

**THE ONTOLOGICAL FOUNDATIONS OF McTAGGART'S
ARGUMENT ON THE UNREALITY OF TIME**

by

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Foreword

What is time? Does time exist? Is time objective in the sense that what exists has temporal dimension independently of our consciousness of time? Is time subjective? Is there only one time or are there different times? What is the relation of time to change? What is the relation of time to space? What are present, past and future? Does past exist? Does future exist? What makes some moments of time present, some moments of time past and future? Why can we not change past? Do we change future? Why do we feel ourselves as bounded with time? Are we bounded with time?

These are the questions which I was interested in and which motivated me to decide the subject of my M.A. thesis as something which is related to the concept of time. I did not really know which aspects of time I would consider. When I started to read some articles and books related to the concept of time, I realized that, in the analytic tradition, works on the philosophy of time are related either directly or indirectly to McTaggart's argument on the unreality of time. I tried to understand both the argument and the objections raised against it from different points of view. To be sincere, I was somehow bored with the discussions concerning the reducibility of the A-series to the B-series and vice versa. I thought that there was something missing both in the argument and its critiques. What seemed to me as missing from the argument is what McTaggart means by an event and why he accepts events as the only possible subjects of changes. So, I felt a need to investigate McTaggart's philosophy.

McTaggart establishes first the general characteristics of the whole existence and then he considers what can be empirical and practical consequences of such a system. The reality or unreality of time is a question which is considered as one of the empirical consequences of the ontological system by McTaggart himself. The unreality of time as a consequence, also determines others consequences of his ontology.

In the second chapter of my thesis, I expose McTaggart's ontology. I try to give an account of his views on reality, existence, substance, quality, relation, group of

infinite divisibility of substance, determining correspondence, the unity and the order of the Universe, matter, sensa and spirit.

In the third chapter, I try to investigate the connections between McTaggart's ontology and the argument on the unreality of time. I also give an account of his explanation of how we misperceive substances as existing in time.

In the fourth chapter, I consider some critics of McTaggart and argue that they have all missed what McTaggart means by the unreality of time.

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Abstract

In this thesis, it is attempted to investigate the ontological foundations of McTaggart's argument on the unreality of time which is generally considered independently from McTaggart's ontology. It is also aimed to show that McTaggart's ontology is essential for a proper understanding of the argument on the unreality of time.

According to McTaggart, the Universe is the substance which contains the contents of an infinite number of substances which are its parts. The Universe as a whole is a non-changing substance. The Universe and its parts are all spiritual substances. Any change in any one part of the Universe would mean the change of the Universe; that is to say the destruction of the Universe itself. What McTaggart means when he states that time is unreal is that existence as such cannot have temporal dimension.

The thesis is aimed to show that McTaggart's claim that time is unreal is a consequence of his ontology in which there is no place for change and thus for existing events. It is also argued, in the thesis, that the critiques of McTaggart's argument from different points of views do not apply to the argument because they do not consider McTaggart's ontology which gives rise to the rejection of the reality of time.

Özet

Bu tezde McTaggart'ın zamanın gerçek olmadığına dair argümanının ontolojik temellerinin belirlenmesine çalışılmıştır. Argüman genellikle McTaggart'ın ontolojisinden bağımsız olarak ele alınmış ve eleştirilmiştir. Tezde, McTaggart'ın argümanını doğru olarak anlayabilmek için ontolojisinin de gözönünde bulundurmak gerektiği savunuluyor.

McTaggart'a göre, Evren sonsuz sayıda, her biri bir cevher olan parçalardan oluşmuş bir bütündür. Evrende hiç bir şey değişmez. Evrenin herhangi bir parçası değişir ise, bu, bir bütün olarak evrenin değişmesi, bu Evren olarak varlığını yitirmesi anlamına gelir. Hem Evren hem de parçaları ruhsal cevherlerdir. McTaggart'ın zamanın gerçek olmadığı iddiasının anlamı böyle bir varlığın zamansal boyutunun olamayacağıdır.

Bu tezde McTaggart'ın argümanının McTaggart'ın ontolojisinin bir sonucu olduğu ve bu gözönünde bulundurulmadan yapılan eleştirilerin argümana uygulanamayacağını gösterilmeye çalışılıyor.

I. McTaggart's Ontology

An examination of McTaggart's ontology is necessary for an understanding his view on time as well as other consequences of his ontology. He clearly states at the very beginning of *The Nature of Existence* ¹ that "I shall also consider what consequences can be drawn from these general characteristics with respect to various parts of the existent which are known to us empirically."² According to McTaggart the reality or unreality of time is an empirical question which can be answered on the basis of an ontological system.

I.1. Reality and Existence

McTaggart's ontology begins by examination of two similar but intuitively different ontological notions. These are 'existence' and 'reality'. According to him, existence, appears to be a species of reality.³ Whatever exists must be real, although, according to McTaggart, this statement is not problematic; however, the converse statement, that is, what is real is also existent involves a philosophical problem. The converse statement cannot be decided a priori; what can be done is either to state or to eliminate things that are suggested to be real without being an existent.

Reality, according to McTaggart is indefinable.⁴ When one states that whatever is, is real, one is not giving a definition of reality, because the 'is' is being and being is the same thing as reality. But this apparent definition helps us in understanding the denotation of reality: "Reality, then, is an indefinable characteristic, of which it can be said that whatever is, is real"⁵, where he means by characteristics both qualities and relations.

Existence, too, is indefinable.⁶ It can be defined neither in terms of reality nor in terms of other things. But one can determine the cases in which reality involves existence. Things

¹J. M. E. McTaggart, *The Nature of Existence*, Vol.I, Cambridge University Press, Cambridge, 1921.

²Ibid., p.3

³Ibid., p.3

⁴Ibid., p.3

⁵Ibid., p.3

⁶Ibid., p.5

and events, if they are real, are existents. The qualities and relations of existing things and events are also existents. The qualities and relations of these existing qualities and relations are also existents. If, for example, Socrates is real, then he exists. Moreover, his wisdom and his moral superiority to Nero exist. But the quality of wisdom and the relation of moral superiority do not exist by themselves, apart from the particular existents, even if they are real. In other words, qualities and relations, considered by themselves, do not exist, even if they are real. Hence, it is in this particular sense that a real is not an existent.

McTaggart proposes three classes of entities as being real without being an existent. These are propositions, qualities and relations, and possibilities. He considers each one of these and discusses whether they can be real without being an existent. The most important one in these three classes is the class of propositions. McTaggart's examination of the possibility of propositions being real and non-existent is through the examination of a truth theory which necessitates propositions. It must be noted that his aim is not to establish a truth theory; that is to say is not epistemological. His aim is to eliminate propositions as a class of real but non-existent entities through eliminating the role played by them in a correspondence theory of truth, in other words, his aim is ontological. Propositions are distinguished on the one hand from beliefs and on the other hand from the existing facts.⁷ For example, the proposition that 'Socrates is wise' is a different entity from anyone's belief that Socrates is wise and from the fact that Socrates is a wise man.

According to those who claim that propositions are real without being an existent, a belief is true if it corresponds to a true proposition and it is false if it corresponds to a false proposition. McTaggart agrees with those who claim that what makes a belief true is a correspondence: its coherence with other beliefs, its completeness and its possession of a systematic nature cannot be what makes a belief true; they can at most be criteria for deciding whether a belief is true. What makes a belief true, or the nature of truth, is a correspondence relation, not with a true proposition, but only with a fact. According to McTaggart, fact is the possession of a quality by anything or the connection of anything

⁷Ibid., p.9

with anything by a relation.⁸ The relation of correspondence is an original relationship and it cannot be defined. The need for propositions in a truth theory comes from the need for objectivity and in such a theory truth is attributed to propositions. In McTaggart's theory, truth is attributed to the beliefs and objectivity is guaranteed by the objective facts: truth is a relation of correspondence between beliefs and objective facts and falsity is a relation of non-correspondence to all facts; in other words, a belief is false if there is no fact to which it corresponds.⁹ In this view, truth is not independent of the beliefs, but this does not make the view completely subjective, because objective facts are independent of the beliefs.¹⁰ Truth seems to be a quality of beliefs, because we say that such and such a belief is true and such and such a belief is false without mentioning the other term of the relation in which the belief stands. Although, the quality of being a true belief is a quality of the true beliefs, the beliefs possess this quality because they stand in correspondence relation to the objective facts; they do not stand in the relation of correspondence to objective facts, not because they possess the quality of being a true belief. In this sense, the correspondence relation between the beliefs and objective facts is prior to the quality of being a true belief.¹¹

Those who claim that propositions are necessary as non-existent but real entities may accept correspondence relation between beliefs and objective facts. However, as a criticism, they may think that this relation is not sufficient for understanding the nature of truth: there must be a correspondence between beliefs and proposition so that the beliefs can be true. The necessity that beliefs correspond to propositions springs from two thoughts: the first, some may claim that there are many things which are true without being thought, or without being believed; and the second, according to them, all truth is timeless.¹²

According to the first criticism above, a theory such as McTaggart's, makes truth depend upon its being known; in McTaggart's theory, it seems that 'A is X' is true because someone has a true belief in 'A is X'. But it is the converse, someone's belief in 'A is X' is

⁸Ibid., p.11

⁹Ibid., p.20

¹⁰Ibid., p.16

¹¹Ibid., pp. 11-12

¹²Ibid., p.15

true because 'A is X'. They claim that truth, being objective, must be independent of beliefs; no one can make a fact true by believing in it or can make it false by not-believing in it. Then, according to these, there must be some other things which are true independently of being believed or not; and these are the propositions.

According to McTaggart, although only beliefs can be true or false; they are not true or false by themselves. In order a belief be true, it should correspond to a fact; what makes a belief true is its correspondence to a fact. It is not necessary for a belief to correspond to something true in order to be true; but it is necessary that it corresponds to an external fact which is independent of the belief. The objection that 'A is X' is true because it is believed to be true is valid if believing is understood as the sufficient condition of being true. But this is not the case; believing is necessary but not sufficient for something to be; there must be a correspondence between the belief and the fact.

The second reason for holding that propositions are necessary in the theory of truth, is the claim that whatever is true is timelessly true. If this is so, then propositions are indispensable because only propositions are timelessly true; the beliefs and the facts cannot be timelessly true because they are in time. Propositions can be real without being in time because they are non-existent entities. However, beliefs and facts are existent entities and only existent things can be temporal.¹³ Therefore propositions as being timeless, real but non-existent entities are necessary in order truth to be timeless.¹⁴

In McTaggart's ontology, there is no need for propositions as timeless entities. The beliefs are psychical facts in the mind: my belief in A is X now is a different belief from your belief in A is X now and from my belief in A is X the other day. All these beliefs in A is X are respectively true or false, with reference to the existence or non-existence of the fact A is X, whenever they are believed to be so.¹⁵ If I have a belief that A is X, and it is a fact that A is X, then my belief in A is X is true. Similarly all beliefs which assert that A is X are also

¹³Ibid., p.17

¹⁴Later, after establishing that time is unreal, McTaggart claims that beliefs and facts, as existent things are timeless, because nothing existent can be temporal; but at this stage, it would be invalid to assert that beliefs as existent things are also timeless, and it would not affect the argument for the necessity of propositions as real but non-existent entities.

¹⁵Ibid., p.19

true if they correspond to the facts, there is then no need for the timelessly true proposition 'A is X'.

This consideration does not disprove the claim that there are propositions which are non-existing but real. It shows, however, that there is no need for propositions as real but non-existing entities. However it can be claimed that there arises a need for the reality of non-existent facts, because some beliefs are true or false according to whether there are some non-existent facts. McTaggart argues against this claim and states that truth or falsity of all beliefs can be derived from their correspondence to the existent facts.¹⁶

Beliefs can be classified into two: beliefs which profess to refer to an existent fact and beliefs which do not profess to refer to an existent fact.¹⁷ The true beliefs in the first class are non-problematic; they are true by virtue of their correspondence to the existent facts. Similarly, beliefs of the first class are false because they do not correspond to the existent facts. Therefore, with respect to the beliefs which profess to refer to the existent facts, there is no need to accept the reality of non-existent facts.

Beliefs such as 'Perfection is a quality', 'two sides of a triangle are always longer than the third' and 'All lions are mortal' are beliefs which do not profess to refer to existent facts. This kind of beliefs have a common nature: they assert that the presence of a quality implies the presence of another.¹⁸ 'All lions are mortal' means that the characteristics which define a lion cannot be found without the characteristic of mortality. 'Smith is wiser than Jones' means that the characteristics which identify Smith cannot be found without the characteristic of being wiser than Jones. Similarly the characteristic of triangularity implies that the sum of two sides of a triangle are always longer than the third.

When one considers the true beliefs which do not profess to refer to an existent fact, one sees that there are two classes: In the first class, beliefs are true by virtue of their

¹⁶Ibid., p.23

¹⁷Ibid., p.23

¹⁸All beliefs do, in fact, assert a concomitance of characteristics. Only beliefs which do not assert such a concomitance are beliefs where the subject of beliefs is immediately perceived by the person who asserts the beliefs, like "I am happy", "This is red". Ibid., p.24. Those beliefs which assert a concomitance without an implication are beliefs which profess to refer to an existent fact. Ibid., p.25

correspondence with the existent characteristics of existent substances.¹⁹ For example; the law 'All lions are mortal' is true because it corresponds to the fact that the characteristic of being a lion has the characteristic of implying the characteristic of being mortal and the characteristic of being mortal has the characteristic of being implied by the characteristic of being a lion. Both of the characteristics of being a lion and being mortal are existent characteristics of existent substances. Therefore the truth of 'All lions are mortal' consists of its correspondence to the existent facts.

In the second class of true beliefs which do not profess to refer to existent facts, beliefs assert a characteristic of some non-existent things. For example, 'A man cannot be phoenix' is true. We know that phoenix is not existent. It seems that the truth of this assertion cannot consist of its correspondence to the existent fact. McTaggart claims that although there is nothing which has the quality of being a phoenix, the quality of not-being a phoenix is possessed by everything which is not a phoenix.²⁰ The nature of man includes the quality of not-being a phoenix, not-being a table, not being a lion, etc.. Therefore the truth of the assertion that 'A man cannot be a phoenix' is established by its correspondence to the existence of the quality of not-being a phoenix, and hence there is no need for non-existent but real facts.

The falsity of beliefs which do not profess to refer to existent facts consists of their relation of non-correspondence to all facts. In this case, too, there is no need for non-existent but real facts. A belief of this kind is false since there is no fact to which it corresponds.²¹

The second kind of entities which may be suggested as non-existent but real entities are characteristics. As it is considered with reference to the beliefs which do not profess to refer to existent facts, all characteristics including such characteristics as not-being a phoenix are existent, because they are characteristics of existent things. There is no characteristic which is real but which is not possessed by existent things; that is to say, there

¹⁹Ibid., p.26

²⁰Ibid., p.27

²¹Ibid., p.31

is no characteristic which is not existent but real.²² That is, McTaggart concludes that all characteristics are characteristics of existent things.

Possibilities are the third kind of entities which may be claimed to be real but non-existent. According to McTaggart, possibility may have different senses: in the first sense, it means nothing else than the limitation of knowledge.²³ If I say 'It is possible that it may rain tomorrow', what I mean is that 'I do not know whether it will rain tomorrow or not'. Therefore it is not a statement about a non-existent reality, but about my knowledge.

However, possibility is generally used to assert that the case may be different although we know that it was not the case. I may say that 'It was possible that it did not rain yesterday', in case it had rained. In this case, it is either a statement about my knowledge; and it may then mean that I see no reason why it did rain yesterday, or a statement about some particular field of circumstances in the sense that there were nothing to ensure the rain yesterday.²⁴ If the possibility is asserted of a single thing, the field of circumstances can be discovered: 'It was possible that it did not rain yesterday' may mean that the fact that there was a particular kind of wind did not ensure that it did rain yesterday; because this kind of a wind sometimes is accompanied by rain, sometimes is not.

When the possibility is claimed of a class of things, the particular field of circumstances consists of those which are included in the definition of the class of things. If one says 'it is possible that a triangle should be equilateral', it means that being a triangle does not imply either it is equilateral or it is not equilateral. In this sense, possibility is reduced to the implication of a characteristic by another characteristic. It was shown that this relation is an existent fact.²⁵

We have seen that in McTaggart's ontology all characteristics are existent and all statements about possibilities can be reduced to either statements about knowledge or to statements about the implication of a characteristic by another one. Therefore two kinds of

²²Ibid., p.32

²³Ibid., p.32

²⁴Ibid., pp.32-33

²⁵Ibid., p.33

entities which are claimed to be real without being existent are shown to be existent and hence real, since what is existent is real.

However, this is not the case with propositions because if propositions are real, they must be non-existent. So far, it has been shown concerning propositions that there is no need for them in the understanding of the nature of truth. Is there any positive reason to claim that propositions are not real?

McTaggart thinks that his theory of truth is simpler than theories which include propositions: according to him, his theory requires only one kind of correspondence; the relation of correspondence between beliefs and facts whereas according to other theories there are two relations of correspondence. The first between beliefs and facts and the second between beliefs and propositions.²⁶ Although a simpler theory is better, this fact does not prove the unreality of propositions.

Let us reconsider the problem: according to McTaggart, a belief is true if it corresponds to a fact. The belief is subjective because it is a belief of a knowing subject. The fact, which is not in itself true, is that what makes a belief true, and it is objective. A proposition, in one aspect, is like a fact because it is objective and in another is like a belief because it is what is true. McTaggart argues that if a proposition is distinguished from the belief, it cannot be distinguished from the fact, and if it is distinguished from the fact it cannot be distinguished from the belief. If the subjective aspect of belief is eliminated, the truth is also eliminated since there remains only the fact which is not true by itself. Similarly, if the objective fact is eliminated, there remains only the subjective belief which cannot be true by itself. In other words, if there was no belief, there would be nothing, including the propositions, which can be claimed to be true, and if there were no facts, there would be nothing, including the propositions which make the beliefs true. In both cases, the reality of propositions turns out to be superfluous and untenable, since in the absence of either one of two components of truth, propositions do not guarantee the truth.²⁷

²⁶Ibid., p.35

²⁷Ibid., p.36

As it was stated in the beginning of this section, according to McTaggart there is no problem concerning the statement that what is existent is also real. The interesting statement is what is real is existent. McTaggart also believes in the converse statement; he proves that characteristics and possibilities are existent and thus real. Even if propositions would hold to be real without being existent, this does not affect the philosophy of McTaggart because they are not essential to his ontology. The study of the whole existence is the study of the whole reality.

I.2. Substance, Qualities and Relations

It was pointed out that McTaggart's aim is to determine the characteristics which belong to all that exist, or to the whole existence. One should obviously entitle first the following question: does anything exist?

The proposition 'Nothing exists' is not self-contradictory; its truth or falsity cannot be determined by pure logic. According to McTaggart, although it is not inconsistent with itself, it seems to be contradictory with its assertion or contemplation by a person. If anyone asserts his belief that 'nothing exists', then a contradiction arises because his belief exists. However, if he goes further and claims that his belief is an illusion and denies that the explanation that if this belief is an illusion then something exists, there is then no way to make him believe in this explanation, that is, to make him believe that something exists.²⁸

Similarly the proposition 'Something exists' is not self-evident and it cannot be decided by pure logic. The truth of this proposition depends upon the truth of some other proposition which asserts that some particular thing exists: "... the evidence that any particular thing exists, always consists in perception. We can have no reason for believing X to exist, unless we either directly perceive X itself, or else perceive Y, whose existence involves the existence of X."²⁹ By perception, McTaggart means "that species of awareness which we have of the existent -awareness being a mental state which is not a

²⁸Ibid., pp.58-59

²⁹Ibid., p.59

belief, though it is knowledge".³⁰ Perception is a kind of awareness; it is awareness of substances as opposed to the awareness of characteristics. Although the evidence for the proposition that 'something exists' is empirical and not a priori³¹, since the perception is the awareness of substances as existents, perception is only an evidence for 'something exists', and not that which makes something exist. "If I perceive anything at all, and so can judge that the thing perceived exists, that is sufficient to prove the proposition 'something exists' which is all that is wanted..".³² If a man is contemplating whether something exists, he can judge something to exist because he is perceiving by introspection a state of his mind, namely the contemplation of the question that whether something exists.

The 'something' in 'something exists' must not be understood in the literal sense. It must be understood in the most abstract, indeterminate, indefinite sense. The 'something' here is the most abstract subject of predication. If it were used in the literal sense, it might mean that the existent is a thing, in other words it simply means that it exists. It might mean that which exists has no nature other than its existence. According to McTaggart, claiming that the existent has no nature other than its existence is equivalent to claiming that nothing exists, because existent by itself "is a perfect and absolute blank".³³ Therefore the existent must have a nature other than its existence.

If this is so, then there must be something which is true of the existent: "... that which is true of something is a quality of that something. And therefore whatever exists must have some quality besides existence, which is itself a quality."³⁴ The previous description of quality must not be understood as a definition, because quality is indefinable. The description is useful as a tool for deciding whether something is a quality or not: if it is true of or false of something, then we can say that it is a quality.³⁵ Since quality is an indefinable

³⁰Ibid., p.40. McTaggart refers to B. Russell's "Knowledge by Acquaintance and Knowledge by Description". *Mysticism and Logic and Other Essays*.

³¹Ibid., p.42

³²Ibid., p.42

³³Ibid., p.60

³⁴Ibid., p.61

³⁵McTaggart distinguishes between the term "true of" or "false of" on the one hand and "true" or "false" on the other; the first are applicable to the qualities whereas the second are applicable to beliefs or assumptions. Ibid., p.61

concept, then what we can do is to exemplify qualities such as redness, triangularity, sweetness, goodness, etc.

Whatever exists must have some qualities other than its existence. Moreover, whatever exists must not have certain qualities. If something possesses the qualities of redness and squareness, then it cannot possess the qualities of blueness and triangularity. Furthermore, it must also possess the qualities of being not-blue, being not-square as it was pointed out in the discussion on propositions.³⁶ There is a positive aspect of the negative predication. First, knowing about something that it is not square is knowing something about its nature, namely its being not-square. Secondly, there is a difference between 'This is-not square' and 'This is not-square' because the second emphasizes the positive aspect of negative predication.³⁷

All existents must have a plurality of qualities. In fact, everything that exists have as many qualities as there are positive qualities since they possess either the positive quality or the corresponding negative quality.

Qualities can be classified into two; those which admit of analysis and those which do not.³⁸ The second group is called simple qualities; this kind of qualities are indefinable qualities. The first group is further divided into two; compound and complex qualities. Compound qualities can be analyzed into an aggregate of other qualities; any two qualities form a compound quality; for example, red and sweet is a compound quality; square and triangle is a compound quality.³⁹ Complex qualities do not consist of aggregates of qualities but are definable in terms of other qualities or relations. For example, not-red, not-square, etc., are complex qualities.

Compound qualities may have parts, and complex qualities may have elements which are themselves compound or complex; and which are themselves analyzable into compound or complex qualities. But the series of analysis cannot be infinite; the analysis must end with the simple characteristics which are either qualities or relations. There must be simple

³⁶See p.6 of the thesis.

³⁷Ibid., p.63

³⁸Ibid., p.64

³⁹Ibid, p 63

characteristics so that any compound or complex quality be definable. The meaning of a compound or complex quality depends upon the meanings of its parts or its elements which are themselves compound or complex. If there were no simple characteristics, the analysis of the compound or complex quality would go on endlessly and then it would have no meaning at all, since the series of analysis would have no final term which would define the preceding terms.

All qualities of a thing form a compound quality. McTaggart calls this compound quality the nature of the thing which has this compound quality.⁴⁰ The nature of a thing is the compound quality which is an aggregate of all of its qualities.

So far, we have seen that something exists; and that something which exists has qualities. These qualities are themselves existent and since these qualities are existent, they have qualities and so on infinitely. There must be something at the beginning which is not a quality. This something is generally called substance.⁴¹ This definition is not to be understood as a real definition. In fact, according to McTaggart, a substance cannot be defined in the strict sense of the term. Substances are particulars and particulars cannot be defined. Only characteristics which are not simple can be defined. The consideration above of substance is to be understood as a tool for determining what the kind of thing that can substances or as a definition of the quality of substantiality, be.⁴²

According to McTaggart, the concept of substance is indispensable. Some may think that if the necessity of substance arises from the predication of qualities to some subject, then one can substitute some aggregate of qualities for the substance itself. McTaggart opposes to this kind of view and claims that no quality or aggregate of qualities can be substituted as subject of predication for substance.⁴³ Substance cannot be a quality because a quality cannot exist by itself. If one states that Smith is happy, none of his qualities or some aggregate of them cannot be substituted for Smith, because happiness cannot belong to some quality or to an aggregate of some qualities.

⁴⁰Ibid., p.65

⁴¹Ibid., p.66

⁴²Ibid., p.66

⁴³Ibid., p.67

Similarly, that something which has qualities without itself being a quality cannot be a relation. A relation cannot exist by itself and it cannot be substituted for a substance as the subject of predication. Therefore, there must be something which has qualities without itself being a quality or a relation; there must be the substance.

The next question to be asked is 'Is there only one substance or are there many substances?'.⁴⁴ McTaggart uses the term 'differentiation' to indicate only the plurality of substances as opposed to the plurality of qualities. A substance is differentiated if it has parts which again are substances. For example, Boğaziçi University is a differentiated substance since its parts, schools, are also substances. The question whether every substance is differentiated or not is a different question and it will be considered later, and it will be argued a priori that there is no substance which is not differentiated.

The present question is whether substance is differentiated or not. According to McTaggart, the evidence for answering this question is empirical. If I perceive something, this proves that I and something else exist. But this is reliable so far as we are certain that solipsism is not true and self does exist. Even if solipsism were true, we can still claim that substance is differentiated. If time is real, states of myself in each moment of time will be separate substances and then substance is differentiated. If, as it will be argued later, time is unreal, these states of myself will still be separate and there will be a differentiation of substance.⁴⁵

If I perceive redness and shrillness simultaneously, I have two different perception-data which are substances having qualities and relations without being a quality or a relation.

The differentiation of substance can be proved by the perception of a single datum: "For, besides the perception-datum, there is also a perception. If, as I believe to be the case, the perception is a mental state, then that and the datum are two substances. If on the other hand, ..., the perception is a relation of which the datum is one term, then the other term

⁴⁴Ibid., p.73

⁴⁵Ibid., p.75

must also be something existent -presumably the self- and, once more, two substances must exist.”⁴⁶

Similarly, the differentiation of substance can be argued from thought. In order to make a judgement one must be aware of at least two things. If, for example, I have the judgement that substance is undifferentiated, I must have two awarenesses: the awareness of substance and the awareness of what is meant by undifferentiation. If, as McTaggart holds, these awarenesses are parts of my self, then there are two separate substances. However, if a judgement is a relation between self and some non-existent things, then the existence of judgement does not involve the existence of some substances other than the self.⁴⁷

The proposition that substance is differentiated is self-evident to a person who accepts that he has reliable perceptions. This is a sufficient proof of the differentiation of substance. Those who reject this proposition must also deny that they have perceptions and this will then be complete scepticism.

Thus, McTaggart establishes the differentiation of substance, in other words the plurality of substances. The important point is that nothing is said to prevent the claim that what exists is only one substance. Later, we will see that, in McTaggart's ontology there is only one substance and this substance is the Universe.⁴⁸ The differentiation of substance is proved through the existence of substances as parts of another substance. The plurality of substances does not prevent the existence of all of them as a whole, as a unity, as only one substance.

Since there is a plurality of substances, there must then be relations between them.⁴⁹ It is clear that there are at least two relations between substances. First, all substances are similar one to another since they are all substances and have the quality of substantiality. Secondly, all substances are diverse from one another since they are all separate substances.⁵⁰ Therefore all substances are terms in the relations of similarity and diversity.

⁴⁶Ibid., p.76

⁴⁷Ibid., p.77

⁴⁸See Section (I.6) of the thesis

⁴⁹Ibid., p.79

⁵⁰McTaggart uses the term 'diversity' in the sense of 'being numerically different' and not in the sense of 'dissimilarity'. Ibid., p.79

The concept of 'relation' is indefinable.⁵¹ We can only give examples of relations as in the case of quality. A is larger than B, A is the father of B, A is to the right of B, etc., are some relations. The difference between quality and relation cannot be defined since both term are indefinable. The difference can be described by indicating that quality is of something but the relation is between something and something. According to McTaggart, there must be a plurality in order there to be a relation. Even if in the case of the identity which is a one-term relation, one must use the term twice in order to express the relation.

McTaggart states that the concept of 'relation' is indispensable for describing reality.⁵² The relations are at the same ontological level with the qualities. Both qualities and relations exist as belonging to the substances.

Many philosophers have rejected the ultimate existence of relations. Most of them have tried to eliminate relations by substituting qualities for relations. They tried to reduce statements about relations to the statements about qualities. According to McTaggart, the main philosophical reason behind the rejection of the relations is the problem concerning where they exist. Where are the relations? A relation is not in its terms taken separately. If A is larger than B, the relation 'being larger than' is neither in A nor in B; it is between A and B. It appears therefore that there is no other thing in which relations may exist.

McTaggart rejects this reasoning because the impossibility of relations is derived from the impossibility of the relation inhering in something. These philosophers have thought that relations must behave like qualities, and since they do not, they do not exist.⁵³

McTaggart thinks that relations must exist. They do not exist in anything but between something and something and 'between' is as ultimate as 'in'. Substances exist and they are identical with themselves; they are similar in the aspect of substantiality and they are diverse in the aspects of plurality.

Some may accept the existence of the relations but reject their ultimacy and may claim that the relations are reducible to qualities. There are three facts, according to McTaggart,

⁵¹McTaggart had used the concept of 'relation' several times to provide explanation; it is not used for defining something or in a proof as an essential concept.

⁵²Ibid., p.80

⁵³Ibid., pp.81-82

which lead to the view that relations are reducible to qualities.⁵⁴ First, a relation may be based on a quality in each of its terms. However this does not mean that it can be reduced to those qualities. For example, if A is larger than B, the relation may depend upon the fact that A covers two square-meters and B covers one square-meter. Secondly, as we shall see later, the existence of any relation between two substances involves the existence of a quality in each of these substances. For example, if A loves B, it is a quality of A being a lover of B and it is a quality of B being loved by A. However, the relation of loving can neither be reduced to being a lover nor to the being loved. Thirdly, a relation determines a quality of any whole which contains all the terms of the relation. If a chair A is larger than another chair B, then the room which contains the chairs and the universe which contains every substance have the quality 'containing the chair A and the chair B where A is related to B by the relation being larger'. Similarly the relation between the parts of a substance cannot be reduced to the quality having these parts which are related in such a manner.

Therefore both relations and qualities exist. As we have stated, McTaggart uses the term 'characteristics' as including both qualities and relations.

Relations can be classified into three groups: A simple relation is one which cannot be analyzed any further. A compound relation is one which can be analyzed into an aggregate of simple relations. A complex relation, on the other hand, is one which is not an aggregate of simple relations but which can be analyzed by means of other relations or qualities.⁵⁵

Every relation is either reflexive or unreflexive or not-reflexive: If A is a substance, A is identical with itself; if A is the father of B, B cannot be the father of A; and, if A is an admirer of B, B may or may not be an admirer of A.

Every relation is either symmetrical or asymmetrical or not-symmetrical: If A is equal to B, B is equal to A; if A is the father of B, B cannot be the father of A; and if A loves B, B may or may not love A.

Every relation is either transitive or intransitive or not-transitive: if A is the ancestor of B and B is the ancestor of C, then A is the ancestor of C; if A is the father of B and B is

⁵⁴Ibid., p.82

⁵⁵Ibid., p.84

the father of C, then A cannot be the father of C; if A is the first cousin of B and B is the first cousin of C, A may or may not be the first cousin of C.⁵⁶

McTaggart distinguishes between the notions of 'relation' and 'relationship'.⁵⁷ For example, if A admires B and C and D, admiration is a relation whereas the admiration of A for B, the admiration of A for C, and the admiration of A for D are three different relationships. A stands in only one relation but in three relationships, and it also has three qualities such as being an admirer of B, being an admirer of C and being an admirer of D. These kind of qualities are called derivative qualities.

There are derivative qualities which are generated from relations. If a substance A stands in a relationship R to something B; that is ARB, RB constitutes a quality Q of A, namely standing in the relationship R to B. Then another relation R' holds between A and Q: AR'Q; R'Q constitutes another quality Q' of A where Q' is the quality of standing in the relation R' to Q. Then a relation R'' holds between A and Q': AR''Q'; R''Q' constitutes another quality Q'' of A where Q'' is the quality standing in the relation R'' to Q'. Q'' is related to the substance A by a relation R''' and so on infinitely.

Here are two infinite series: one is the series which is formed by the qualities Q, Q', Q'',... where the qualities Q, Q', Q'' are derivative relational qualities which are generated from the original relationship R. The second series is the series of R, R', R'', R''',... where R is an original relationship and R', R'', R''' are derivative relationships which are generated from R.

There are also derivative relationships which are generated from qualities. If any substance A has an original quality Q, then a relation R holds between A and Q: ARQ; RQ can be called another quality Q', namely standing in relation R to Q. But since A has Q' as a quality, another relation R' holds between A and Q': AR'Q'. R'Q' can be called Q'' and another relation R'' holds between the substance A and the quality Q'': AR''Q'' and so on infinitely. This gives us an infinite series whose terms are relationships in which one term is the substance A and which are generated from the quality Q of A: R, R', R''...

⁵⁶Ibid., p.84-85

⁵⁷Ibid., p.86

Derivative qualities can be generated only by relationships whereas derivative relations can be generated both by relations and qualities. For this reason, there are two sorts of derivative relations and only one sort of derivative qualities.⁵⁸ All sorts of derivative relations together with derivative qualities are called derivative characteristics. All qualities and relations which are not generated are called original characteristics.⁵⁹ From the ontological point of view, there is no difference between original and derivative characteristics. All characteristics of a substance are parts of the infinite nature of the substance. The nature of the substance is infinite since the series of the derivative characteristics are infinite. This infinite nature of the substance is a compound quality since it can be analyzed into simple qualities or relations.

There is a distinction of importance among the characteristics of a substance. For example being good is important for a man but "being a man in the relationship of inherence between himself and goodness could scarcely be interesting to any sane man".⁶⁰ Original qualities and derivative qualities which are immediately generated from original relationships are called primary qualities. Every other quality which is derived from primary qualities is called a repeating quality.⁶¹

The change in any one characteristic of a substance is a change in the nature of the substance and therefore in the substance. Moreover, if any substance changes, all other substances must change. If A and B are two substances, then they must be related at least by similarity since they both have the quality of substantiality, and by diversity since they are two different substances. If A changes then B must change because the object to which B stands in a certain relation is changed. Even if B has the same relation to A, A as a term of the relation is changed, and then B stands in the same relation to something which does not have the same nature as before. Then, the derivative quality of B which is generated from its being related to A changes; hence B's nature changes and thus B changes.⁶²

⁵⁸Ibid., p.88

⁵⁹Ibid., p.88

⁶⁰Ibid., p.89

⁶¹Ibid., p.90

⁶²Ibid., p.87

Now, one must ask the question whether it is possible for two different substances to have the same nature. According to McTaggart, diversity, in other words, being numerically different, implies dissimilarity. McTaggart uses dissimilarity to exclude only exact similarity whereas it is compatible with all partial similarities. That is to say, according to McTaggart, if two things are numerically different, they must have different natures, they must be different at least in one of their characteristics.

