the very nature of any being

whatsoever. When you step twice in the river, you are not the same as the one who stepped the first, and the water in the river is not the same as well. Thus, we could say that in everything the influence of time is felt since everything is subject to it. This influence is change. Every being, no matter what kind of being it is, has to change, so far as it is in time. But when we look at Kant's first *Critique*, we see that there is one unique element that appears to exempt from any kind of change; it is nothing other than the transcendental unity of apperception or the transcendental self.

4.1 Time: the Link between Empirical and the Transcendental Consciousness

4.1.1 Empirical and Transcendental Consciousness

Kant states that “no fixed and abiding self can present itself in [the] flux of inner appearances”¹³², that is to say, in a temporal flux. Empirical apperception, according to him, is our empirical and always changing “consciousness of self according to the determination of our state in inner perception”¹³³. It is our awareness of the changing states of our own consciousness in the form of inner sense, namely, under the form of time. In other words, empirical consciousness is my perception of myself as successive states of my mind in the form of inner sense, and, thus, this consciousness must be empirical. Therefore, the empirical consciousness cannot justify itself as identical in the field of the succession of the

¹³² Immanuel Kant, *Critique of Pure Reason*, A107, p, 136.

¹³³ *Ibid*, A107, p. 136.

inner appearances. Even though empirical consciousness “accompanies different representations” that is, it contains a synthesis of manifold of representations, it “is in itself diverse and without relation to the identity of the subject”¹³⁴. To be clearer, the fact that empirical consciousness contains the synthesis of inner appearances is not sufficient for it to be self identical; in addition to this, it must be consciousness of this synthesis as belonging to a single consciousness. Nevertheless, a self that is subject to time, that is, being in temporal flux cannot establish its identity through this flux. As Keller puts it,

[E]mpirical self-consciousness is an immediate consciousness of oneself as an individual. This immediate representation is a representation of oneself at a certain time, but it is not a representation of oneself over time.¹³⁵

Empirical self is the consciousness of oneself at a certain moment of time; it is not the consciousness of oneself as identical through time. Empirical self is the singular consciousness of a manifold of appearances under the form of inner sense, namely, time. And accordingly, there is not only one single empirical self but there are many of them. Because I am empirically conscious of what is given under the form of inner sense, I must be conscious of myself as an appearance.¹³⁶ However, Kant claims that unless these always changing consciousnesses of self can be connected to each other, or let’s say unified, and, furthermore, unless it does become conscious of this unity, no kind of knowledge could ever arise. This claim leads us to the notion of transcendental self.

¹³⁴ Ibid, B133, p. 153.

¹³⁵ Pierre Keller, *Kant and the Demand of Self Consciousness*, (Cambridge: Cambridge University Press, 1998), p. 20.

¹³⁶ Immanuel Kant, *Critique of Pure Reason*, B158, p. 169.

In A- Deduction Kant states that “[t]here must ... be a transcendental ground of the unity of consciousness in the synthesis of the manifold of all intuitions...”¹³⁷ He entitles this “original and transcendental condition” as transcendental apperception. Kant basically considers this apperception to be a condition which must be prior to all experience whatsoever and, in the end, which “makes experience itself possible”.¹³⁸ As being prior to all representations whatsoever, the pure, transcendental consciousness includes nothing which belongs to sensations. “This pure, original, and unchangeable consciousness” is the highest possibility of the unity of the synthesis of the manifold of all representations in one experience. Accordingly, all representations in order to have a meaningful form must be a unity which is possible only through their relation to transcendental consciousness. In A-Deduction this necessary relation is clarified by Kant as follows,

There can be in us no modes of knowledge, no connection or unity of one mode of knowledge with another, without that unity of consciousness which precedes all data of intuitions, and by relation to which representation of objects is alone possible.¹³⁹

This pure and unchangeable consciousness is the “consciousness of my experience as mine”¹⁴⁰. It is an original, unchanging consciousness to which all manifold of representations are directed to be unified. We cannot have a real knowledge of objects without the unity of consciousness that precedes the

¹³⁷ Ibid, A107, p. 134.

¹³⁸ Ibid, A107, p. 134.

¹³⁹ Ibid, A107, p. 136.

¹⁴⁰ Terrence Wilkerson, “Kant on Self-consciousness”, *The Philosophical Quarterly*, vol. 30, No. 118 (Jan., 1980), pp. 47-60 p. 9.

manifold of representations. It gives a unity and, thus, meaning to the experience. However, the necessary relation of all representations to the transcendental self and the function of the transcendental unity of apperception find its full meaning in the B-Deduction. Kant states that,

It must be possible for the 'I think' to accompany all my representations; for otherwise something would be represented in me which could not be thought at all, and that is equivalent to saying that the representation would be impossible, or at least would be nothing to me... all the manifold of intuition has, therefore, a necessary relation to the 'I think' in the same subject in which this manifold is found.¹⁴¹

The idea here is that in order to be considered as a unity, the multiplicity of representations must belong to one subject which itself cannot be a predicate of any subject. In other words, while "I think"¹⁴² accompanies to all my representations, Kant says, "it cannot itself be accompanied by any further representation"¹⁴³. This is the reason why Kant entitles transcendental self as "original" which conditions all representations. Given this, the transcendental subject must lie *a priori* as the condition of the possibility of the unity of various empirical consciousnesses. In the absence of this transcendental condition (the sole subject of all representations) there would be various empirical consciousnesses as dispersed through the representations without even relating them to itself. Basically, for human subject to give any meaning to its various representations it

¹⁴¹ Immanuel Kant, *Critique of Pure Reason*, B131-2, pp.152-3.

¹⁴² Sallis states that Kant "identifie[s] "transcendental apperception both as the I of the 'I think' and as that, which generates the representation 'I think'." And there is a strong textual support in B132 of CPR for claiming this. That is the reason why I use "I think" and the subject "I" interchangeably. See, John Sallis, *The Gathering of Reason*, (Ohio: Ohio University Press, 1980), p. 70.

