THE UNIVERSITY OF HULL

<u>The status of the World: Rochdian Creationism and</u> <u>Peripatetic Eternalism</u>

Transmission of a Problematic

Being a thesis submitted for the Degree of Doctor of Philosophy

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by

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Dedication:

To my father, my mother and all members of my family who devoted some of their precious time to support me, without their constant help and patience, this humble piece of work could not have seen the light. "If it was not the opinion of Aristotle, you must not believe it is a true opinion". Ibn Rochd

"Better to be unborn than untaught, for ignorance is the root of all misfortune". Aristotle

"The material principle of existing things was a certain infinite nature. From it the heavens and the worlds in them come into being. It is eternal and ageless, and it surrounds all the worlds".

Anaximander, Hippolytus, *Refutation of all Heresies*, "Fear is the mother of all gods."

Lucretius (De Rerum Naturae)

"The thirst for grasping the real meaning of things was indeed my habit and want from my early years and in the prime of my life. It was an instinctive, natural disposition placed in my makeup by Allah Most High, not something due to my own choosing and contriving. As a result, the fetters of servile conformism fell away from me, and inherited beliefs lost their hold on me, when I was quite young".

Al-Ghazali , *Al-Munqidh min al-Dalal*, (The Rescuer from Misguidance)

"If we need an atheist for a debate, I go to the philosophy department. The physics department isn't much use".

Robert Griffiths

"We are survival machines, robot machines, blindly programmed to preserve the selfish molecules known as genes. This is a truth which still fills me with astonishment". Richard Dawkins (The Blind Watchman)

"The world and its workings were necessary and invariable because God Himself, by definition, had to be and did not change. Informed by the active intelligence of the deity, they could be scarcely be otherwise. The fantastic flight of the mind into a realm of the ultimate, immaterial reality was thereby arrested. A world which had to be could not be at the bottom of the scale of being".

Ibn Rochd

"Whatsoever is contrary to nature is contrary to reason, and whatsoever is contrary to reason is absurd, and, ipso facto, to be rejected".

Baruch Spinoza

"Science without religion is lame and religion without science is blind."

Albert Einstein

"Open theists do not know the comfort of trusting in God sovereignty and foreknowledge because they do not believe that He knows the end from the beginning and everything in between. They do not believe that God is the God of all comfort, whom we can always rely on to get us through life's struggle".

(J.ligon dunkan table talk, Feb, 2003, (Vol., 27, No. 2), pp.52-53

"The theory of evolution is nothing but a deception imposed on us by the Dominators of the world system". Adnan Oktar (Harun Yahya), (The Evolution Deceit).

"A religion old or new, that stressed the magnificence of the universe as revealed by modern science, might be able to draw forth reserves of reverence and awe hardly tapped by the conventional faiths. Sooner or later, such a religion will emerge". Carl Sagan

"God does not play dice".

Albert Einstein

"I believe in God, if by God is meant the embodiment of the laws of the universe."

Stephen Hawking

When Ibn Rochd died, Ernst Renan wrote, "Arab philosophy lost in him its last representative, and the triumph of the Qu'ran over free thought was assured for at least six hundred years." (Fauzi M.Najjar ,Ibn Ruchd (Averroes) and the Egyptian Enlightenment, British Journal of Middle Eastern Studies, Vol.31, No.2 (Nov. 2004), p.203.

من لايعرف الصنعة لا يعرف المصنوع ومن لا يعرف المصنوع لا يعرف الصانع

ابن رشد فصل المقال صفحة 5

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ABSTRACT

In this thesis, we aim to explore whether the world is eternal or created through the eyes of the Hellenes and especially Aristotle and the Muslim theologians led by Ibn Rochd. Such exploration would be a sort of comparative study between religion and philosophy, and we do mean by religion here the monotheistic tenets represented by the Abrahamic religions: Judaism, Christianity and Islam and we do mean by philosophy, mainly the ancient wisdom presented by the Greek philosophers. No one would deny that the doctrine of the eternity of the world is a complex doctrine, as there is a sort of overlap between all the subjects discussed within it. In other words, these subjects are themselves doctrines inside the main doctrine, which is the eternity of the world. This overlap is obvious when we raise subjects like the architecture of the cosmos, the basic elements that the world is made up of, God's existence, God-world relationship, eternity of time and motion and the immortality of the soul. When we do look at all these topics, the first idea that jumps into our mind is the big convergence between all these topics, in the sense that the discussion of one of them entails the discussion of the other one in some way or another. In the middle of all these discussions, it is vital to raise the pluralist and monistic theories, the plurality of the worlds theory, Ibn Sina's necessary existent theory, Ibn Rochd's principle of corruptibility and Socrates' doctrine of the individuality and the transmigration of souls. Likewise, we have to raise Plotinus' theory of emanation, Aristotle's doctrine of the coeternity of matter and God, the theory of substance and the theory of hylomorphism. After the exhibition of all these divergent stances and different views of the nature and the last fate of our astonishing universe, the result that we do come out with is that there is no opposition between philosophy and religion, as they are two different disciplines using different mental tools to achieve the same goals. Hence, the revealed materials can support the philosophical findings and vice versa. Revelation only interferes when philosophy fails to explain unseen phenomena or supernatural occurrences. That is why, the eternity of the world doctrine can never be well understood without the combination of what is religious and what is philosophical. The Holy Scriptures themselves do address the human mind and urge it to use reason and the weapon of observation and contemplation to achieve a better understanding of all incidents and events occurring around human beings. This compatibility between religion and philosophy in particular and all sciences in general was the magnum opus of Ibn Rochd who elaborated his doctrine of the agreement between religion and philosophy and passed it on to Western Scholasticism.