If two substances are different, this difference must originate from some difference in their primary qualities; in other words, in their original qualities or derivative qualities which are immediately derived from original relationships. There could be no difference in repeating qualities if there were no difference in primary qualities.

If two substances are diverse then they are dissimilar. If A and B are substances, then A is identical with A and A is diverse from B whereas B is neither identical with A nor diverse from itself. There must be other dissimilarities between these substances, because in this case dissimilarity of diverse is explained by the diversity itself: since they are diverse, they are dissimilar.

According to McTaggart, those who deny the dissimilarity of diverse think that the substance has some individuality apart from its nature. According to this view, two substances may be different in respect of their individuality although they have the same nature. McTaggart thinks that when one tries to explain their distinct individuality one must explain it on the basis of some difference in their characteristics. Since, in his theory, every characteristic is a part of the nature of the substance, the diversity is explained by the difference in nature. Therefore two different substances cannot have the same nature.⁶³

The view that a substance has an individuality which independent of all of its qualities, according to McTaggart, is absurd. If individuality were independent of all qualities, then it should be independent of the quality 'having an individuality which is independent of any quality'; but this cannot be the case.⁶⁴

⁶³Ibid., p.97

⁶⁴Ibid., p.98

If two things are exactly similar, they must be similar in all their characteristics, whether original or derivative; and, two diverse substances cannot be exactly similar in their original and derivative characteristics. Some think that two exactly similar substances can exist at different times and places. These, however, would be exactly similar in their original characteristics but they would be different in their spatial and temporal characteristics. So, they would be different although they are exactly similar.

McTaggart argues that even if space and time are real, the difference in their spatial and temporal characteristics would lead to a difference in their natures: two substances which exist in different times have different temporal characteristics; the first is earlier than the second and the second is later than the first, and they have different relations to the other substances in the time series. Similarly they have different spatial relations: if space is absolute, one has a place which is not occupied by the other; then their relational qualities will be different. If space is relative, and if two substances occupy the same place, then they must have the same relations to the other substances in space.⁶⁵ The difference in spatial and temporal characteristics which are derivative comes from the difference of the relations of the two substances to all other substances. According to McTaggart, the relations of a substance to other substances are original relations. Then, substances which have different spatial and temporal positions cannot be exactly similar even if they are similar in all other aspects.⁶⁶

Therefore, there can be no two distinct substances which possess the same nature. Every substance has its own nature. No substance can be completely similar to another substance. A substance is identical only with itself having the nature it has, and cannot be identical with a thing other than itself which has a different nature. McTaggart calls this 'Dissimilarity of Diverse' although he agrees with Leibniz in the content of the principle of 'Identity of Indiscernibles'.⁶⁷ Here we must point out that for Leibniz, two things are

⁶⁵Ibid., p.100

⁶⁶Ibid., p.101

⁶⁷Ibid., p.101, McTaggart thinks that the name "Identity of Indiscernibles" is inconvenient because the principle does not mean that there are indiscernible things which are identical, but rather it means that there is nothing which is indiscernible from any other thing.

indiscernible if they are indiscernible in their original qualities; because, according to Leibniz, only original qualities are real whereas, for McTaggart, all qualities and relations of a substance are real. For McTaggart, in order two things to be indiscernible, they must be indiscernible in all of their characteristics.

So far we have seen that, in McTaggart's ontology, substance exists and infinitely many characteristics of the substance exist as belonging to the substance. As we have mentioned before, a substance cannot be defined because it is particular. It can only be described by its characteristics. Since the number of characteristics of any substance is infinite and the nature of the substance consists of all characteristics it has, a complete description of a substance is impossible.⁶⁸ But every substance has at least one exclusive description. In order a description of a substance be exclusive, it must apply only to that substance and nothing else.⁶⁹ A complete description must be an exclusive description; since the complete description of a substance is given in terms of all of its characteristics which are included in its nature and since there cannot be two substances which have the same nature, the complete description of a substance should apply only to one substance and nothing else. However for an exclusive description it is not necessary to be also a complete description. 'The most virtuous man' is an exclusive description because it applies only to one substance although it is not complete.⁷⁰

Descriptions can be given in terms of characteristics. If a description is given in terms of a quality which is derived from a relation, some undescribed substances may be included in the exclusive description.⁷¹ This kind of an exclusive description is not useful since it necessitates the descriptions of other undescribed substances. For example, if A is the father of B and C and if A is described as 'the substance which possesses the qualities of being the father of B and being the father of C', this description of A is exclusive; however, exclusive as such the description necessitates the descriptions of B and C.

⁶⁸Ibid., p.102

⁶⁹Ibid., p.102

⁷⁰Ibid., p.104

⁷¹Ibid., p.103

An exclusive description which is given entirely in terms characteristics is called a sufficient description.⁷² Every substance must have at least one sufficient description although we may not know what sufficient description it is and we may not even know the substance to which the description applies. The necessity comes from the fact that every substance has its own nature and is dissimilar to all other substances. Therefore there must be a way, for all substances, to describe each of them uniquely.

A sufficient description of a substance might consist of a simple quality if only this substance and nothing else possesses it. Similarly a sufficient description might consist of a single complex quality or a single compound quality which has other qualities as its parts. It might also be case that a sufficient description consists of infinitely many qualities. The description can be of the type 'A has quality X, quality Y, quality Z,...'. The number of qualities required for excluding everything other than A might be infinite without being vicious.⁷³

A substance might have more than one sufficient description. For example, the descriptions 'the most virtuous of all beings' and 'the most powerful of all beings' may apply only to one substance.

A substance A must have a sufficient description. The necessity comes from its existence. Since it exists, it must be dissimilar to all other substances, e.g., it is dissimilar to B. Since B exists, it must be dissimilar to all other substances, e. g., C which must be dissimilar to all other substances. "If this series is infinite, it is vicious. For, starting from the existence of A, each earlier term requires all the later terms, and therefore requires that the series should be completed, which it cannot be."⁷⁴ If this series is infinite, A cannot be dissimilar to all other substances, and so on. Then A cannot have an exclusive description, and thus cannot have a sufficient description. If A exists, the series cannot be infinite and A must have a sufficient description.

We have discussed the relations of a substance to its characteristics. Now, we must look at the relations between characteristics; that is, how characteristics are related with

⁷²Ibid., p.104

⁷³Ibid., p.104

⁷⁴Ibid., p.108

each other. It will be sufficient to study the relations of qualities because this will include the qualities of standing in different relations and the relations of relations to qualities.⁷⁵

According to McTaggart, there is only one obvious relation between qualities. If a substance A has as qualities X and Y, then in some cases the proposition 'A has X' implies the proposition 'A has Y' and in some other cases, the proposition 'A has X' does not imply the proposition 'A has Y'. One can explain the relations between qualities on the basis of the relation of implication.

According to McTaggart implication is an indefinable relation between propositions.⁷⁶ It can be described as follows: the proposition P implies the proposition Q "when (1) if I know that the relation holds between P and Q, and know P to be true, I am justified by this knowledge alone in asserting that Q is true, and when (2) if I know that the relation holds between P and Q, and know Q to be false, I am justified by this knowledge alone in asserting that P is false. From this, of course, follows the proposition that Q must be true or P false."⁷⁷

A similar relation holds between characteristics. This is the relation of intrinsic determination which is defined in terms of implication: "The quality X will be said to determine intrinsically the quality Y, whenever the proposition that something has the quality X implies that something has the quality Y".⁷⁸ The relation of intrinsic determination may hold between characteristics of a single substance or between characteristics of different substances. For example, if a substance has the quality blue, this intrinsically determines that the same substance has the quality of spatiality; if a man has the quality of being a husband, than a woman, a different substance, has the quality of being a wife. All substances have the quality of having qualities and the quality of standing in relations. These two qualities intrinsically determine one another in all substances.

The relation of intrinsic determination may or may not be reciprocal. If we take as examples the relation of intrinsic determination between being husband and being wife, this

⁷⁵Ibid., p.110

⁷⁶Ibid., p.110

⁷⁷Ibid., p.110

⁷⁸Ibid., p.111

relation is reciprocal whereas the intrinsic determination between blueness and spatiality is not.

If quality X does not intrinsically determine quality Y, then Y is contingent to X or Y is intrinsically undetermined by X. If Y is contingent to X, X may or may not be contingent to Y; for example, blueness is contingent to spatiality whereas spatiality is intrinsically determined by blueness. For any two substances A and B, both A and B have the quality of substantiality and A has the quality of being dissimilar to B. Therefore being dissimilar to B is contingent to the quality of substantiality since A has both substantiality and dissimilarity to B as two of its qualities whereas B has substantiality without having the relation of dissimilarity to B; in other words, dissimilarity to itself. Therefore every quality of a substance is not related by the relation of intrinsic determination. Some qualities are intrinsically determined by some other whereas some are not.⁷⁹

There exists another kind of determination between characteristics of a single substance, namely, extrinsic determination. Although some of the qualities of a substance are intrinsically contingent to some others, every quality of a substance extrinsically determines all the others; any two qualities of a substance are related by the relation of extrinsic determination. Let us suppose that X,Y,Z represent the infinite nature of a substance A. Let us suppose further that any of the qualities of A is altered by addition, subtraction or substitution such that the representation of the nature of A becomes W,X,Y,Z or X,Y or W,X,Y. Since none of these three natures is identical with the nature of A, the substances having natures represented by these cannot be A whose nature is represented X,Y,Z.⁸⁰ Therefore, any change in any quality of a substance A is a change in the nature of A and it means the destruction of the substance A. In this sense, any quality of a substance A extrinsically determines all other qualities of A. There can be no change in A; A is either the substance it is with the nature it has, or it does not exist. Therefore no quality of A is completely contingent to any other quality of that substance and no quality of a substance A cannot remain the same when some qualities of A is altered. Since every quality of a

⁷⁹Ibid., p.112

⁸⁰Ibid., pp.112-113

substance extrinsically determines all the other qualities of that substance, every quality of that substance indirectly and intrinsically determines one another.

The relations of intrinsic and extrinsic determinations are not similar. First, if a quality X intrinsically determines another quality Y, then the proposition that X occurs implies the proposition that Y occurs; however, there is no implication in extrinsic determination. Secondly, intrinsic determination is a universal relation; if X intrinsically determines Y, then whenever X occurs, Y must occur. Extrinsic determination is not universal; it only holds between particular occurrences of qualities. Thirdly, intrinsic determination may or may not be reciprocal whereas extrinsic determination is reciprocal since any quality of a substance determines every other quality of that substance. Fourthly, intrinsic determination may hold between qualities of a single substance or between qualities of different substances while extrinsic determination, so far as we have considered it, holds between all characteristics of a single substance.

There might be objections to the conclusion that no substance can remain the same when some of the qualities are changed. The same substance can be hot on Sunday and cold on Monday and can be a poker on both days. McTaggart argues against this type of an objection by saying that the change one should consider is not temporal change. If time is real, then the same poker can be hot on one day and cold on another day. The change McTaggart considers is a hypothetical change: "if it (i.e., the substance) had not been, as it was, hot on Sunday, it could have been the same substance as the one which actually was hot on Sunday".⁸¹

Some objections are due to the confusion of intrinsic and extrinsic determination. For example, the quality of being a mountain which is possessed by the mountain Snowdon, cannot determine its quality of being today M metres high because a substance which is M-1 metres high today can also be a mountain. Therefore, if Snowdon with its present height M did not exist, there could be a mountain with the qualities of Snowdon except its present height and the qualities which are intrinsically determined by its present height. McTaggart

⁸¹Ibid., p.115

points out that this is possible because being a mountain does not intrinsically determine being M-metres high. The substance which has the qualities of the Snowdon except its M-metres height can be a mountain and can be called 'Snowdon', but it cannot be the same substance, in other words, the present Snowdon, because being a mountain and having M-metres height as two qualities of Snowdon extrinsically determine one another.⁸² Moreover, it can be claimed that since characteristics exist as belonging to the substance, the characteristics of Snowdon exist so far as they are characteristics of Snowdon. If a substance which is different from Snowdon in only its height existed instead of Snowdon, the characteristics of Snowdon would not exist as characteristics of Snowdon; they would exist as characteristics of something else.

Another objection is originated from the view that a substance has an individuality which is independent from its nature; in other words, from the sum of its qualities. According to this view, a substance could be the same substance even if its nature were totally altered. As it was considered before, McTaggart thinks that this view leads to the absurdity that the individuality of a substance is independent from all of its qualities including the quality 'having an individuality which is independent of all qualities'.⁸³

Now, it is clear that there is mutual dependence between the characteristics of a substance. Both intrinsic and extrinsic determinations which hold in a substance are expressions of the unity of the substance. The substance is a real unity and its nature which consists of all of the characteristics it possesses, including all relations which the substance stands to all other substances, is a real unity, so far as the nature of the substance is considered as a unity of composition. The nature is compounded of all characteristics, in other words, it is compounded of its differentiations.⁸⁴ These characteristics are interdependent because they are differentiations of the same nature. If any one of them is removed, then the other cannot remain the same; and the nature itself will be destroyed.

⁸²Ibid., pp.115-116

⁸³Ibid., p.118

⁸⁴The characteristics are not differentiations of the substance itself, but they are differentiations of its nature. Ibid., p.120. As it was mentioned before, the differentiations of the substance are its parts which are again substances.

This unity can be seen from a different and a complementary view. The unity is not only a unity of composition. The unity of the nature of a substance, which is at the same time a plurality, is manifested in the characteristics of the substance. This is what McTaggart calls the unity of manifestation.⁸⁵ By manifestation, McTaggart means: "the relation between a whole and its parts, so that the parts are regarded as due to the differentiation of the whole rather than the whole union as due to the union of the parts".⁸⁶ The characteristics of a substance are the manifestations of the nature of that substance, but not the substance itself because the characteristics are parts of the nature of the substance, and not the parts of the substance itself.⁸⁷

The unity of manifestation is generally thought to be more important, because the unity of manifestation emphasizes the whole rather than the plurality it contains; that is to say, its parts; whereas the unity of composition emphasizes the plurality rather than the whole which is a compound of the parts. This view is not true according to McTaggart. Both the unity of the whole and the plurality it contains are important. There is only one whole which is a unity. The unity of composition and the unity of manifestation are two expressions of the one and the same whole.

I.3. Group of Substances

So far we discussed the characteristics of a substance and the relations of characteristics to that substance. We clarified how McTaggart proves the plurality of substances and we considered the relations among substances so far as it is required to establish their dissimilarity. All substances are dissimilar to one another and all substances are diverse from one another. No two substances can possess the same nature.

There are, however, similarities between substances, as well as dissimilarities. Substances may have and do have some qualities in common. For example, every substance

⁸⁵Ibid., p.121

⁸⁶Ibid., p.121

⁸⁷We shall see later that the substance is itself manifested in its parts which are again substances. McTaggart calls this 'Organic Unity'.

possesses the quality of substantiality, the quality of existence, the quality of possessing qualities, the quality of standing in relations and the quality of being dissimilar to all other substances. In these respects, all substances are similar.

It is necessary to point out that the plurality of substances which are connected by a quality is not analogous to the plurality of qualities which are connected by a substance. Every substance has a plurality; in fact, an infinite number of qualities. But every quality does not apply to the plurality of substances. There are qualities, for example, the quality of being the present king of France, which does not apply to any substance. There are also qualities which apply only to one substance, for example, as we shall see later, the Universe.

Therefore, we can say that some qualities apply to all substances, some qualities apply to no substance and some qualities apply to some substances. If a quality applies to more than one substance, there is a similarity in this respect between these substances. In order to deal with this kind of similarities, McTaggart considers the notion of a group.

McTaggart defines a group as "any collection formed of substance or of collection of substances, or of both". The substances or collections of substances which form the collection are called members of the group.⁸⁸

According to McTaggart, there are important distinctions between a group and a class. A class is determined by a class-concept. The quality of being a member of a class P can be defined, for example, as having the qualities X, Y, Z. By using this definition one can determine whether something is a member of the class P or not. The members of a group is determined by denotation; one cannot determine whether something is a member of a class L by a definition although the quality of being a member of L can be defined as possessing some qualities. If A, B, C are substances or collections of substances which are members of the class L, being a member of the class L may be defined as possessing the qualities RST, or UVW, or XYZ where these qualities constitute sufficient descriptions of A, B, and C respectively. In order to know what the members of the group are one must first know the group itself. Therefore we cannot determine the members of the group by definition above

⁸⁸Ibid., p.130

but we can define the members of the group if the members of the group are already determined. The reason for this is that "the substances do not belong to the group because they have such and such qualities in common but because this particular group which consists of those particular substances".⁸⁹

Another important distinction between groups and classes is that a group, by definition, has as its members only substances or collections of substances whereas a class may consist of qualities and characteristics besides substances or collections of substances.

These distinctions have some significant consequences. First, a class may contain no member; in other words, there can be the empty class. For example, the class of the present king of France is empty. Similarly, a class may contain only one member; e.g., the class of the present president of France has only one member. However, a group must contain more than one member; it can neither contain no member, nor contain only one member because it is defined as a collection formed of substances or collections of substances.⁹⁰

Secondly, a class can be a member of itself, but a group cannot. For this reason, the so-called Russell's Paradox applies only to classes and not to groups. If L is a group formed of A, B, C, it cannot be the member of itself, because its members are only A, B and C. Of course A, B, and C may be groups. If A is group, it cannot be the same group with L since their members are different. L and its members A, B, C may be members of the another group M, but M cannot be L.

Thirdly, two different classes may be coextensive. Two classes which are determined by different class-concepts may have the same members whereas no two groups can be coextensive. This, however, does not imply that the two classes are identical.⁹¹

Fourthly, every class which has at least two members form a group whenever the members are substances or collections of substances.

Being a member of a group and being a part of a group are different relations. Being a part of a whole is a transitive relation: if A is a part of B, and B is a part of C then A is a

⁸⁹Ibid., p.130

⁹⁰Ibid., p.131

⁹¹We should note that McTaggart does not accept Russell's view that the classes which have the same members are identical.

part of C. However, being a member of a group is not transitive: If a group L which consists of A, B and C, is a member of the group M, then A is not a member of M although A is a part of both M and L. All members of a group are parts of the group whereas some parts of a group are members and some are not members of it.⁹² If, for example, we consider the group of the counties of Turkey, all counties of the Turkey are both members and parts of the group. However neither Marmara region nor Rumelihisarı is a member of the same group although one is a whole which has as its parts some members of the group (namely those counties which are included in the Marmara region) and the other is a part of a member (since Rumelihisarı is a part of İstanbul) of the group. Marmara region and Rumelihisarı are parts of the group of the counties of Turkey since they are parts of the whole which consists of the counties of Turkey, although they are not members of it.

This brings us to the concept of a set of parts of a whole: "A set of parts of any whole is any collection of its parts which together make the whole and do not more than make it up, so that the whole would not be made up if any of those parts, or of their parts, should be subtracted".⁹³

The set which consists of the regions of Turkey is a set of parts of Turkey. Similarly the set of counties of Turkey is a different set of parts of Turkey. The regions of Turkey except Marmara region and the counties of Marmara region constitute another set of parts of Turkey. The regions of Turkey and Rumelihisarı do not constitute a set of parts of Turkey because there would still be the whole if Rumelihisarı is not considered.

Every whole except the wholes which are formed of two indivisible parts (if there are any) have more than one set of parts.⁹⁴ These different sets of parts of the same whole have the same content. The content of a group is defined as "the plurality which is identical in the different sets of parts of a group".⁹⁵ The regions of Turkey and the counties of Turkey have the same content.

⁹²Ibid., p.133-134

⁹³Ibid., p.134

⁹⁴We will see in Section (I.4) that every whole is infinitiely divisible and thus there is no whole which has indivisible parts.

⁹⁵Ibid., p.135

The group which is formed of the regions of Turkey and the group which consists of the counties of Turkey have the same content although they are different groups. They are different because they have different members. Two groups have the same content if there is no part of one which is not a part of the other.⁹⁶ The reason is that although they are different groups, the reality which their members denote is the same reality. Two groups have completely different content if no part of one is a part of the other. If two groups have some parts in common, then they have partially identical contents.

There can be groups which are formed of two members one of which is a part of the other. These are called repeating groups.⁹⁷ Let us suppose that the substances A and B form a group L. Then there is a repeating group M whose members are A, B and L; and there is repeating group N having M, L, A and B and so on infinitely. M and N are groups according to the definition of a group; they are collections of substances and/or collections of collections of substances. M and N are repeating groups because they repeat the the content of L.

Only repeating groups have some sets of parts in which a part occurs more than once. In the above case, the set of parts of L is A and B. L and A is a set of parts of M. A, B and A is another set of parts of M, because these three make up M and nothing more. If B or one of the occurrences of A is disregarded, M would not be made up.⁹⁸

A group is a substance according to the definition of substance; it has qualities and relations and it is not a quality or a relation itself.⁹⁹ Since groups are substances and some substances have substances as their parts, parts of groups are substances or collections of substances. Substances which have substances as their parts are called compound substances.¹⁰⁰

Although every group is a substance, every group is not a different substance. It is mentioned above that some groups have the same content. The groups which have the same

⁹⁶We will see that in the case of repeating groups, two groups may have the same content even if one has a part which is not a part of the other.

⁹⁷*Ibid.*, p.136

⁹⁸*Ibid.*, p.137

⁹⁹*Ibid.*, p.138

¹⁰⁰*Ibid.*, p.138

content may be different groups because they may have different members. The group of the regions of Turkey and the group of the counties of Turkey are different because their members are different; but they are the same substance since their content is identical.

A substance which is compound has as many groups as it has sets of parts since different sets of parts have as their members the members of different groups. Every compound substance generates infinite number of repeating groups. In order a substance be compound, it must have at least two parts. As we have seen, every group which has at least two members generates infinite number of repeating groups. The repeating groups have the same content with the non-repeating group which generates them, and the repeating groups and the non-repeating group are all identical with the compound substance.¹⁰¹

We have said that two groups have the same content if there is no part of one which is not a part of the other. The repeating groups are exceptions to this description. They have the same content although some of them have a part which is not a part of the others. Suppose that the group L has A and B as its members; the group M has L and A as its members and the group N has M and A as its members. N and A has the same content although N has a part M (which is its member and then its part, since every member of a group is a part of the group) which is not a part of L (which is neither its members nor a part of one of its members). McTaggart gives a more proper definition of identity of content as follows: "if we say that two groups have the same content, if a set of parts can be found for each, such that there is no part in the one set which is not also a part in the other set. N, for example, has, as a set of parts, A,B,A,A, and L has as a set of parts, A,B. And there is no part in either of these sets which is not also a part in the other."¹⁰²

Any two or more substances which have no part in common, in other words, which do not have the same content wholly or partially, form a compound substance. For example, my table, a rabbit in Australia and the last medicine taken by Louis XV form a compound substance. This may seem paradoxical. There is nothing paradoxical according to the definition of substance. The group which has as its members my table, the rabbit in

¹⁰¹Ibid., p.139

¹⁰²Ibid., p.139

Australia and the last medicine taken by Louis XV is a group since it has substances as its members and it is a substance since it has qualities and relations without itself being a quality or a relation.¹⁰³

For certain groups, there are qualities which are possessed by all of their members. McTaggart calls these common qualities.¹⁰⁴ For example, existence, substantiality and possession of qualities are common qualities in all groups. There are also common qualities which are shared by all and only members of certain groups; these are called exclusive common qualities.¹⁰⁵ For example, to be an elephant is an exclusive common quality of the group of elephants.

Every group has one or more exclusive common qualities. If L is a group whose members are A and B, then A and B have in common the quality of being a member of L and nothing else has this quality. Similarly A and B have common the quality of being diverse and dissimilar to all substances which are not members of L. Therefore, in L, there are at least two common exclusive qualities.

Although we know that such exclusive common qualities exist, we cannot completely know these qualities. In order to know them, we must know every substance which is not a member of the group L. If a substance C exists, then being dissimilar to C is an exclusive common quality in L. But if another substance D exists, the quality being dissimilar to C is not an exclusive common quality in L, because the substance D which is not a member of L also possesses it. As we shall see, the number of substances is infinite. Therefore, for knowing A and B as dissimilar to all other substances as the members of L, we must know the infinite number of substances which are not members of L. But this exceeds our power of knowing although we know that this quality exists.¹⁰⁶

According to McTaggart, the exclusive common qualities in a group can be classified into two: "The first includes those which can be defined (or, being simple, can be known

¹⁰³Ibid., p.140

¹⁰⁴Ibid., p.143. A common quality *in* a group is different from a quality *of* a group. For example, being an elephant is a quality which is common in all members of the group of elephants, but it is not a quality of the group of elephants since the group of elephants is not an elephant.

¹⁰⁵Ibid., p.143

¹⁰⁶Ibid., p.144

without a definition) without the introduction of exclusive descriptions of all the substances which are members of the group. The second includes those which do require the introduction of some such descriptions."¹⁰⁷ As it is explained above, in every group there are exclusive common qualities of the second class. At the present stage, we do not know whether the members of every group has some exclusive common qualities of the first class. Later, we will see that every substance belongs to at least one group, all of whose members has an exclusive common properties of the first class.

It is not possible for a group to contain every other group as its parts; in other words, there is no group which contains all other groups as it parts. The reason is that every group generates an infinite number of repeating groups and the group which generates the repeating groups is a part of all of the repeating groups. By the same reason, no group can have all other groups as its members.¹⁰⁸

But this does not mean that there can be no substance of which all other substances are parts. Since there is no repetition of part of the content in substance, there is nothing which is similar to the repeating groups in substance.¹⁰⁹ There is a substance which has all other substances as its parts, namely the Universe. The Universe contains all existent contents; and all other substances are parts of the Universe.

We have seen that any two substances which do not contain the same content in whole or in part form a compound substance. If there is a substance A, then the content which is not in A must be in some substance or substances other than A. By adding A and the substance or substances which contain the content which is not contained by A, there will be a substance which contains the whole existent content: The Universe. All other substances are parts of the Universe.

The definition of Universe as the substance which contains all existent content and the definition of it as the substance which has all other substances as its parts are both true of

¹⁰⁷Ibid., p.145

¹⁰⁸Ibid., p.146

¹⁰⁹This might seem to be paradoxical because every group is also a substance. Although every group generates an infinite number of repeating groups, the groups which are generated are neither members nor parts of the group which generates them. Therefore there is nothing paradoxical in saying that although no group can have all other groups as its parts, a substance can have all other substances as its parts.

the Universe; the possession of one as a quality involves the possession of the other.¹¹⁰ In fact the Universe is a particular substance and for this reason it cannot be defined. The preceeding definitions are definitions of the quality of being a universe, not the Universe itself.

There cannot be more than one universe; if there were, these would contain the same content, that is the whole existence and thus would be identical. 'Universe' applies only to one substance; therefore it is a sufficient description of it. The application of the quality of a universe only to one substance distinguishes the substance from all others; for this reason we can speak of it as *the* Universe.¹¹¹

Now, we must investigate the relations between substances which are parts of the Universe and the Universe itself. According to McTaggart, the possession of a quality by anything, or the connection of anything with anything by a relation is a fact. If it is fact that any substance other than the Universe has a quality then this fact is an element in a fact about the Universe.¹¹² If Socrates is a philosopher, then it is fact about the Universe that it has a quality of having a part with the qualities of Socrates among which the quality of being a philosopher is included.

If any substance A, other than the Universe, has a quality X, then the Universe has a quality χ such that χ is that quality of the Universe which contains A as a part with the quality X. The possession of X by the substance A and the possession of χ by the Universe intrinsically determine one another because the proposition that A possesses X implies the proposition that the Universe possesses χ . If A did not possess the quality X, the Universe could not possess the quality χ , and if the Universe did not possess χ , then A could not possess X.¹¹³

We have seen that all qualities of any substance A extrinsically determine one another: If any quality X of A is changed, then the other qualities of A cannot remain the same, because the change of X results in the change of the nature of A. Since the Universe is a

¹¹⁰Ibid., p.146

¹¹¹Ibid., p.146

¹¹²Ibid., p.148

¹¹³Ibid., p.150

substance, every quality of the Universe extrinsically determines every other quality of the Universe, for example, χ extrinsically determines every other quality of the Universe.¹¹⁴

If A had not X, then the Universe could not have a quality ψ which it had, because X intrinsically determines the quality χ of the Universe and χ extrinsically determines the quality ψ of the Universe. Thus X extrinsically determines ψ .

Similarly if a quality ψ of the Universe were different, the substance A could not have the quality X; because ψ extrinsically determines χ which intrinsically determines X. Thus ψ extrinsically determines X.

Therefore "every fact about every other substance extrinsically determines every fact about the Universe, and every fact about the Universe extrinsically determines every fact about every other substance".¹¹⁵

If A had not X, then any substance other than A could not have the qualities it has. For example, if any substance B, other than A, has any quality Y, then the Universe has the quality ψ which is the quality of containing B as a part with the quality Y. Y and ψ intrinsically determine one another, because the proposition that B has Y implies the proposition that the Universe has ψ and vice versa. ψ and χ extrinsically determine one another because both of them is a quality of the same substance, namely the Universe. χ intrinsically determines the quality X of the substance A. If A had not X, the Universe could not have χ and then it could not have ψ . If the Universe did not have ψ , then B could not have Y. Thus if A had not X, B could not have Y.¹¹⁶

The occurrence or non-occurrence of any quality of any substance extrinsically determines the occurrences or non-occurrence of any quality of any substance. "The occurrence, then, of any quality of any substance extrinsically determines every other occurrence of a quality of any substance. ... (since) the individuality of a substance is inseparable from the qualities it possesses, and, by determining what qualities occur, and in what combinations, it is also determined what substance possesses them. By determining, in

¹¹⁴Ibid., p.150

¹¹⁵Ibid., p.151

¹¹⁶Ibid., p.151

other words, that a substance exists with a certain nature, we determine what substance exists."¹¹⁷ Therefore, the whole existence; all substances and their characteristics are bound in a system of extrinsic determination which is called Universal Determination.

Now, we can return to the objection raised against the extrinsic determination: if the mountain Snowdon did not have its present height, there would be a mountain with the qualities of Snowdon except its present height. It is clear that this is an untenable view, because if the present mountain did not exist, the present Universe would not exist.¹¹⁸

One of the important conclusions of this is the rejection of counterfactuals. McTaggart states that we cannot properly make suppositions about what would happen if something were different from what it is.¹¹⁹ The rejection of counterfactuals does not lead to some difficulties for the general laws which are usually stated hypothetically. According to McTaggart, a general law is not primarily about any individual, either actual or possible. A general law is a statement about a relation between two characteristics. A general law states that whenever a characteristic X occurs, then a characteristic Y also occurs.¹²⁰

The relations we have investigated with respect to the Universe and other substances as the parts of the Universe are true of all substances which has parts. "If a substance A, has a part B, whose nature consists of the qualities XYZ, then it will be a quality of A to have a part whose nature is XYZ."¹²¹

We have seen with respect of the unity of the nature of substances that there are two ways to state their unity: unity of composition and unity of manifestation. The quality of A which arises from A's having a part with the nature XYZ is not only one of the parts of the nature of A, but also a manifestation of it.¹²²

¹¹⁷Ibid., p.151

¹¹⁸Ibid., p.152. See p.25-26 of the thesis.

¹¹⁹Ibid., p.153

¹²⁰Ibid., p.153

¹²¹Ibid., p.156. In fact it is not proper to speak about a substance having a nature XYZ because, as we have seen, the nature of any substance is infinite since it is the sum of the infinite number of characteristics of the substance. Here XYZ is used to represent the infinite nature of B. McTaggart uses this notation only for simplicity.

¹²²See pp.26-27 of the thesis

There exists similar relations between a substance and its parts. A substance is compounded of its parts. It is a unity of composition. But, as it was mentioned above, having a part with the nature XYZ may be considered as a manifestation of the nature of A. Then, the existence of the parts can be considered as dependent on the existence of the whole, and we can say that the parts are manifestations of the whole. Therefore a substance is at the same time is a unity of manifestation.¹²³

The manifestation of a substance in its parts which are also substances must be distinguished from the manifestation of the nature of the substance in the characteristics of substance. A is manifested in its parts and in nothing else, whereas A's nature is manifested in the characteristics of A which includes having a part with such a nature.

We have seen that there is a mutual dependency between the parts of the Universe. Each part of the Universe is dependent upon the others, because the qualities of the Universe stand in the relation of extrinsic determination. Now it is clear that the parts of all substances are mutually dependent. If any part of any whole were different, the whole would be different and the whole would not be what it is. If any whole were different from what it is, no part of it could remain the same. Thus if a part of any whole were different, then no part of it could be the same. Moreover, since the parts of a whole manifest the whole, no part of a whole could manifest the whole if other parts did not manifest the whole. The parts co-operate to manifest the whole: every part of a whole manifest the whole in a different manner, but it manifests the whole if and only if other parts of the whole also manifest it.¹²⁴

McTaggart considers the term 'organic unity' and 'inner teleology' which are generally used to express the unity of a whole.¹²⁵ According to him, both term are inconvenient for expressing the unity which is reached in his system. If the terms are understood only in the sense that they express a unity in which the relations of the whole and its parts is so close

¹²³Ibid., p.156

¹²⁴Ibid., pp.157-158

¹²⁵Ibid., p.160

that a small alteration of a part will lead to the destruction of the whole, then all substances are organic unities and all of them have inner teleology.

I.4. Infinite Divisibility of Substance

Although we have, in McTaggart's ontology, examined some of the relations between the Universe and its parts which are again substances, we have not yet considered the question whether there exists an order in the Universe. In other words, we have not yet considered the question how parts of the Universe should be related one to another in order to call the Universe an ordered whole.

According to McTaggart, a whole can be ordered in three ways, each of which being compatible with the others.¹²⁶ The first is the causal order according to which a whole is ordered if its parts determine one another according to general laws. The second is the serial order in which a whole is ordered if its parts are related by a relation such that the parts should form a single series. We shall study causal and serial order later. We do not know yet whether the relations between parts of the Universe are determined by general laws and we do not know whether there exists a relation in terms of which substances which are parts of the Universe can be arranged as a single series.