¹⁴³ Immanuel Kant, *Critique of Pure Reason*, B132, p. 153.

is necessary for it to put them into a unified form by means of showing their connection to each other, and also, the unity of constructing their connection to a single subject. This is the sole function of the transcendental apperception. But it must be noted that this transcendental apperception is non-temporal. It must be so, for the reason that a subject that is claimed to be located in temporal flux cannot establish its identity to itself. We have considered it before that this consciousness is condemned to be an empirical consciousness as far as it is subject to time. The transcendental unity of the self must be taken to be “the substratum of empirical consciousness, which is subject to ... flow of the Heraclitean river, being always in flux, ever-changing”.¹⁴⁴ Therefore, the transcendental self must be the fixed point that all appearances whatsoever depend upon to have an order and meaningful unity. But how this non-temporal condition of knowledge gives unity to temporally ordered and connected (synthesized) representations, namely, to empirical apperception, seems to be problematic.¹⁴⁵

4.1.2 Time as the Link between Empirical and Transcendental Consciousness.

In the second chapter while we were explaining the synthesis of reproduction in imagination, it was clarified that through synthesizing pure manifold of time, imagination gives unity to this multiplicity of pure content of

¹⁴⁴ Doug Mann, p. 54.

¹⁴⁵ No matter how absurd it may seem, the truth is that non-temporal apperception gives unity to the various empirical apperceptions in time- which is itself atemporal.

time. In so doing, imagination generates the unity of time which is the necessary condition and ground of the unity of all dispersed representations in one single foundation. We already know that the unity of representations in one single moment is the requisite for empirical consciousness. Therefore, time as a unity, as it is formulated in the synthesis of reproduction, serves as the condition of empirical consciousness. Schaper thinks that the function of imagination is “that of a kind of glue, joining everything disparate, bridging gaps...”¹⁴⁶ However, if we speak metaphorically, I intent to think that not imagination but time is a kind of a glue¹⁴⁷ and, imagination, on the other hand, is a faculty that knows how to operate on this glue or it is the faculty that knows how to use time for achieving the activity of gluing dispersed representations. To put it differently, imagination uses time as a glue in order to achieve the attachment of all dispersed representations to each other, that is to say, to synthesize all representations by the act of reproduction.

However, it must be kept in mind that, here the role of time which is synthesized by imagination is not yet to relate empirical consciousness to transcendental consciousness. Rather, the synthesized time is the condition of the empirical self. To clarify, the empirical synthesis of the manifold of representations is achieved through the transcendental synthesis of pure manifold (content) of time. The empirical synthesis of dispersed representations is our

¹⁴⁶ Eva Schaper, “Kant on Imagination”, *Philosophical Forum*, 1970, 2, pp. 432-433

¹⁴⁷ Mann also thinks that time is the glue for self-identity. He claims that unity of various representations and the relation of this unity to single consciousness are achieved by means of time as glue. p. 53.

empirical consciousness. To show the way in which empirical consciousness arises is indispensable to understand its relation to transcendental consciousness. The first role of time is this: as glue it is used by imagination to connect all dispersed and discrete representations in order to form the empirical consciousness.

However, for transcendental consciousness or apperception we need much more than this. Basically, here what is required is the consciousness of the unity of the all synthesized representations. In other words, it is necessary to relate the empirical consciousness to the transcendental consciousness since every representation must belong to one single consciousness. Time is the only possibility for recognizing all the representations as mine. Schemata as transcendental time determinations are very important right at this point. “The schemata are the link between the logical and atemporal categories and the radically temporal flux of appearances, and are thus the link between pure transcendental consciousness and empirical.”¹⁴⁸ This is the second role of time.¹⁴⁹

In the “Schematism” Kant’s consideration of time as an invaluable element of knowledge cannot be overlooked. What he tries to do is to show the application of categories to the objects of experience (which is necessary for having knowledge) by reference to time only, without referring to the logical form that categories have. Categories do not only exhibit logical forms (as in the table of

¹⁴⁸ Doug Mann, p. 55.

¹⁴⁹ This dual role of time is nothing other than its roles in the “Transcendental Aesthetic” and the “Transcendental logic” respectively.

judgment) but also in order to be objectively real they must be capable of bringing out determination of time and rules for thinking time. As we discussed in the second chapter, schemata (as transcendental time determinations) are the products of transcendental imagination.¹⁵⁰ They function as the mediator between temporally apprehended and reproduced appearances and the categories of understanding. However, “pure concepts of understanding being quite heterogeneous from empirical intuitions ... can never be met with in any intuition”¹⁵¹.

Obviously there must be third thing which is homogeneous on the one hand with the category, and on the other hand with the appearance, and which thus makes the application of the former to the latter possible.¹⁵²

For applying categories to sense data this “third thing”, which is both intellectual and sensible, is essential. It is essential because while through synthesis of time we can only see the possibility of empirical consciousness and, accordingly, the application of empirical concepts to their objects, through the schematism the application of pure categories to their objects is justified. The schemata, as transcendental time determinations, are the link between non-temporal categories and the all appearances which are in temporal flux. And therefore, these schemata are also link between temporal empirical consciousness and non-temporal transcendental consciousness since the synthesis of temporally ordered appearances is empirical consciousness and apperceptive subject gives it a

¹⁵⁰ Because earlier the function of schemata was discussed in detail, I shall only have a short look at them here.

¹⁵¹ Immanuel Kant, *Critique of Pure Reason*, A137-B176, p. 180.

¹⁵² *Ibid*, A177-B138, p. 181.

unity through categories. Actually, both in the synthesis of reproduction and in the “Schematism”, Kant, talks about the determination of time. Nevertheless, the latter is quite a different determination than the former. Time as “the form of sensible intuition” is “homogeneous with appearance”¹⁵³. On the other hand, the transcendental determination of time is “homogeneous with the category” since it “contains an *a priori* manifold in pure intuition”¹⁵⁴. In the transcendental determination, due to its homogeneity with a category, time is determined in such a special way that it forms “a universal procedure” through which each category relates to its object (to intuition). As we have seen, schemata function as the connector between these two consciousnesses, and since the schemata are produced by imagination out of pure content of time, at the very deep of the connection of empirical consciousness to the transcendental consciousness lies “time”. Needless to say, the transcendental unity of apperception is accomplished only through its co-operation with time.

Under the light of what has just been said, we can say that, time is the passive condition of the possibility of connecting various empirical consciousnesses to each other and to transcendental consciousness. In doing so, it helps transcendental consciousness to give unity to empirical consciousness or temporally ordered unity of representations. It is evident, therefore, that time co-operates with transcendental apperception, and they work hand in hand.

¹⁵³ Ibid, B177, p. 181.

¹⁵⁴ Ibid, B177, p. 181.

Metaphorically speaking, time and transcendental self are really two faces of one coin; time is the passive and the transcendental self is the active one.

4.1.3 Subjective and Objective Time Order

Whether the unity of time (and accordingly, the unity of representations in time) is subjective or objective is another point that needs to be clarified. Knowledge has to be objective, thus, the unity of time in which knowledge takes place has to be objective too. What I want to state is that if it can be showed that it is possible to think time in accordance with a rule, that is, if it is possible to unite time according to a rule, then it is possible to establish both the objective time and the objectivity of empirical world at the same time.

However, in the first *Critique* we can distinguish two types of time-order indeed. Accordingly, the subject matter of each differs; while one concerns our representations which take place in inner sense, the other concerns the objects¹⁵⁵. The subjective time-order belongs to inner sense or empirical apperception. This time order is established by imagination in accordance with the empirical rule of association (reproduction). Therefore, this kind of time determination must be subjective. Given this, I think, subjective order fails to establish universality, necessity and, no need to say, objectivity. In such a temporal world which is ordered subjectively, I accept that the relations between representations would be much more colorful but unfortunately, they would be devoid of any meaning,

¹⁵⁵ The object is a representation too, nevertheless, the representations above should be taken to mean as the representations of the objects so far as these objects are considered as representations.

unity and harmony. In such a fantasy world, the justification of the objective knowledge of the objects could never be established. To illustrate, assume that we have representations of the event A and B in empirical consciousness. In such an example, we cannot represent that there is a necessary connection among the events A and B since there is no pure concept of causality involved; these representations only follow each other in our inner sense or empirical apperception. In this example we have a subjective connection of the events A and B. At the level of empirical apperception we don't have any rule yet with respect to locate these various representations in a certain place in spatiotemporal framework and to show their necessary connection. This is the reason why we cannot talk about objective temporal order here. So far, we have seen that in subjective temporal-order, there is neither a fixed, unchanging, enduring referential point according to which representations are related to each other, nor a universal rule for establishing the necessary connections between these representations.

In order to attain the objective temporal order of all representations what we need is the transcendental determinations of time, namely, the schemata. It is demonstrated in the third chapter that transcendental determination of time is to conceptualize or to objectify time and, as Allison puts it,

To objectify time means to represent a temporal order as an intersubjectively valid order of events or states of affairs in the phenomenal world, in contrast to a merely subjectively valid order of representations in an individual consciousness.¹⁵⁶

¹⁵⁶ Henry E. Allison, p. 183.

In “Schematism”, Kant justifies the intersubjectively valid temporal order and in the “Analogies of Experience” he attempts to show how the objective unity of all representations in one and single time is justified. According to Kant, principles of analogies are “regulative principles” and an analogy of experience is “only a rule according to which a unity of experience may arise from perception.”¹⁵⁷ The unity of experience in question must be a universal, necessary and, thus, an objective unity. The objective time order is established in accordance with these principles. In so doing, as I stated above, the objectivity of the objects of the empirical world is established as well. The analogies are what are required to establish the objectivity of temporal order of objects in the sensible world. Unlike the subjective time order, in objective time order our concern would be the objects so far as these objects are characterized in terms of the relations which are independent from the way they are merely apprehended in inner sense. These objects are not merely the representations of inner sense; rather, they are the objects of the real, empirical world, namely, objects in the fullest sense (phenomena) which assumes at their constitution the condition of transcendental consciousness.

To start with, as the first requisite for the objectivity, Kant looks for a fixed and unchanging referential point. Every succession and co-existence must be ordered according to this permanent, unchanging point; otherwise, there would not be an objective order and harmony. However, strangely enough, this permanent

¹⁵⁷ Immanuel Kant, *Critique of Pure Reason*, B222/A180, pp. 210-11.

referential point is brought into view through an analogy with time. In the first analogy, Kant states that “the time in which all change of appearances has to be thought, remains and does not change”¹⁵⁸. He also says that because “time cannot be perceived” in all appearances there must be found “the substratum which represents time in general”¹⁵⁹. Kant tries to show that for change or succession of appearances to be meaningful the change must be the change of something unchanged. This leads to the conclusion that there must be a substratum of all change. There must be a substance upon which the succession of appearances must depend. For the reason that time cannot be perceived, Kant makes an analogy between the substratum of change and time. His conclusion depends upon the former claim that all appearances must be in time. It is clear that in every representation “the expression of time is perceived”. I believe, thinking the category of substance in analogy with time also indicates time as endurance. Change points out substance, and substance implies time as permanence. Therefore, because in every representation we perceive the representation of time, it must be the substratum of all succession and coexistence. In this substratum we perceive all change while it remains unchanged or permanent. Concerning that time is perceived in every appearance, its universality is justified. So far it seems that Kant declares “the expression” or “the representation of time in general”, which is found in the objects of perception, as the fixed referential point which is the most important requisite for the objectivity.