The third system of order is the order of classification. McTaggart defines the concept of 'classifying system' as a preliminary concept to the definition of order of classification: "The parts of a whole may be said to form a classifying system when there is such an arrangement of parts within parts as to fix the place of each part in the whole with reference to other parts, and when each groups of parts formed by the arrangement possesses some exclusive common quality other than that which arises from its denotation. A whole may be said to possess order of classification if its parts can be arranged in a classifying system, and if that system is of such a nature that it is based on common qualities which are of fundamental importance to the parts which possess them."¹²⁷

¹²⁶Ibid., p.167

¹²⁷Ibid., p.167

No whole can be completely ordered by means of the order of classification only. This kind of a classification can be found in the animal kingdom or in a good subject-catalogue of a library. The order of classification classifies the members of animal kingdom into species and genera. For example, species can be grouped into genera, but without a sub-genus which distinguishes some species from others, the order of classification cannot determine the place of one species as distinct from the places of others. If some sub-genera are used, then each genus must contain more than one species. Even if this is the case, the positions of species in a sub-genus cannot be determined without a serial order between them. The order of classification cannot determine the mutual positions of species. Their mutual positions can be determined by a serial order.

A whole which is ordered by means of order of classification only can be considered as ordered, but only incompletely. One can consider it as ordered if the classification is made in terms of fundamental qualities of the things to be ordered.¹²⁸ The classification of human beings as man or woman is more reasonable than the classification of them as those who have an even numbers of hairs on their heads and those who have not. When one considers the Universe, there are many ways to classify the parts of the Universe which are themselves substances. However, we do not know which classification expresses better the nature of the Universe. Some ways of classification may seem more reasonable because of some of our practical interest and we have no reason to suppose that the classification which is reasonable according to our practical interest expresses the nature of the Universe.

We know that substances form groups which are themselves substances. These wholes have both unity of composition and unity of manifestation. Although some wholes seem to possess the unity of composition and some wholes seem to possess the unity of manifestation from the point of our practical interest, the unity of manifestation and the unity of composition are both fundamental. Neither of them is more important than the other.

¹²⁸We do not know yet whether each whole has such qualities other than those arise from the denotation of the whole. *Ibid.*, p.169

What we know as fundamental is only the Universe. The Universe exists, has all the existent content and includes every substance other than itself. The Universe is the only whole which is not a part.

Could there be anything which is as fundamental as the Universe? If there were simple substances, they would be as fundamental as the Universe. The simple substances would be indivisible since they are simple. They would not be groups because they would have no parts.¹²⁹ They would be parts without being wholes. They would be as important as the Universe. Therefore, in order to find out whether there exists an order in the Universe and the nature of this order, we must investigate whether there are simple substances or not.

Whether there are simple substances is the most important question in McTaggart's ontology. McTaggart's answer and the way in which he establishes the answer determine all practical consequences of his ontology including his views on time, space, matter, sensation and perception.

Are there simple substances? Are there indivisible substances? Are there substances which are indivisible in every dimension? Are there substances which are parts of some other substance without themselves having parts? Are there substances without having content? All of these questions are, in some sense, equivalent questions. A simple substance must be indivisible. Therefore it has no parts; it is a part of some substance, but it is not a whole since it has no parts. It is a part without being a whole in contrast with the Universe which is a whole without being a part. A simple substance has no content because it has no parts. A substance which has no parts cannot have a set of parts, then it cannot have any content, because content is defined as that which is identical in different sets of parts of a substance.¹³⁰

A simple substance must be indivisible, if not, it cannot be simple. This must not be understood only as the material division. A substance must be indivisible in every dimension in order to be simple. McTaggart explains the concept of dimension as follows: "The conception of dimension is applicable, not only in space, but wherever a series can be

¹²⁹Ibid., p.172

¹³⁰ See p. 30 of the thesis.

found. The terms of any series form a field of one dimension. Wherever there is a series such that each of its members is again a series, we have a field of two dimensions. The members of this field are each in some one position in one series, and in some one position in the other. If each of these members is again a series, we have a field of three dimensions, and so on."¹³¹

According to McTaggart, a substance has a dimension if it forms either a series or a term of a series in that dimension.¹³² In this sense, a geometrical line possesses the dimensions of breadth and thickness as well as the dimension of length since it is a term in these dimensions. Similarly a moment in time has the dimension of time since it is a term in the temporal series. Every substance has dimensions. (In fact, every substance has an infinite number of dimensions, because it has an infinite number of characteristics each of which generates an infinite series. McTaggart does not clearly state this.) For example, a pleasure has at least two dimensions; a temporal dimension since it lasts for a certain time and a certain intensity at different moments of that time.¹³³

The answer to the question whether there are simple substances can be based neither on perception nor on introspection. The reason is that nothing perceived or introspected is simple. McTaggart uses the term 'sense-data' for the 'perception-data' which come from external senses and the term 'perception-data' to include both 'sense-data' and the 'perceptions by introspection'.¹³⁴ We perceive external things by our external senses and we perceive events in our mind by introspection. Both perception and introspection are in time. Everything that exists in time has time as a dimension. Everything that exists in time has temporal parts which exist in the parts of time. Since a perception requires a period of time, the perception is divisible in the dimension of time. Similarly introspection of inner events is divisible in the dimension of time. Therefore neither perception nor introspection are simple.

¹³¹Ibid., p.174

¹³²Ibid., p.175

¹³³Ibid., p.175

¹³⁴Ibid., p.175

McTaggart considers the perception of self as different from both the perception of the external things and the introspection.¹³⁵ However, a man's perception of himself is not simple, because, according to McTaggart, self is not simple. If one perceives himself, he perceives the self as existing through a period of time. The self as perceived is not simple since it has as many parts as there are parts of time through which it exists.¹³⁶

If time has no simple parts, then the perception-datum has no simple parts; the perception-datum has parts which are not simple. If every period of time has an infinite number of simple parts, then the perception-datum has an infinite number of parts which are not further divisible in that dimension. If every period of time has a finite number of simple parts, then the perception-datum has a finite number of parts which are not further divisible in that dimension. But in each case; whether time has simple parts or not, the perception-datum has parts. Therefore it is divisible and it is not simple.¹³⁷

What we have discussed here is not whether what exists in time has simple parts or not but whether what is perceived in time has simple parts which are perceived. As we see above, perception requires time and as such perception-data have no simple parts which are perceived. Therefore there is nothing in perception which would enable us to claim that there are simple substances. This conclusion is true even if time is not real (as it will be shown later). Even if time is merely an appearance, whatever appears to exist in time is real, but whatever appears to exist in time is not an event, although it appears to be an event.¹³⁸

It cannot be claimed from perception that there are simple substances, equally it cannot be claimed on the basis of perception that there are no simple substances. There might, however, be simple substances which we do not perceive.

The question whether there are simple substances is equivalent to the question whether there are substances having no content. Content is defined to be that which is identical in different sets of parts of a substance. If a substance is simple, it has no parts, and

¹³⁵The perception of the self will be discussed in Section (I.8)

¹³⁶Ibid., p.178

¹³⁷Ibid., p.176

¹³⁸Ibid., p.178

no set of parts. Consequently it has no content. Are there substances having no content? Or, is it true that no substance can exist without content?

'No substance can exist without content' is a synthetic proposition.¹³⁹ Substance is defined to be that which possesses qualities and relations without being a quality or relation itself.¹⁴⁰ This definition of substance does not entail that substance is that which has content. Moreover, according to McTaggart, it is a self-evident proposition, in the sense that it needs no proof. Furthermore, it is ultimate in the sense that it cannot be proved from more self-evident propositions. Therefore, it is not possible to give a positive proof.¹⁴¹ The proposition itself is not universally accepted as self-evident and ultimate. What we can (or must) do, is to try to disprove the proposition by searching for simple substances having no content. After considering every possible case, if we do not find such a substance, we can take the proposition as true.

An important point is that we are looking for the simple substances as a possibility. We must not confuse two impossibilities: although, for us, it is impossible to imagine a substance having no content, since we do not know what a simple substance is like, we cannot conclude from the impossibility of imagination of a simple substance to the impossibility of its existence.¹⁴²

Another important point which we must consider in dealing with the claim that there is no substance which has no content is the question whether there is a contradiction involved in this claim. If there is no simple substance, every substance has parts which again are substances; then, every substance has an unending series of parts and these parts have also unending series of parts. Such series can be claimed to be vicious. In order to establish the truth of the claim that there is no simple substances, we must show that that these series are not vicious.¹⁴³ This point will be elaborated later in the present section.

¹³⁹Ibid., p.179

¹⁴⁰See p.12 of the thesis.

¹⁴¹Ibid., p.179

¹⁴²Ibid., p.182

¹⁴³Ibid., p.183

It can be argued that there must be simple substances as there are simple characteristics out of which compound characteristics are formed. There is no problem concerning the existence of simple characteristics. Moreover, there must be simple characteristics, because a compound characteristic which has no simple parts as simple characteristics would involve a vicious infinite regress. The reason is that the meaning of a compound characteristic would depend upon the meaning of the set of parts, and the meanings of these parts would also depend upon the meanings of their own parts, and so on infinitely. Then, there would be no meaning of the compound characteristics. There must be simple characteristics whose meanings depend upon nothing beyond themselves.¹⁴⁴

There is no parallelism between compound characteristics and compound substances with respect to their parts. The relation between simple characteristics and compound characteristics is different from the relation between compound substances and their parts. The reason is that the awareness of compound characteristics necessitates the awareness of their parts. If there were no simple characteristics, we cannot be aware of the compound characteristics. But the awareness of compound substances is different. We can be aware of a compound substance without being aware of its parts.

McTaggart thinks that there is nothing in science which would contradict with the claim that there is no simple substance. It is generally held that the laws of geometry are in some way applicable to matter in space and as a consequence of this, there must be something to which a spatially indivisible point corresponds. Even if this is the case, this does not entail that the spatially indivisible substance is a simple substance, because what is spatially indivisible might be divisible in another dimension, for example, in the temporal dimension.¹⁴⁵

Therefore, there is no reason, except the contradiction of infinite divisibility, to think that there exist simple substances. If we find out a contradiction which can be deduced from the infinite divisibility of substance, then, we must conclude that substance is not infinitely divisible and, there must be simple substances. If on the other hand, there is a way to avoid

¹⁴⁴Ibid., pp.183-185

¹⁴⁵Ibid., p.186-187

the contradiction due to infinite divisibility, then we can accept that there is no simple substances.

If the substance is infinitely divisible, then the series of parts of a substance is infinite. But the infinity of a series is not sufficient to make the series vicious; there are infinite series which are not vicious. There is, however a reason to think that the infinite series of the parts of a substance is vicious. This reason is the relation between a substance and its parts, and is called presupposition: "When the occurrence of the quality X determines intrinsically the occurrence of either the quality Y or the quality Z (whether as belonging to the same object as X, or to some other), but does not intrinsically determine whether it shall be Y or Z which does occur, then X is said to presuppose Y or Z."¹⁴⁶

Here, some clarification is necessary. The intrinsic determination and presupposition of Y or Z by X is impossible, because nothing can presuppose and intrinsically determine the same thing. The intrinsic determination is defined in terms of implication. X determines intrinsically Y or Z if the proposition that something which has the quality X implies the proposition that something has the quality Y or Z.¹⁴⁷ A clearer statement is the following: "X determines intrinsically Y-or-Z, but it either presupposes Y or presupposes Z according as Y and Z does actually occurs"¹⁴⁸. X intrinsically determines Y-or-Z where 'or' is inclusive and X presupposes either Y or Z where 'or' is exclusive. For example, being human intrinsically determines being male-or-female, and it presupposes being male or being female according to the human being in question is whether male or female. If a substance has the quality of being a parent, then this quality intrinsically determines that some other substance has the quality of being son-or-daughter. But the quality of being a parent presupposes the qualities of either being a son or being a daughter.

If something which has either the quality Y or the quality Z has also the quality W, then X intrinsically determines the quality W, but it presupposes a particular W which is either Y or Z. The quality humanity intrinsically determines the quality of sexual

¹⁴⁶Ibid., p.193

¹⁴⁷See p.23 of the thesis.

¹⁴⁸Ibid., p.193

differentiation, but it presupposes some particular sexual differentiation. The quality of being a parent intrinsically determines sexual differentiation in another substance, but it presupposes some particular sexual differentiation.¹⁴⁹

The followings may be useful for a better understanding of the relation of presupposition: "... X presupposes whatever it requires but does not supply. X requires Y-or-Z, for if it occurs, something must occur which is Y or Z. But it does not presuppose Y-or-Z, for it supplies it, since it intrinsically determines it, and so, if we know that X occurs, we know that Y-or-Z occurs. But in addition to this, it either requires Y or requires Z, and this it does not supply. For the fact that X occurs does not determine whether it is Y or Z which occurs."¹⁵⁰

In cases where X intrinsically determines W, and X presupposes a particular W, X and the relation R which is the presupposition of the particular W by X, together will intrinsically determine some particular W. Because, the occurrence of the quality X and the relation R will not presuppose the particular W, since they intrinsically determine the occurrence of the particular W. In such cases where we know that X presupposes some particular W, for example, X presupposes Y rather than Z, we will say that W is fixed.¹⁵¹

If X presupposes a particular V, and a particular W, then the fixing of V may involve the fixing of W. For example, if a substance is triangular, then its triangularity presupposes its being either equilateral, or isosceles, or scalene. Its triangularity also presupposes some definite magnitudes of its three angles. If the magnitudes of its angles is fixed, then it is also fixed whether it is equilateral, or isosceles, or scalen. If all of its angles are equal, then it is equilateral; if two of them are equal, then it is isosceles; if none of them are equal, then it is scalen.¹⁵²

The relation between the fixings of presuppositions may or may not be reciprocal. In the example above, the relation is not reciprocal. The fixing of the magnitudes of angles of a triangle involves whether the triangle is equilateral, or isosceles or scalen. On the contrary,

¹⁴⁹Ibid., p.193-194

¹⁵⁰Ibid., p.194

¹⁵¹Ibid., pp.194-195

¹⁵²Ibid., p.195

the fixing of the type of the triangle does not always involve the fixing of the magnitudes of the angles of the triangle. If the triangle is equilateral, then the magnitude of each angle is fixed. However, if the triangle is either isosceles or scalen, the magnitude of each of its angles cannot be determined.¹⁵³

In a library where the books are classified according to their subjects, the place of a book determines that it has such and such a subject and its subject determines the place of it in the library. In this case, the relation is reciprocal. If we know that something is a species without knowing which species it is, this fact presupposes that it belongs to some particular genus and to some particular order. The fixing of the genus involves the fixing of the order, but the fixing of the order does not involve the fixing of the genus. Thus, in this case, the relation between fixing of the presupposition is not reciprocal.¹⁵⁴

It may be claimed that there are not really two separate presuppositions in cases where the fixing of a presupposition implies the fixing of another one. If something is a species, this does not require both the genus and the order, because if genus is fixed then the order is also fixed. McTaggart claims that they are separate presuppositions but they are not parts of the total ultimate presupposition together. The total ultimate presupposition of X is defined as "being the aggregate of all the presuppositions of X after all those have been removed, the fixing of which is implied in the fixing of any of those which remain".¹⁵⁵ The fixing of the genus is a part of the total ultimate presupposition of something being a species (if it is not implied by something else), and the fixing of the order is not a part of the total ultimate presupposition since it is implied by the fixing of the genus.

If something has a presupposition, then it has an ultimate total presupposition. If it has only one presupposition, it has this presupposition as its total ultimate presupposition. If something has presuppositions such that none of them is implied by any other, then its total ultimate presupposition includes all of these presuppositions.¹⁵⁶

¹⁵³Ibid., p.195-196

¹⁵⁴Ibid., p.195

¹⁵⁵Ibid., p.196

¹⁵⁶Ibid., p.196

Let us now see how McTaggart investigates how the relation of presupposition applies to the problem concerning the viciousness of the infinite series of parts of a substance.

If a substance A has a set of parts B and C, and if we have sufficient descriptions of B and C, then we have a sufficient description of A as "the whole which has a set of two parts which have respectively the sufficient descriptions of B and of C".¹⁵⁷ This description is a sufficient description of A, because it applies only to A and nothing else. Therefore, sufficient descriptions of B and C imply a sufficient description of A.

However, a sufficient description of A does not necessarily involve sufficient descriptions of B and C. For example, it is possible to find a sufficient description of Boğaziçi University without even mentioning the schools which are parts of it.

If there is no simple substance, then any substance A has an infinite number of sets of parts. Since each member of this set is again a substance, each of them must have a sufficient description. The nature of A requires sufficient descriptions of each members of these sets. Either A presupposes these sufficient descriptions or A must supply them.¹⁵⁸

Let us suppose M to be any set of parts of A. Let us further suppose N to be any set of parts which is sequent to M. A must either presuppose or supply the sufficient descriptions of the members of N since it requires them. In both cases the sufficient descriptions of the members of N imply the sufficient descriptions of the members of M, since each member of M is either itself a member of N or is a whole made up of members of N; and, as we have seen above, sufficient descriptions of parts give a sufficient description of the whole.¹⁵⁹

If the presupposition were the only way in which the sufficient description of a substance could be given, then there would be a contradiction. Since there is no simple part of A, the series of the parts of A will be infinite and there will be infinite number of presuppositions. The infinite series would be vicious because the sufficient descriptions of the members of M could be only given by the sufficient descriptions of the members of N,

¹⁵⁷Ibid., p.196

¹⁵⁸Ibid., p.197

¹⁵⁹Ibid., pp.197-198

and these by the sufficient descriptions of the members of P which is a sequent set to N, and so on infinitely. The sufficient descriptions of the members of M could only be given by the sufficient descriptions of the members of the last set of an unending series; in other words, they could not be given at all. But the existence of A which presupposes the sufficient descriptions of the members of M implies that there are such sufficient descriptions. Therefore there arises a contradiction.¹⁶⁰

It might be claimed that any substance A may have a sufficient description which does not describe sufficiently its parts. In this case the parts of the substance A must have sufficient descriptions in terms of a quality other than its having such and such parts and this quality must distinguish it from every other thing in the Universe: "... when the sufficient descriptions of the members of M are given otherwise than by means of the sufficient descriptions of their sets of parts, the presuppositions by A of these sufficient descriptions are independently fixed."¹⁶¹ It might be claimed that it is not necessary to reach to the end of the infinite series of parts of A, because although A presupposes the sufficient descriptions of its parts, the sufficient descriptions of its parts are independently fixed.

McTaggart does not accept this suggestion as a solution. Firstly, in order to accept it as a solution, we must suppose that the qualities in terms of which sufficient descriptions of the parts of A are given must be independent of the positions of the parts of A in the series of the parts of A. We must suppose that they are ultimate and undetermined. According to McTaggart, we cannot make such a supposition.¹⁶²

Secondly, even if we accept that this supposition is a proper supposition, the independent fixation of the sufficient descriptions of the parts of A does not constitute a solution for the vicious infinity. As we have seen, the sufficient descriptions of the parts implies a sufficient description of the whole. Let us call (m) the presupposition of the sufficient descriptions of the members of the set M which is a set of parts of M. Let us call (n) the presupposition of the sufficient descriptions of the members of N which is sequent to

¹⁶⁰Ibid., pp.198-199

¹⁶¹Ibid., p.199

¹⁶²Ibid., p.200

M. When (n) is fixed, (m) is also fixed, because the presupposition of the parts implies the presupposition of the whole. Therefore, according to the definition of total ultimate presupposition, the presupposition (m) must be omitted and thus, it is not a part of the total ultimate presupposition of the substance A. Similarly the presupposition (p) of the sufficient descriptions of the members of the set P which is sequent to N fixes the presupposition (n). Therefore (n) must be omitted and it does not form a part of the total ultimate presupposition of A. Since the series of parts of A is an infinite series, every set of parts of A will have sequent sets. The presupposition of the sufficient descriptions of the members of any sequent set will fix the presupposition of the sufficient descriptions of the members of its precedent set. Since the substance A is infinitely divisible, there is no last sequent set. Then, the total ultimate presupposition of A contains neither (m) nor any presupposition fixing of which implies fixing of (m). However, this contradicts with the definition of the total ultimate presupposition as "the aggregate of all the presupposition, after those have been removed, the fixing of which was implied by the fixing of any one of those which remained".¹⁶³

The infinite series of parts of a substance involves a contradiction in both cases; that is to say, it involves a contradiction whether the presuppositions of the sufficient descriptions of the parts of the substance are fixed independently or not. We must note that a contradiction arises not because of the infinity of the series of sets of parts of the substance, but because of the relation of each term to the sequent term. Therefore, McTaggart claims that this relation cannot be presupposition.¹⁶⁴ However we know that the nature of any substance requires the sufficient descriptions of the members of any set of its parts. Since it cannot presuppose them, it must supply them. There are two ways in which a substance can be said to supply the sufficient descriptions of the members of its sets of parts. These are inclusion and implication.¹⁶⁵

¹⁶³Ibid., p.201

¹⁶⁴Ibid., p.202

¹⁶⁵Ibid., p.202

Inclusion is not sufficient by itself to remove the difficulty concerning the relation between a substance and its parts. The nature of a substance A includes sufficient descriptions of its parts, because A has the qualities of having such and such parts with such and such sufficient descriptions. The sufficient description of A as having such and such parts with such and such descriptions must be infinite, because A has infinite number of parts.¹⁶⁶

McTaggart claims that such a sufficient description of A, although adequate for providing sufficient descriptions of parts of A, is more than adequate because it would still be adequate if some parts of it are omitted. McTaggart defines 'minimum adequate description' for any purpose as a "description which is sufficient for that purpose, and not more than sufficient".¹⁶⁷

There must be a minimum adequate description for the above sufficient description of the substance A. If M is a set of parts of A and N is any set which is sequent to M, then the sufficient descriptions of the members of N imply the sufficient descriptions of the members of M. Then, the sufficient descriptions of the members of M are not contained in the minimum adequate description, since they are implied by the sufficient descriptions of the members of N. Similarly the sufficient descriptions of the members of N are implied by the sufficient descriptions of the members of a set P which is sequent to N and sufficient descriptions of the members of N must be omitted. Since A is infinitely divisible, there is no simple parts of A, and then there is no set which has no sequent set. Therefore there will be no minimum adequate description, because the sufficient descriptions of the members of any set will be omitted since they are implied by the sufficient descriptions of the members of the sequent set. However this contradicts with the fact that there must be a minimum adequate description for the sufficient description of A as having such and such parts with such and such descriptions.¹⁶⁸

¹⁶⁶Ibid., p.202

¹⁶⁷Ibid., p.203

¹⁶⁸Ibid., pp.203-204

Therefore inclusion as a way in which a sufficient description of a whole supplies sufficient descriptions of its parts, is not sufficient to remove the difficulty concerning the relation of a whole to its parts. There remains only the relation of implication which we must consider as a solution to the problem: "A chain of implication must run downwards from precedent set to sequent sets, such that sufficient descriptions of the members of the precedent sets imply sufficient descriptions of the members of the sequent sets".¹⁶⁹ In this case, the minimum adequate description will contain the descriptions of the parts of the precedent set from which the chain of implication starts.

In order to avoid the contradiction, it is necessary to "find a description of A which, while it may include sufficient descriptions of the members of one or more sets of its parts, implies the sufficient descriptions of the members of the infinite number of sets of parts which are sequent to the last of these."¹⁷⁰ Finding such a description is very important, because the existence of infinitely divisible substance makes it necessary. If we cannot find such a description, we cannot remove contradictions which arise from the infinite series of parts of a substance and conclusively we cannot claim properly that the substance is infinitely divisible. In the following section, we investigate what the nature of such a description is.

II.5. Determining Correspondence

As it was stated in the last section, we must find a description of substance A which supplies the sufficient descriptions of the parts of A in order to remove the contradiction that arises from the infinite series of the parts of A. Let us recall what has been said in the preceeding section. Substance exists and has infinite number of parts, it must have a description which implies some sufficient descriptions of each of its parts.¹⁷¹ The existence of substance cannot be the reason of the contradiction, since what exists cannot contain

¹⁶⁹Ibid., p.204

¹⁷⁰Ibid., p.204

¹⁷¹Ibid., p.207

contradiction. The reason of contradiction is the relation of presupposition which holds between a sufficient description of the substance and some sufficient descriptions of its parts. In this section, we will explain within McTaggart's system, how a sufficient description of a substance implies some sufficient descriptions of its parts without presupposing them.

There are some infinite series which are formed by implications of some things by some other things and these series are not vicious. One might think that a one-to-one correspondence of the series of infinite parts of a substance to such a series could help us for removing the difficulty. For example, if "M is N" is true, this implies that "it is true that M is N", and this implies that "it is true that it is true that M is N" and so on infinitely. However, a one-to-one correspondence to such a series cannot be a solution, because this series cannot capture the increasing plurality of the series of the parts of a substance; the series of the parts of a substance A is the series of sets of parts of A and the numbers of the members of the sets increase from precedent sets to sequent sets.¹⁷²

A one-to-one correspondence to the infinite series of derivative characteristics which are generated from original characteristics cannot remove the difficulty. In this case, the series of characteristics might capture the increasing plurality of the series of parts of a substance. If M is equal to N, firstly, there are two relationships; M has a relationship to the relation of equality and N has another relationship to the relation of equality. Secondly, there are four more relationships; the relationship between M and its relationship of equality to N has a relationship to M and has another relationship to the relation of equality. Similarly the relationship between N and its relationship of equality to M has a relationship to N and to the relation of equality. In the third stage there will be eight relationships and so on. However, in this series the sequent terms are not parts of the precedent terms whereas in the series of parts of a substance, sequent terms are parts of the precedent terms.¹⁷³

No proper correspondence can be formed between the series of the parts and the series of propositions and the series of derivative characteristics because terms of the first

¹⁷²Ibid., p.208

¹⁷³Ibid., pp.208-209

series are not simple, having parts which have again parts whereas propositions and characteristics which are not simple must be analyzed to their members which cannot be analyzed any further.¹⁷⁴

McTaggart claims that there is only one way to remove the difficulty and this way is what he calls 'determining correspondence': "Let A have a set of parts, B and C. (The number of parts in the set may be any number, finite or infinite.) Let it be true in the first place, that each of these parts has a set of parts corresponding to each set of parts of A. In the second place, let it be true that the correspondence is of the same sort throughout, that it is a one-to-one relation between the members of the sets of parts, and that it is such that a certain sufficient description of C, which includes the fact that it is in this relation to *some* part of B, will determine a sufficient description of the part of B in question. And, in the third place, let it be true that the correspondence is such that, when one determinant is a part of the another determinant, then any part determined by the first will be a part determined by the second."¹⁷⁵

McTaggart uses the notation B!C to mean "the part of B which corresponds to C" where C is the determinant of B!C and B!C is the determinate of C or determined by C. B!C!D is directly determined by C!D and indirectly determined by C.¹⁷⁶

In the above considerations, A is a primary whole; B is a primary part; B!C is a secondary part of the first grade; B!C!D is a secondary part of the second grade. There are infinite number of grade of secondary parts.¹⁷⁷

This relation is called determining correspondence because, from the correspondence of one part of B to C and with the help of the sufficient descriptions of B and C, we can determine a sufficient description of the part of B which corresponds to C, i.e., B!C. If three conditions that are stated are fulfilled, then sufficient descriptions of the primary parts of A (i.e., sufficient descriptions of B and C) determine sufficient descriptions of all other parts of A (i.e., all secondary parts of A). In B, there will be B!B and B!C and in C, there will be

¹⁷⁴Ibid., p.209

¹⁷⁵Ibid., p.210

¹⁷⁶Ibid., p.210

¹⁷⁷Ibid., p.210

C!B and C!C; B!B, B!C, C!B, C!C are parts of A and they themselves have parts which correspond to them in B and C. Then, in B, there will be B!B!B, B!B!C, B!C!B, B!C!C and similarly in C, there will be C!B!B, C!B!C, C!C!B, C!C!C. These eight secondary parts of the second grade will have parts which corresponds to them in B and C and so on infinitely.¹⁷⁸

This infinite series is a series of the parts of A and it is not vicious. In this series, sufficient descriptions of the precedent sets of parts imply sufficient descriptions of the sequent sets of parts. The series we considered in the previous section is vicious because the implication was from the sequent set to the precedent set. In the series which is formed by determining correspondence, sufficient description of a precedent set of parts does not presuppose sufficient descriptions of its sequent set of parts; in other words, it does not imply that there should be sufficient description of the sequent set without implying what the sufficient description is.

McTaggart emphasizes the importance of the third condition which states that when a determinant is a part of another one, a part determined by the first, will be part of a part determined by the second.¹⁷⁹ He claims that if this condition is not considered, it would possible that determining correspondence might determine an infinite number of parts in every *primary* part of a substance A without determining parts of *every* parts of A.

Although a sufficient description which implies sufficient descriptions of each of parts of parts of A implies sufficient descriptions of all parts of A, some parts of A do not appear in this series. If A is a substance which has B, C and D as its primary parts, the parts of A which consist of B and C does not appear in the series. The part consisting of B and C is determined by determining correspondence, because its parts, namely B and C are determined by determining correspondence.¹⁸⁰

The sufficient descriptions of the primary parts of a substance imply sufficient descriptions of all secondary parts of the substance. We must note that sufficient

¹⁷⁸Ibid., pp.210-211

¹⁷⁹Ibid., p.211

¹⁸⁰Ibid., p.212

descriptions of the primary parts at the same time imply a sufficient description of the primary whole of which they are primary parts since, as it was discussed before, the sufficient descriptions of the parts imply a sufficient description of the whole.¹⁸¹

Why primary parts have such an ultimate role in the relation of determining correspondence? Would it not be possible to establish determining correspondence in terms of other things? For example, if we suppose two substances A and G such that each of them has a set of parts corresponding to every set of parts of the compound substance which is composed of A and G, then determining correspondence holds since the series of implications from A and G to their sequent sets are formed. However, we must see that, in such a case, the compound substance will be primary whole and the substances A and G will be primary parts of the compound substance. Therefore, the primary parts constitute the foundation of determining correspondence.¹⁸²

McTaggart argues that three conditions of determining correspondence may differ from what they are in three respects and the differences in these respects do not yield the contradiction.

Firstly, it is stated that each primary part of A has a set of parts corresponding to each set of parts of A. Although this might be so, it is not necessary; it is sufficient for determining correspondence, if each part of A has a differentiating group which consists of two or more primary parts of A and if each part has a set of parts corresponding to each set of parts in the differentiating group. "If A has the primary parts B, C and D, sufficient descriptions of an infinite series of sets of parts within parts of A would be determined if B had parts corresponding to B and C and to their parts, while C had parts corresponding to C and D and to their parts, D, finally, having parts corresponding to D and B and to their parts. Nor is it necessary that a primary part should be a member of its own differentiating group. The differentiating group of B might be C and D, while those of C and D might be

¹⁸¹See sections (I.4) and (I.5) of the thesis.

¹⁸²Ibid., pp. 212-213

respectively D and B, and B and C."¹⁸³ Therefore, it is not necessary that every primary part should be a determinant in every other primary part.

Secondly, McTaggart claims, it is not necessary for every primary part that it should be a determinant at all. If the differentiating groups of B and C are B and C, the parts of B and C will be determined by the relation between B and C. If B and C is the differentiating group of also D, then the parts of D will be determined by the relation of B and C and sufficient descriptions of all parts of B, C and also of D, in other words, of all parts of A, will be determined although D is not a determinant in any part of A.¹⁸⁴

Thirdly, in some cases, the place of a differentiating group for a primary part may be taken by a single primary part. In the case above, the determinants of the parts of D are B and its parts. The sufficient descriptions of the infinite series of parts of D are determined by the parts of B. In order this may the case, the sufficient descriptions of the infinite series of parts of B must be determined.¹⁸⁵

Therefore, in each primary whole, there must be a group of primary parts in which determining correspondence is reciprocal. McTaggart states that determining correspondence in a group of primary parts is reciprocal: "when each member of the group determines, either directly or indirectly, secondary parts of each of the members, and when no secondary part of any member is determined by any primary part outside the group."¹⁸⁶ In order to establish the infinite series of implications of sufficient descriptions, there must at first be such a reciprocal determination. If such a series exists, then it is possible to establish other series without necessitating reciprocal determination.¹⁸⁷

With these consideration McTaggart defines determining correspondence as follows: "A relation between a substance C and the part of a substance B is a relation of determining correspondence if a certain sufficient description of C, which includes the fact that it is in that relation to *some* part of B, (1) intrinsically determines a sufficient description of the part

¹⁸³Ibid., p.213

¹⁸⁴Ibid., p.213

¹⁸⁵Ibid., pp.213-214

¹⁸⁶Ibid., p.214

¹⁸⁷Ibid., p.214

in question, B!C, and (2) intrinsically determines sufficient descriptions of each member of a set of parts of B!C, and of each member of a set of parts of each of such members, and so on infinitely. We have seen that such an infinite series cannot be determined unless (3) the sufficient description of C also includes a statement that each member of a set of C's parts has some substance to which it stands in a relation of determining correspondence, as the part of B does to C itself; unless (4) either B and C form a group, or part of a group, in which determination is reciprocal, or else each of them is itself determined either directly or indirectly, by a relation of determining correspondence to substances which are in such a reciprocal relation to one another; and unless (5) when one determinant is a part of the another determinant, any part determined by the first will be part of a part determined by the other."¹⁸⁸ The last three conditions are not parts of the definition of determining correspondence, but (2) is true only if these three conditions are fulfilled.

The definitions of primary whole, primary part, secondary part and differentiating group are as follows:

"... a primary whole is a substance (1) such that it is not necessary, in order to describe any of its parts, to introduce any determining correspondence with anything except its parts, and (2) such that it is not necessary to introduce determining correspondence with any of its parts to describe sufficiently any substance outside it, and (3) such that it has no part of which the previous clauses (1) and (2) are both true."¹⁸⁹

"When a set of parts of a substance is such that none of its members are determined by determining correspondence, and that from sufficient descriptions of all its members, there follow, by determining correspondence, sufficient descriptions of the members of an infinite series of sequent sets, then members of that set are called primary parts."¹⁹⁰

"Any member of any of these sequent sets is called a secondary part. If it is directly determined by determining correspondence with a primary part, it is called a secondary part of the first grade. If it is directly determined by determining correspondence with a

¹⁸⁸Ibid., p.215

¹⁸⁹Ibid., p.215

¹⁹⁰Ibid., p.215

secondary part of the first grade, it is called a secondary part of the second grade, and so on."¹⁹¹

"The differentiating group of any primary part B consists of those primary parts, to which, and to the secondary parts of which, the parts of B correspond."¹⁹²

We have discussed that it is not necessary for every primary part of a primary whole to be a determinant. If every primary part of a primary whole is a determinant of something, this does not necessitate that every primary part determines the parts of all other primary parts. If primary parts B and C have as their differentiating group B and C and the primary parts D and E have B, D and E as differentiating group, then every primary part is a determinant. They must be primary parts of the same primary whole since B determines C, D and E. The parts of B and the parts of C are determined neither directly nor indirectly by D and E although B determines the parts of D and E directly and C determines the parts of D and E indirectly, through B. What is necessary for any two primary parts of any primary whole is that each one of them should either determine the parts of the other, or it should itself have parts determined by the other, or both. This is necessary because without it, primary parts will be parts of two primary wholes and not the parts of the same whole.¹⁹³

If the Universe which has all other substances as its parts does not form a single primary whole, then a primary whole will be also a part. If there are more than two primary wholes, each of them will be a member of various group of primary wholes and each group will be a different substance. If the Universe does not form a single primary whole, then there will be, what McTaggart calls, super-primary wholes which have primary wholes as their parts.¹⁹⁴

There will not be determining correspondence between these wholes and their parts. Although sufficient descriptions of the parts of a super-primary whole imply a sufficient description of the whole as all parts do imply a sufficient description of the whole of which

¹⁹¹Ibid., pp.215-216

¹⁹²Ibid., p.216

¹⁹³Ibid., p.216

¹⁹⁴Ibid., p.217

they are parts, it is not clear whether there will be a sufficient description of the whole which implies sufficient descriptions of its parts.

Determining correspondence is a way to remove the difficulty which arises from the infinite divisibility of substance in which a sufficient description of the whole implies sufficient descriptions of all parts of the whole. Therefore there is no contradiction which is involved in infinite divisibility and thus there is no simple substance. Every substance has infinite number of parts which are also substances.

Determining correspondence is more than a solution. McTaggart claims that it is not only a way to establish the infinite divisibility of substance but it is the only way in which substance exists as having infinitely many parts which are again substances. Since there exists no simple substance, what is ultimate in the whole existence is the Universe as being a whole which is not a part. If the Universe has a set of parts which is in accordance with the definition of primary parts, then there is no contradiction in the rejection of simple substances. Determining correspondence is the only way in which this can be established. McTaggart calls the theory which asserts that the Universe has such a set of part as the theory of determining correspondence of substance and he accepts it as proved since there is no other way to establish the ultimacy of the Universe.¹⁹⁵

Now, it is established that the relation of determining correspondence exists between various substances, in other words, between each substance and its parts which are also substances. However, we are not in a position to understand the content of the relation of determining correspondence although we know its formal aspects. What kind of a relation determining correspondence is? Is it a causal relation? According to McTaggart, this is a verbal question; that is to say, the nature of determining relation does not change if it is a causal relation or not. But the question is not trivial because of the importance of the discussion of causality in every philosophical system.¹⁹⁶ Moreover, the investigation of this question will help us to understand determining correspondence.

¹⁹⁵Ibid., p.218

¹⁹⁶Ibid., p.219

What is causality? Everyone except those who reject causality altogether accept that beheading of Charles I have caused his death, although it has not caused his birth. What is the relation which holds between beheading of Charles I and his death?

According to McTaggart, there are three things which are accepted of the relation between them.¹⁹⁷ First, it is universally accepted that it is a relation of determination, and it is a relation of intrinsic determination in McTaggart's sense. The proposition that Charles I was beheaded implies the proposition that Charles I is dead. Secondly, the relation of causality exists between existents things. Although Euclid's axioms determine that the sum of two sides of a triangle is longer than third side, axioms do not cause that it is longer than the third. Similarly, the beheading of an English king in the eighteenth century intrinsically determines the death of that king; there is no relation of causality between them since they are not existents. That is to say, no English king was beheaded in that century. Thirdly, the relation of causality holds between qualities although we generally speak of it as holding between events. It is only one quality of the beheading of Charles I which causes his death. Its being an action performed by a masked man does not cause the death of Charles I.¹⁹⁸

Fourthly, it is commonly accepted that two terms of a causal relation can be distinguished as cause and effect, and the cause cannot be subsequent to effect. The earlier term is always called cause except the cases in which two terms are simultaneous or timeless. McTaggart claims that this point is not beyond dispute, if it were so, in every causal relation the earlier will be called as cause and the later as effect and then, there will be no way to distinguishing the cause from effect in simultaneous and timeless causation.¹⁹⁹

There are three features by which causes are distinguished from effects. These three features and the principle that a cause cannot be subsequent to its effects are used to distinguish causes from effects in all cases including simultaneous and timeless causality. The first of these is that the cause must be distinguished from the effect because the cause determines the effect in a way in which the effect does not determine the cause. The second

¹⁹⁷Ibid., p.219

¹⁹⁸Ibid., pp.220-221

¹⁹⁹Ibid., p.221

is that the cause explains the effect in a way the effect does not explain the cause. The third is that the cause exercises a certain activity on the effect. McTaggart rejects all three of them.²⁰⁰

With respect to the first, it is true that in some cases the earlier event determines the later non-reciprocally. For example the beheading of Charles I determines his death whereas death does not determine beheading since death without beheading may occur. However, in some other cases, McTaggart argues that, later event determines earlier event in a non-reciprocal way. For example, drinking alcohol is earlier than getting drunk, but getting drunk determines drinking alcohol since one might drink alcohol without getting drunk. If the cause cannot be subsequent to the effect, then it cannot be claimed that the cause determines the effect in a way the effect does not determine the cause.²⁰¹

The second feature that cause explains the effect in a way the effect does not explain the cause can mean two things. If by explanation it is meant that the causal relation between events is an instance of a general law, then causality gives explanation. If there is a general law which states that the beheading of a body is immediately followed by the body's death, then the causal relation between beheading of Charles I and his death can be explained by the general law. But this does not mean that beheading of Charles I explains his death in a way his death does not explain his beheading, because both of them are included in the general law. What is generally meant by the explanation of the effect by the cause is not this. It is thought that a causal law explains *why* the occurrence of a quality X (a quality in cause) implies the occurrence of a quality Z (a quality in effect). Then a particular occurrence of Z is explained by its relation to the occurrence of X where the occurrence of X is not explained by its relation to the occurrence of Z. McTaggart claims that there is no such explanation in the causal laws. Causal laws are either ultimate or can be derived from ultimate laws. They explain particular causal relations as their instances. But this is not an explanation of later event by an earlier event.²⁰²

²⁰⁰Ibid., p.222

²⁰¹Ibid., pp.222-223

²⁰²Ibid., pp.223-224

The third feature, the cause exercises an activity on the effect, is argued on the base of introspection. When one wants to raise his hand and then raises his hand, it is argued that he is directly aware of an activity which he is exerting on his volition. McTaggart claims that even if it is true that there is such an activity in volition as cause, in other causal relations there is nothing similar to it. Secondly, he rejects that such an activity is involved in volitions when they are causes. He thinks that the consciousness of willing and the consciousness of a feeling of a tension or a strain within oneself is mistakenly viewed as an activity of volition.²⁰³

The only thing which distinguishes cause from effect is only temporal priority and this criterion cannot be used in simultaneous or timeless causation. McTaggart states that there are four reasons for our belief in the temporal priority of cause: The first is that even if we accept the possibility of determination of an event by a subsequent event, we cannot know the event which determined the present event until it occurs; we have no means of inferring the determining subsequent event. Secondly, our search for causes is derived from our search for means to the realization of the results we desire. We want to know the conditions in which something occurs in order to produce the results we want by setting up the conditions.²⁰⁴

According to McTaggart, the third reason for our belief in the temporal priority of cause originates from the doctrine of undetermined free will. A free volition determines what is later than it and it cannot be determined by what is subsequent to it because it is not determined by anything, it is free of such determinations. By generalizing this case, we form the belief that nothing can be determined by something which is subsequent to it. The fourth reason, McTaggart claims, is the direction of the time series. As it will be shown later, the direction of the time series from earlier to later is more fundamental than the direction from later to earlier.²⁰⁵

²⁰³Ibid., pp.224-225

²⁰⁴Ibid., pp.225-226

²⁰⁵Ibid., p.226

McTaggart concludes that "causality is a relation of intrinsic determination between the occurrence of existing qualities, and that, when one quality occurs before the other, it is convenient to speak of earlier quality as the cause, but that the cause is not distinguished from the effect in any other way, and that, where the relation is timeless or simultaneous, neither of two terms can be called the cause".²⁰⁶

This concept of causality is different from the ordinary concept of causality; other than temporal priority, there is no distinction between cause and effect in McTaggart's view. Although this is an important distinction, McTaggart thinks that it does not make the concept causality inapplicable because his definition of causality captures what is most essential is a causal relation. If the beheading of Charles I causes his death, what is asserted essentially is that his beheading involves his death. The determination of a later event by an earlier event, or explanation of later by earlier, or a power exercised by the earlier event on the later event are not the essential to the meaning of causality.²⁰⁷

In view of McTaggart's definition of causality, determining correspondence is a causal relation. Some qualities in each primary part intrinsically determine some qualities in each secondary part of the first grade; some qualities in each secondary part of the first grade intrinsically determine some qualities in each secondary part of the second grade and so on infinitely. Therefore, some particular causal relation occurs between qualities of some substances. This demonstrates the validity of a particular causal law, in other words, the determining correspondence. This particular causal relation occurs in every part of the Universe, because every part of the Universe is either a determinant in the determining correspondence, or a part determined by it, or both, or can be divided into parts which are determined by determining correspondence.²⁰⁸

Thus, what McTaggart shows is that some qualities of all substances are terms in causal relations. This is different from what is generally called universal validity of

²⁰⁶Ibid., p.227

²⁰⁷Ibid., pp.227-228

²⁰⁸Ibid., p.228

causation. According to McTaggart universal validity of causation means that all qualities of all substances are terms in causal relations.²⁰⁹

Causation holds universally if the occurrence of any quality is determined intrinsically by the occurrence of some other quality; that is, if all qualities are determined by determining correspondence. This is called the law of uniformity of nature. McTaggart claims that there is no reason to think that causation holds more universally when the occurrence of any quality is determined by the occurrence of some other quality rather than the occurrence of any quality itself determines the occurrence of some other quality. According to him, the reason of emphasizing being determined rather than determining something is related to the belief that a cause explains its effect in a way the effect does not explain the cause.²¹⁰

If the occurrence of any quality is determined by the occurrence of another quality, then a quality G which occurs is in a relation M to a quality H such that whenever H occurs, G also occurs and stands in relation M to H.

If the occurrence of any quality determines the occurrence of another quality, then whenever a quality G occurs, it has a relation P to some other quality K such that whenever G occurs, K also occurs and a relation P holds between G and K.

What is to be noted is that in order causation be universal, the above must be true of every quality. According to McTaggart, the statement that causality is universal is not self-evident, and although it might be true, there is no sufficient proof of the statement. What determining correspondence establishes is only that every part of the Universe, which consists of substances, have some qualities which are terms in causal relations. It is possible that there may be some qualities of substances which neither determine nor are determined by the occurrence of some qualities.²¹¹

We must also note that the universality of the causation does not imply universality of reciprocal determination. That is to say, if an occurrence of a quality G is determined by the

²⁰⁹Ibid., pp.228-229

²¹⁰Ibid., p.229

²¹¹Ibid., pp.230-231

occurrence of a quality H, this does not mean that whenever G occurs H must also occur. If G is death of a human body, and H is beheading, beheading determines death although death does not determine beheading, since there are different ways in which a body may die. Similarly if an occurrence of a quality G determines an occurrence of a quality K, this does not mean that the occurrence of K determines the occurrence of G. If G is death of a human body and K is isolation from alive beings on this planet, if G occurs, K must also occur; but K does not determine G since a human body may be isolated from beings living on this planet in a different way, for example by paralysis of the body.²¹²

If universality of reciprocal determination is understood in the sense that every quality has at least one determination which is reciprocal, then the universality of reciprocal determination is possible. For example, it is asserted that all deaths by beheading have some quality which cannot be found in other sort of death, and this quality and beheading determines one another reciprocally. Although the universality of reciprocal determination in this sense is possible since it involves no contradiction, it is not possible to prove it empirically.²¹³

McTaggart states that it is sometimes claimed that if every quality is causally determined, then complete knowledge of any substance implies complete knowledge of all other substances.²¹⁴ In McTaggart's system, complete knowledge of any substance involves complete knowledge of all other substances, because to know a substance completely means to know all of the characteristics of the substance. In order to know all the characteristics of any substance, one must know all of its relations to all other substances. Since any substance is related to all other substances, the complete knowledge of any substance includes the knowledge of all substances.

But the complete knowledge of any substance as implying the complete knowledge of all other substances on the basis of causality is different from what McTaggart means complete knowledge. In McTaggart's system complete knowledge of all substances is

²¹²Ibid., pp.231-232

²¹³Ibid., pp.232-233

²¹⁴Ibid., p.233

included in the complete knowledge of any substance whereas in the other case, all substances are inferred from the complete knowledge of any substance without being included in it.

McTaggart argues that even if every quality is causally determined by another quality, it is still possible that there may be two substances in the Universe which are not causally related either directly or indirectly. Therefore complete knowledge of all substances cannot be inferred from the complete knowledge of a substance on the basis of causality. It cannot be inferred even if every substance in the universe is related causally to all other substances, for, if some qualities of a substance B are causally determined by qualities of A, it is still possible that B may have qualities which are not determined causally by the qualities of A.²¹⁵

According to McTaggart, the reason for claiming that the complete knowledge of all substances follows from complete knowledge of any substance on the basis of causality, is a confusion between extrinsic and intrinsic determination. According to the principle of extrinsic determination, we have no right to speak about what would be the case, if something which is the case, were not the case: "We have no right to believe that, if any flower in a crannied wall had been different from what it was, Shakespeare would have written *Hamlet*."²¹⁶ On the basis of extrinsic determination, we cannot infer that Shakespeare did write *Hamlet* if we had the complete knowledge of the flower.

McTaggart also considers what might be the consequences of the possibility of there being qualities which are not determined causally for an indeterminist who tries to establish that human beings have freewill.²¹⁷ If indeterminism is understood in the sense that our volitions are contingent both intrinsically and extrinsically to the events which precede them but they determine some events which follow them, then this claim cannot be justified in McTaggart's system, because, as we have seen, every substance determines all other

²¹⁵Ibid., pp.234-235

²¹⁶Ibid., p.235

²¹⁷Ibid., p.236

substances and is determined extrinsically by all other substances. In his system, volitions must have qualities which are determined extrinsically.

According to some indeterminists, volitions intrinsically determine the events which follow them. For example, if I will to pull a trigger, and the trigger is pulled, and a man is shot and is dead, then, in order to claim that I am responsible for the death of the man, the determinations beginning with my volition to pull the trigger must be intrinsic. However, in McTaggart's system, it is not possible to claim that they are related by intrinsic determination, since the proposition that I have such a volition does not imply the proposition that this man is dead.²¹⁸

We have seen that a relation of determining correspondence occurs in the Universe, and this relation can be called a causal relation. However, we do not know yet that what relation of determining correspondence actually occurs in the Universe. We do not know whether there is only one relation of determining correspondence or that there are more than one such relation. McTaggart claims that these questions cannot be answered a priori.²¹⁹

According to McTaggart, if there is more than one primary whole, the relation of determining correspondence in each of them may be a different relation. If there is only one primary whole A which has as primary parts B, C, D, E, F and G, the determining correspondence of B to the parts of C may be different from the determining correspondence of C to the parts of E, or from the determining of B to the parts of F, or from the determining correspondence of G to the parts of B. We must note that no new determining correspondence can be introduced after the first stage because the sufficient description of a primary part must imply the sufficient descriptions of all secondary parts. If there are more than one determining correspondence, each of them should start from a primary part.²²⁰

²¹⁸Ibid., p.237

²¹⁹Ibid., p.239. McTaggart believes that there is only one relation of determining correspondence which does occur in the Universe. His consideration of this will be explained after the considerations about empirical nature.

²²⁰Ibid., p.240

As we have seen, a primary whole has more than one set of parts. If a primary whole has two sets of parts such that neither of them has some sequent set which is also a sequent set of the other, then there should be two relations of determining correspondence for each of them.²²¹

McTaggart considers some examples in order to clarify the nature of determining correspondence. Some of these satisfy the conditions of determining correspondence and some do not. McTaggart states the conditions of determining correspondence as follows: "(1) A relation between a substance C and part of a substance B is a relation of determining correspondence, if it is such that a certain sufficient description of C, which includes the fact that it is in that relation to *some* part of B, intrinsically determines a sufficient description of the part of B in question, B!C. (2) A relation of determining correspondence is a relation such that one determinant term can determine more than one determinate term. (3) It is a relation such that B!C is determined by only one determinant, C; while C, though it may be the direct determinant of many parts of A, is the direct determinant of only one part of A which fall within B. (4) It is, in some cases at least, reciprocal. (5) It is such that it is possible to have a whole divided into a set of parts, and each of these into a set of parts, and so on infinitely, in such a way that sufficient descriptions of all these parts are determined, by means of determining correspondence, by a sufficient description of the whole."²²²

Let us suppose that a pattern is drawn on a transparent surface and its shadows is thrown on a number of sheets which are put at different angles to the pattern. The relation between the pattern and its shadow satisfy the first three conditions of determining correspondence. The first condition is satisfied, because if we know the shape of the pattern and the angles of the sheets to the transparent surface, we can infer by implication the shapes of the shadows on different sheets. The second is satisfied because the pattern has many shadows on different sheets, and the third is satisfied since each shadow is the shadow

²²¹ It is possible that the group of Boğaziçi University graduates has a set of parts as the group of Doctors, the group of Masters and the groups of Bachelors, and also has a different set of parts such as the groups of graduates of Economics, graduates of Mathematics and graduates of Philosophy, etc. These two sets of parts have no sequent set in common.

²²² Ibid., pp.241-242

of only one pattern whereas the pattern has only one shadow on each sheet. However the fourth condition is not satisfied since there is no reciprocal relation; the parts of the pattern cannot be shadows of shadows of the pattern. Fifth condition is not satisfied, because, although the pattern may have infinite number of parts within parts, its having these parts is independent from its relation to its shadows. There will arise a contradiction because each set of parts in the infinite series presuppose the sufficient description of its sequent sets while it is implied by them at the same time.²²³

McTaggart describes a case in which all conditions of determining correspondence are satisfied. Let us suppose that B is the positive part and C is the negative part of A. Let us also suppose that each of these determine parts of itself and also parts of the other. Then B!C is the negative part of the positive part of A. First condition is satisfied since B!C has a sufficient description. The second is satisfied since C determines both B!C and C!C. The third is satisfied since B!C is determined by only one determinant which is C and C is the direct determinant of only one part of A which falls within B. The fourth is satisfied since B and C determine the parts of each other. The fifth is satisfied since there will be infinite number of secondary parts, for example, there will be four secondary parts of the first grade; the positive part of the positive part of A, the negative part of the positive part of A, the positive part of the negative part of A, the negative part of the negative part of A. Each of these secondary parts of the first grade will have two secondary parts of the second grade and so on infinitely.²²⁴

We must note that such examples of determining correspondence can be formed by using more than a pair of qualities. But these qualities must have some common characteristics. First of all, each pair of qualities must be incompatible in themselves. Secondly, the qualities must be attributable both to a whole and its parts. In the example above, a positive part has a positive part and a negative part has a negative part. Thirdly,

²²³Ibid., p.242

²²⁴Ibid., p.244

they must be such that a whole and its parts can have different qualities. There must be the negative part of the positive part and positive part of the negative part.²²⁵

Another example which McTaggart considers is in term of knowledge. Let us suppose that B knows that a substance C which has the sufficient description XYZ exists. Will another sufficient description of C which includes the sufficient description XYZ of A and B's knowledge that C has a sufficient description XYZ, give a sufficient description of B's knowledge of C?

First of all, we must make a further supposition to exclude the possibility of a man's having knowledge of the same fact at different times. If we do not exclude this possibility, B may have two states of mind both of which can be sufficiently described as 'B's knowledge that a substance exists which has the sufficient description XYZ' and then the first and the third conditions of determining correspondence cannot be satisfied. We must suppose that each knowing being has only one act of knowledge of any substance.²²⁶

However, the fourth condition may not be satisfied in some cases. Even if, as McTaggart believes, the act of knowledge is a part of the knower, no part of the thing known is a part of the knowledge of the knower and then, the determination cannot be reciprocal. For example, if one knows the Great Pyramid, a part of his mind is determined by being the knowledge of the Great Pyramid but no part of the Great Pyramid is determined by being knowledge of his mind. In those cases where the fourth condition is not satisfied, the fifth condition cannot be satisfied.²²⁷

In cases where the fourth condition is satisfied, in other words where the thing known also knows the knower, where the relation of knowing is reciprocal, the fifth condition cannot be satisfied. In order the fifth condition be satisfied, we must also suppose that each knower must know the parts of everything which he knows. Even if we make all of these

²²⁵McTaggart states that it is a different question whether there exists such qualities; his aim in describing such a case is only to clarify the relation of determining correspondence. *Ibid.*, p. 245

²²⁶*Ibid.*, p.246

²²⁷*Ibid.*, p.246

suppositions, the determining correspondence will not occur, because the knowledge of a knower does not form a complete set of parts of that knower.²²⁸

McTaggart looks for a sort of knowledge which does not contain such difficulty. If we suppose that every primary part of a primary whole is a knowing being who knows other primary parts and their parts, and that knowledge has no part. In this case determination is reciprocal and the fourth condition is satisfied. However the fifth condition is not satisfied. "Sufficient descriptions of the primary parts, indeed, intrinsically determine sufficient descriptions of an endless series of substances, each of which is part of the primary whole, and part also of one of the primary parts. But, beyond this point, the parts determined are not parts of parts previously determined. They are all judgments, and a judgment about a part cannot be a part of a judgment about a whole, so that the reciprocal determination, while it produces an endless series, does not produce an endless series of parts within parts."²²⁹

In the above cases, B's knowledge of C (BkC) implies B's knowledge of C's knowledge of B (BkCkB) since C's knowledge contains C's knowledge of B (CkB) and C's knowledge of C (CkC). The difficulty arises from the fact that BkCkB is not a part of BkC although they are parts of B. Judgments have parts, but parts of judgments are not always judgments. For example, if one has a knowledge about United Kingdom, his judgment cannot be divided into two judgments, one about the Great Britain, the other about Ireland. Therefore, knowledge in terms of judgment cannot be accepted as an example of determining correspondence.²³⁰

McTaggart claims that there is another thing which can be called knowledge. This is perception. If we accept that perception can be called knowledge, the difficulties in the case of judgments do not arise because, according to McTaggart, the perception of a part may be a part of a perception of a whole.²³¹

²²⁸Ibid., pp. 246-247

²²⁹Ibid., p.247

²³⁰Ibid., p.247

²³¹Ibid., p.248

We can find an example of determining correspondence if we suppose a primary whole every primary part of which is a percipient being which perceives itself and other primary parts and their secondary parts, and also which has no parts other than perceptions. In this case the fifth condition will also be satisfied because B's perception of C's perception of B will be a part of B's perception of C, and then there will be an infinite series of parts within parts.

However, we do not know such a perception. According to the ordinary notion of perception, a self perceives itself but it does not perceive another self. Therefore, there is no reciprocal relation between perception of selves. And also, we do not know a being which has nothing but perceptions as its parts. What we can say is that if there were selves which have perceptions only as their parts and which perceive themselves reciprocally, there will be an example of determining correspondence. This possibility will be discussed in Section (I.8).

I.6. The Order and the Unity of the Universe

We considered the question whether there are qualities which are possessed by more than one substances without being possessed by all substances when we discussed the concept of 'group'. Such qualities, let us recall, are called 'exclusive common qualities'.²³² Substances which have one or more exclusive common qualities form a group. In other words, in every group, which is a collection of substances, or collections of collections of substances by definition, all members of the group have some exclusive common qualities, by virtue of being a member of the same group. If a group has the substances A, B and C as its members and D, E, F, ... is a list of substances which are not members of this group, then A, B and C have at least two exclusive common qualities: The first is 'being a member of the group which has A, B and C as its members' and the second is 'being dissimilar to D, to E, to F, ...'. First quality is mere a restatement of the fact that A, B, C are members of the

²³²See p.33 of the thesis.

group, and the second can be known only if we know all substances which are not members of this group. Both of these exclusive common qualities are mere denotations of the group.

The question whether in every group there are exclusive common qualities other than those which are not mere restatement is important because the discussions of the order and the unity of the Universe is related to this question. McTaggart proves that, in every group, there are exclusive common qualities other than those which are mere restatements by establishing that every substance belongs to at least one group which has in itself such an exclusive common quality.²³³

McTaggart calls the 'fundamental system' the system which is formed by the relation of determining correspondence.²³⁴ Substances which are terms in this particular relation are either primary wholes or primary parts or secondary parts. Substances which are primary wholes, whatever they are, form the group of primary wholes; substances which are primary parts form the group of primary parts and substances which are secondary parts form the of secondary parts. Members of each of these groups has a compound quality as their exclusive common quality. For example, the members of the group of primary wholes, have the definition of a primary whole as their exclusive common qualities.²³⁵ This is the first system of groups with exclusive common qualities which exist in the universe.

The group of primary parts can be divided into different groups according to the different primary wholes. For example, the primary parts which fall within a primary whole A form a group and the primary parts which fall within a primary whole B form a different group and so on. Similarly the group of secondary parts of the first grade can be divided into different groups according to primary parts within which they fall. For example, the secondary parts of the first grade which fall within the primary part C form a group. Similarly the group of secondary parts of a grade can be divided into different groups according to the secondary parts of the precedent grade within which they fall.

²³³ A group cannot have an exclusive common quality which is possessed by its members because no group can be a member of itself., Ibid. p.250

²³⁴ Ibid., p.251

²³⁵ Ibid., pp.251-252

In each of these groups, all members have an exclusive common quality which is not a mere restatement of the group. For example, 'falling within the primary part B' is an exclusive common quality of only those substances which are secondary parts of the first grade of a primary whole of which B is a primary part. B has as a quality having these secondary parts of the first grade as its parts. As we have seen, B has a sufficient description independently of its parts in the system of determining correspondence. What is asserted of the parts of B is that they "have the common quality of being parts of something which has this independent sufficient description"²³⁶ and this is not a mere restatement of that they are parts of B.

It may be claimed that the case of primary wholes is different because these may not have any sufficient description independently of their primary parts. In the discussion of the relation of determining correspondence, we saw that the sufficient description of a primary whole is implied by the sufficient descriptions of its primary parts. If B and C are two primary parts of a primary whole, saying that B and C are primary parts of the group of primary parts which is constituted by B and C is different from saying that B and C are primary parts which fall within the primary whole constituted by B and C because the second is not a mere restatement since a primary part may belong to a group of primary parts which is not a primary whole; for example a group in which primary parts from two primary wholes are included. This is, according to McTaggart, the second system of groups in the universe.²³⁷

The third system can be determined by grouping all primary and secondary parts according to primary wholes. All parts of a primary whole A form a group; all parts of another primary whole B form another group and so on.²³⁸

In the fundamental system, elements other than primary wholes and primary parts have a determinant; that is to say, all secondary parts have a determinant. McTaggart calls 'final determinant' the direct determinant of a secondary part of first grade and last indirect

²³⁶*Ibid.*, p.252

²³⁷*Ibid.*, p.253

²³⁸*Ibid.*, p.253

determinant of a secondary part of other grades. For example, B!C, D!E!C, F!G!D!C have C as their final determinant. Therefore all secondary parts can be classified according to their final determinant. The exclusive common quality of a group in this system is "being finally determined by the same primary part". The secondary parts other than those of the first grade can also be classified according to their penultimate determinant. Those secondary parts which have the same final determinant can be further divided into groups according to their penultimate determinant. This is the fourth system of groups that exists in the Universe.²³⁹

As it was discussed in Section (I.5), there are substances which are not parts of the fundamental system; in other words there are substances which are not terms in the relation of determining correspondence. McTaggart calls those substances 'external substances' and those which stand in the relation of determining correspondence as 'internal substances'.²⁴⁰ For example, if the substances A and B have as their primary parts D, E and F, G respectively, then the group (and the substance since every group is a substance) which has E and F as its primary parts is an external substance. All external substances can be divided into internal substance of the same grade. The content of every external substance can be reduced to the content of internal substances. External substances whose content can be reduced to the content of a set of parts whose members are primary wholes constitute a group; external substances whose content can be reduced to the content of internal substances which are primary parts constitute another group, and so on. This is the fifth system of the groups.²⁴¹

Some external substances are such that each of their parts fall within the same primary whole. If, for example, a primary whole A has as its primary parts B, C, D, then the external substance which has C and D as its primary parts falls within the primary whole A. Those kind of external substances form a group. Similarly, external substances which have parts that fall within the same primary part form another group and so on. In each of those

²³⁹Ibid., pp.253-254

²⁴⁰Ibid., p.254

²⁴¹Ibid., p.254

groups there is an exclusive common quality that does not arise from the denotation of the group. This is the sixth system of groups.²⁴²

Every substance which is a member of the fundamental system is a member of a group in which an exclusive common quality of first type exists. Every substance which is a member of a group of this type, except primary wholes, is also a member of a group of the second type and of the third type. Every such substance except primary wholes and primary parts is a member of a group of the fourth type.

Every substance which is not a member of the fundamental system is a member of a group of the fifth type and some of those substances are members of one or more groups of the sixth type. Therefore every substance is a member of at least one group in which an exclusive common quality that is not a mere restatement of its denotation exists.²⁴³

All of those exclusive common qualities are relational qualities. They arise from standing in some relation to something. But relational qualities are as real as original qualities and they are parts of the nature of substances. The question whether in each group there is an exclusive common original quality is an empirical question which cannot be answered a priori. However, what is philosophically important is reaching a priori to the conclusion that every substance belongs to such a group in which an exclusive common quality exists.

We stated in Section (I.4) that according to McTaggart there are three types of order which may be claimed to exist in the Universe:²⁴⁴ causal order, serial order and order of classification. We also stated that one cannot properly claim that either one of these orders exists in the Universe without analyzing the ontology of the Universe.

It is now clear that, in McTaggart's ontology, the Universe is a substance which has all other substances as its parts and all substances are infinitely divisible and consequently there is no simple substance. What is fundamental in the existence is the Universe and there exists

²⁴²Ibid., p.255

²⁴³Ibid., p.255

²⁴⁴See pp.39-40 of the thesis.

a relation which is called determining correspondence that holds between parts of the Universe.

A whole is ordered by a causal order if its parts determine one another according to general laws. The Universe has causal order because, as it was discussed in the preceeding section, the relation of determining correspondence is a causal determination. Although all qualities of all substances are not causally determined, some qualities of all substances are causally determined. This is sufficient to say that the causal order exists in the Universe, because all substances which are parts of the Universe are involved in a causal law through some of their characteristics.²⁴⁵

The Universe also possesses the order of classification. Substances which are parts of the Universe form a classifying system because there is an arrangement of parts within parts such that each part has a definite place in the Universe within a definite relation to other parts and each group of parts formed by the arrangement possesses some exclusive common qualities which are not merely restatement of the denotation of the groups. The Universe possesses order of classification since the exclusive common properties which are not merely restatements are of fundamental importance for the groups formed by the arrangement. The relation of determining correspondence, by dividing the parts of the Universe in different groups, form a classifying system which is based on fundamentally important characteristics of the groups. McTaggart calls this system as the 'fundamental system'.²⁴⁶

By means of determining correspondence, the Universe is first divided into primary wholes, then each primary whole is divided into primary parts, then these are divided into secondary parts of the first grade, then these are divided into secondary parts of the second grade and so on. McTaggart offers three reasons for calling such a system as the fundamental system of classification.²⁴⁷

²⁴⁵Ibid., p.259

²⁴⁶Ibid., p.260

²⁴⁷Ibid., p.261

Firstly, we know that the Universe is a substance and as a substance, it has infinite number of parts. As we previously discussed in Section (I.4) and in Section (I.5) the only way to avoid from the contradiction which arises from such an infinite series of parts within parts is the relation of determining correspondence. Since the Universe exists and existence cannot involve contradiction, the classifying system which is formed by means of determining correspondence is fundamental.

Secondly, parts of the Universe can be grouped in different ways. In order this grouping be a classifying system, each group should have some exclusive common qualities other than those which are mere restatements of the denotations of the group. The only way we know in which each group has such exclusive common qualities is the arrangement by determining correspondence.

Thirdly, although determining correspondence does not include every part of the Universe, it includes the parts of every part of the Universe and thus it implies the existence of every part of the Universe which it does not include. This is possible only by the system of determining correspondence or by a system which is implied by determining correspondence.²⁴⁸

We had clarified in our previous discussions in Section (I.5) that it is possible that there might be two or more relations of determining correspondence in the Universe.²⁴⁹ Even if this is the case, all of them would be independent but not incompatible; and all of them would be fundamental because they would be based on fundamental qualities of substances.

In our discussion of the unity of substances²⁵⁰ we have examined two different notions of unity, namely the unity of composition and the unity of manifestation. It was said that substances have both unity of composition and unity of manifestation; they are compounded of their parts and parts are manifestation of the whole of which they are parts.

²⁴⁸Ibid., p.262

²⁴⁹This possibility will be excluded later, in Section (I.8).

²⁵⁰See p.38 of the thesis.

There were no reasons to claim that a substance is a unity of composition rather than a unity of manifestation and vice versa.

McTaggart argues that we are now in a different position; we have some reason to hold that for some substances it is more appropriate to call them unity of composition rather than unity of manifestation and vice versa.²⁵¹ According to him, substances which are members of the fundamental system other than primary wholes are to be called unities of manifestation rather than unities of composition. A sufficient description of a primary or a secondary part implies some sufficient descriptions of a set of its parts. Substances which are primary or secondary parts manifest themselves in their parts.

Since sufficient descriptions of parts imply a sufficient description of the whole, it can be claimed that to call primary and secondary parts unities of composition is as appropriate as to call them unities of manifestation. McTaggart claims that although this chain of implication is valid, it is not just valid by itself. As we discussed in detail in Section (I.4), the chain of implication from sufficient descriptions of parts to a sufficient description of the whole involves a contradiction unless there is a series of implications from the whole to its parts is also found. Primary and secondary parts are both unities of manifestation and unities of composition. Since the chain of implication from the whole to the parts is more fundamental than the chain from parts to whole, it is more appropriate to call them unities of manifestation rather than unities of composition.²⁵²

When we consider substances which are not themselves members of the fundamental system, what we can claim a priori is that they are unities of composition. We do not know a priori that whether a sufficient description of the whole implies some sufficient descriptions of its parts, but we do know that sufficient descriptions of its parts imply a sufficient descriptions of the whole. We know that substances which are not members of the fundamental system have parts which are members of the fundamental system. Some sufficient description of a substance which is not member of the system is implied by some sufficient descriptions of its parts which are members of the system and also those sufficient

²⁵¹Ibid., p.266

²⁵²Ibid., p.266

descriptions of the parts imply sufficient descriptions of their own parts. Thus, McTaggart concludes that substances which are not members of the fundamental system are more appropriately called unities of composition, but it is more appropriate to call their parts unities of manifestation.²⁵³

The important question is about primary wholes. What kind of unity is more appropriate for them? McTaggart does not accept that it is more appropriate to call them as unities of manifestation. It might seem appropriate to argue that the relation of a primary whole to its primary parts is similar to the relation of primary parts to their secondary parts. McTaggart, however, argues that these are not similar. The important difference is that sufficient description in terms of its primary parts of a primary whole both includes and implies some sufficient descriptions of its primary parts whereas a sufficient description of a primary part implies sufficient descriptions of its parts without including them. A sufficient description of a primary whole in terms of its primary parts states that it has such and such primary parts where each of which has such and such primary parts as its differentiating group. Therefore it would include sufficient descriptions of its primary parts. However, this, as it was discussed before, leads to a contradiction.²⁵⁴

Sufficient descriptions of the primary parts imply a sufficient description of the primary whole since any sufficient description of parts imply a sufficient description of the whole. Therefore, it is more appropriate to call primary wholes unities of composition. The fundamental chain of implication is from primary parts to the primary wholes. Primary wholes are unities of composition rather than unities of manifestation.²⁵⁵

McTaggart argues that the Universe itself is also a unity of composition. The Universe is either a primary whole or a whole which has primary wholes as its parts. If it is a primary whole then it is more appropriate to call it a unity of composition rather than a unity of manifestation. If it is compounded of several primary wholes, there is no determination between these primary whole since by definition of a primary whole, nothing in the primary

²⁵³Ibid., p.267

²⁵⁴Ibid., p.269. See also Section (I.4) of the thesis.