¹⁵⁸ Ibid, A182/B225, p. 213.

¹⁵⁹ Ibid, A182/B225, p. 213.

The aim of the second analogy is to show that the connection between two events in time must be a necessary connection. In the first edition Kant explains this principle as follows: “everything that happens, that is, beings to be, presupposes something upon which it follows according to a rule”¹⁶⁰. This rule is the category of causality. Two events must follow each other necessarily in accordance with the law of causality. In the absence of necessary succession of events we would not be able to think the unity of experience. For the harmony, all the relation between events must be in accordance with a universal rule rather than being arbitrary. For Kant, transition from subjective necessity of events to the objective necessity is indispensable for the sake of the unity of experience. For achieving this transition, the determination of the relation between two states must be established as necessary, namely “which of them must be placed before, and which of them after, and they cannot be placed in the reverse relation”¹⁶¹ must be determined as necessary. Kant thinks that this is possible only on the condition that “we subject the succession of appearances, and therefore all alteration, to the law of causality”¹⁶². Yet the ground of this necessary succession is objective time which is determined by apperceptive subject. Here, Kant makes an analogy between the category of causality and time. Time is thought by means of the analogy of necessary succession. The objective succession is possible in reference to objective time; if there was no objectively determined time there would not be

¹⁶⁰ Ibid, B232, p. 218.

¹⁶¹ Ibid, B234, p. 219.

¹⁶² Ibid, B238, p. 221.

the necessary succession. Moreover, it is important that the events which follow one another necessarily are the alteration of a substance. In the first analogy, it is explained that this substance must assume time as endurance. Therefore, I think, the necessary succession of events by being the alterations of a substance must depend on unchanged time.

The third analogy is pretty much the same with the second analogy. After permanence and the necessary connection, by third analogy, Kant completes his claim that all appearances must lie in one single experience.¹⁶³ We have shown that there is “a substratum of all change” and in reference to this substratum one state follows each other necessarily. The only thing that should be added to the first and the second analogy is that all appearances must coexist in order to form a unity of experience. In the first edition the first analogy is explained in this way: “all substances, so far as they coexist, stand in thoroughgoing community, that is, in mutual interaction”¹⁶⁴. With relation to the category of community the third requisite is fulfilled. For the possibility of change there must be interaction between substances and it is possible only by showing that the substances are coexistent. Nevertheless, it must be remembered that “things are coexistent so far as they exist in one and the same time”¹⁶⁵. Just like in the second analogy, this analogy, also, is in reference to permanent time.

¹⁶³ Ibid, A216/B213, p. 237.

¹⁶⁴ Ibid, A211, p. 233.

¹⁶⁵ Ibid, A238/B211, p.234.

The subjective temporal order of representations is always successive; there is no unity attributed to it, whereas the objective temporal order of representations is permanent, in necessary succession, and co-existent at the same time. In objective order, unlike subjective one, the succession must be necessary, that is, this succession is in reference to permanent substratum, and it is also shown that many representations could be located in a certain moment of time at the same time, namely, they co-exist. Because subjective temporal order of representations takes place in our inner sense, it is the order of our empirical consciousness. Unlike this order, objective order is “concerned with the *existence* of appearances as objects”¹⁶⁶. These objects are not inner representations; on the contrary, they are the objects in the fullest sense. Therefore, the order of these objects belongs to transcendental consciousness.

Through analogies Kant shows the possibility of the unity of experience in one and single time. At first, I argue, he implies that time is “the substratum of all change”, thus, in parallel with the claim of the “Transcendental Aesthetic” that “time is the formal condition of all appearances whatsoever”, Kant says in all perception “the expression of time is perceived”. By means of the first analogy, the universal basis in which all appearances must be ordered is justified by Kant. In the second analogy, the necessary connection of representations on the universal basis is demonstrated. Similarly, in the third analogy the unity of all representations in one and the same universal time is justified. In the end, it seems

¹⁶⁶ Herbert, J. Paton, *Kant's Metaphysics of Experience*, vol II, p. 178.

that the objectivity of the knowledge of the objects of the experiential world or the objective unity of experience is established by apperceptive subject through the categories. Therefore, the possibility of this objective unity resides in the possibility of objective time determination which assumes at its ground the transcendental unity of consciousness.

Here what one must notice is that without showing the possibility of objective time, that is, the transcendently determined (unified) time by apperceptive subject according to categories, it is impossible to justify the objective temporal order of all events which must take place in time. Thus, it is seen that the objective temporal order of all representations is established by apperceptive subject in time. Now it is clear that the unity of time is grounded in transcendental apperception. Nevertheless, we know that the transcendental apperception arises as a result of the consciousness of the unity of all synthesized representations in time. Thus, we can conclude that the identity of transcendental self is grounded in time. Now, I shall concentrate on this mutual dependence between time and the self.

4.2. Time as the Complementary Element of the Transcendental Self.

The apperceptive activity of the self is limited to what is given in the form of time, and the identity of this self is grounded in the unity of time. In a similar way, the unity of time is grounded in the unity of transcendental subject. Kant explains this mutual dependence as follows,

[I]n the whole time in which I am consciousness of my self, I am consciousness of this time as belonging to the unity of myself; and it comes to the same whether I say that this whole time is in me, as individual unity, or that I am to be found as numerically identical in all this time.¹⁶⁷

When it comes to the constitution of knowledge it seems impossible to think the self and time as apart from each other. It is clear that the self and time are interwoven in an indissoluble way. All appearances must be subject to time since it is the “formal *a priori* condition of all appearances whatsoever”¹⁶⁸, and all representations must be subject to the transcendental apperception because this condition indicates the possibility of the consciousness of the unity of all representations. Throughout the first *Critique*, as I have emphasized earlier, we always encounter time and the self. We find time as the condition of the “givenness” and the transcendental self as the condition of the unity. Nevertheless, the time which we have concerned so far is the unity of time which finds the possibility of its unity in the transcendental subject. However, here, I would like to make a distinction between the unity of time and “the original time”, then, I want to concentrate on this original time. After this, I investigate the relation between the original time and the transcendental subject.