²⁵⁵Ibid., p.270

whole can determine or be determined by something outside it. Each primary whole is independent and in each of them there is an independent relation of determining correspondence. Therefore, the Universe is a unity of composition.

This is the answer to the question whether the Universe is a monism or a pluralism. McTaggart states that it is both a monism -a unity of manifestation- and a pluralism -a unity of composition; what is to be more emphasized is its pluralism. The Universe as a primary whole is compounded of primary parts which have unique significance in the Universe. The sufficient descriptions of the primary parts of the Universe imply the sufficient description of the Universe as a primary whole and they are also starting points of the infinite chain of implication in the relation of determining correspondence. This does not affect the closeness of the unity of the Universe. McTaggart states that "the closeness of the unity of the Universe is due to the fact that its primary parts are connected by a relation which is possible between terms which are highly developed individuals".²⁵⁶ This point will be elaborated later.

We have seen that primary parts have a special place in the relation of determining correspondence. All secondary parts are differentiated by their relation to primary parts. The important point is that we have not determined yet the way in which primary parts are themselves differentiated. Primary parts must be differentiated from each other; without this differentiation, the differentiation of secondary parts cannot be proper since they are differentiated with respect of primary parts.

McTaggart offers differentiating groups as a way to distinguish a primary part from others.²⁵⁷ Two primary parts B and C are distinguished if their differentiating groups are different. If the differentiating group of B is E and F and that of C is G and H, then B and C can be differentiated by their differentiating groups.

Although some primary parts can be distinguished in this way, it is not possible that all primary parts are distinguished by the differentiating groups. The differentiation of B and C by their differentiating groups presupposes that E and F, and G and H are themselves

²⁵⁶Ibid., p.271

²⁵⁷Ibid., p.288

differentiated. If there is no other way to distinguish E, F, G and H, the differentiation of primary parts by their differentiating group would involve either a vicious circle or a vicious infinite series. Therefore, one must look for other ways to discriminate primary parts.

The second way offered by McTaggart is the differentiation of primary parts by their relation to other substances.²⁵⁸ It is clear that all primary parts cannot be distinguished from one another in this way. The substances to which primary parts stand in relation can be other primary parts, secondary parts or substances which are not members of the fundamental system. What must be noted is that substances by virtue of which some primary parts are differentiated must be distinguishable in some way which does not depend upon the primary parts which are distinguished by their relations to them. In other case, there would either be a vicious circle or a vicious infinite series.

The third way is the differentiation of all or some primary parts by their original qualities.²⁵⁹ If a primary part has an original quality which is not possessed by anything else then this primary part is distinguished from everything else by this original quality. The original quality might be simple or compound or complex. If for example, there is only one substance which is conscious, then "conscious substance" is a sufficient description of it and the substance is discriminated from everything else by this original quality.

The fourth way is the differentiation by some derivative characteristics.²⁶⁰ This is different from the second way discussed above. A primary part can be distinguished from others by means of its relation to another primary part which is not independently discriminated. What is needed is that the relation must be a unique relation or must have some unique features. If for example, A loves B and A's love for B has a certain feature which is not possessed by other loves then A can be distinguished from other substances by possessing this quality without necessitating the pre-discrimination of B.

McTaggart concludes that these are sufficient to claim that every primary part is distinguishable from other primary parts.²⁶¹ He also states that all primary parts have some

²⁵⁸Ibid., p.290

²⁵⁹Ibid., p.290

²⁶⁰Ibid., p.291

²⁶¹Ibid., p.291

common qualities and also some primary parts have some qualities which other primary parts do not. However, we are not sure whether every primary part has both common and exclusive qualities. If there are more than two primary parts then each of them will be a member of a group which contains one or more of them without containing all of them.²⁶² The quality of being a member of such a group is both a common and exclusive quality. However, as it was discussed before, such qualities which are mere denotations of the groups are not important. We are not sure that there are common and exclusive qualities which are not mere restatements. Therefore, we cannot claim that there are general laws which determine the characteristics of the primary parts. This is not a rejection of the possibility of existence of such laws, there may be such laws; we cannot, however, properly claim their existence.

All primary and secondary parts are parts of the Universe. The question now to be answered is the following one: What is the nature of the relation which combines these parts ? What is the unity of the Universe?

The Universe, as a substance, is both a unity of manifestation and a unity of composition. Similarly, the nature of the Universe is also a unity of composition and a unity of manifestation. The nature of the Universe is composed of the qualities of the Universe and it manifests itself in the qualities of the Universe. The Universe is composed of the its parts and the parts are manifestations of the Universe. So far, the unity of the Universe is not different from the unities of other substances.

McTaggart makes suppositions concerning different possibilities concerning the Unity of the Universe. The first supposition consists of the following assumptions: a) The Universe consists of one primary whole, b) All primary parts of the Universe are determinants in the fundamental system, c) Every primary part determines a part of every other primary part directly, d) the determining correspondence is of the same sort throughout the Universe.²⁶³

Firstly, if all of these suppositions are fulfilled then the unity of the Universe is the strongest. Each part of the Universe is directly related to other parts by the determining

²⁶²Ibid., p.291

²⁶³Ibid., p.295

correspondence. Since each primary part determines a part of every other primary part, there is a relation of intrinsic determination between all primary parts and also all secondary parts because the relation of determining correspondence necessitates the intrinsic determination of the nature of the determinate by a part of the nature of the determinant. As it was discussed before, the relation of intrinsic determination can be called a causal relation. Similarly, each secondary part of the first grade stands in the same relation of determining correspondence to the secondary parts of the second grade within the same primary part; and so on infinitely. This causal network, or the network of intrinsic determination is what makes the unity of the Universe the closest one.

Another important implication of this supposition is that in each primary part there are secondary parts of the first grade which are determined by other primary parts of the Universe. Therefore, there is a one-to-one correspondence between secondary parts of the first grade of a primary part and other primary parts. Furthermore, there is also a system of relations between secondary parts of a primary part which is homologous to a system of relations between primary parts of the Universe.²⁶⁴

When we consider the primary parts of the Universe within the relations they stand to each other, we have Universe as it is. Similarly, when we consider the secondary parts of a primary part in their relations to each other, we have this primary part as it is. Therefore every primary part corresponds to the Universe with respect to its parts since parts of a primary part are determined by all other primary parts.

McTaggart concludes that on these suppositions the Universe "has the quality that each member of a certain set of its parts corresponds with the Universe as a whole."²⁶⁵ He metaphorically calls this quality as the quality of self-reflection. "Self-reflection is a form of unity. A whole which is self-reflecting has an additional sort of unity, which is not shared by any whole which is not self-reflecting. For a self-reflecting whole is connected in a special way with its parts. And, through this, the parts in question are connected in a special way with each other, since each of them has a system of internal relations between their own

²⁶⁴Ibid., pp.296-297

²⁶⁵Ibid., p.299

parts, all of which correspond with the same system, and so correspond with each other."²⁶⁶

This form of unity is different from what may be called organic unity. In an organic unity the whole is manifested in its parts when all of its parts are taken together. A substance which has the quality of self-reflection is reflected in any one of its single parts. As we discussed previously in Section (I.3) every substance can be called an organic unity whereas only the Universe can be properly called a self-reflecting unity. Each primary part of the Universe has as its differentiating group all other primary parts of the Universe since every primary part is a determinant in the fundamental system. There can be more than substances which have self-reflecting unity only if there are independent systems of determining correspondence for which the suppositions are valid.

Secondly, the degree of closeness lessens according to the rejection of any one of the four assumptions. Let us assume that the Universe consists of only one primary whole, every primary part of the Universe is a direct determinant of a part in every other primary part but the determining correspondence is not the same throughout the Universe. Instead let us allow the possibility of there being a different system of determining correspondence. The causal network will be as close as in the first case since every primary part is a determinant in the fundamental system and consequently secondary parts of a primary part are determined by every other primary parts. However, we cannot talk about the correspondence between primary parts and the Universe although there is a correspondence between secondary parts and primary parts which consists of them. Consequently we cannot talk about the self-reflecting quality of the Universe. We cannot talk about the correspondence because, for example, the relation of determining correspondence between a primary part C and a secondary part of the first grade of it B!C might be different from the relation of determining correspondence between a primary part D and its secondary part of the first grade B!D.²⁶⁷ The self-reflecting unity is the closest unity and the unity of the Universe on the second supposition is less close than the first since it lacks this quality.

²⁶⁶Ibid., p.299

²⁶⁷Ibid., p.305

Thirdly, let us assume that the Universe is a single primary whole, every primary part of it is a determinant but not a direct determinant. In this case, if B and C are two primary parts, B may have no part B!C provided that it has some secondary part of lower grade the final determinant of which is C such as B!D!C or B!E!D!C or the likes. In this case, we cannot even claim the existence of the correspondence between secondary parts of the first grade and the primary parts. If the primary parts of the Universe are B, C, D and E, it is possible that B has as its secondary parts of the first grade B!B and B!C and C may have C!B, C!D and C!E. It is possible that D has no secondary part of the first grade, it might be differentiated only by correspondence with B, and so its highest secondary parts would be D!B!B and D!B!C. There is no correspondence relation between these and the set of primary parts of the Universe. Similarly there is no correspondence between secondary parts of the first grade and secondary parts of the second grade and so on. Therefore if primary parts of the Universe are not direct determinants then the unity of the Universe loosens and it becomes less closer than the one in the second case.²⁶⁸

Fourthly, let us suppose that Universe is a single primary whole and every primary part of the Universe is a determinant. Let us now suppose that each primary part is not a determinant of a part of every other primary part. If the Universe has as its primary parts B, C, D, E, F and G, it might be the case that B and C, and D and E are in reciprocal determination and the differentiation group of F and G is BDFG. The secondary parts of the first grade of B is B!B and B!C and those of C is C!C and C!B. In this case there will be no group in the Universe which is itself a single primary whole; the parts other than B and C will not determine any part in B and C and B, C, F and G will not determine any part in D or E. In this case, the unity of the Universe will still be a unity although it is much more loosened. The Universe itself is still a primary whole; no group formed out of parts of the Universe is self-sufficient in respect of determining correspondence.²⁶⁹

Fifthly, let us assume that the Universe is still a primary whole but it is not the case that all primary parts of it are determinants. Some primary parts are determined without

²⁶⁸Ibid., p.305

²⁶⁹Ibid., p.306

being determinant. The unity of the Universe is as close as the previous case in which some parts of the Universe do not determine parts of all other parts.²⁷⁰

Sixthly, let us consider the case in which the Universe does not consist of a single whole but of more than one primary whole. In this case there will be different independent parts in the Universe which form independent systems of determining correspondence. But this does not mean that these systems are completely independent from one another. The unity of the Universe still holds because every thing in the Universe is related by extrinsic determination. Extrinsic determination holds independently of any one of the suppositions.²⁷¹

According to McTaggart, the amount of the unity of the Universe is the same as far as the same relation of correspondence holds in every part of the Universe. The case in which the primary parts determine a part in all other primary parts is different from the other case because of the quality of self-reflection. This quality of the Universe makes the unity the closest one. It is only by virtue of this quality that any part of the Universe has the ability of manifesting the whole content of the Universe; in other words, the whole existence.²⁷²

I.7. Matter and Sensa

McTaggart establishes the general nature of the existence. In constructing this system he uses no empirical data except in two cases: one in the establishment that something exists and the other is the differentiation of what exists.²⁷³ Now, according to McTaggart, it is necessary to enquire "what consequences of theoretical and practical interest can be drawn from the general nature of the existent, with respect to various parts of the existent which are empirically known to us."²⁷⁴ Conclusions which will be reached in this and succeeding parts will be of different nature. In the preceeding parts, all conclusions are reached by

²⁷⁰Ibid., p.308

²⁷¹Ibid., p.308

²⁷²Ibid., pp. 308-309

²⁷³See Section (I.2) of the thesis.

²⁷⁴J. M. E. McTaggart, *The Nature of Existence*, Vol II, ed. by C. D. Broad, Cambridge University Press, Cambridge, p.2

absolute demonstration and they are either necessarily true or are false due to some error in argumentation. In the present part and the succeeding parts, some conclusions are of negative character, for example, McTaggart argues that time is not real, matter is not real, etc. He claims that such conclusions are necessarily true because, as it will be shown, such characteristics cannot belong to what exists. These conclusions are absolutely certain as the conclusions of preceding parts. He also argues that some characteristics do belong to the existence. According to him, there are no way to demonstrate a priori that these characteristics belong to the existence. For example, McTaggart shows that existence is spiritual because, nothing we know or we can imagine except spirit can have infinitely divisible parts. However, this conclusion is only probable, because it is possible that there may be something other than the spirit which we do not know or which we cannot imagine and that something may have infinitely divisible parts.²⁷⁵

In this section we deal with two characteristics which appear to belong empirically to the existence. The empirical knowledge is either perception or based on perception. Perception is previously defined as "that species of awareness which we have of the existent -awareness being a mental state which is not a belief, though it is knowledge."²⁷⁶ Perception is distinguished from other kind of knowledge by being knowledge by acquaintance and it is distinguished from other kind of awareness by being awareness of substances rather than awareness of characteristics.²⁷⁷ By perception we know what characteristics a substance has; in this sense, perception gives us knowledge about the characteristics of substances. All knowledge about substance other than that which we know a priori is empirical knowledge and based on perception.

It must be noted that perception is not the knowledge *that* a substance has certain characteristics. The reason is that any knowledge that a substance is or has some characteristics is not a perception but a judgement. "The distinction between knowing that a substance has a characteristic and knowing the substance as having a characteristic is one

²⁷⁵Ibid., pp. 4-6

²⁷⁶*The Nature of Existence*, Vol I, p.40

²⁷⁷*The Nature of Existence*, Vol II., p.6

which cannot, as far as I can see, be made clearer in words; but it is evident by introspection to anyone who contemplates the difference between his judgement 'I am in pain' and the perception of himself on which that judgement is paid."²⁷⁸

McTaggart rejects that perception cannot be erroneous. By this it is generally meant that there is nothing erroneous in perception by itself, what is erroneous is in the judgment based on the perception. McTaggart argues that perception may be erroneous; in other words, he claims that some characteristics which appear to belong to the existence in fact do not belong to it; existent may be other than it is perceived to be. There are differences between appearance and reality.²⁷⁹ McTaggart uses the term absolute reality for the nature of existence as it is really is and the terms present experience or appearance without excluding the absolute reality. For example, something which appears to be a judgment is not really a judgment but something which appears to be a perception is really a perception.²⁸⁰

The first important thing which appears to be a characteristic of existence but in reality does not really belong to it is time. We will consider the unreality of time in the next chapter. For the time being let us granted that what exists does not have temporal dimension and see what are the other characteristics which do not belong to substance.

One of the important discussions in philosophy is concerned with the problem whether the existence is material or spiritual. McTaggart first considers whether the existence is material.²⁸¹ He himself does not give a definition of matter. He accepts the traditional use of the term matter in the sense that it applies "to rocks, to gases, to human bodies, to tables, and so on, provided that these things had more or less the characteristics which they appear *prima facie* to have". These characteristics are size, shape, position, mobility, impenetrability and they are generally called primary qualities of matter. The qualities of matter which are called secondary qualities are not important for the definition

²⁷⁸Ibid., p.7

²⁷⁹Ibid., pp. 7-8

²⁸⁰Ibid., p.4

²⁸¹Ibid., p.32

of the matter since they are generally viewed not as the qualities of the matter but as effects or powers to produce these effects in the perceiving subjects.

If the existent substance is material it must have qualities other than those which are called primary and secondary qualities. The most important quality of the substance is its infinite divisibility; we know that everything that exists must have no simple parts. Infinite divisibility of the substance is neither a primary nor a secondary quality and it cannot be implied by such a quality. Therefore if matter exists, then it must have no simple parts.

One may think that there is no difficulty in claiming that matter is infinitely divisible. However, we know that infinite divisibility of a substance leads to a contradiction unless there is a relation of determining correspondence between the substance and its parts. Therefore, in order to claim that matter exists or what exists is material, one must show that the parts of the material substance are determined by the relation of determining correspondence.²⁸²

We know that if determining correspondence holds, the sufficient descriptions of primary parts imply the sufficient descriptions of the secondary parts and so on. These sufficient descriptions are descriptions of the substances in terms of some of the qualities of the substances. McTaggart claims that matter has dimensions in space and in time and it is generally accepted that it has no other dimensions. We must consider whether matter is infinitely divisible in these dimensions.²⁸³ If matter is spatial it must have two kinds of qualities: spatial qualities such as size, shape and position and non-spatial qualities such as impenetrability, colour, taste, smell, etc. According to McTaggart the second kind of qualities do belong to the spatial objects but they are not themselves spatial as size, shape and position are.

Is it possible that the sufficient descriptions which are required for the determining correspondence be in terms of non-spatial qualities of matter? McTaggart argues that this is not possible because the correspondence between non-spatial qualities of the primary parts cannot determine the sufficient descriptions of the primary parts. As a first example,

²⁸²Ibid., p.33. See Section (I.4) of the thesis.

²⁸³Ibid., p.34

McTaggart considers colour: if primary parts are described one as blue, another as green, the other as red, etc., how could the determinate part correspond to the determinant one? A secondary part of the red primary part which corresponds to the blue primary part would have to be both red and blue and this is impossible. The case would be similar even if we consider the primary parts as having as colour different shades of the same colour. According to the determining correspondence a secondary part of a light blue primary part would have to be both light and dark blue if it is determined by a dark blue primary part.²⁸⁴

McTaggart claims that even if it were possible to give sufficient descriptions of the parts of the material substance in terms of non-spatial qualities, this would not be sufficient for establishing the determining correspondence because spatial qualities of the matter must also be determined by determining correspondence. Let us assume that there is a primary whole A which is material and it has a set of parts B and C. The spatial qualities of B and C, in other words, their size, shape and relative positions are given as ultimate facts. The spatial qualities of parts within the parts of B and C must follow from the spatial qualities of B and C if there is determining correspondence between them.²⁸⁵

McTaggart argues that determining correspondence in terms of spatial qualities cannot be established unless parts are differentiated in terms of non-spatial qualities. If space is relative, then all spatial qualities are relational qualities; that is to say, they arise from relations which hold between pieces of matter which are differentiated in terms of some other things. If space is absolute then it consists of indivisible simple points. Therefore, matter in the absolute space cannot be infinitely divisible in that dimension.²⁸⁶

Let us consider the case in which the absolute space does not consist of indivisible simple points but infinitely divisible areas which have size, shape and relations between themselves. Each primary part of matter occupies one of these areas. Is it then possible to claim that there is a relation of determining correspondence between parts of these areas?

²⁸⁴Ibid., pp.34-35

²⁸⁵Ibid., p.37

²⁸⁶Ibid., p.38

Let us suppose that the set of parts B and C of a material primary whole is differentiated by their spatial qualities and also by their non-spatial qualities, for example B is blue and C is red. The parts of B and C are homogeneously blue and red respectively and are not differentiated by any of their non-spatial qualities. In B there will be B!B and B!C and these will correspond in their spatial qualities to B and C. McTaggart claims that B!B and B!C cannot have descriptions of the required type if they are not differentiated in their non-spatial qualities. Since B is homogeneous with respect to its non-spatial qualities, parts of it cannot be differentiated in their non-spatial qualities.²⁸⁷

Therefore, whether space is absolute or relative, matter cannot be divided infinitely in spatial dimension with respect its spatial qualities unless it is also divided with respect to its non-spatial qualities. Since the non-spatial qualities are shown to be insufficient for the requirement of determining correspondence, then matter cannot be divided infinitely in its spatial dimension.²⁸⁸

Let us now consider whether matter is infinitely divisible in its temporal dimension. McTaggart previously establishes that time is unreal and what exists cannot have temporal dimension. A more proper way of asking the question is whether what exists can be infinitely divisible in what appears to be its temporal dimension. As in the case of spatial dimension, the qualities of a material primary whole can be classified into two: temporal qualities and non-temporal qualities. In order matter be infinitely divisible in the temporal dimension, it must be infinitely divisible in terms of its non-temporal qualities. This is not possible as in the case of the non-spatial qualities because a secondary part would require to have qualities which cannot be possessed at the same time. The determining correspondence cannot be established in terms of only temporal qualities since secondary parts would not be differentiated in terms of temporal qualities without being differentiated in terms of non-temporal qualities.²⁸⁹

²⁸⁷Ibid., pp.38-39

²⁸⁸Ibid., p.41

²⁸⁹Ibid., p.42

Although the spatial and temporal qualities seem to be parallel in fact this is not so. When we think of matter we think it with its spatial qualities. Nothing which had no size, no shape and no position can be called matter. We can think of matter as being immobile; in fact it is really immobile because that which exists cannot change, matter is only apparently mobile. If matter exists it really has size, shape and position but it is only apparently mobile. According to McTaggart, matter has a dimension in what he calls the C-series and, as we shall see in Chapter III, which appears to be a temporal series.²⁹⁰ Matter is infinitely divisible in the temporal dimension if it is infinitely divisible in the C series. The terms of C series are differentiated by their non-temporal qualities because if they were not, there would be no change and no time even at the level of appearance. In order matter be divisible in the C-series the determining correspondence must be based on either spatial or non-spatial qualities; however we saw earlier that this cannot be possible. Therefore matter cannot be infinitely divisible in what appears to be its temporal dimension.²⁹¹

Matter is infinitely divisible neither in its spatial dimension nor in what appears to be its temporal dimension. What is not infinitely divisible cannot exist, thus matter cannot exist, that is to say, existence cannot be material.²⁹²

McTaggart investigates what reasons we have in believing in the existence of matter independently of the result reached above. He thinks that matter is not something that we perceive to exist but something that we judge to exist.²⁹³ In other words, it is by inference from perception that we form a belief in the existence of matter. If someone has a belief that there is a tree and his belief can only be justified by perception if it is to be justified at all. Matter itself is never perceived but we believe in its existence on the basis of perception.

What we perceive is what McTaggart calls *sensa*. According to him *sensa* is not only judged to exist but in contrast with matter, they are also perceived to exist.²⁹⁴ He accepts that *sensa* must have causes; what he rejects is the view that the cause of *sensa* must be

²⁹⁰ According to McTaggart, the B-series which is one of the temporal series is an erroneous perception of the C-series, which is real but not temporal.

²⁹¹ *Ibid.*, pp.42-43

²⁹² *Ibid.*, p.43

²⁹³ *Ibid.*, p.44

²⁹⁴ *Ibid.*, p.45

something material: "But, granted that I am justified in inferring the existence of something outside myself which is the cause or part-cause of my sensa, and assuming that the sensa have the qualities which they appear to have, what is my justification for asserting that that cause is of the nature of matter? Why am I entitled to exclude such conclusions as those of Berkeley, of Leibniz, and of Hegel, all of whom assigned to the sensa of each percipient a cause outside himself, and all of whom denied the existence of matter?"²⁹⁵

According to McTaggart one of the reasons which support the view that the cause of sensa is material is the principle that cause and effect must resemble one another. Some think that the cause of sensa must have some common qualities with sensa and matter have these qualities. McTaggart claims that cause and effect resemble one another so far as all existent things resemble one another. There is no special resemblance in all cases of causality.²⁹⁶

McTaggart also rejects the existence of sensa. He calls the objects which we perceive as perception data or percepta. Sensa is the subclass of percepta and consists of those perception data which we perceive by our sense organs. Those percepta which are not perceived by sense organs are perceived by introspection. They are different from sensa because, according to McTaggart, these perception data are spiritual whereas sensa are not.²⁹⁷

The reason for thinking that sensa are spiritual is the confusion between the sensum which is perceived and the perception of it. McTaggart thinks that the perception of a sensum is a part of the percipient and for this reason is spiritual whereas the sensum itself is not part of the percipient.²⁹⁸

Sensa is not spiritual and it is also different from matter. If two men are looking to the same plate from different angles, they must be perceiving two different sensa. Therefore, McTaggart claims, "the world, in which we tend *prima facie* to believe, is divided, not, as is

²⁹⁵Ibid., p.45

²⁹⁶Ibid., pp.45-46

²⁹⁷Ibid., p.56

²⁹⁸Ibid., p.56

often said, into spirit and matter, but into spirit, sensa, and matter."²⁹⁹ This division is only apparent; sensa do not exist as matter was shown not to exist. This does not mean that we perceive nothing when we perceive something. We do perceive something; but what we perceive cannot be sensa because what exists cannot have the nature of sensa; in other words, sensa cannot exist.

If sensa exists, as existent, it must be infinitely divisible and sufficient descriptions of these parts must be determined by the relation of determining correspondence. What are the qualities of sensa in virtue of which the relation of determining correspondence can be established? If sensa exist, it must have those qualities which it is claimed to resemble to matter and consequently to be caused by matter. It must include qualities of matter but not in the same manner. As it was noted earlier, matter is generally accepted as not having the secondary qualities but only as causing them. Sensa, on the other hand, cannot thought as not having these qualities. Matter can be both, for example, red and hard whereas it is generally accepted that a sensum cannot have both of these qualities. And, the same piece of matter can have at different time qualities which are incompatible simultaneously whereas this can be claimed of a sensum.³⁰⁰

McTaggart claims that the sense data perceived by us have the quality of duration in time other than primary and secondary qualities, because, according to him, every perception datum is perceived as simultaneous with the perception of it and every perception is in time.³⁰¹

The qualities of sensa which are possessed also by matter are not proper for determining the sufficient descriptions of parts within parts of sensa because in the case of matter it has been shown that the determining correspondence cannot be established by means of these qualities. They may be other qualities of sensa which are not possessed by matter. There may be two qualities which are perceived to belong to the sensa without belonging to matter; these are intensity and extensity of the data perceived. Intensity in the

²⁹⁹Ibid., p.57

³⁰⁰Ibid., p.59

³⁰¹Ibid., p.59

sense that a bright light is more intense than a dull light and extensity in the sense that the difference between a more massive pain and a less massive pain is the difference between their extensity. McTaggart claims that the determining correspondence cannot be established on the basis of these qualities because a sensum cannot be divided into infinite parts with respect of these qualities. For example the difference in intensity between two shades of light is not a light having another brightness. Therefore *sensa* do not have any qualities on the basis of which the relation of determining correspondence can be established. Therefore *sensa* cannot exist.

I. 8. Spirit

In the previous section, we have seen that according to McTaggart matter and *sensa* cannot exist. Now, let us to consider whether spirit may exist or not. McTaggart defines the quality of spirituality as follows: "... it is the quality of having content, all of which is the content of one or more selves. Nothing can have this quality except substances, and so nothing but substances are spiritual."³⁰² According to this definition, selves, parts of selves, groups of selves and groups of parts of selves are spiritual.³⁰³

The quality of spirituality is defined in terms of the notion of 'self'. McTaggart argues that "the quality of being a self is a simple quality which is known to me because I perceive -in the strict sense of the word- one substance as possessing this quality. This substance is myself. And I believe that every self-conscious being -that is, every self who knows that he is a self -directly perceives himself in this manner."³⁰⁴ The quality of being a self, therefore, is simple and for this reason it cannot be defined.

This is not, of course, a proof that substance is spiritual. It only explains that there is something which we perceive as a self and which is spiritual according to the definition above. McTaggart does not offer a complete demonstration of the claim that what exists is

³⁰²Ibid., p.62

³⁰³ He uses the term 'a spirit' only for a self. Ibid., p.62

³⁰⁴Ibid., p.62

spiritual; he establishes this claim by eliminating what generally appears as existing. Matter and sensa, as we saw before, cannot exist according to McTaggart. What we generally think as existing other than matter and sensa is spirit. Therefore one can claim that spirit exists so far as it can be shown to bear the relation of determining correspondence; in other words, it can be shown to be infinitely divisible without a contradiction.

According to McTaggart, self can only be known by acquaintance because it cannot be described exclusively.³⁰⁵ If someone makes the judgment 'I am aware of X', this cannot be an exclusive description of 'I' since there may be others who are also aware of X. It can be claimed that the person who says 'I am aware of X' is also aware of his awareness of X. 'The person who is aware of this awareness of X' might be an exclusive description of 'I' since it is generally held that only the person who makes the judgment is aware of his awareness of X. Even if this were true, there would be a problem concerning the identification of the person who makes the judgment and who is aware of this awareness of X. If 'I' can only be known by description we cannot know that the descriptions 'the person who makes the judgment' and 'the person who is aware of this awareness of X' describe the same person. Therefore 'I' cannot be known by description and hence 'I' can be known only by acquaintance.³⁰⁶

No one other than the person who makes the judgment can be aware of his awareness of X is a point which must be discussed according to McTaggart. It is important not only for the discussion of the way in which we know 'I' but more importantly for deciding the empirical nature of what exists. It is generally accepted that two or more persons may perceive the same sensum where the sensum perceived is not a part of the percipients. On the other hand, it is hold that only the person who has the mental state can perceive this mental state. No one is able to perceive mental states of another self. Mental states are parts of only the self, or the mind who is perceiving them.

³⁰⁵Ibid., p.63. McTaggart states that he is following Russell's distinction between knowledge by acquaintance and knowledge by description. He investigates the reason why self cannot be known by description in detail. Ibid., pp. 63-76

³⁰⁶Ibid., pp.63-66

McTaggart accepts that in the appearance or, in what he calls present experience, no one is able to perceive mental states of other selves. What he rejects is that this claim is necessarily true: "But the fact that there is no reason to suppose that it does happen is very far from being a proof that it could not happen. Even if in the present experience no self perceives anything but its own states ... I can see no impossibility in its doing so."³⁰⁷

McTaggart claims that there is confusion between having a state and perceiving a state. If A perceives a state of B, the state of B does not become a state of A although A's perception of the state of B is a state of A. In the ordinary experience too, one may have a state without being aware of it. It cannot be claimed that it is more a state of mine when I am aware of it and less a state of mine when I am not aware of it. Having a state and perceiving it are two different things; although no two or more selves may have the same state, the same state may be perceived by more than one self. Therefore one self perceiving the states of another self is not impossible.³⁰⁸

Another question concerning self is related to consciousness. Must all selves be self-conscious? Must all selves be self-conscious all the time? McTaggart points out cases in ordinary experience where we are conscious without being self-conscious because of our attention turning upon other things. It might be claimed that although we are not always self-conscious we are able potentially to be self-conscious, whenever we turn our attention to ourselves. But, according to him, this does not change the fact that selves at sometimes are conscious without being self-conscious. From this, McTaggart infers that there may be some selves who are not conscious of themselves but conscious of other things outside themselves and hence these may be conscious but never self-conscious. This possibility is sufficient to refute that all selves must be self-conscious.³⁰⁹

One might also claim that although there may be some beings who are conscious without being self-conscious; these beings, however, cannot be called as selves. 'Self' can be only used for the being who is self-conscious; in other words, being a self necessitates

³⁰⁷Ibid., p.67

³⁰⁸Ibid., pp. 67-68

³⁰⁹Ibid., p.80

being a self-conscious being. McTaggart does not accept this usage of 'self'; according to such a view, everyone would loose and gain the quality of selfness when he is not aware of himself and when he is aware of himself. However the quality of selfness is different from the quality of self-consciousness and the first can exist without the second.³¹⁰

What is spiritual must be content of one or more selves. Something which is not contained in selves cannot be spiritual and if all existence is spiritual, it cannot exist. It might be claimed that this definition of spirituality as the content of selves is too narrow and it does not capture all spiritual things; there might be experiences, e.g., knowledge, volition, emotion which do not fall within any self. Against this view, McTaggart argues that there is no experience which is not part of a self. All experience belongs to some selves and this is, according to him, is a synthetic truth concerning experience. The possibility of impersonal experience can be defended only by those who do not accept the reality of selves and consequently the reality of personal experience. Since they do not want to deny the reality of all experience, they accept the reality of impersonal experience.

McTaggart also claims that the content which falls within one self cannot also be content or a part of the content of another self. If this were possible, either a self will be a part of another self, or two selves will overlap by having a part in common. According to McTaggart, both of these are impossible and the content of a self cannot also be a part of the content of another self and this impossibility is an ultimate synthetic truth which cannot be proved any further.³¹¹

Because of such impossibilities, the Universe cannot be a self. The content of the Universe is the whole existence. Every self is a part of the Universe. The Universe which contains all selves cannot itself be a self.³¹²

It thus follows that, in the present experience, we all perceive something which is called self and this self is spiritual. In order to be able to claim the existence of the spirit and

³¹⁰Ibid., p.81

³¹¹Ibid., pp.82-83

³¹²Ibid., p.86.

also to claim that all existence is spiritual, McTaggart argues, one must investigate whether spirit can be determined by determining correspondence.

McTaggart argues that, in the present experience, perceptions, awarenesses of characteristics, judgments, assumptions, imagings, volitions and emotions appear as parts of the selves. He classifies perceptions and awarenesses of characteristics under the name of awareness, and awarenesses and judgments under the name of cognitions and he calls cognitions together with assumptions and imagings as cogitations.³¹³ The only form of cogitation which can form an infinite series on the basis of determining correspondence is perception.³¹⁴

Let us see under what conditions perception satisfies the requirements of the determining correspondence. McTaggart makes three assumptions for this purpose: The first is that a self can perceive another self, and a part of the another self. The second is that a perception is a part of the percipient self. The third, a perception of a part of a whole can be a part of a perception of the whole.³¹⁵

We can think of a primary whole all of whose primary parts are selves. For any two primary parts B and C, "... B will perceive himself and C, and will perceive the perceptions which he and C have of themselves and of one another, and the perceptions which they have of these perceptions, and so on to infinity. And B's perceptions of this infinite series of percepta will form an infinite series of perceptions, since he has a separate perception of each perceptum. And since the perceptions of the parts will be parts of the perceptions of the whole, the infinite series will be series of parts within parts. A similar series, of course, will occur in C."³¹⁶

McTaggart points out that it is not necessary that each self should perceive every other self. What is required is that each self should have a differentiating group which

³¹³Ibid., p.87

³¹⁴ McTaggart argues that other forms of cogitation cannot exist since they cannot be determined by determining correspondence and these are really perceptions. (pp.105-112). He also argues that emotions and volitions are also forms of cogitations and by this way these can also be reduced to perceptions. (pp.132-169) These discussions, although important for some other purposes, will not be considered any further in the present thesis.