It must be noted that the unity of the time is grounded in the unity of transcendental self. And this can be interpreted to mean that time depends on the transcendental self. To a certain extent, this is true; nevertheless, I believe that there is an important point which must be clarified. The fact that the unity of time

¹⁶⁷ Ibid, A362, p, 341.

¹⁶⁸ Ibid, A34, p. 77

is grounded in the self does not necessarily mean that time solely depends upon the transcendental self. The unity of time means the limitations from time as far as time is considered as the singular and unlimited whole, namely, the original time. Time as the original representation must be given unlimited.¹⁶⁹ Although human mind is not capable of knowing infinitude, at least, we may try to contemplate it to a certain extent. Only making a limitation from “the original time” and unifying the pure manifold which is received from this time, it is possible to determine the plurality of representations ordered in this limited and unified time. Therefore, the unity of representations in time depends upon the unity of time, namely, time which is unified according to a rule. Given this, “the original time” which is singular and unlimited whole does not depend on the self, but its limited part depends upon the transcendental self. To tell the truth, even this determined time does not depend on solely the self; rather, it depends on both the self and “the original time”. To clarify, the unity of time is found between “the original time” and the transcendental self as the mutual production of them. The original time just provides the pure manifold to the self so that the self unifies this manifold. In this sense they both depend upon each other.

I use the term “the original time” for the reason that I want to point out time which is both logically prior to all appearances and its own unity. Kant expresses that sensibility presents the pure manifold of time in its original receptivity.¹⁷⁰ This points out that the original time lies in the depth of human sensibility. In what

¹⁶⁹ Ibid, A32/B48, p. 75.

¹⁷⁰ Immanuel Kant, *Critique of Pure Reason*, A100, p. 132.

follows from now on, I shall try to bring out an interpretation, which may sound controversial. Yet my aim is to go deep into what is implicitly involved in Kant's thinking of time. With "original time" I want to introduce the following ideas; originally time cannot be represented as an appearance, it is a horizon that making possible temporalization, determination in time.

"The 'I think' must accompany all my representations"¹⁷¹ should be interpreted as that one must be aware of the fact that both time and the self are universal conditions of the phenomenal world as a whole. This is not explicitly stated in the above quotation, yet, when carefully looked, it can be seen that it is implied in it. I should accept that from the proposition "the I think must accompany all my representations" to my conclusion there is an obvious leap. There must be missing intermediary propositions between them.

In the "Transcendental Aesthetic", Kant claims that time is "the formal condition of all appearances whatsoever". In the "Transcendental Logic" in the synthesis of reproduction, I elaborated that time is the basis for the empirical synthesis of all representations. And then, in the "Schematism" of "Transcendental Logic" I showed that transcendental determinations of time (schemata) are the bridge between categories and intuitions, therefore, they are the foundation of the unity of all representations. Finally, in the "Analogies", it was clarified that the objective unity of experience is justified only insofar as its unity is grounded in objective unity of time. Now, we can derive the missing steps to arrive the

¹⁷¹ Ibid, B131-32

conclusion that time and the self are the conditions of the unity of experience. We have in our hand that,

_____ (1) “the I think must accompany all my representations”.

And, in the “Transcendental Aesthetic” it is clear that,

_____ (2) “time is the formal condition of all appearances whatsoever”.

In addition to these, from the “Transcendental Logic” we gain the proposition that, _____ (3) all representations in order to be a unity must stand in the unity of time.

The propositions (2) and the (3) lead us to the claim that,

_____ (4) time involves in every representations whatsoever.¹⁷²

Therefore, I conclude that,

_____ (5) time already accompanies all my representations.

Finally, after putting the missing intermediary steps into their places, I propose that,

_____ (6) time and the transcendental self are together the universal conditions of the unity of experience.

It is noteworthy that, on the one hand, time, as belonging to sensibility, is the passive condition, and on the other hand, the transcendental self, as belonging to understanding, is the active condition of knowledge. Nevertheless, although they seem different in kind, I argue that it is possible to show that they are actually same in kind. The possibility of this is found in the “Schematism”. It is obvious

¹⁷² This involvement of time in every appearances whatsoever, actually, makes “the I think” to accompany all my representations, since time and the self are interconnected in an indissoluble way.

that time belongs to sensibility, and the fact that time, as being “the form of sensible intuition”, “is contained in every empirical representation of the manifold”¹⁷³ makes it “homogeneous with appearances”¹⁷⁴. Nevertheless, time contains an *a priori* manifold of itself and this pure manifold is transcendently determined. For the reason that its content is pure and it is determined transcendently, transcendental determination of time is “homogeneous with category”¹⁷⁵. Time is not unintelligible, undeterminable. Categories are time determinations only insofar as time lets itself to be determined. That transcendental determination of time is “homogeneous with a category” denotes time’s relation to understanding and, accordingly, to the transcendental subject. Thus, we might interpret that time and the self are same in kind.

In addition, the original time and the transcendental self would be out of time, that is, they will be timeless. What I want to say briefly is that neither time nor the self are subject to time’s effect. As we have discussed earlier everything has to be in a temporal order; time encompasses everything whatsoever, except the transcendental unity of the self and itself. Similarly, every element of knowledge has to be related to the self for to be unified. This takes us to the conclusion that these two strange elements together function as the limiting condition of our knowledge of the phenomenal world. By an analogy, it can be said that they are the ultimate endpoints, the borders of the theoretical knowledge about the world of

¹⁷³ Immanuel Kant, *Critique of Pure Reason*, A139/B178, p. 181.

¹⁷⁴ Ibid, B178/A139, p. 181

¹⁷⁵ Ibid, B177/A138, p. 181.

experience. Furthermore, from their being timeless and being the limiting conditions of our knowledge, the fact that they cannot be predicates of a subject term necessarily follows. Time and self encompass all objects of knowledge so that we can know these objects since they are inside these borders. However, we cannot know time and the self as phenomena; we cannot objectify them because they are not encompassed by the time and the self. Here, I share the conclusion of Melnick¹⁷⁶ that the self (and so is time) is not an appearance. This is the reason why they cannot be a predicate for human subject. It is true that the determination of time and the empirical self are appearances, yet, what we are concerned here is the original time and the transcendental self. If they are considered as appearances, for us to know them as objects they have to be in time which would be absurd. If the original time was in time there would have to be another time in which this original time has to be located. Likewise, if the (transcendental) self was in time, there would have to be another self to give it a unity. In this way we would never stop at a certain point, and it would go on *ad infinitum*. Therefore, it is quite clear that time and self cannot be located in time and we can never know them as we know the objects of experience — the phenomena.

We reached to the conclusion that time and the self are together the conditions of the experiential world. However, it is not reasonable to think that there are two independent conditions of knowledge because in that way there would be two different types of knowledge depending on two different conditions. Thus, we are supposed to answer one final question: if there seem to be two

¹⁷⁶ Arthur Melnick, *Kant's Theory of the Self*, (New York: Routledge, 2009)

conditions of knowledge, are these two conditions the same or complementary parts of a whole? I think that the answer should be the following: they are complementary and inseparable aspects of the one single whole. Only in this way, the architectonic in Kant's *Critique of Pure Reason* makes a perfect sense.

Adopting Kant's well known quotation¹⁷⁷ about intuition and categories to the time and the transcendental self, I would like to say that the (the unifying power of) transcendental apperception without time is empty, and the original time (that gives or provides a pure content, or even a reason for determination) without transcendental apperception is blind. It must be so because "without any determinate manifold combined in thought, the subject could not exercise any reflective operation, and therefore could not be regarded as apperceptive."¹⁷⁸ Without, this original sense of time that gives a pure manifold without giving itself i.e., without appearing, but letting things appear; the unity of consciousness as the transcendental condition of knowledge would be an empty, senseless representation (the bare I) without any companion.

Finally, because these two strange elements are (1), out of time, (2), the conditions of the world of experience, and accordingly, (3), they cannot be objects, it seems quite reasonable to propose that they are same in kind. And to use a metaphorical language, if they are the borders or the ultimate endpoints within

¹⁷⁷ "Concepts without contents are empty and intuition without concepts are blind", A51/B75.

¹⁷⁸ Frank. M. Kirkland, "Apperception and Combination: Some Kantian Problems", *Philosophy and Phenomenal Research*, Vol. 49, No. 3 (Mar., 1989), p. 451.

which the whole experience takes place, these borders have to encompass all knowledge as far as this knowledge is considered as the knowledge of the phenomenal world. Therefore, sooner or later these two conditions which seem quite different have to meet somewhere. In the end, in their meeting point they complement each other by constructing a uniform whole: a whole which is timeless and serves as the sole condition for our theoretical knowledge of the phenomenal world.

CHAPTER V

CONCLUSION

Thus, the main objective of this study is to reveal what kind of role time plays in the constitution of human theoretical knowledge. Because my thesis explores the significance of time in the *Critique of Pure Reason*, I thought it would be necessary to have a look at how time was treated in pre-Kantian modern period. In this period we see two important views concerning time. The first one is the absolutist view which is championed by Isaac Newton, and the second one is the relationist view which is advocated by Wilhelm Leibniz. Thus, my thesis started with discussing Newton's and Leibniz's conception of time by trying to understand how these two rival views contributed to Kant in developing his conception of time. I, then, investigated the role of time in the "Transcendental Aesthetic" and in the "Transcendental Logic". Sensibility and understanding are exposed in these parts respectively. Therefore, in this thesis I concentrated both on the distinction between the faculty of sensibility and understanding, and on their unification. The role of time in their unification is vital since the knowledge arises as a result of this unification. Finally, in my thesis I tried to demonstrate the inseparable connection between time and the self.

In pre-Kantian modern period, there were two widely accepted accounts of time. These are the absolute conception of time of Newton and the relational

conception of time of Leibniz. I showed that these two accounts of time had an impact on Kant in constructing his own theory. Kant thinks that time is the “formal *a priori* condition of all appearances whatsoever”. In claiming this, I argue that, Kant shares the same insight with Newton which is to take time as a principle for all objects. For Newton time is the principle upon which all objects of experience must depend. Although they share the same insight, it is not possible to count Kant among the proponents of absolute view of time; there is an enormous difference between Kant and Newton. For Kant, contrary to Newton, time is not absolute in transcendental sense. Kant takes time as a subjective condition and attributes to it an empirical reality. He says time is real as far as the objects are considered as appearances. Therefore, Kant’s conceiving time as subjective and considering objects as appearances totally differentiate him from the supporters of absolute conception of time. Kant also conceives time as “the form of appearances”. The form of appearances is nothing other than the pure relation. Therefore, Kant thinks that time is the pure relation of appearances. I discuss that this understanding of time is very close to the conception of Leibniz. However, Kant denies the fact that time is derived from the objects of experience. He, rather, holds that time finds a seat in the subject. According to Kant, time is not derived from appearances, yet it is activated when our sensibility receives what is given. He also claims that when we take away from appearances what belongs to sensations we have time as pure relation. At first glance, it seems that Kant derives this pure relation from appearances. However, when we remember that appearances are temporally ordered sense impressions and the possibility of their

temporal order resides in time which is inherent in the structure of our mind, we see that time is not derived from appearances. Time is our mode of receiving sense impressions. Thus, I argue that Kant can be classified neither in the absolutist nor in the relationalist camp in regard to time. In comparison to these two accounts, his conception of time is too complicated, and also a genuine one.