³¹⁵Ibid., p.89

³¹⁶Ibid., p.89

consists of two or more selves and each self should perceive these selves and parts of them. It is not necessary that all selves should perceive; it is possible that some selves may be percipients without being perceived; in other words, they will be determined without being determinants. It is also possible that some selves may have a single determinant; that is to say, all of them perceive a single self and parts of this self. However there must be at least a group of selves in which every member perceives one another; i.e., in which determination is reciprocal.³¹⁷

Therefore, if these three assumptions hold, then perception satisfies the conditions required by determining correspondence. We have, in the present section, discussed the possibility of a self's perceiving another self. Since, as already stated, McTaggart's aim is only to give a possible account of the empirical nature of existence, establishing this possibility is sufficient for him. Therefore, we can accept the first assumption; namely that a self's perceiving another self, as settled.

Let us now investigate whether perceptions are parts of the perceiving self or not. The view that perceptions are part of the percipient is rejected on the basis of the fact that a perception is a relation between the perceiving self and the perceived object: "If a self, B, perceives M, that fact involves a relation between B and M, of such a nature that it only holds between a percipient and its perceptum. But the question is whether there is, besides such a relation, a state of perception which is part of the percipient self."³¹⁸

McTaggart explains this by a metaphor. If I have more perceptions, the difference between this state and the state in which I have relatively few perceptions can be explained by being fuller. If this so this can be explained by perceptions being parts of the percipient self. It cannot be explained if we take perception to be only a relation between the percipient and the perceptum. Also, when we contemplate our cogitations, emotions and volitions, McTaggart claims that these exhaust the selves in a way they could not if they

³¹⁷Ibid., p.90. See also p.58 of the thesis. It should be noted that if B perceives C, C is the determinant term and B is the determinate term of the relation of determining correspondence. B!C means "B's perception of C".

³¹⁸Ibid., p.92

were only relations. If perceptions are parts of a self, they exhaust the self, because a substance is exhausted in a set of its parts.³¹⁹

McTaggart also suggests, as an evidence for perceptions' being parts of selves, that B's knowledge of C makes more *direct* reference to B than it does to C; the direct reference between B who knows C and B who did not know C is greater than the direct reference between C which is known to B and C which was not known to B. If the knowledge were mere a relation, this fact could not be explained simply; there is nothing which would explain one being more important than the other in the characteristics being known and being a knower. This difference can be explained if knowledge is a part of knower: "While the knowledge involves nothing in the object known except a relation to the knowing self, it involves in the knowing self, not only a relation to the object known, but also the presence of a part with certain characteristics."³²⁰

The third question is whether perception of a part of a whole is a part of the perception of the whole. McTaggart accepts that in the ordinary perception, in some cases, it is possible to perceive parts of a whole without perceiving the whole and vice versa. But, in cases where we do perceive a whole and its parts, the perception of a part of a whole is a part of the perception of the whole. According to him, by introspection in some cases, one can perceive a whole and its parts such that the perceptions of the parts are parts of the perception of the whole. As another evidence, he points out that when we perceive a carpet in a gradually increasing light, we perceive a whole with its parts and the perception of the whole and the perception of its parts are not separate perceptions. If they were separate, the change in the perception would not be a change to a state with more perceptions. It is a change from relatively simple to the relatively complex state of perception. Since they are not separate perceptions, the perception of a part of a whole is a part of a perception of the whole.³²¹

³¹⁹Ibid., pp.92-93

³²⁰Ibid., p.94

³²¹Ibid., p.96

We have now seen how it is possible that a self perceives another self and its parts, how perceptions can be parts of the percipient and how a perception of a part of a whole can be a part of a perception of the whole. Therefore, there is no reason to reject that spirit can satisfy the requirements of determining correspondence. Since there is nothing, as far as we know and imagine, other than the spirit which can satisfy these requirements, spirit exists. In other words, what exists is spiritual.³²²

Since all that exists is spiritual and since the content of the Universe is the whole existence, all the substances which are parts of the Universe are spiritual. Primary parts of the Universe are selves and secondary parts of the Universe are perceptions which are parts of the selves.³²³

All primary parts are selves and there can be no self which is not a primary part. If there were, the content of such a self would fall within the selves who are primary parts. In that case, some selves would be parts of some other selves. Since this is already shown to be impossible, there can be no self who is not a primary part of the Universe.

The Universe itself cannot be a self because in that case too some selves would be parts of another self. The Universe is either a primary whole or a group of primary wholes. Therefore all and only primary parts are selves and all and only selves are primary parts.³²⁴

McTaggart makes some further clarification concerning the role of primary parts as selves. The number of selves may be finite or infinite. There is no reason for claiming that the number is finite or infinite. What is important for determining correspondence is not the number of primary parts but the infinite divisibility of primary parts which may be finite or infinite in number.³²⁵

It is not necessary, although it is possible, that each self may have all other selves as its differentiating group. Since McTaggart's theory makes possible a self perceiving another

³²²Ibid., p.114. McTaggart prefers to call his ontological position as idealism. According to him, idealism is not a term which can be used for only an epistemological position because there is no other term which can be used for the ontological one. "our position is idealist, in that sense in which Leibniz, Berkeley, and Hegel were idealists." Ibid., p.119

³²³Let us recall that the unity of the Universe is a unity of composition whereas the unity of primary parts and the unity of secondary parts is a unity of manifestation. See pp.81-82 of the thesis.

³²⁴Ibid., p.121

³²⁵Ibid., p.123

self and its parts, it is possible that each self perceives other selves. What the theory requires is that each self should perceive a self other than itself.³²⁶

It is not necessary that every self should be perceived since it is not necessary that every primary part should be a determinant. There may be a self who is perceived by no one including himself. If a self does not perceive himself, he is not self-conscious. We discussed previously and showed that this does not constitute a problem for McTaggart's theory.³²⁷

Furthermore, it is not necessary that every self should perceive every other self indirectly because determining correspondence does not require that every primary part should be a direct or indirect determinant. If B perceives C and C perceives D, B is indirectly determined by D, because B perceives C's perception of D. Similarly, the relation of determining correspondence allows the possibility of each self perceiving other selves indirectly, and thus there is no reason to reject it.³²⁸

One can argue that in order to claim the existence of the Universe one must perceive all selves since the primary parts of the Universe are selves. But, McTaggart argues, the knowledge of the existence of the Universe can be inferred from any knowledge which establishes the existence of any substance because the Universe is defined as a substance which contains all the existence as content. If there is only one substance, then the Universe exists as that substance which contains the whole existence. Therefore, the knowledge of the existence of the Universe does not necessitate that the knowing self must perceive all other selves.³²⁹

There is nothing which necessitates or prevents all selves belonging to the same primary whole. If the Universe consists of one primary whole, then the selves do belong to the same primary whole. If one self perceives all other selves, all selves should belong to the same primary whole. Even in the cases where there are selves who are not percipient or who are not perceived, all selves may belong to the same primary whole. What is necessary

³²⁶Ibid., p. 124

³²⁷Ibid., p. 125

³²⁸Ibid., pp. 126-127

³²⁹Ibid., pp. 128-129

is that if a self perceive another self, two selves should belong to the same primary whole.³³⁰

Previously we have said that there might be more than one relation of determining correspondence if there is more than one primary whole. Now, one can claim that even if there are more than one primary wholes, there is only one sort of determining correspondence and this is perception. Moreover, the Universe must have only one set of primary parts because more than one set of primary parts is possible only if there is more than one relation of determining correspondence. In McTaggart's the only relation of determining correspondence is perception and the primary parts are perceiving selves. Since no self can overlap or be part of another self, there cannot be more than one set of primary parts of the Universe. The members of the set of primary parts of the Universe are all and only the selves.³³¹

³³⁰Ibid.,p.129

³³¹Ibid.,p.130

II. Interpretation and Reconstruction of the Argument on the Unreality of Time in view of McTaggart's Ontology

One of the important consequences of McTaggart's ontology is his rejection of the reality of time. This consequence is significant for two reasons: firstly, McTaggart himself considers it as the first consequence which can be drawn from the philosophical system whose general characteristics are established in the first volume of *The Nature of Existence*.³³² The second reason is the wide-spread influence of the argument in the philosophy.

What exactly does McTaggart mean when he states that time is unreal? First of all, as we have discussed in detail in Section (I.1), according to him, the realm of existence and the realm of reality are the same in McTaggart's ontology.³³³ What exists is real and what is real is also existent. Therefore, to state that time is unreal is to state that time does not exist.

Secondly, time, according to McTaggart is neither a substance nor a principle which can be claimed to be a condition of existence, nor a receptacle in which existence takes place. There is nothing which can be called a principle or a receptacle in McTaggart's ontology. The whole existence consists of substances and characteristics of substances.³³⁴ In this ontology, time may exist only as a characteristic of substance. Therefore, the rejection of the reality of time amounts to saying that time cannot belong to a substance as one of its characteristics; that is to say, no substance can have time as one of its characteristics.

Thirdly, as we have seen on the discussions of qualities and relations in Section (I.2), there exists an infinite series of derivative characteristics for every original quality and original relationship of a substance.³³⁵ And, as we considered on the discussion of the infinite divisibility of substances in Section (I.4), a substance has a dimension if it forms either a series, or a term in a series in that dimension.³³⁶ A substance has infinitely many

³³²J.M.E. McTaggart, *The Nature of Existence*, Vol. II., edited by C.D. Broad, Cambridge University Press, Cambridge, 1927, p. 3

³³³See Section (I.1).

³³⁴See Section (I.2).

³³⁵See p.17 of the thesis.

³³⁶See pp.41-42 of the thesis.

dimensions because it has infinitely many characteristics which are generated on the basis of the original qualities and relations and which also generates infinite series. Therefore, if time is a characteristic of a substance, then substance has temporal dimension. Thus, to say that time is unreal is to say that no substance can have temporal dimension.

Fourthly, all characteristics of a substance constitutes the nature of that substance. Since time may exist only as a characteristic, the claim that time is not real means that time cannot be a part of the nature of any substance.

In appearance, or in the present experience, we perceive substances as having some characteristics. We perceive them as having material, spatial, temporal and spiritual characteristics. We considered that in reality, some of these do belong to substances although some of them do not. On the other hand, although we perceive some substances as not having spatial or material dimensions, we perceive in the present experience, no substance which does not have temporal dimension. By introspection, we perceive our mental states as not having spatial or material characteristics whereas we have no experience which appears not to have temporal dimension. In other words; there is nothing, in appearance, which we perceive as timeless; all existence appears to be in time.³³⁷

According to McTaggart, there are only two ways in which we can distinguish positions in time. In the first one, positions are distinguished by being earlier (or, later) than some other positions. The relation of 'being earlier' (or, 'being later') is a transitive and asymmetrical relation. That is, for any three positions M, N, O in time, if M is earlier (later) than N, and N is earlier (later) than O, it follows that M is earlier (later) than O; and, if M is earlier (later) than N, then N is not earlier (later) than M. McTaggart furthermore assumes that for any positions M and N in time, either M is earlier (later) than N or N is earlier (later) than M. That is, all positions in time are connected by means of 'earlier' ('later') relation. McTaggart calls B-series the series which is formed on the basis of the relation of being earlier (or, being later).³³⁸

³³⁷Ibid., p.9

³³⁸Ibid., pp.9-10

The second way in which one can distinguish between the positions in time is by attributing to positions in time either past or present or future. We perceive, in appearance, that any position M in time is either past or present or future. McTaggart calls the series of positions which runs from past through the present to the future, or conversely, as the A-series.³³⁹

In the B-series, positions relative to each other are permanent; that is to say if M is earlier (later) than N, it is always earlier (later) than N independently of the past-present-future distinctions. In the A-series the distinctions are not permanent. If M is present, it was future and it will be past.³⁴⁰

According to McTaggart, the content of any position in time forms an event. In a single position in time, there is a plurality of simultaneous events. This plurality of events forms a group and as we have seen³⁴¹, this group is a substance. Now, we must ask the question why McTaggart states that the content of any position in time forms an event rather than a substance? Why does he need to specify what sort of substance it is?

An event is a substance only if it exists. If time is as it appears to be; that is to say, if there are temporal series, there must be a continuous change. If there were no change, there would be no time. Moreover, if anything changes, then, in McTaggart's system, everything changes, since everything is related by the relation of the extrinsic determination.³⁴² If anything changes, then all of its characteristics including the relational ones change. Since everything is related by the extrinsic determination, a change in a substance results in changes in every other substance. Since the reality of time necessitates the existence of change, in a changing system the terms of the temporal series can only be events. That is to say, the substances which can be the contents of the positions in time could only be events.

According to McTaggart, nothing can remain unchanged through time: "But there could be no time if nothing changed. If anything changes, then all other things change with

³³⁹Ibid., p.10

³⁴⁰Ibid., p.10

³⁴¹See p.31 of the thesis.

³⁴²See pp. 23-25 of the thesis.

it. For its change must change some of their relations to it, and so their relational qualities. The fall of a sand-castle on the English coast changes the nature of the Great Pyramid."³⁴³

If we assume the reality of time, since this involves the existence of change, it is proper to consider the substances which are in time as events. If time is taken to be real, every substance turns to be an event.³⁴⁴

As time appears to us, A-series is essential to time; everything that we perceive in present experience has the characteristics of 'will be past', 'is present' and 'was future' as well as the distinctions of being earlier or being later. Some may argue that the distinctions of past, present and future are the products of our minds; events themselves are neither past, nor present, nor future and they possess only B-series relations among themselves. McTaggart replies to such a view by arguing that if one considers time as constituting only a B-series, he does not consider it as it appears to us.³⁴⁵

If one argues that B-series alone can constitute time and there is no need for A-series, then he must explain change, without which time cannot be considered, in terms of only the B-series.

The terms of temporal series are events. Therefore what changes; in other words, the subjects of change, are events. How can events change? Is change an event ceasing to be an event and another event beginning to be an event? This cannot be the case; an event cannot begin or cease to be an event; it is always the event it is because the position of it in the B-series is permanent. If N is earlier than O and later than M (where M, N, O are distinct events), it will always be and has always been so. An event cannot change its position in the B-series. It will always be and has always been the event it is; it cannot begin or cease to be itself and its relation to the other events in the B-series cannot be subject to change.³⁴⁶

³⁴³Ibid., pp.11-12

³⁴⁴ Before going on any further, let us remind that, according to McTaggart, there is no event. In McTaggart's ontology, there is no change. Any change in any substance would destroy the unity of this substance, the unity of the Universe since the changing substance is a part of the Universe, and also the unity of other substances which are also parts of the Universe. His consideration of the contents of positions in time as events is a hypothetical consequence of taking time as real. Events are substances only if they exist. The establishment of the unreality of time means that there is no change and also there is no event.

³⁴⁵Ibid., p.11

³⁴⁶Ibid., p.12

Is change possible by an event M merging itself into another event N but preserving identity in some aspects? This will not do, according to McTaggart, because although M and N have some common aspects, they are not the same event; in other words, M ceases to be M and begins to be N; but this is impossible.³⁴⁷

Events, if they exist, are substances, and as substances, are subject to intrinsic and extrinsic determinations. An event M cannot cease to be the event it is and cannot merge itself into an event N; the event M loses its identity whenever it loses any of its characteristics all of which are included in its nature. Moreover, if any characteristic of an event changes, then characteristics of other events which are related to it by intrinsic and extrinsic determinations also change. The characteristics of events other than temporal ones cannot change since their change would destroy the events themselves and also the Universe as the substance which contains the whole existence.

Only the changes which events may undergo would belong to the temporal dimension. If we take any event, for example, the death of Queen Anne, no characteristic except the temporal one changes: "'Before the stars saw one another plain', the event in question was the death of a Queen. At the last moment of time -if time has a last moment- it will still be the death of a Queen. And in every respect but one, it is equally devoid of change. But in one respect it does change. It was once an event in the far future. It became every moment an event in the nearer future. At last it was present. Then it became past, and will always remain past, though every moment it becomes further and further past."³⁴⁸

The characteristics past, present and future are the A-series determinations. B-series, by itself, is not a temporal series because it cannot account for change and thus for time. B-series, by itself, is a formal series. The relation of earlier (later) than can be thought analogically as the relation of smaller (greater) than. The relation of earlier(later) than is a transitive asymmetrical relation and for any two terms of the B-series, either one of them must be earlier(later) than the other. B-series determinations are permanent; the relations of a term to others cannot change. The relations between the terms of B-series are determined

³⁴⁷Ibid., p.12

³⁴⁸Ibid., p.13

among themselves; there is no reference to something outside B-series. The existence of B-series neither involves nor implies the reality of time because there is no temporal content in the B-series whenever it is considered by itself.

Therefore, the distinctions of past, present and future are essential to time. B-series cannot capture the essence of time, that is to say the change. The only changing characteristics of events are temporal characteristics; an event which is future, will be present and then past. What is the nature of temporal characteristics? Are they relations or qualities? According to McTaggart they are relations and as all other relations they generate infinite number of relational qualities.³⁴⁹ Pastness, presentness and futurity are relations whereas being past, present and future are relational qualities which originate from the relations between the terms of the time-series³⁵⁰ and something else: "If anything is to be rightly called past, present or future, it must because it is in relation to something else. And this something else to which it is in relation must be something outside the time-series."³⁵¹ The relative places of two events in the time-series are the same before their occurrences, when one of them is occurring and after their occurrences. In other words, the relative places of events, or the relative places of moments at which events take place do not change. This is the reason why the changing relation must be to something which is outside the time-series.³⁵²

According to McTaggart, the relations in which the terms of the time-series stand are simple relations and thus indefinable. However, neither one of past, present and future is meaningful if one is separated from the others; that is to say, in order to know the meaning of pastness one must know the meanings of presentness and futurity.³⁵³ Pastness, presentness and futurity have meaning if they are considered together in the A-series. McTaggart defines an A-series as follows: "... a series is an A-series when each of its terms

³⁴⁹Ibid., p.19. Whether temporal characteristics are qualities or relations is not important for the validity of the argument on the reality of time. But, it is important for understanding the nature of the concept of time in McTaggart's philosophy.

³⁵⁰This time-series is the B-series.

³⁵¹Ibid., p.19

³⁵²What this something is will be clarified later. What is to be noted here is the need for a thing which is outside time-series.

³⁵³Ibid., pp.19-20

has, to an entity X outside the series, one, and only one, of three indefinable relations, pastness, presentness, and futurity, which are such that all the terms which have the relation of presentness to X fall between all the terms which have the relation of pastness to X, on the one hand, and all the terms which have the relation of futurity to X, on the other hand."³⁵⁴

The relation of presentness of a term of the A-series to X determines the relations of the other terms of the A-series to X. Different relations to X determine the relations of other terms to X as being past, present or future. McTaggart points out that to find such a term as X is not easy. However, the A-series is real only if there exists such a term.³⁵⁵

McTaggart argues that there is another difficulty which is related to the reality of A-series. Past, present and future are A-series determinations and they are incompatible.³⁵⁶ If an event is present, it cannot be past or future; if it is past, it cannot be present or future; and if it is future, it cannot be past or present. Every event must either be past, or present, or future exclusively. However, every event possesses each of these characteristics in a specific manner. If something is past, it has been future and then present; if something is present, it has been future and it will be past; and, if something is future, it will be present and then past. Is this consistent with the incompatibility of these three characteristics?

One can say that these characteristics are not incompatible if they are not attributed to the terms of A-series simultaneously. If an event M is present now, it cannot be past or future now, but it has been future and will be past.

In respect of moments at which events take place, the same contradiction arises. What do we understand from 'has been', 'will be' and 'is' with a temporal meaning? If we say that an event is present, we mean that M is present at a moment of present time; if we say that M will be past, we mean that it is past at a moment of future time; if we say that M has been future, we mean that it is future at a moment of past time. However, at this point a similar problem arises for moments, since every moment is past, present and future.³⁵⁷ "If

³⁵⁴Ibid., p.20

³⁵⁵Ibid., p.20

³⁵⁶Ibid., p.20

³⁵⁷Ibid., p.21

M is present there is no moment of past time at which it is past. But the moments of future time at which it is past, are equally moments of past time, in which it cannot be past. Again, that M is future and will be present and past means that M is future at a moment of present time, and present and past at different moments of future time. In that case it cannot be present or past at any moments of past time. But all the moments of future time, in which M will be present or past, are equally moments of past time."³⁵⁸

The same contradiction arises for moments. The moments at which M has any one of these temporal characteristics are at the same time, moments at which it cannot have these characteristics.³⁵⁹ We perceive, in the present experience, events as forming a B-series and an A-series. The terms of the B-series are neither present nor future nor past by themselves; they are related in themselves by the relation of earlier (or, later) than. A-series results from the attribution of past, present and future to the terms of the B-series. If M, as a term of the B-series, is present moment with respect to A-series, it cannot be past at the earlier moments with respect to A-series; it would be past only in future, for example, at a later moment P where 'earlier than' and 'later than' are the relations for the B-series. But, the future moment P in which M would be past with respect to the A-series is equally a moment of past time with respect to the B-series, in which M cannot be past with respect to the A-series. That is to say, the moment M turns out to be past when a later term P of the B-series turns out to be present because M is earlier than P in the B-series. With respect to the B-series, M turns out to be both present and past which is impossible with respect to the A-series.³⁶⁰ The only way of avoiding the contradiction is stating that moments do not possess these incompatible characteristics simultaneously, but only successively; that is to say, for example, some moment is future at a present moment and will be present and past at different moments of future time. However, the same difficulty arises again, and so on infinitely.³⁶¹

³⁵⁸Ibid., p.21

³⁵⁹The only case in which no contradiction arises is that 'M is present at a moment of present time'.

³⁶⁰This does not mean that the B-series is more fundamental than the A-series; the existents which appears in time appear to form both the A-series and the B-series

³⁶¹Ibid., pp.21-22

It is a vicious infinity. The attribution of past, present and future leads to a contradiction unless it is specified that terms have them successively. Whenever we specify that terms have them successively the same difficulty arises. McTaggart points out that it is impossible to state the difficulty without giving the explanation and the explanation itself leads to the same difficulty over again.³⁶² He also states that the difficulty is not in defining past, present and future without using them in their own definitions, rather it arises from the fact that the nature of terms involves a contradiction and the removal of the contradiction involves the use of the terms.³⁶³

Therefore, the reality of A-series must be rejected since it involves a contradiction. A-series does not exist. We have already seen that the reality of time involves change and change can be accounted only by A-series. Since A-series cannot be real, time cannot be real; in other words, time does not exist.³⁶⁴

The unreality of time means that no existent can have temporal dimension and no existent may undergo change. However, in the present experience, we perceive everything as existing in time; as having temporal characteristics. Therefore, if time cannot be a characteristic of substance, whenever we perceive any substance as existing in time, we perceive it, more or less, as it really is not. In all of our perceptions, in the present experience, things appear to us as they really are not; that is to say, in ordinary experience, there is a divergence from the reality.³⁶⁵

One may argue against McTaggart that since every one perceives things in time, and since everyone has a belief in the reality of time, what must be rejected is not the reality of time, but the views which lead to the unreality of time even if there are no flaws in McTaggart's reasoning.

McTaggart argues that there is no immediate certainty in our belief in the reality of time. Of course, the conclusion that time is unreal might seem to imply that there is some

³⁶²Ibid., p.21

³⁶³Ibid., p.22. Past, present and future are simple relations and thus indefinable. McTaggart does not aim to define these characteristics. He aims to show, supposing that existence has temporal characteristics, it leads either to a contradiction or to vicious infinity.

³⁶⁴Ibid., p.22

³⁶⁵Ibid., p.22

error in our perceptions. This error, according to McTaggart, is not an error which can be corrected by the ordinary perception itself. Rather, he accepts the erroneous perception and tries to explain the roots of it. He also accepts, for the ordinary perception, that perceiving things in time is inescapable for us. He states that "any theory which treated time as objectively real could do so by treating time, *as we observe it*, as being either unreal or merely subjective. It would thus have no more claim to support from our perceptions than the theories which deny the reality of time."³⁶⁶

The main reason behind the belief in the reality of time is our belief that we perceive only the present. We do not perceive nothing from the past or the future; we judge them to be past and future. What we perceive as present is not a point or a moment; but what is called 'a specious' present. Specious present includes some moments of past and some moments of future. The present hour, the present year, the present century are all examples of specious present. One perceives as present whatever falls within the limits of a specious present. Then, the time-series which one perceives is separated by a specious present where the earlier terms are past and later terms are future. One perceives as present whatever is simultaneous with his specious present. However, the lengths of specious presents differ according to circumstances. If an event M is simultaneous with X's perception Q and Y's perception R, where both perceptions form parts of X's and Y's specious presents. Later, Q may cease to be a part of X's specious present although R may remain as a part of Y's specious present. In this case, M would be both present and past, and this is impossible. If we accept the subjectivity of A-series and then of time, there is no difficulty in the case above. M is past for X and is present for Y. The difficulty arises from our belief in the objective reality of time.³⁶⁷

Even if time were real, the real present could not be the same thing as the specious present. If the present has a duration, this duration must be fixed independently of our specious presents. In this case, one may perceive an event as present and the event in reality may be past or future. McTaggart concludes from these considerations that, since, even if

³⁶⁶Ibid., p.27

³⁶⁷Ibid., p.28

time were real, what we perceive as present is not the real present, we have no immediate certainty for our belief in the reality of time. Even if time were real, there is something which is erroneous in our perception of time³⁶⁸: "On either hypothesis -whether we take time as real or as unreal- everything is observed as in a specious present, but nothing, not even the observations themselves, can ever really *be* in a specious present. For if time is unreal, nothing can be in any present at all, and, if time is real, the present in which things are will not be a specious present."³⁶⁹

Although time is unreal, that is to say no substance can have temporal dimension and in the present experience we perceive substances as existing in time, our experience of time is not completely erroneous. What is erroneous in our experience of time is perceiving substances as possessing temporal characteristics; in other words, as forming time-series. Substances exist; but they, however, do not exist in time and they do not constitute time-series. When we perceive them as constituting time-series, it is certain that we perceive something existent but we perceive the existents as constituting time-series erroneously. According to McTaggart, it is possible that when we observe time-series, we are observing a real series; a real series which we observe erroneously as a time-series. McTaggart calls the real series which is observed erroneously as a time-series as a C-series: "It is possible that, whenever we have an illusory experience of a time-series, we are observing a real series, and all that is illusory is the appearance that it is a time-series. Such a series as this -a series which is not a time-series, but under certain conditions appears to us to be one- may be called a C-series."³⁷⁰

If one can find such a real C-series, then it is possible to explain the illusion of time. The illusion of time, according to McTaggart, consists of our applying A-series to the C-series. B-series results from this relation. Whatever the relation between the terms of the C-

³⁶⁸Ibid., pp.28-29

³⁶⁹Ibid., p.29

³⁷⁰Ibid., p.30. Let us recall that some of the consequences of McTaggart's ontological system follow necessarily whereas some of them are only probable. McTaggart's rejection of the reality of time follows from his ontological system and it is true if there is no mistake in the reasoning. His suggestion that there is a real C-series which appears to us as a time-series, on the other hand, is only a probable explanation of our illusion of time and that explanation would be consistent with his ontological system.

series is, it appears to us as the relation of earlier (or later) than. A-series and B-series are only appearances whereas the C-series is a real series. In order the explanation of illusion of time to be a proper explanation the real C-series and the apparent A-series must be given independently; C-series and A-series are both fundamental whereas the B-series can be derived from the relation between them.³⁷¹

The relations between the terms of the C-series must be permanent relations. If an event N is between the events M and O in the B-series, then the corresponding term of the C-series must be between the corresponding terms of M and O. If two events M and N appear to be simultaneous to us in the B-series, then the corresponding terms of the C-series which appear to us as the events M and N must occupy the same places in the C-series.³⁷²

The appearance of the C-series as B-series is not the only distinction between appearance and reality. McTaggart classifies these distinction into five: firstly, in appearance we observe the existence as matter, *sensa* and spirit whereas in reality there exists only spirit and nothing else. Secondly, in ordinary experience, one perceives only his parts and *sensa* although in reality one perceives nothing other than his parts, other selves, and parts of other selves. Thirdly, the content of one's mental states are perceptions, judgments, assumptions and imagings while, in reality, according to McTaggart's theory, the content; that is to say the parts of one's self is only perceptions and nothing else. Fourthly, due to the third distinction, in appearance, volitions and emotions are distinct from perceptions whereas in reality, they are perceptions. In appearance, we perceive everything as existing in time while in reality nothing exists in time. This difference is the fifth and the most fundamental distinction between the reality and the appearance.³⁷³

³⁷¹Ibid., p.30

³⁷²Ibid., p.31. McTaggart states that his position is closer to Hegel rather than to Kant: "For Hegel regarded the order of the time-series as a reflection, though a distorted reflection, of something in the real nature of the timeless reality, while Kant does not seem to have contemplated the possibility that anything in the nature of noumenon should correspond to the time-order which appears in the phenomenon." Ibid., p.31

³⁷³Ibid., pp.193-194. McTaggart points out that the first and the fifth distinction are found in many philosophical system; the second is explicit in Leibniz's system and can be argued to be implied by Hegel's philosophy; the fourth and the third are not explicit in any system but may be implied by Leibniz's and Hegel's systems. Ibid., p.194

These differences are due to our perceptions. According to McTaggart's system, all parts of any self are perceptions: "Whatever falls within the mind -and there can be error nowhere else- is either a perception or a group of perception."³⁷⁴ Similarly, knowledge is also in perception: "For if there is any knowledge it can be nowhere but in perception."³⁷⁵ Therefore, it is necessary to find a theory of perception which allows both for knowledge and error. How can perception be knowledge and, at the same time, how can perception be erroneous?

McTaggart does not completely agree with the explanation that when we perceive a substance A as having the characteristic X, A exists but is not X. Such an explanation at most guarantees our knowledge of the existence of A and nothing else. If one believes with McTaggart that perception is knowledge, one must accept the self-evidence of perception in the sense that when one perceives A as being X, A must exist and be X: "When in general I contemplate what is the nature of perception, and what is the nature of the relation of a perception to its perceptum, it seems to me self-evident that such a self-evident correctness belongs to all perceptions."³⁷⁶

McTaggart states the condition of self-evidence of the perception. What is claimed to be self-evident is that '*when* I am perceiving A as being X, then A must exist and be X'. He does not claim that it is self-evident that A exists and is X *when* he is not perceiving it, although in some cases when he is not perceiving it, it is possible to *infer* that A exists and is X. Moreover 'when I am perceiving' needs explanation; it does not mean 'the moment at which I am perceiving' because the present at which one perceives something is a specious present which may contain past and future moments. When one perceives a thing to be present, the thing may be past. When one perceives the substance A as existing and being X at the moment N, the substance might exist and be X at some earlier moment M and it might cease to exist and to be X at the moment N: "What is meant is that, if at the moment

³⁷⁴Ibid., p.196

³⁷⁵Ibid., p.196

³⁷⁶Ibid., p.200

N I perceive A as X, then it is self-evidently certain that A exists and is X at some moment or moments which I am then perceiving as present."³⁷⁷

McTaggart calls the above condition of self-evidence of perception 'the limitation of the self-evident correctness of all perceptions'. All perceptions of anything that appears to be in time is subject to that limitation and there is no other limitation on the correctness of perception.³⁷⁸

According to McTaggart, there is nothing which exists in time. The limitation on the correctness of the perception must be restated in different terms as following: "A exists and is X at a point in the C-series which appears to be present at the point in the C-series at which the perception exists."³⁷⁹

McTaggart calls perceptions which are knowledge as correct perceptions and perceptions which are erroneous as misperceptions. Misperceptions are as real as correct perceptions; they are parts of selves because all perceptions may exist as being parts of some selves.³⁸⁰

There exists correct perceptions and misperceptions as the parts of perceiving selves. What is the cause of misperception? Why does reality appear to us to be so different from what it really is? McTaggart thinks that it is not a philosophically proper way to call the error which is so general and common in all human beings as phenomenal truth. He points out that what is phenomenally true is really false and however this character of the phenomenal truth is generally forgotten and phenomenal truth is considered as really true. And also he claims that since what is true must be true of something, a 'phenomenal reality', which is not 'real reality', is attributed as the object of the phenomenally true knowledge: "A phenomenal object of phenomenally true cognitions is nothing but an objectified error detached from the self who has the erroneous cognition."³⁸¹

³⁷⁷Ibid., p.201

³⁷⁸Ibid., p.201

³⁷⁹Ibid., p.202

³⁸⁰Ibid., p.203

³⁸¹Ibid., p.207

It is not possible to separate the error from the subject because the misperceptions are parts of the selves. The error is in the erring subject although the cause of it or a part of the cause of it may be outside the subject.³⁸²

There may be one or more than one cause of the error. If there are more than one cause, it is more likely that they are limited in number. If, on the other hand, the error has a single cause of the divergence from reality of what we perceive, that cause must, in some way, be connected with the appearance in time because the appearance in time is a common error to all what we perceive.