In the *Critique of Pure Reason*, we need to focus specifically the way in which time is discussed in “Transcendental Aesthetic” because Kant conceives time as a form of sensibility. However, for a person who wants to gain a sufficient knowledge of how Kant understands time, to restrict himself/herself only to “Transcendental Aesthetic” would be misleading. This part of the CPR provides knowledge concerning time to a certain extent, yet, without complementing this knowledge with what kind of role Kant attributes to time in the “Transcendental Logic”, the former knowledge we gained from “Aesthetic” would be insufficient. In so doing, one shall see that Kant attributes a special character to time. It has a very peculiar and distinguished status in the constitution of knowledge. In the “Transcendental Aesthetic” as “the form of inner sense”, time is taken to belong solely to sensibility. Its belonging to sensibility should not be understood as that time is empirical. Time is not content but it is the form of sensibility, and this distinguishes time from the empirical content of sensibility, namely, sense impressions. Time is pure intuition which has its own pure contents. These pure contents of time find their sources in the depth of sensibility. Considered in this way, it is seen that even though time belongs to sensibility it has, in its originality,

nothing to do with being empirical. Therefore, time is non-empirical but the sensible condition of knowledge.

It is clear that although time belongs to sensibility it is not empirical. Therefore, we see that time is pure. This purity is the reason for time to be carried up to a higher level, and has a significant role in the “Transcendental Logic”. Before this, it has a central role in the “Aesthetic”. Time, as “the form of appearances”, is contained in every appearance. This makes time to be “homogeneous with appearance”¹⁷⁹. This homogeneity puts Kant in a position to claim that “time is the formal condition of all appearances whatsoever”¹⁸⁰. Kant expressly states that time is the immediate condition of inner appearances and the mediate condition of outer appearances. Moreover, against Newton, Kant argues that time is transcendently ideal. In claiming this, he wants to indicate that as a condition that finds its seat in the subject, time has nothing to do with the objects in the transcendental sense. Yet, empirical reality of time is justified. Time is a real condition of objects of experience as far as these objects are considered as appearances. In relation to appearances time is real. The first condition of all appearances to have an objective reality is to be in relation to time. Kant also considers time as pure intuition. It is a unity the content of which is its pure manifold. The unity of time (together with the unity of space) as a pure intuition is the sole reason for the possibility of pure mathematical concepts. In the absence of

¹⁷⁹ Immanuel Kant, *Critique of Pure Reason*, B178/A139, p. 181.

¹⁸⁰ *Ibid*, A34/B50, p. 77.

the unity of space and time, it is impossible to show how we have the pure mathematical concepts. In showing the application of pure mathematical concepts to our sensible world Kant uses time and space again. Time and space as pure “forms of appearances” are the possibility of the relation of mathematical concepts to their objects in the experiential world. Time and space as “form of appearances” are assumed in every empirical intuition, and thus, they make the application of mathematical concepts to the world possible.

In the “Aesthetic” time is the condition of all appearances to be in a certain order. However, this is not the whole story. In the “Logic” Kant shows that, in addition to time’s role in the order of appearances, in the synthesis and in the unity of these appearances it has an important role to play. In the synthesis of apprehension, the unity of time is required since this unity is the basis for all appearances to be in temporal order. In a similar way, in the synthesis of reproduction, transcendental imagination synthesizes pure manifold of time, and it generates the unity of time as flowing. To put it differently, imagination generates “the representation of succession”. The representation of time as succeeding is required by imagination for synthesizing all representations. Transcendental imagination cannot establish the connection of representations to each other in the absence of “the representation of succession” as the basis of “the succession of representations”. In the synthesis of recognition, time has a crucial role in the relation of connected (synthesized) representations to the transcendental self. The

transcendental determination of time by transcendental imagination functions like a bridge in this relation. This final role of time is elaborated in the “Schematism”.

In the “Schematism” chapter, Kant, elaborates that the pure content of time is determined by transcendental imagination. Moreover, he claims that the transcendental determinations of time (schemata) must be “homogeneous with the category”¹⁸¹. I argue that time’s homogeneity with both appearances and categories, is the reason for attributing to it a distinguished status in the constitution of knowledge. This status is special because it makes possible the unification of sensibility and understanding, which is the necessity for having the knowledge of the objects of experience. Sensibility and understanding are two distinct faculties which have different powers or capacities. Kant claims that these two faculties can never exchange their function. While sensibility is the capacity of receiving, understanding is the power of knowing. He also states that for the constitution of knowledge these two distinct faculties must be united. Here, we face a problem: if they are distinct and cannot exchange their function, how is it possible to unite them? It is highly important that in establishing the unity of sensibility and understanding, Kant does not postulate a new element which has a certain power. Rather, he makes use of time because of its special status. In “Aesthetic” Kant showed that by being the condition of all appearances time is capable of relating to all appearances. In “Logic” we saw that transcendental time determination (schema) is same in kind with category. Thus, I claim that time’s

¹⁸¹ Ibid, B177/A138, p. 181.

being capable of connecting both to appearances and to categories is the possibility of the unification of sensibility and understanding.

The “Schematism” chapter is where Kant elaborates that the transcendental determinations of time (schemata) are the only possibility of the unification of sensibility and the understanding. Schematism is simply a universal procedure for categories to relate to the objects of experience. All appearances are ordered in time. If time is transcendently determined, all appearances in time are determined in a certain way which makes their subsumption under a category possible. Moreover, because transcendently determined time is “homogeneous with a category”, a category faces no problem in relating to appearances. To determine time transcendently means to conceptualize time, or to temporalize the concepts. The unification is established as a result of time’s special status. Then, I argue that, as a result of this status of time Kant does not have to introduce a new element. He solves the problem by using transcendental determination of time.

When we have a look at the issue from the perspective of self we see pretty much the same story. As a result of the synthesis of transcendental imagination time is synthesized. This synthesized time is the basis for the synthesis of representations in inner sense. Given this the synthesis of time is the condition of the empirical consciousness. Furthermore, the transcendental unity of time, as a basis for the connection all representations to a transcendental self, is responsible for the identity of the self. Time’s close relation to the transcendental self helps us to see its centrality. I finally argue that because time and self are non-temporal,

same in kind and cannot be objectified, they must be complementary parts of each other. They mutually depend upon each other. Time is the passive condition of knowledge whereas the transcendental self is an active condition. Furthermore, they complement each other in generating the condition of experience upon which all elements of knowledge must depend. They are, therefore, companions.

Time plays a central role in the constitution of knowledge. It is not only the condition of what is given to sensibility, namely, the condition of appearances but its unity is also the condition of objective determination of appearances or their being known as phenomena. Moreover, it is the key element without which the unification of sensibility and understanding, intuition and categories and of sensible and intellectual elements of knowledge would be impossible. These characteristics indicate that time is central in the constitution of knowledge. Time is a universal and necessary condition upon which the objectivity and, thus, the experience depend.

BIBLIOGRAPHY

- Alexander, Henry, G., (ed. and trans.) *The Leibniz-Clarke Correspondence*, (Manchester: Manchester University Press, 1956)
- Allison, Henry, E., *Kant's Transcendental Idealism*. (New Haven and London, Yale University Press, 1983)
- Augustine, St., *The Confessions*, trans. Rex Warner. (New York: The New American Library, 1963), pp. 167-68.
- Brentano, Franz, *Philosophical Investigations on Space, Time and the Continuum*, trans. Barry Smith, (New York: Routledge, 1988), p. 113
- Capec, Milic, "The Conflict Between Absolutist and the Relational Theory of Time Before Newton", *Journal of the History of Ideas*, Vol. 48, No. 4 (Oct. - Dec., 1987), pp. 595-608
- Caygill, Howard, *A Kant Dictionary*, (Oxford and Massachusetts: Blackwell Publishers, 1995)
- Cassirer, Ernst, "Newton and Leibniz", *The Philosophical Review*, Vol. 52, No. 4 (Jul., 1943), pp. 366-391
- Green, J. Everet, *Kant's Copernican Revolution*, (New York and Oxford: University Press of America, 1997).
- Guyer, Paul, *Kant*, (London and New York: Routledge, 2006)
- Heidegger, Martin, *Kant and the Problem of Metaphysics*, trans. James S. Churchill, (Bloomington: Indiana University Press, 1962)
- Hume, David, *A Treatise of Human Nature*, (Oxford and New York: Oxford University Press, 1978)
- Kant, Immanuel, *Critique of Pure Reason*, trans. Norman Kemp Smith, (Boston/New York: Bedford/St. Martin's, 1929)
- Kant, Immanuel, *Prolegomena to any Future Metaphysics*, trans. and ed. Gary Hatfield, (Cambridge: Cambridge University Press, 2004)

- Keller, Pierre, *Kant and the Demand of Self Consciousness*, (Cambridge: Cambridge University Press, 1998),
- Kirkland M., Frank, “Apperception and Combination: Some Kantian Problems”, *Philosophy and Phenomenal Research*, vol. 49, No. 3 (Mar., 1989), pp. 447-461
- Longuenesse, Beatrice, *Kant and the Capacity to Judge. Sensibility and Discursivity in the Transcendental Analytic of the Critique of Pure Reason*. (New Jersey: Princeton University Press, 2000)
- Mann, Doug, “Kant's Theory of Time and the Unity of the Self”, *South African Journal of Philosophy*, vol. 15, Issue 2, (May., 1996), pp. 51-9.
- Melnick, Arthur, *Kant's Theory of the Self*. (New York: Routledge, 2009)
- Morrison. P. Ronald, “Kant, Husserl, and Heidegger on Time and the Unity of ‘Consciousness’”, *Philosophical and Phenomenological Research*, Vol. 39, No.2 (Dec., 1978), pp. 182-198.
- Paton, Herbert, J., *Kant's Metaphysics of Experience*, Volume I, (London: Routledge, 1936).
- Paton, Herbert, J., *Kant's Metaphysics of Experience*, Volume II, (London: Routledge, 1936).
- Rosenberg, Jay, F., *Accessing Kant. A Relaxed Introduction to the Critique of Pure Reason*. (Oxford: Calderon Press, 2005)
- Rundle, Bede, *Time, Space and Metaphysics*, (Oxford: Oxford University Press, 2009).
- Sallis, John, *The Gathering of Reason*, (Ohio: Ohio University Press, 1980).
- Schaper, Eva, “Kant on Imagination”, *Philosophical Forum*, 2, 1970, pp. 430-445.
- Seung, Thomas, K., *Kant: A Guide for the Perplexed*. (London/New York: Continuum, 2007)
- Sherover, Charles, M., *Heidegger, Kant and Time*, (Bloomington: Indiana University Press, 1971).

Toulmin, Stephen, "Criticism in the History of Science: Newton on Absolute Space, Time, and Motion, I", *The Philosophical Review*, vol. 68, No. 1 (Jan., 1959), pp. 1-29

Wilkerson, Terrence, "Kant on Self-consciousness", *The Philosophical Quarterly*, Vol. 30, No. 118 (Jan., 1980), pp. 47-60.

Woods, Michael, "Kant's Transcendental Schematism", *Dialectica*, vol. 37, No. 3 (1998), pp. 202-219.