The appearance in time may be the explanation of the error only if we can explain the nature of reality which appears as time-series. B-series and A-series are appearances of something that really exists; in other words, what is called C-series. The relations between the terms of the C-series should resemble the relations between the terms of the B-series on the one hand, they must be transitive and asymmetrical relations; and, on the other hand, the misperceptions which gives rise the A-series must in reality form a C-series because when one misperceives a term of the C-series as present, he also misperceives some terms of it as past and some other terms as future. The misperceptions themselves are not sufficient to decide which side of the present is past and which side of it is future. In order the misperceptions to form an A-series, there must really be a series though not a time-series.³⁸³

Now, we must investigate what the terms of the C-series are and what the relations between them are. Let us restate the question: what are the series when a self G (who consists of perceptions) perceives a substance H (which is either a self, or a group of selves, or a part of a self, or a group of parts of selves)? Since no substance is really in time, there are no A and B-series. There are only misperceptions of H which appear as being in time. These misperceptions are in the perceiving self G and as perceptions they are part of him.³⁸⁴

This point is very important. There are as many time-series as there are selves who perceive things as being in time. For every perceiver there is a time-series. Everyone has his

³⁸²Ibid., p.207

³⁸³Ibid., p.213

³⁸⁴Ibid., pp.213-214

own time; although it is possible that two or more time-series have certain resemblances, there is no time which is common to two or more selves.³⁸⁵

When G perceives H, the series which appears to G as successive states of H (i.e., as a time-series) is a series in H. For example, if H appears to G as black, red and white successively, then H has three states which appears to G as being black, red and white. The term of the series which appears as red is between the terms which appear as black and white. This series, which is a C-series is in H and it is the series which G perceives as a B-series. The C-series in H cannot account for G's misperceiving it as a time-series, misperceiving its terms as material objects, as *sensa*, etc.³⁸⁶

McTaggart believes that the only possible and according to him also the actual, way of explaining misperceptions is through the C-series in G; that is to say the C-series in the perceiving self. The misperceptions, as perceptions of the self who is perceiving them, are terms of the C-series in the perceiving self G: "For every such misperception is a term in the series in G, since, when it is perceived by introspections, it is misperceived as being in time."³⁸⁷

McTaggart states the conditions which determines the terms and their relations in the C-series: firstly, since the whole existence is spiritual, the terms must be spiritual in nature and they must consist of infinitely divisible parts within parts by determining correspondence. Secondly, the terms of the series should allow for correct and erroneous perceptions. Thirdly, they must allow erroneous perceptions of different sorts; for example, erroneous perceptions as having material, sensual and temporal characteristics. Fourthly, C-series should be one-dimensional and the relations between terms should be transitive and asymmetrical as the relations of earlier than and later than. Fifthly, the C-series must, at least, has as many terms as the B-series. For every term of the B-series there must be a term of the C-series. C-series may have more terms than the B-series and it may also have an

³⁸⁵Ibid., p.214. McTaggart states that this result should be implied by all views which claim that time is unreal. He gives as example views of Spinoza, Kant and Hegel and he also claims that they would not accept that consequence: "... if cognition is not strictly correct, it must be partially erroneous, and what is erroneous has no place outside the person who is in error." Ibid., p.214

³⁸⁶Ibid., pp.214-215

³⁸⁷Ibid., p.215

infinite number of terms. The sixth condition is related with knowledge. In reality, our knowledge of substance involves a knowledge of infinitely many parts whereas in the present experience we have no such knowledge. The explanation of the nature of C-series should allow this as possible. The seventh condition is that the account of the C-series should make possible the persistence or recurrence of the content of the perceptions in time-series. In absolute reality and also in appearance the content of a perception neither persists nor recurs. But the perceptions which appear to be judgements both persist and recur in appearance. If someone makes a claim that Caesar died in Rome in one day and he restates his judgment in another day, the contents of these judgments should be same in appearance. The account of the C-series must allow this possibility. The eighth condition is related to the change and oscillations in the contents of perceptions. In appearance, the extent of our perception, as a whole, changes, sometimes increases and we perceive more objects than before and sometimes diminishes. The continuity of our consciousness, generally, is broken by sleep. These appearances should be explained by the account of the C-series. The ninth condition is related to the clearness of the perception of particular objects. In cases where an objects remains in our consciousness, the clearness of the content of perception changes; it increases, then diminishes and then increases. These oscillations in clearness must be accounted for. The tenth condition is that the accuracy of our knowledge changes as its extent and its clearness change. A man may believe at once that A is X, and then he changes his view and may believe that A is not-X and then he may believe that A is X. These changes in the accuracy of knowledge must be explained. The changes in eight, ninth and tenth conditions cannot be explained by the mere passage of time although they must, in some way, be related to it. The eleventh condition is that the account of the C-series must allow for some relations between the content of perception and its place in the apparent time-series in order to explain these changes. Therefore, there must be some connections between the terms and their places in the C-series.³⁸⁸

³⁸⁸Ibid., pp.216-221

What can be the terms of the series? Can the terms of the relation of the determining correspondence be the terms of the C-series. The terms of the determining correspondence are primary parts and secondary parts of the primary parts.³⁸⁹ Each self is a primary part consisting of perceptions as its secondary parts, and each C-series is a series in a self; that is to say, in a primary part. The determining correspondence system is two-dimensional; in the first dimension, the terms are the different grades of parts such as secondary parts of the first grade, secondary parts of the second grades and so on infinitely. In the second dimension, the terms are the terms of the first series; in other words, the grades of parts have their own parts. Thus, the terms of the series which constitute the second dimension are parts in the grades. The C-series, on the other hand is one-dimensional. This is one of the important differences between the series of the determining correspondence and the C-series.³⁹⁰

The two-dimensional system of determining correspondence may be arranged in a one-dimensional series. Any secondary part of the first grade, for example B!C can be matched to a term M in the C-series such that the secondary parts of the second grade of B!C, for example, B!C!B, B!C!C, B!C!D, which forms a set of part of B!C corresponding to the parts of M which forms a set of parts of M. A similar process can be applied to all lower grades in order to form a one-dimensional series. The resulting series is a one-dimensional determining correspondence series. However this series is not a C-series because there is nothing in the determining correspondence system which determines the place of the terms in the series; there is nothing which determines which of the B!C and B!D comes earlier in the series.³⁹¹

However, the existence of such an order in the determining system is not inconsistent with the nature of determining correspondence. Even if such an order can be shown to exist, this is not sufficient for claiming that the determining correspondence series is a C-series. As we discussed in Section (I.5), only one part within any primary part can have the same direct determinant. Since primary parts are selves and secondary parts are

³⁸⁹See Section (I.5)

³⁹⁰*Ibid.*, p.224

³⁹¹*Ibid.*, pp.224-225

perceptions, this means that a self can have only one perception of one perceptum. This make impossible the persistence or recurrence of the content of perceptions which appear as judgments. Thus, the perceptions which are terms of the system of determining correspondence cannot be the terms of the C-series.³⁹²

McTaggart argues that C-series can be found in another dimension which is different from two dimensions of the determining correspondence system.³⁹³ The terms of the C-series should be distinguished from one another and also from the terms of the determining correspondence. Every self and every part in the determining correspondence system are distinguished by their sufficient descriptions. Similarly the terms of the C-series can be distinguished by their sufficient descriptions. McTaggart refers to the descriptions which distinguish the terms of C-series as c_1 , c_2 , c_3 , ... McTaggart suggests that by combining these descriptions with the sufficient descriptions of the terms in the determining correspondence system, one gets sufficient descriptions of the terms of the C-series. For example, $c_2G!H$ is a sufficient description of a term in $G!H$.³⁹⁴

According to McTaggart, $G!H$, which means G 's perception of H , is a correct perception. However, all of its parts, which are terms in the C-series are states of misperceptions of H ³⁹⁵: "Each of these parts of $G!H$ in the C-series of G will be a misperception of the terms of H 's C-series, c_1H , c_2H , and so on. But part of the erroneous element of G 's perception of H will be to regard this C-series as a B-series, and consequently they will be misperceived as being in time."³⁹⁶ and "At any stage in the C-series G will perceive as present whatever in H is at the same stage in the C-series. He will perceive as future or as past whatever is at different stage in the C-series. This involves that different selves have correspondent C-series."³⁹⁷ The only sort of perceptions which can be at the same stage of the C-series of their percepta is those which also appears as perceptions. The

³⁹²Ibid., p.225

³⁹³Ibid., p.226. McTaggart points out that his account of the C-series is only a probable explanation which confirms the conditions established previously.

³⁹⁴Ibid., p.227

³⁹⁵Ibid., p.227. We will see later in this section how misperceptions can be parts of a correct perception.

³⁹⁶Ibid., p.227. G can be his own perceiver, $G!G$. In this case, G misperceives himself as being in time by introspection.

³⁹⁷Ibid., p.227. The correspondence of different C-series will be elaborated later in this section

ordinary perception, or as McTaggart calls it, the apparent perception, perceives its perceptum always as present. Therefore all perceptions which are not at the same stage of the C-series of their percepta appears not as perceptions but as other forms of cogitations; that is to say as judgments, assumptions and imagings.³⁹⁸

G!H is a term in the determining correspondence and is a correct perception. The terms in the determining correspondence perceives each other as they are in the sense that they perceive selves as selves and perceptions as perceptions and also they perceive perceptions as determined by the determinants which really determine them. Can the terms of the determining correspondence be erroneous in other respects?

When G!H!K perceives H!K as a whole, the perception cannot be erroneous in the four ways mentioned at the beginning of the chapter.³⁹⁹ McTaggart claims that "G!H!K, besides being a perception of H!K as a whole, may also perceive the states of misperception which are parts of H!K in the dimension of its C-series."⁴⁰⁰ McTaggart calls these parts as 'fragmentary part's of the H!K in order to distinguish them from parts which are terms in the determining correspondence.⁴⁰¹ The fragmentary parts also cannot be perceived, in these four ways, as having characteristics which in reality they do not have because they are perceived as being parts of perceptions which are terms of the determining correspondence although they are themselves are not terms in this relation.⁴⁰²

Similarly, no perception which is a term of determining correspondence can perceive fragmentary perceptions as being in time because this would involve that the whole of which they are fragmentary parts is perceived as being in time by the terms of determining correspondence and this is impossible.⁴⁰³

Thus, any perception, as a whole, which is a term of the determining correspondence cannot be erroneous in any respect: "... no determining correspondence part, taken as a whole, can perceive itself, or anything else, as being in time. Consequently

³⁹⁸Ibid., pp.227-228

³⁹⁹See pp. 119 of the thesis.

⁴⁰⁰Ibid., p.229

⁴⁰¹Ibid., p.229

⁴⁰²Ibid., pp.229-230

⁴⁰³Ibid., pp.230-231

there can be no such condition, and the self-evidence correctness of the perception is without any possible limitation. And so there can be no error in determining correspondence perceptions. They need not give complete knowledge; they need not to perceive their percepta as having all the characteristics which they actually do have. But they cannot perceive them as having any characteristics which they have not. And so they cannot be erroneous."⁴⁰⁴

McTaggart considers a different question concerning the terms of the C-series. The terms of the C-series are parts of the perceiving self. The question is whether these terms, as parts, form a set of parts of the self.⁴⁰⁵ The terms of the C-series are "states of the misperception by some self of some determining correspondence part of the Universe, and that all this series falls within the correct perception which the self has of that object."⁴⁰⁶ When G perceives H, that is G!H, there is a C-series in G whose terms are G's misperceptions of the parts of H and these misperceptions are also parts of the correct perception G!H. The collection of the misperceptions which are terms in the G's C-series cannot be a set of parts of the G!H because the sum of two or more misperceptions cannot be a correct perception and similarly the difference between a correct and a misperception cannot be another misperception.⁴⁰⁷ There is only one way in which one can claim the misperceptions to constitute a set of parts of the correct perception. Although two or more misperceptions cannot be members of the same set of parts of a correct perception, every misperception can be a member of a set of parts of a correct perception. If there is only one misperception in each set of parts of a correct perception, then the sum of one misperception with one or more correct perceptions will be a correct perception and similarly the difference between a correct perception and a misperception will be one or more correct perception.⁴⁰⁸ This is the twelfth condition of the nature of the C-series. All

⁴⁰⁴Ibid., p.230

⁴⁰⁵Ibid., p.234. A set of part of a substance is any collection of its parts which together make up the whole and do not more than make it up, so that the whole would not be made up, if any one of those parts, or of their parts, should be subtracted. See p.30 of the thesis.

⁴⁰⁶Ibid., p.240

⁴⁰⁷Ibid., pp. 234-237

⁴⁰⁸Ibid., p.237. At this point, McTaggart mentions Hegel's dialectic; the lower categories are synthesized into the Absolute Idea. If 'being synthesized into' means to be a part of it, the lower categories which are

terms of the C-series are parts of the correct perception but no two of them can be members of the same set of parts of the correct perception.⁴⁰⁹

This condition makes it impossible that there are mutually independent C-series' terms. Every term in the C-series must be included in the succeeding term and must include the preceding term. The content of any term in the C-series must be contained in the content of another term of the series. If the content of the misperceptions were completely different, then two such misperceptions would be members of the same set of parts of the correct perception, and, the difference between the whole correct perception and one of them would be the other; that is to say a misperception: "... any two terms in the C-series, one must include the other. In this the difference between G!H and any part of G!H would not be, or contain, a state of misperception. For the terms of the C-series which are intermediate between the given term, cxG!H, and the whole G!H, will each include the term cxG!H. And thus, while they are states of misperception, they do not form the difference between cxG!H and the whole, since they include cxG!H."⁴¹⁰

According to McTaggart, the relations between the terms of the C-series which we perceive in the ordinary experience as the relation of 'earlier than' and 'later than' are the relations 'inclusive in' and 'included in'. Both relations are asymmetrical and transitive relations like the relations of the terms of the B-series. By any one of these relations the terms of the C-series can be arranged in a definite order. For any two terms of the B-series one is earlier than the other and the other is later than the first. Similarly, for any two term of the C-series, one is included in the other and the other is inclusive of the first.⁴¹¹

incompatible seem to be the parts of the same whole. But, in order to be synthesized they must be transcended; they are not what they were before. Being synthesized into Becoming and it is part of it. Both Being and Becoming cannot be members of the same set of the Absolute Idea. If Being is taken from the Absolute Idea, there will be no change in the Absolute Idea because Becoming of which _Being is a part is left in the Absolute Idea. Ibid, p.238

⁴⁰⁹Ibid., p.240. Although McTaggart does not clearly point out the distinction between being a member of a group and being a part of a group is important at this point. Although all misperceptions are parts of the correct perception, only one of them can be a member of the same set of parts of the correct perception. See p.30 of the thesis.

⁴¹⁰Ibid., p.240

⁴¹¹Ibid., p.240. It is not clear yet that which of the relations of included in and inclusive of corresponds to the relation earlier than and which of them to the later than. p.241

The terms of the C-series have magnitude since each term includes or included is another term. Each term, then is greater or less than another term. According to McTaggart, magnitude is either extensive or intensive. If the difference between two magnitudes is a magnitude of the same sort, then the magnitudes are extensive. For example, the difference between one meter and fifty centimeters is a magnitude of length which of the same sort. If the difference is a magnitude of another sort, then the magnitudes are intensive. For example, the difference between magnitudes of two states of pleasure is not another state of pleasure. McTaggart claims that the magnitudes of the terms of the C-series are intensive because the difference between G!H which is a perception and any part of it is not itself a perception.⁴¹²

If there is a C-series whose terms have intensive magnitudes, there is a corresponding series whose terms have extensive magnitudes. If a term M of C-series is included in another term N of the C-series, then there must be an increment which is added to the content of M in order to form the content of N. If these increments are taken in the order of the C-series, they form another series. Although the terms of the C-series which are states of misperception have intensive magnitudes, the increments being the differences between these magnitudes have extensive magnitudes; that is to say, the difference between two states of perception is not another state of perception but an amount of perception. The increments series is extensive because the difference between two terms of the increments series is a third increment of the same sort although there is no relation of the inclusion between the terms of the series. The extensive series of increments which corresponds to the C-series is called a D-series.⁴¹³

According to McTaggart, the nature of the terms of the D-series is an additional perception of the perceptum. However, this additional perception cannot be perceptions of the more parts of the perceptum. G's perception of H, that is to say, G!H, is a whole

⁴¹²Ibid., p.241

⁴¹³Ibid., pp.241-243. If the C-series has a first term then this term will be also the first term the D-series and no other terms of the two series can be identical. This term is both a state of perception and an increment in the amount of perception. If, on the other hand, the C-series has no first term then no term of the two series can be identical. Ibid., p.244

perception. If the additional perception of G!H were the perceptions of some more parts of it, then the misperceptions would differ from the perception of G!H in being only incomplete. The difference between the perception G!H and misperceptions of it is not one being complete and the other's being incomplete; G!H is correct whereas misperceptions of it are incorrect. When one misperceives G!H, he does not misperceive it partially, but as a whole.⁴¹⁴

Similarly, the additional perception cannot be the increase in the number of perceived characteristics of H because in these case too, the difference between G!H and misperceptions of it would be a difference between relative completeness and incompleteness.⁴¹⁵

Therefore, according to McTaggart, the additional perception must be an increase in the perception of H as a whole: "Nothing more must be perceived, but everything must be perceived more. And the difference between different stages of it must be due to the nature of the percipient G, and not to the nature of the perceptum H."⁴¹⁶

To conceive such a perception is very difficult because in ordinary perception the increase in the perception of a thing is generally an increase in the number of perceived parts and perceived characteristics.

McTaggart claims that there is neither an empirical nor an a priori reason to hold the existence of the C-series and the D-series. However, this does not make such a view impossible.⁴¹⁷ The general characteristics of the existence which are determined necessarily involves the existence of the C-series and D-series though not necessarily.

We have said that the error must be found in a dimension other than the two dimensions of determining correspondence. The terms of the series which constitute the third dimension are our perceptions in the present experience. The terms are related by the relation of included in (or, inclusive of). McTaggart calls this series the 'inclusion series'.⁴¹⁸

⁴¹⁴Ibid., pp.244-245

⁴¹⁵Ibid., p.245

⁴¹⁶Ibid., p.245

⁴¹⁷Ibid., p.246

⁴¹⁸Ibid., p.247

At least, some of terms of this series are states of misperceptions; the series which is formed of by such terms are called 'misperception series'.⁴¹⁹ At least, some terms of this dimension appears to percipients as forming a temporal series; that is to say a B-series and then there must be a C-series whose terms correspond to the terms of the B-series. And there exists a D-series for every C-series.

The misperceptions series and inclusion series differ in only one term. The inclusion series contains G!H as a whole; as one its terms. G!H is the term which includes all other terms of the inclusion series and G!H is not included in any other term of the series.⁴²⁰ The misperceptions series, on the other hand, cannot contain G!H as a term because G!H is a correct perception. There can no term, except G!H, in the inclusion series which is not at the same time a term of the misperception series. Firstly, since every term of both series must be perceptions, there can be no term in the inclusion series which is not a perception. Secondly, there can be no term which is a correct perception, except G!H, in the inclusion series; if there were, in order to be correct, it must be separate and it must perceive itself as having no part which is common with any other term. However, as a term of inclusion series, it has some content which is common with some other terms of the series. Then, it perceives itself as it is not; that is to say it is a misperception.⁴²¹

When G erroneously perceives H as being in time, the states in H which are erroneously perceived as forming a B-series are really terms of the C-series in H. What is the relation of the C-series in H to the misperception series and to the inclusion series in H? The terms of the C-series are terms of the inclusion series because the inclusion series is reached on the basis of the relation of 'included in' and 'inclusive of' which are relations between the terms of the C-series. Some terms, at least, of the inclusion series in H form a C-series in G when, at any stage in his misperception series, G perceives H as being in time.

⁴¹⁹Ibid., p.247

⁴²⁰Ibid., p.247. "... the inclusion series will have H as a whole as one of its terms". McTaggart, on the next page, considers G!H as the last term of the inclusion series and as being the correct perception. The statement should be in the form of either 'the inclusion series will have G!H as a whole ... ' or 'the inclusion series will have the perception of H as a whole...' which means the same thing. The mistake, is due, I think, to the fact that that section and the following sections of the book were printed from the draft B whereas the earlier sections are printed from the draft C which was edited by McTaggart himself.

⁴²¹Ibid., pp.247-249

Does the inclusion series in H has terms which are not terms of the C-series in G? In other words, is it possible for some terms of the inclusion series in H not to be perceived by G whereas the other terms which forms a C-series for G are perceived by G? Is it possible for G to perceive some terms of the inclusion series of H as being in time without perceiving the others as being in time?

According to McTaggart this is impossible: "For if a self, at any stage of his misperception series, misperceives, in any one instance, the relations of 'included in' and 'inclusive of' as the relations of 'earlier than' and 'later than', it would be necessary that, at that stage, he should misperceive them in the same way in any other instance."⁴²² Therefore all of the terms of the inclusion series of H are terms of the C-series of G whenever G perceives H. This means that G will perceive H as a whole as being in time. However, he will perceive H either as the latest term in the future or as the earliest term in the past. He will not perceive it as present because it can be perceived as present only by a thing which is at the same stage of the C-series as itself.⁴²³

The three series are bounded, in one direction, with the whole which is a term of the determining correspondence. This term is the final term of the inclusion series and C-series and it is the limit of the misperception series. McTaggart claims that the three series are bounded also in the other dimension by the nonentity. Nonentity is not a term of the series because it does not exist but it is the limit of the series.⁴²⁴

These consideration has an important consequence when combined previously established system. According to McTaggart, a primary part need not be a member of its differentiating group; that it to say, it need not be one of its determinant.⁴²⁵ Since a self is a primary part, this means that a self need not perceive himself; that is to say, he need not be self-conscious.⁴²⁶ If a self is not self-conscious, he can have no perception of himself, in

⁴²²Ibid., p.250

⁴²³Ibid., p.251. The reason for this follows from the explanation of the corresponding C-series which will be considered later.

⁴²⁴Ibid., pp.251-252. McTaggart also argues that although logically it is not impossible, it is nearly impossible for us to find a relation other than the earlier than (or, later than) which, in some way, corresponds to the relations of included in (or, inclusive of). Ibid., pp.252-255

⁴²⁵See p.60 of the thesis.

⁴²⁶See p.100 of the thesis.

other words, no misperceptions of himself. Then, "he will have no fragmentary parts which are perceptions -since fragmentary parts can only be perceptions if they misperceive the relations in which they stands to one another."⁴²⁷ Such a self will have infinite number of perceptions which are parts of the determining correspondence system; these perceptions being terms in the determining correspondence will be correct. The self will not have any misperceptions because only perceptions of fragmentary parts can be misperceptions.⁴²⁸

Therefore the reason of our misperception of the existence is not our perception of other things but our self-consciousness. In reality, we do not misperceive other things but we misperceive our perceptions of other things. That is the reason of our illusion of time. If there were a self who is not self-conscious but who is conscious of other things, this self would not perceive anything as being in time and would not have a conception of time.

Now, it is clear, according to McTaggart, that there is no real time-series. There are two series; one is the misperception series and the other is the C-series which is identical with the inclusion series. The misperception series differs from the C-series in only the latter's last term, G!H which is not a term of the misperception series; in other respects they are identical. Our conception of time comes from our misperception of the C-series. At a stage in our misperception series, we misperceive the corresponding term of our C-series as present. We misperceive the terms on one side of the term which appears to us to be present as past, the terms on the other side as future. The future terms appear to become continually present and present term appears to become past. The terms of the C-series as misperceived to be present, past and future, are misperceived as forming an A-series. Our misperception of the C-series as a B-series depends on the one hand to the C-series and on the other to the A-series. M is earlier than N, if it is always past when N is present, or present when N is future.⁴²⁹

⁴²⁷Ibid., p.255

⁴²⁸Ibid., p.255. McTaggart states that there is no reason to believe in the existence of such a self as there is no reason to believe in his non-existence.

⁴²⁹Ibid., p.271. McTaggart points out that two terms M and N may be both present because the present is not a point in time but what is generally called a specious present. Before the stage in which they are both present, there was a stage in which M is present and N is future.

It might be claimed that instead of obtaining the relation of earlier than (or, later than) on the basis of present, past and future, one can define the A-series in terms of the B-series. Although, as a technical definition, this might seem to be possible, such a definition will not capture the content of temporal series. First of all, we argued previously, the B-series itself cannot explain change which is essential to time. And secondly, one cannot have the conception of the relation of earlier than (or, later than) if one, at a stage in his misperception series, does not misperceive the corresponding stage of the C-series as present and as a consequence of this misperception, he cannot perceive, in the ordinary experience, the other terms as future and as past. Therefore our conception of time depends, fundamentally, on our conception of the present.

The present is not a point in time; it has a certain duration and it may have different durations. The present consists of misperception of the more than one term of the C-series. The C-series' terms, except the last one, are simple and thus are not infinitely divisible.⁴³⁰ The number of terms in the present is infinite if no term of the C-series is next to any other term and the number is finite if each term of the series is next to the other. The presents of different selves and the presents of the same self at different stages at his misperception series may differ in the length of their durations. These presents are generally called specious presents. However, in McTaggart's theory, there is no real present or absolute present. Therefore, there is no need to call them as specious presents.⁴³¹

Although each self has different time series, the presents of different selves seem to overlap. If the present of a self consists of the terms M and O, and the present of another consists of N and O, then O appears to be a part of both presents. This is possible only by the correspondence of different time-series, and thus, by the correspondence of different C-series. How can the C-series of different selves correspond?

There is no real time-series; there are no events which constitute the terms of the time-series. There exists a real series whose terms are misperceptions and the relations

⁴³⁰They are not infinitely divisible because they are not terms in the relation of determining correspondence. Determining correspondence is both necessary and sufficient condition of being infinitely divisible.

⁴³¹Ibid., p.272

between them appear as being temporal. The misperceptions are real and as perceptions, each of them falls within a self. No perception can be a part of more than one self but more than one perception can be different perceptions of the same thing. More than one misperception can be similar in being the perceptions of the same thing and in being misperceptions of the same thing in similar aspects.⁴³²

Therefore, it seems that there are no C-series which corresponds to another one. However, in the ordinary experience, we observe time as forming a common series and we observe presents as simultaneous. Time is not real; but, the appearance of time is a *phenomenon bene fundatum*.⁴³³ We observe events in the apparent time-series in the same order as the order of terms in the inclusion series. If time were real there would be a real common time-series. Similarly, since time is a *phenomenon bene fundatum*, a common time-series between different selves must also be a *phenomenon bene fundatum*.⁴³⁴

If it were the case that every self perceives nothing but only one self, this would be a way for explaining the correspondence of different C-series: "If we take G and H as percipient selves, and L as the perceived self, then the perceptions which H and G have of any given state in the C-series of L as present, may be taken as simultaneous with one another, since, *sub specie temporis*,⁴³⁵ they stand in the relation of simultaneity to the same thing. And, when points in two different time-series can be taken simultaneous, the two series form a common series."⁴³⁶

However, this is not the case; there must be primary parts whose differentiating group consists of more than one primary part; i.e., there must be some primary parts which determine more than one primary part. That is to say, there must be selves who perceive more than one self. This does not mean that some selves should perceive the same group of selves; for example, H may perceive himself, L and M, and G may perceive himself, N and

⁴³²Ibid., p.273

⁴³³Ibid., p.273

⁴³⁴Ibid., p.273

⁴³⁵'sub specie temporis' means under the aspect of time.

⁴³⁶Ibid., p.274

O. H and G will have no common perceptum but each of them will perceive more than one self.⁴³⁷

McTaggart argues that there is a possibility for a common time-series: "The time-series of H and the time-series of G have not, as their respective C-series, the same inclusion series. But they have, as their respective C-series, correspondent inclusion series, for all inclusion series correspond to one another. And this will give us a common-series which will be, like the time-series in each self, a *phenomenon bene fundatum*.⁴³⁸

How can inclusion series correspond to one another? Every inclusion series is bounded by its last term in one direction and is limited by the nonentity in the other direction. The last term of every inclusion series contains, as its content, the contents of the others terms of that series. Each term in an inclusion series includes the content of the preceding term and each term differs from the other in the amount of perception it contains, that is to say, in the amount of the D-series increments.

McTaggart argues that this establishes the grounds of correspondence of the inclusion series: "The last terms of each series -terms which have the common quality that each of them contains all the content which falls anywhere in its series- will correspond to each other. And, of the rest, any two terms in different series will be correspondent if each of them contains the same proportion of the content of its series as the other does of the content of its series."⁴³⁹

It was mentioned before that this correspondence is the ground on which one perceives a term in the series as present. Since the correspondence exists between terms of all inclusion series in the Universe, it gives us a common time-series. Terms which are at the same positions in the common series appear to be simultaneous events in the time-series. Since time does not exist, they are neither simultaneous nor events but their simultaneity is a *phenomenon bene fundatum* as the conception of time itself.⁴⁴⁰

⁴³⁷Ibid., p.274

⁴³⁸Ibid., p.274

⁴³⁹Ibid., p.275

⁴⁴⁰Ibid., p.275

The last term of each individual time-series which contains all the contents which falls within terms of that series will be simultaneous in the common time-series. In the other direction, each term in individual series will be simultaneous with a term of other individual series up to the limit, that is to say, the nonentity. According to McTaggart, it follows that when all terms of all inclusion series are taken to form a common time-series, every self will appear as having a duration; a duration from the beginning to the end of time. This appearance, although is not real, is also a *phenomenon bene fundatum*.⁴⁴¹

Another question about time is whether time is infinite or not. According to McTaggart what is meant by the infinity of time is the following: "Take any finite length of time, and make a series of periods of this length, each beginning where the one before stops. If in either direction, any finite number of such periods reaches to a point beyond which there is no more time, then time is, in that direction, finite. If, however, in either direction no finite number of such periods reaches such a point, then time is infinite in that direction."⁴⁴²

According to McTaggart, the inclusion series which appear as the time-series is bounded by its last term, which is a correct perception, in one direction and is limited by the nonentity in the other direction. Therefore a finite number of periods will be sufficient for reaching to those points in both directions. Therefore, since inclusion series are infinite in neither direction, what appears as time-series is finite in both directions.⁴⁴³

Another question concerning time is whether it is infinitely divisible. There are two alternatives: in the first one, if every term of the C-series is next to another, then time is not infinitely divisible because nothing which is not determined by determining correspondence can be infinitely divisible and, the terms of the C-series are not determined by determining correspondence. In the second alternative, the C-series may consist of indivisible terms none of which is next to the other; that is to say, there may be a term between any two terms of the series. McTaggart argues that in this case, the number of indivisible terms may be infinite

⁴⁴¹Ibid., pp.275-276

⁴⁴²Ibid., p.279

⁴⁴³Ibid., pp. 279-280

or finite: "There is no logical contradiction in the series having no next terms. It is true that each of its infinite number of terms must have a sufficient description. But then each of the terms in, for example, G!H, could be sufficiently described as that term in the inclusion series of G!H which had precisely a certain proportion of the content of G!H. On the other hand, there is no contradiction in the view that the number of indivisible parts is finite."⁴⁴⁴

What is required is that the C-series should have at least, as many terms as the B-series. The number of the terms of the B-series is finite. However, the C-series may have more parts, for example, parts which are infinitely smaller than those which are perceived as separate.⁴⁴⁵

The last question to be investigated is which of the relations of 'earlier than' and 'later than' in the B-series corresponds to the relations of 'included in' and 'inclusive of' in the C-series.

The B-series can be formed either by the relations of earlier than or later than. If we take a B-series beginning by the nonentity and ending by the last term which is a correct perception, then each term is earlier than the succeeding term. There will also be a series which begins with the correct perception and ends with the nonentity, then each term in this series will be later than the succeeding term. The terms of both series are identical; moreover, if in the first series M is earlier than N and is earlier than O, then in the second series O is later than N and N is later M and N will be between M and O in both series. McTaggart states that although it is possible to say that there are two series which have the same order, it is also possible to say that there is only one series with two opposite senses.⁴⁴⁶

B-series has two opposite senses; one is from earlier to the later and the other is from later to the earlier. Similarly, the C-series has two senses; one is from less inclusive to

⁴⁴⁴Ibid., pp. 281-282

⁴⁴⁵Ibid., p.282

⁴⁴⁶Ibid., p.345. McTaggart points out that although from the point of view of mathematics, there are two-series having the same order, it will be in agreement with the common usage to say that there is only one series with two opposite senses. This is not the case only with the B-series; if there is a series which is formed on the basis of some relation, then there is another series which can be formed on the basis of the converse relation. Therefore it can be said that every series has two opposite senses. Ibid., p.346

the more inclusive and the other is in the opposite direction. Which sense of the B-series corresponds to one of the senses of the C-series? This cannot be decided by determining some similarities between earlier than and included in or inclusive of because the four relations are similar in being transitive and asymmetrical relations.

Two opposite senses of any series are inseparable and they are equally important in one sense; but in another sense, one sense of the series can be more important than the other. They are equally important because both senses are indispensable. But also, it may be the case that one sense of the series expresses the nature of it more than the other does. If one of the senses of both B-series and C-series can be shown to be more important than the other, then, these more important senses can be claimed to correspond one another.⁴⁴⁷

The B-series is a temporal series. Since time involves change, B-series is a series of change. This does not mean that terms of B-series change; if a term M of the B-series is earlier than another term N, M is always earlier than N. B-series by itself does not involve change, but in connection with the A-series, B-series terms are successively present; a term is first future, then becomes present and then past. The change from futurity to presentness and to the pastness is a change from earlier to later. For any two terms of the B-series, since one is earlier the other, it is never the case that the later becomes present before the earlier. Therefore, the direction from earlier to the later is the direction of the change in the B-series and the sense of the B-series from earlier to the later is more important than the sense from later to the earlier since it expresses better the change which is the nature of the temporal-series. McTaggart calls the sense from earlier to the later as 'the fundamental sense of the B-series'.⁴⁴⁸

Does the C-series have a fundamental sense; that is to say, is it the case that one of the senses of the C-series expresses the nature of that series more adequately than the other? The C-series is not a temporal series; it is the real series which is misperceived as being a temporal series. Each C-series falls within a determining correspondence part of the Universe where this part is the final term of the inclusion series. This final term includes all

⁴⁴⁷Ibid., p.346

⁴⁴⁸Ibid., p.347

the contents of other terms of the inclusion series, and in this sense, the whole of the series. The whole is the final term in only one direction, in the direction from less inclusive to the more inclusive.

The final term of the inclusion series is also the last term of the C-series only in one direction. When any other term of the C-series is perceived as present, the last is never perceived to be present, it is either perceived as the last term in the future or as the last term in the past.⁴⁴⁹

The place of the final term of the C-series is determined by its being a correct perception in the relation of determining correspondence whereas the place of any other term is determined by the amount of the content of the whole, that is the content of the final term, which is contained in the term. The determination of the place of the whole as the last term has no reference to other terms of the series whereas the places of others can be determined only with reference to the final term.⁴⁵⁰

According to McTaggart, it follows that "a relation which the other terms bear to the whole, and which the whole does not bear to the other terms, will express the nature of the series more adequately than a relation which the whole bears to the other terms, and which the other terms do not bear to the whole. For such a relation relates the other terms to the whole, while it leaves unrelated, so far as that relation is concerned, to the other terms."⁴⁵¹

This does not mean that the whole is not related to its parts; the parts are related to the whole by the relation of included in and the whole is related to its parts by the relation of inclusive of. The relation of included in expresses better the dependence of the other terms to the final term which is greater than the dependence of the final term to the other terms. If the final term is, for example, G!H, G!H is a correct perception of H and all other terms of the series are misperceptions of H. Anything that is a misperception of H can be stated by a comparison of the correct perception of it whereas the correct perception of H can be expressed without any reference to any misperception of it. Thus, the direction of the C-

⁴⁴⁹Ibid., p.359

⁴⁵⁰Ibid., p.360

⁴⁵¹Ibid., p.360

series from less inclusive to the more inclusive expresses the nature of it more adequately and it is the fundamental sense of the C-series.⁴⁵²

McTaggart claims that although there can be no absolute demonstration of whether the fundamental sense of the B-series corresponds to the fundamental sense of the C-series, there are good reasons in believing in it. If the fundamental sense of the B-series which is from earlier to the later does not correspond to that of the C-series which is from included to the inclusive, it will correspond to the opposite sense which is from inclusive to the included. In one's misperception of the C-series as a B-series, there will be an additional misperception; that is to say, we should be misperceiving the sense which is not fundamental as being fundamental, and conversely, the sense fundamental as being non-fundamental. According to McTaggart, we must not take an element in perception as erroneous unless it has been proved to be erroneous.⁴⁵³ Since the sense from included to the inclusive cannot be proved to be a misperception; in other words, not to be fundamental, we have good reason in believing in the correspondence of the fundamental sense of the B-series to it. Thus, the relation of earlier than corresponds to the relation of included in and the relation of later than corresponds to the relation of inclusive of.⁴⁵⁴

⁴⁵²Ibid., p.361

⁴⁵³Ibid., pp.355-356

⁴⁵⁴Ibid., p.363

III. Discussions and Conclusion

McTaggart's argument on the unreality of time has a wide-spread influence on the philosophy of time in the analytic tradition. The argument has been significant to different philosophical views on time. Those who believe in the reality of time have attempted to find out what is erroneous in the argument, and others, for example, some anti-realist philosophers have tried to defend the argument by different means.

We stated that, according to McTaggart, everything that is perceived in ordinary experience is perceived in time; in other words, ordinary experience has temporal dimension.⁴⁵⁵ When we perceive entities in time, we perceive them as forming an A-series and a B-series. If time is supposed to be real, the terms of the time-series can only be events and nothing else because the reality of time involves the reality of change and if anything changes then everything which is related to it by intrinsic and extrinsic determinations also change. If time is real, then there is a continuous change and every substance turns out to be an event.

McTaggart's argument has two parts: in the first part, he proves that the B-series, by itself, is not sufficient for an understanding of time because it cannot account for change which is essential to time. Change can be accounted for only by the A-series. In the second part, he proves that the nature of the A-series, together with the B-series, involves an unremovable contradiction within the temporal dimension and thus time cannot be real. By combining two parts, he obtains the conclusion that time is unreal. Many philosophers, especially those who believe in the reliability of ordinary perception are utterly disturbed by the conclusion that time is unreal. Some philosophers, for example, B. Russell, A. Grünbaum, A. J. Ayer, D. C. Williams, N. Goodman, J. J. Smart try to refute this result by refusing the first part; that is to say, by claiming that the B-series is a temporal series by itself⁴⁵⁶ and some others, for example, C. D. Broad, A. N. Prior, W. Sellars, P. F.

⁴⁵⁵See p.109 of the thesis.

⁴⁵⁶*The Philosophy of Time*, ed. by Richard M. Gale, New Jersey: Humanities Press, Sussex: Harvester Press, 1978, p.70

Strawson, J. N. Findlay, by refusing the second part, that is to say, by claiming that the A-series does not involve a contradiction.⁴⁵⁷

Some philosophers, such as S. Shoemaker, try to show, as a possibility, that time does not involve change by constructing a 'thought-experiment'.⁴⁵⁸ Some other, for example, G. E. Moore, reject the conclusion of the argument by saying that if time were unreal then there would be no temporal facts; but since there are temporal facts, time is real.⁴⁵⁹

It is a philosophical scandal, we believe, to consider McTaggart's argument without considering its ontological grounds. None of the philosophers above, except C. D. Broad, have investigated McTaggart's ontology; thus, they have not properly understood what McTaggart means by the unreality of time.

McTaggart's ontology is a substance ontology; everything that exists is either a substance, or a quality, or a relation; qualities and relations exist as only belonging to a substance. The existence, as a whole, is a substance which does not change; neither selves which are primary parts of the Universe, nor perceptions which are parts of the selves, nor qualities and relations of the existence can change. The unity of the Universe, as the substance which contains all existent contents, is a strict unity in the sense that any change in any one its parts would destroy the unity of the Universe and is determined by the relation of determining correspondence, thus by intrinsic determination, and by extrinsic determination. Therefore, there is nothing which can undergo change in the Universe.

Let us, however, consider two of the positions in view of McTaggart's argument.⁴⁶⁰ One is the position which claims that the B-series is objective whereas the A-series is

⁴⁵⁷Ibid., p.77

⁴⁵⁸'Time without Change', Sydney Shoemaker, in *The Philosophy of Time*, ed. Robin Le Poidevin and Murray MacBeath, Oxford University Press, Oxford, 1993

⁴⁵⁹*The Philosophy of Time*, ed. by Richard M. Gale, New Jersey: Humanities Press, Sussex: Harvester Press, 1978, p.69

⁴⁶⁰According to Gale there is also a third position which he calls 'The either-Way -Will-Work Theory Answer' and defenders of such a view are, according to Gale, J.N. Findlay and J. J. C. Smart. Gale classifies the answer to the McTaggart's arguments on the basis of their views concerning the reducibility of A-series to the B-series and vice versa. According to the either-way-will-work-theory, "everything that is sayable in a language containing only A-statements is sayable equally well in a language containing only B-statements, and vice versa" and the paradox arises if one confuses the two languages. Gale himself points out that this position is closer to the position which claims that A-statements are reducible to B-statements but not vice-

subjective and, in this sense, the B-series is more fundamental than the A-series. According to this view, change is analyzable in terms of the B-series' relations. This position is named as the B-theory of time⁴⁶¹ or the static view of time⁴⁶² or the tenseless view of time⁴⁶³. In the second, which is the opposite view, the real nature of time is taken as the A-series and it is argued that change can be analyzed in terms of A-determinations. This view is named as A-theory of time⁴⁶⁴ or the dynamic view of time⁴⁶⁵ or the transient view⁴⁶⁶ or the tensed view⁴⁶⁷. The fathers of both positions are contemporaries of McTaggart. The reality of the A-series is defended by C.D. Broad⁴⁶⁸ and the reality of the B-series is defended by B. Russell.

Let us generalize B-theory and A-theory positions with respect to McTaggart's argument. According to B-theory, the B-series is objective and all the terms of the B-series are equally real. The A-series, on the other hand, is subjective because A-determinations involves a reference to a perceiving being. The relations of 'is earlier than', 'is simultaneous with' and 'is later than' are objective relations and they would remain the same even if there were no perceiving subjects. A-series can be reduced, with respect to the B-theory position, to the B-series because A-determinations can be analyzed into B-series relations. There are different possibilities and ways for such a reduction; in all of these, the purpose is to eliminate the tensed sentence of the A-series and to translate it into a sentence of the tenseless language of the B-series without any loss of meaning. Thus, change is analyzable in terms of the B-series' relations.

versa. Ibid., p.84. We must also note that according to Gale, J. J. C. Smart is a defender of the B-Theory. Ibid., p.70. Therefore, the either way theory is similar to the B-Theory and can be considered as a part of it.

⁴⁶¹Ibid., p.70

⁴⁶²Keith Seddon, *Time: A Philosophical Treatment*, Croom Helm, Kent, p.7

⁴⁶³D.H. Mellor, *Real Time*, Cambridge University Press, Cambridge, 1985, p.4

⁴⁶⁴*The Philosophy of Time*, ed. by R. Gale, p.77

⁴⁶⁵K.Seddon, *Time: A Philosophical Treatment*, p.3.

⁴⁶⁶Ibid., p.5. According to Seddon, the transient view and the tensed view are two different subclasses of the dynamic view: "... a transient theorist would maintain and a tensed theorist deny that our talk about the flow of time and the movement of events is a reliable guide to the claim that events move through time. Both theorists take such talk to be a reliable guide to the claim that events change with respect to being past, present and future."

⁴⁶⁷Keith Seddon, *Time: A Philosophical Treatment*, p.26 and also D.H. Mellor, *Real Time*, p.4.

⁴⁶⁸C. D. Broad, *An Examination of McTaggart's Philosophy*, Vol.II, Cambridge University Press, Cambridge, 1938. We shall not consider Broad's considerations of McTaggart's argument because this would extend the limits of the present thesis.

According to the B-theory, B-series' relations are sufficient for an understanding of both qualitative change and temporal change. Qualitative change is change in time whereas temporal change is change of time and is generally called temporal becoming. Temporal becoming, that is to say the B-series' terms having the predicates future, present and past successively is analyzed in terms of B-series' relations: 'is future' means 'is later than', 'is present' means 'is simultaneous with' and 'is past' means 'is earlier than'. According to the B-theory, when one says that a thing changes in time, he means that it has different qualities at different times. This change can be considered as a sequence of successive events which are different states of the same thing.⁴⁶⁹

Although B-theory does not accept the objectivity of the A-series, since it claims that the A-series is reducible to the B-series, B-theory must account for the contradiction which arises with respect to the A-series. Since A-series distinctions are analyzable into the B-series' relations and since there is no event which is earlier than, is simultaneous with and is later than than another event at the same time, then no event can have the distinctions of past, present and future at the same time.⁴⁷⁰

McTaggart has considered Russell's objection that change can be accounted for only by the B-series and has stated that according to Russell, past, present and future do not belong to the nature of time; these temporal characteristics are meaningful only in relation to a knowing subject and all statements containing A-series determinations can be given in terms of B-series' relations. McTaggart states that, according to Russell, an assertion N is present means that N is simultaneous with that assertion; N is past means that N is earlier than that assertion, and N is future means that N is later than that assertion.⁴⁷¹ Then, any event N is past, present and future in relation to an assertion; that is to say, to a knowing subject. If there were no conscious beings, there would be no past, no present, no future. Then, if in the history, there were events which are earlier than any consciousness, those

⁴⁶⁹*The Philosophy of Time*, ed. by R. M. Gale, pp.70-77

⁴⁷⁰*Ibid.*, p.76

⁴⁷¹J.M.E. McTaggart, *The Nature of Existence*, Vol. II, ,p.14

events would never be future and present although they could be judged to be past by a consciousness.

We considered, in McTaggart's account of time, that A-series results from the application of the distinctions of past, present and future to the series which appears as the B-series. We perceive a term in the C-series which is simultaneous with a term of the our misperception series as present. We perceive one side of it as past and the other side as future. Our perceiving the term of the C-series in the perceptum as a temporal B-series arises from our attribution of present to a term of the C-series which we perceive erroneously, in principle, as the B-series. If there were no self-consciousness, according to McTaggart, there would be no misperception of time; that is to say, substances would not be perceived as having temporal characteristics.⁴⁷² Both McTaggart and Russell claim that A-series' distinctions are meaningful in relation to a consciousness; for Russell to any consciousness, for McTaggart to a self-consciousness. However, according to McTaggart, the A-series is the fundamental time series; we cannot understand the relation of earlier than without understanding the presentness, pastness and futurity whereas for Russell, the B-series is fundamental and the nature of change and then of time can be analyzed only by the B-series.

How can change be analyzed only in terms of the B-series? McTaggart quotes from Russell's *Principles of Mathematics*, Section 442, where Russell defines change in terms of the B-series : "Change is the difference, in respect of truth or falsehood, between a proposition concerning an entity and the time T, and a proposition concerning the same entity and the time T', provided that these propositions differ only by the fact that T occurs in the one where T' occurs in the other."⁴⁷³

There is a change, according to Russell, for example, if the proposition 'at time T my poker is hot' is true and 'at time T' my poker is hot' is false. According to McTaggart, there would be change if such propositions were respectively true or false. However, if there is no A-series; that is to say, no existent has temporal dimension, there would be no

⁴⁷²See pp.133-134 of the thesis.

⁴⁷³J.M.E. McTaggart, *The Nature of Existence*, Vol. II, p.14

time and then the proposition 'My poker is hot at time T' can never be true: "If, with Mr. Russell, we reject the A-series, it seems to me that change goes with it, and that therefore time, for which change is essential, goes too. In other words, if the A-series is rejected, no proposition of the type 'at time T my poker is hot' can ever be true, because there would be no time."⁴⁷⁴

Moreover, according to McTaggart, the poker's having a temperature at a stage in the B-series and its having a different temperature at a different stage in the B-series does not constitute a change. These are two distinct events in the B-series which are related only by relations of earlier and later than. With respect to the B-series, there is nothing which changes from the state T to the state T'. According to Russell, changes do not happen to events; what is changing is the entity of which events are states. My poker's being hot does not change; what changes is my poker because there is a time in which this event is happening to it and another time in which it is not happening to it. According to McTaggart, this does not constitute a change in the qualities of the poker, because, with respect to B-series, it is always a quality of that poker that it is one which is hot at a particular stage in the B-series.⁴⁷⁵

According to McTaggart, the reason why Russell conceives the B-series as objective and fundamental is that the B-series is an erroneous appearance of an objective and real series, namely the C-series. The order of the terms which appears to us as forming the B-series is the same in the C-series. However, the relation of 'included in' which holds between the terms of the C-series appears to us as the relation of 'earlier than' and consequently the C-series appears to us as a temporal series.⁴⁷⁶

According to A-theory, on the other hand, the B-series is reducible to the A-series because the B-series' relations can be analyzed into A-determinations. The B-series can be conceived as a temporal series only if its terms form also an A-series; that is to say, only if the terms of the B-series have the distinctions of past, present and future. 'M is (tenselessly)

⁴⁷⁴Ibid., p.14

⁴⁷⁵Ibid., p.15

⁴⁷⁶Ibid., p.31

earlier than N' means that 'when M is present, N is future and when N is present, M is past'. The temporal series has an intrinsic direction or sense. The direction of the temporal series is from past to the future and this direction is intrinsic in the A-series. The B-series, when considered in itself, would not differ from any one-dimensional spatial series. The B-series has the intrinsic direction of time when its terms are attributed the A-series' distinctions. The tensed mode of natural language cannot be eliminated; therefore no tensed statement can be translated into a tenseless language without loss of meaning.

According to A-theory, past and future have different ontological status. There must be some ontological difference between past and future since there is temporal becoming.⁴⁷⁷ Future is open, it is the realm of possibilities, and past is closed and it is the realm of actualities. All statements about past and present are either true or false whereas some statements about future are neither true nor false.

Change in time and also change of time can be accounted only on the basis of the A-series. Since the B-series is dependent on the A-series, change in time, that is, qualitative change must be analyzed in terms of the A-series' determinations. If we do not consider temporal becoming, terms of the B-series would not have past, present and future distinctions and then there would be no change of time.⁴⁷⁸

According to A-theory, there is no contradiction to be resolved since temporal becoming is intrinsic to all events. McTaggart is criticized by the defender of this view, substantializing the events which are terms of the B-series; according to A-theory, McTaggart, by observing the permanency of the B-series' relations, thought that events in the B-series must co-exist. However, since events do not exist simultaneously, they do not have A-series' determinations simultaneously. Even if there arises a contradiction, that is, if a term of the B-series seems to be both past and present, this can be removed by pointing out, in a higher level language, that it is not both present and past simultaneously, but only successively; since for any level in which an apparent contradiction arises there exists a

⁴⁷⁷For example, Broad claims that past is as real as present whereas future is simply nothing. *The Nature of Existence*, Vol. II., p.27

⁴⁷⁸The Philosophy of Time, ed. by R. M. Gale, pp.77-83

higher level, then the contradiction can be removed by moving to a higher level in each case. 'M is present' entails but does not mean that 'M is present at a moment which is present'. The regress in question is an infinite regress of entailment and not of meaning.⁴⁷⁹

One of the defenders of the objectivity of the A-series is A.N. Prior.⁴⁸⁰ According to Prior, an event may undergo both qualitative and temporal changes.⁴⁸¹ What differs between these two kinds of change with respect to events, is that the qualitative change happens only while the event *is occurring* whereas temporal change takes place while it *is not occurring*. For example, a movement becomes faster while it is occurring whereas the change from present to past does not occur when the event is occurring because the event is present only if it is occurring: "in fact the presentness of an event just *is* its happening, its occurring, as opposed to its merely having happened or being merely about to happen."⁴⁸² Therefore, Prior claims, an event seems to become more and more past when it does not exist. Take, for example, the death of Queen Anne; the event itself took very short time whereas its history takes indefinitely long time. The history of a thing, is generally thought to consist of what the thing does and what happens to it when it occurs and the history of the event ends when it ceases to exist. However, the history of the death of Queen Anne becomes at each moment longer and according to Prior, this seems to be paradoxical.⁴⁸³

Prior claims that most of genuine metaphysical problems can be solved by grammatical analysis: "And in particular, I would want to maintain that most of present group of problems about time and change, though not quite all of them, arise from the fact that many expressions which look like nouns, i.e., names of objects, are not really nouns at all but concealed verbs ... "⁴⁸⁴

⁴⁷⁹Ibid., p.83

⁴⁸⁰*The Philosophy of Time*, ed. by R. M. Gale, p.77. Prior is also founder of the tense logic.

⁴⁸¹'Changes in Events and Changes in Things', A. N. Prior, in *The Philosophy of Time*, ed. Robin Le Poidevin and Murray Macbeath, pp. 36-37. In this article's, Prior argues that although changes in events seems to be queer because events are themselves changes, changes do change, for example, acceleration which is a movement becoming faster.

⁴⁸²Ibid., p.37

⁴⁸³Ibid., pp.37-38

⁴⁸⁴Ibid., p.39

According to Prior, past-tense sentences can be analyzed, in a rationalized language, into sentences such as 'it was the case that p and is not now the case that p' and similarly future-tense sentences can be analyzed into sentences such as 'it will be the case that p and is not now the case that p' where 'it was the case...' and 'it will be the case...' are viewed as operators such as 'it is the case...' and 'it is not the case...'. A sentence about Queen Anne can be analyzed as 'It was the case that (for some specific X (X is called 'Anne', reigns over England, etc.)). But this sentence does not imply the sentence 'For some specific X (it was the case that (X is called 'Anne', reigns over England, etc.)). That is to say, the fact that there was a queen who died at a particular date in the history does not imply that there exists in the past, a queen who died some years ago.⁴⁸⁵ "On this view, the fact that Queen Anne has been dead for some years is not, in the strict sense of 'about', a fact about Queen Anne; it is not a fact about anything -it is a *general* fact. Or if it is about anything, what it is about is not Queen Anne- it is about the earth, maybe, which has rolled around the sun so many times since there was a person who was called 'Anne', reigned over England, etc."⁴⁸⁶

Therefore, according to Prior, the death of Queen Anne's becoming more and more past is not a change in Queen Anne because Queen Anne does not herself become more and more past. However, according to Prior, this does not mean that becoming more and more past is not a change; becoming more and more past fits into the formula 'it was the case that p, but is not now the case that p' and this formula is sufficient to express the flow of time; that is to say, the change of time.⁴⁸⁷

D. H. Mellor, on the other hand, defends the B-theory and argues that the B-series is fundamental and change can be analyzed only by means of the B-series only. He differs from other B-theorists in claiming that A-series' statements cannot be translated into the B-series' ones without loss of meaning. However, he argues that truth values of such tensed statements can be given in terms of tenseless ones.⁴⁸⁸

⁴⁸⁵Ibid., p.45. The aim, here, is not to account for Prior's analysis of natural language sentences into 'rationalized' language sentence but to give an example of how some philosophers dealt with the problems of time.

⁴⁸⁶Ibid., p.45

⁴⁸⁷Ibid., p.46

⁴⁸⁸D. H. Mellor, *Real Time*, pp. 2-12

Mellor does not reject the view that tensed statements have objective truth-values independently of consciousness.⁴⁸⁹ What he rejects is the objectivity of tensed things, events and facts.⁴⁹⁰ Things do not have temporal parts; they are wholly present throughout their lives whereas events have temporal parts; that is to say, they are not wholly present but partially present.⁴⁹¹ Consequently, things may change but events do not because when an event is considered as having different properties at different times, it is, in fact, the case that the temporal parts of the event have those differing properties, not the event as a whole.⁴⁹²

Mellor defines temporal order; that is, the order of the B-series in terms of causality: "Suppose for example I see one event *e* precede another, *e**. I must first see *e* and then *e**, my seeing of *e* being somehow recollected in my seeing of *e**. That is, my seeing of *e* affects my seeing of *e**: this is what makes me -rightly or wrongly- see *e* precede *e** rather than the other way round. But seeing *e* precede *e** means seeing *e* first. So the causal order of my perceptions of these events, by fixing the temporal order I perceive them to have, fixes the temporal order of perceptions themselves. And from this modest observation I can derive the universal dependence of temporal on causal order."⁴⁹³

Mellor's aim to give a totally tenseless truth conditions of tensed sentences. All tensed statements or all tensed sentences in Mellor's terms, have truth values which change with respect to time. However, all tensed token sentences must have a definite truth-value which do not change because they have definite places or dates in the B-series.⁴⁹⁴ If we consider the type tensed sentence 'Queen is fifty-eight', some tokens of it, namely those which are uttered fifty-eight years later than the Queen's birth are true whereas others are false: "The truth values of tokens of a particular tensed type are -so far as time is

⁴⁸⁹Ibid., p.5

⁴⁹⁰Ibid., pp.5-6

⁴⁹¹Ibid., p.8

⁴⁹²Ibid., p.9

⁴⁹³Ibid., p.8

⁴⁹⁴Ibid., p.36. Mellor calls the positions of the events as 'dates'. Date of an event does not change because the B-series' relations are permanent. p.19

concerned- a definite function of how much later or earlier the tokens are than the events they are about."⁴⁹⁵

A past tense token of a sentence type, which is about an event happening N years, days, minutes, etc. ago is true if its date (i.e., its position in the B-series) is N years, days, minutes, etc. later than the event's date; if not, it is false. This, according to Mellor, is the tenseless truth condition for past token sentences. The truth condition for future tense token sentences is similar; the token's date must be N units earlier than the event it is about in order the token to be true. The tenseless truth condition for present tense token sentences is different; a present tense token sentence is true if the corresponding event is in an interval of the B-series which contains the token itself, if not, it is false.⁴⁹⁶

According to Mellor, then, tenses do not exist, that is to say, the A-series is not real. Tenses are not essential to time, but to the human nature, human interests in ordering actions and in also communication. Mellor follows McTaggart in rejecting the reality and the objectivity of the A-series. He reinforces second part of McTaggart's argument on the unreality of time in term of token reflexivity. Mellor first points out that the contradiction which arises in the object language in which past, present and future are attributed to an event in the B-series simultaneously cannot be solved in the meta-language by stating that an event does not have these incompatible distinctions simultaneously but successively because a similar contradiction arises in the meta-language itself.⁴⁹⁷

Mellor states that if tenses are supposed to be real, then there will be a contradiction. If tenses are real, that is, if there are tensed facts, then these facts must provide a non-token-reflexive truth condition for the token-reflexive sentences or judgments.⁴⁹⁸ For example; if it is a real fact that e is past, then it is this fact, by itself, which makes the sentence 'e is past' true or false. All tokens of the tensed sentence type 'e is past' must have the same truth value; that is to say 'e is past' must either be true or false. With respect to the B-series, there is no non-token-reflexive truth condition; tokens of the sentence which are uttered earlier

⁴⁹⁵Ibid., p.41

⁴⁹⁶Ibid., pp.41-42

⁴⁹⁷Ibid., pp. 93-95. See also pp. 114-115 of the thesis.

⁴⁹⁸Ibid., p.98

than (and simultaneous with) the occurrence of *e* in the B-series are false and tokens which are uttered later, are true because tokens in the B-series have their dates, that is to say, their position in the B-series, as their tenseless truth condition. Similarly, a non-token-reflexive truth condition cannot be found with respect to the A-series itself. The tokens which are more past than *e* are false now and tokens which are less past than *e* are true now. Therefore, there is no non-token-reflexive truth condition for the tensed sentence '*e* is past'. The sentence '*e* is past' is both true and false, and thus there arises a contradiction. In order to remove the contradiction one must state that it is not past at the same time; for example, it is not past in the past but it is past in present. However, this gives rise to a similar contradiction.⁴⁹⁹

Therefore, according to Mellor, there are no tensed facts; that is to say, the reality is not tensed and the A-series' distinctions do not belong to the reality. What is irreducibly tensed is our perceptions, beliefs, actions and languages.⁵⁰⁰ The unreality of tense does not involve unreality of time because according to Mellor the tenseless account, in other words, the B-series' account is sufficient for an understanding of change, and thus for time.

M. Dummett, on the other hand, defends McTaggart's argument on the unreality of time.⁵⁰¹ Dummett considers three objections to the second part of the argument; that is, to the claim that the reality of the A-series involves a contradiction. Firstly, he deals with the objection that what appears to be a contradiction in the first level can be removed by moving to the second level. He argues that in any level, there is a contradiction because, in each of them, there are predicates which are equivalent to 'past in the present', 'present in the present' and 'future in the present' and these predicates are incompatible. Therefore, Dummett argues that "if there is a contradiction connected with the predicates of first level, the contradiction is not removed by ascending in the hierarchy."⁵⁰²

The second objection Dummett takes into consideration is concerned with the event-object distinction. Dummett claims that the argument may be restated in terms of

⁴⁹⁹Ibid., pp.93-102

⁵⁰⁰Ibid., pp.80-88

⁵⁰¹M. Dummett, *Truth and Other Enigmas*, Duckworth, London, 1978, pp. 351-357

⁵⁰²Ibid., p.352

objects rather than events. If there is time and there are objects, then objects must have different predicates at different times because time involves change. However, this just means that objects have incompatible predicates such as 'being white' and 'being yellow'. In order to explain that these two are not incompatible, one must state that an object is not both white and yellow simultaneously but successively. And then there will arise an infinite regress as in the case of McTaggart's own argument.⁵⁰³

The third objection which Dummett considers is related to token-reflexivity. Dummett claims the charge against McTaggart, which involves a disregard of token-reflexivity of the A-series' distinctions is in fact a reformulation of the first objection.⁵⁰⁴ Statements containing token-reflexive expressions such as 'I', 'here' and 'now' may have different truth-values in different circumstances. The reason of the contradiction, which is involved in the A-series, is token-reflexivity and therefore it can be removed by specifying the circumstances. According to Dummett, this kind of objections do not consider seriously McTaggart's argument. What McTaggart is saying, Dummett claims, is "... a description of events as taking place *in time* is impossible unless temporally token-reflexive expressions enter into it, that is, unless the description is given by someone who is in that time."⁵⁰⁵

What makes Dummett's defence of McTaggart look interesting is his claim that the second part of the argument depends upon the first part.⁵⁰⁶ That is to say, according to Dummett, McTaggart's claim that the A-series cannot be real depends upon his claim that the A-series is essential to time. The first part of the argument means that what is in time cannot be described completely without token-reflexive expressions, that is, without the A-series' distinctions. The second part means that the description of time in terms of token-reflexive expressions leads to a contradiction. Therefore, since time can be described completely neither in token-reflexive nor non-token reflexive terms, then time cannot be real.

⁵⁰³Ibid., p.352

⁵⁰⁴Ibid., p.353

⁵⁰⁵Ibid., p.354

⁵⁰⁶Ibid., p.354

According to Dummett, McTaggart could have argued, in the first part of his argument, that time is real since this part shows the unreducability of time to anything else. McTaggart, Dummett claims, "... is taking it for granted that reality must be something of which there exists in principle a complete description."⁵⁰⁷

Dummett argues that the conclusion that time is unreal is self-refuting: "Even if the world is really static, our apprehension of it changes. It does not help to say that we are mistaken about what we think we see, because the fact would remain that we still make different such mistakes at different times".⁵⁰⁸

What is to be rejected, according to Dummett, on the basis of McTaggart's argument, is the prejudice that there must be a complete description of the reality. If the conclusion that time is unreal is not to be accepted, then we must abandon this prejudice.⁵⁰⁹ However, McTaggart neither implicitly assumes nor is concerned with a complete description of reality; such a complete description is not essential to his ontology. McTaggart, after establishing his own ontology, that is to say, after describing the reality in his own terms, explains the reason why such a reality cannot have temporal characteristics. Moreover, he also explains the way in which we misperceive the reality in a way which is possible in terms of his ontology.

What is common to these philosophical considerations of McTaggart's argument on the unreality on time is the lack of the ontological grounds of the argument.⁵¹⁰ Therefore, the meaning of McTaggart's claim that time is unreal is not understood by critiques.

Let us emphasize once more: time is unreal means that the existence cannot have temporal dimension. In order to consider McTaggart's argument, one must first know and precisely understand what McTaggart means by 'existence' and by 'temporal dimension'.

First of all, the conclusion that time is unreal cannot be rejected by merely pointing out that there are temporal facts. All objections to McTaggart, with respect to his view on

⁵⁰⁷Ibid., p.356

⁵⁰⁸Ibid., p.356

⁵⁰⁹Ibid., pp.357

⁵¹⁰This shortcoming is partly due to the fact that a part of the chapter entitled 'Time' of the second volume of *The Nature of Existence* is published as an article entitled 'The Unreality of Time' in *Mind*, 17, 1908.

the unreality of time are simply based on the belief that there are temporal facts by an appeal to our perceptions of things as existing in time. Our perceptions of things as having temporal dimension is not inconsistent with McTaggart's result that time is unreal; rather, he himself accepts that the appearance in time is a *phenomenon bene fundatum* (a well-founded phenomenon) for us but it is only a phenomenon and does not necessitate that existence has temporal dimension.

All the discussions of both the A-theory and the B-theory are discussions on phenomena, appearance, and ordinary experience. These discussions, from the point of view of McTaggart, do not apply to McTaggart's argument unfortunately. Both the B-theory and the A-theory can at most be phenomenal explanations of appearance in time.

In McTaggart ontology, what exists is the Universe as one substance. The Universe is infinitely differentiated into parts within parts which are again substances. Primary parts of the Universe are selves. Parts of selves, which are secondary parts of the Universe are perceptions. The whole system of existence is bounded with the relation of determining correspondence. Every substance has an infinite number of characteristics. The characteristics of the Universe, as a substance, are determined by the extrinsic and intrinsic determinations. No characteristics of the Universe can change; that is to say, there can be no qualitative, no quantitative, no relational change in any part of the Universe.

If existence is understood as such, how can it be subject to temporal change? In McTaggart's ontology, the existence can be said to have temporal dimension only if what exists forms temporal series or is a term in temporal series. What McTaggart investigates in this argument is the impossibility of such a case; that is, the Universe does not have temporal dimension. The existence as a whole forms a two-dimensional series which is determined by determining correspondence. This series is not a temporal series. What exists has temporal dimension if it has temporal characteristics; that is to say, both the B-series' relations and the A-series' distinctions must be shown to be possessed by the existence. Since the B-series' relations depend upon the A-series' distinctions in view of the C-series, and the A-series' distinctions are not real, then what exists cannot have temporal dimension

and thus time cannot exist as a temporal dimension and hence what cannot exist cannot be real.

We should note that the critiques of McTaggart's account of time do not clearly understand where and how the contradiction which implies the rejection of the reality of the A-series arises. The A-theory, for example, either denies that there is a contradiction in the A-series or claims that the contradiction can be removed in a higher level language. Mellor, from the B-theory point of view, and Dummett, in defence of McTaggart, argue that the contradiction which arises in the A-series cannot be removed. The misunderstanding is due to the exact source of the contradiction.

McTaggart claims that the A-series is essential to time because change which is essential to time can be explained only if there exists an A-series. Change necessarily involves the existence of the A-series because, in McTaggart's philosophy, change is attributed to the unchanging substance by perceiving subjects who misperceive the existence as having temporal dimension. What really exists is the C-series which is perceived erroneously, in principle, as a B-series; the perceiving self, at a stage of his misperception series, erroneously perceives the corresponding term of the C-series as present and thus forms an A-series and misperceives the C-series as a B-series.⁵¹¹ The terms of the A-series and the B-series are the same and they are nothing but the misperceived terms of the C-series, the last term of the latter series not being included.

The B-series, by itself, is not a temporal series. If the perceiving self does not form an A-series, then he could not perceive the C-series as a temporal series; he could not therefore form the B-series. If there appears to be an A-series, that is to say, if a term of the C-series, which is also a term of both the A-series and the B-series, is perceived erroneously as being present and consequently, if other terms of the C-series are perceived as being past or future exclusively with respect to the A-series, then terms of the A-series constitute a B-series.

⁵¹¹See pp.134-135 of the thesis.

If we think of the A-series in itself, in other words, if we think of events as forming an A-series, then there is no contradiction which arises from the A-series itself. Each event is first future, and then it becomes present and then past. No event possesses any two of these three characteristics simultaneously. And thus, let us emphasize, no contradiction arises from the A-series itself.

Similarly, if we think of the B-series in view of itself, each event is either earlier or later than another event and its relative position in the B-series is permanent. There is nothing which would lead to a contradiction in the nature of the B-series if it is considered in itself because no event has any one of the A-series' determinations and every event in the B-series has a well-determined position.

However, McTaggart claims that we perceive events, in ordinary perception, as forming both an A-series and a B-series; events appear (that is, the terms of the C-series are misperceived) to have both the A-series' distinctions and also standing in the B-series' relations. That is to say, terms of both the A-series and the B-series are the same. If an event M is present with respect to the A-series, it cannot be past with respect to the A-series; it would be past only in future. That is to say, it would be past when a future event becomes present.

With respect to the B-series, however, there is nothing which intrinsically determines its terms as past, present and future. The B-series is a temporal series only if the terms of the B-series form the A-series. If the terms of the B-series are thought to form the A-series, they would, then, be thought to have an A-series' determinations simultaneously in view of the B-series and this would be impossible with respect to the A-series. Therefore, this is the exact source of contradiction and the terms of the B-series cannot form an A-series.

Many philosophers wonder why McTaggart considers events rather than things as subject of the change. For example, Keith Seddon, in his attempt to defend Russell's definition of change, states that: "I do not understand McTaggart's objection to this view of change. He correctly sees that Russell is looking for change 'not in the events in the time-

series, but in the entity to which event happen, or of which they are states'. Now, what could be wrong with that? McTaggart is worried that if the poker is hot on a particular Monday, the event of the poker being hot does not change. But why does McTaggart want the *event* of the poker being hot to change? Events don't change, things do."⁵¹² We humbly suggest that Keith Seddon better study McTaggart's ontology in order to understand McTaggart's argument.

In McTaggart's ontology, substance may not undergo change in any one of its characteristics. If time is assumed to be real, then there is no 'thing' which undergoes change in some of its characteristics while remaining identical with itself. In this sense, in McTaggart's ontology 'things' which are supposed to be subjects of change cannot change and this is due simply to the fact that they cannot exist. If time is assumed to be real, then substance and every part of substance which is determined by determining correspondence turn out to be an event and the only change which an event may undergo is the change in its temporal characteristics. Temporal characteristics which are stated in terms of the B-series' relations cannot change. The only supposedly possible way of explaining change is through the A-series' determinations of the B-series' terms. Since this involves either a contradiction or an infinite regress, then there is no change and thus no time.

These considerations also show that McTaggart's argument on the unreality of time cannot be reformulated in terms of 'things' in view of McTaggart's ontology. Thus, a reformulation of the argument on the unreality of time in terms of 'objects' is not possible. It might be possible to construct a similar argument by borrowing from a different ontology; this, however, would not be McTaggart's argument and objections to it, would not apply to McTaggart's result. Similarly, defending McTaggart's argument on such a basis as Dummett does, would not be a genuine defence of McTaggart on the unreality of time.

McTaggart's account of time is sometimes called as 'McTaggart's paradox'.⁵¹³ There is nothing which is paradoxical in view of McTaggart's ontology. If existence is established to be changeless and if temporality is understood as forming both a B-series and an A-

⁵¹²K. Seddon, *Time: A philosophical Treatment*, p.48

⁵¹³*The Philosophy of Time*, ed. by R. M. Gale, p.64

series, it would be paradoxical, I think, to claim that what exists has temporal dimension; however, this is not the case and therefore, there is nothing paradoxical in McTaggart's account of temporality.

Problems concerning time are metaphysical problems. There is no philosophy of time which is independent from metaphysics. Philosophical problems concerning time cannot be solved by linguistic analyses and manipulations, by psychological reductions, by formal analyses. Problems concerning time can only be dealt with on metaphysical grounds

As a last point, we should state that the content of the present thesis is basically related to a more general philosophical problem, that is, to the problem of appearance and reality. It seems to us that this general problem is the touchstone of philosophy proper.

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