TABLE OF CONTENTS:

Acknowledgements	vi
Abstract	vii
Contents	.viii
List of Abbreviations	.xiv
Transliteration	.xv
Preface	.xvi

INTRODUCTION

<u>Part I</u>

Historical and Cultural Context:

1.1	The Islamic Contributions to Scientific Discoveries1
1.2	The Historical Circumstances Surrounding the Emergence of Philosophy in the Muslim World:4
1.3	The Flourishing of Philosophy in the Iberian Peninsula (Al- Andalus)5

PART II:

CHAPTER 1

ON THE HELLENIC VIEW OF THE ARCHITECTURE OF THE WORLD:

1.1 Grounds for the Hellenic Enlightenment17
1.2 From Myths and Superstition to Rational Explanations Through
The Great Three Phases of Greek Speculative Thought

1.3 The Pythagorean Theory of Numbers	26
1.4 The Sophist Relative View about the Origin of the World	27
1.5 Democritus' Mechanistic Theory	31
1.6 The Platonist School	33
1.7 Lucretius and the Seeds of Things	34
1.8 The link between the Agent and the Act	35
1.9 The Divine Will and the Creation of the World	37
1.10 The Materialist and the Causeless, Uncreated World	
1.11 Conclusion	41

CHAPTER 2

ON THE NATURE OF THE ELEMENTS COMPRISING THE UNIVERSE

2.1 The Elements between Plato, Democritus and Empedocles	43
2.2 The Nature of Generation	46
2.3 The Pluralist and the Monistic Theories	48
2.4 The Extension of Elements	51
2.5 Generation and Dissolution of Elements	54.
2.6 Matter and Form:	
2.6.1 The Primary Matter	57
2.6.2 Aristotle's Theory of Substance	
2.7 Conclusion	62

CHAPTER 3

ON THE HELLENISTIC VIEW OF GOD'S EXISTENCE:

3.1 The Platonic Cosmological Argument	66
3.2 The Peripatetic-Cireronian Maker of the Universe	67
3.3 The Epicurean Denial of Divine Assistance	70
3.4 The Stoic Notion of God	71
3.5 Plotinus's Cosmos Maker	72
3.6 The Neo-Platonist Views of the Cosmos Creator	73
3.7 Conclusion	74

CHAPTER 4

ON THE ISLAMIC VIEW OF GOD'S EXISTENCE:
4.1 Paganism in the Arabian Peninsula
4.2 Monotheism in Islam77
4.3 Al-Ghazali's Proofs about God's Unity and the Impossibility of two Necessary
Existents without a Cause
4.4. Ibn Sina and the Necessary Existence of God
4.5. The Ash'arites-Mu'tazilites Debate about the Divine
4.6 The Rochdian Proofs of the Existence of God:
4.6.1 Ibn Rochd against the Other Schools of Theology
4.6.2 Ibn Rochd's Debate with the Ash'arites:
4.6.2(a) The Will and the Action92
4.6.2(b)The Creation of Accidents
4.7. The Occasionlalist View of Causation
4.8. The Atomistic View of the World97
4.9. Ibn Rochd's Principle of Corruptibility
4.10 Conclusion
<u>CHPTER 5:</u>
On GOD-WORLD RELATIOSHIP
5.1. Different Types of Beliefs:
5.1.1 Polytheism and Monotheism107
5.1.2 The Basic Tenets of Pantheism, Panentheism
5.2 Evil and Creation and the Principle of perfection113
5.3 God's Knowledge119
5.4 Between God's Attributes and God' Essence123
5.5 Between the Empirical and the Invisible:
5.5.1 The Incorporeality of the Divine127
5.5.2 The Nature of the Divine's Life129
5.5.3 Bodily and Spiritual Resurrection120
5.5.4 Reward and Punishment134
5.6 Conclusion

CHAPTER 6:

ON THE ETERNITY OF THE WORLD ARGUMENTS TAKEN FROM TIME, MOVEMENT, POSSIBILITY AND VACCUM:

6.1 Aristotle's Co-eternal Doctrine of Matter and God	144
6.2 Argument from Movement	145
6.3 Argument from the Nature of Time	151
6.4 Argument from Possibility	155
6.5 Argument from the Vacuum	158
6.6. The Aristotelian System Repudiates the Existence of Vacuum:	
6.6.1 Nature abhors a vacuum doctrine	
6.6.2Aristotle Filled the Vacuum with the Aether	162
6.7. Peripaticism and Islamic Reasoning	166
6.8 The Eternal Determining Principle	169
6.9. Aristotle's Doctrine of Natural Motions	170
6.10. Types of Movement and Kinds of Beings	171
6.11. The First Mover as a Self-moved	173

CHAPTER7:

ON THE IMMORTALITY OF THE SOUL:

7.1. The Hellenistic-Islamic Concept of the Soul:	
7.1.1The Nature of the Soul:	.183
7.1.2 The Fate of the Soul:	188
7.2. The Individuality and the Transmigration of Souls (Metempsychosis):	.189
7.3. Plotinus Theory of Emanation	.192
7.4 The Hierarchy of Soul	.193
7.5 Shortcomings of Plotinus' Emanation Theory:	
7.5.1 The Existence of Evil Dilemma	.197
7.5.2 Ibn Sina's Scale of Emanations	198
7.5.3 Ibn Sina's Numerical plurality of Souls	200
7.5.4 Aristotle's Theory of Hylomorphism and	
The Functionalist View of the Soul	202

7.6 Drawbacks of Aristotle's Homonymy Principle:	
7. 6.1 Matter of Living Organism	204
7. 6.2 Functional and Compositional Matter	204
7.7 Conclusion	206

CHAPTER 8

ON PHILOPONUS AGAINST PROCLUS

AND ARISTOTLE ON THE ETERNITY OF THE WORLD:

8.1. Philoponus against Proclus:

8.1.1 The World between Religionism and Paganism	210
8.1.2 The Ungeneration and Imperishability of the World	211
8.1.3 The Universe and the Law of Contraries	
8.2 Philopouns against Aristotle:	
8.2.1 Philoponus against the Aristotelian Theory of the Aether	218
8.2.2 Philoponus against Aristotle's Eternal Time and Motion	
8.3 conclusion	232

CHAPTER 9:

ON the impact of Muslim theology on Western Scholasticism:

General Conclusion	265
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Appendix

1. Religious – Philosophical Trends and Cosmological Theories
2. The Amazing Soul of the Cosmos and the Astonishing Balance of Quantities278

Bibliography of Works Cited	
Further Reading	

LIST OF ABBREVIATIONS:

Works of Aristotle:	
DA	De Anima(On the Soul)
EE	Eudemian Ethics
Met	Metaphysics
GA	De Generatione Animalium
Mete	Meteologica
GC	De Generatione et Corruptione
NE	Nicomachean Ethics (Sometime abbreviated as E.N)

Works of Ibn Sina (Avicenna):	
An-Najat	Kitab an-Najat, 1938
Isharat	Kitab al-Isharat wa at -Tanbihat, 1892
Compendium	A Compendium on the Soul,1906

BK: Diels-Kranz Numbering System: Of the writings of the Presocratics, only quotations embedded in the works of later authors have survived. These quotations, along with reports about the Presocratics and imitations of their works, were first compiled into a standard edition (*Die Fragmente der Vorsokratiker*) in the nineteenth century by Hermann Diels (1848-1922). Revisions were introduced by Walther Kranz and subsequent editors in a complete edition of all the Presocratics,' works. Such edition has become standard in the field of ancient philosophy. The works of the Presocratics, therefore, are normally referred to by DK numbers. In Diels-Kranz, each author is assigned a number, and within that author's number, entries are divided into three groups labelled alphabetically:

- a. testimonia: ancient accounts of the authors' life and doctrines
- b. *ipsissima verba* (literally, exact words, sometimes also termed "fragments"): the exact words of the author
- c. *imitations:* works which take the author as a model (The Internet Encyclopaedia of Philosophy).



Preface

It is worthwhile to mention that many of the names of philosophers and theologians who we will come across in this thesis are not actually their real names. It is a Judaic-Hispanic-Latin corruption of their Persian and Arabic names. Such a corruption came as a result of a series of partial alterations based on the translations of Arabic philosophical and theological works that were carried out in the middle of the seventeenth century in the Spanish town of Toledo.

If we do take, for instance, the metamorphosis of 'Ibn Roshd'-the father of Averroisminto Averroes, we would notice that such a linguistic transformation was due to this sort of corrupted translation. The Jews, by reading the word 'Ibn' –Which means 'son of ' in Arabic- they pronounced it as the Hebrew word 'Aben' which has the same meaning. The consonant 'V' in Spanish –until today- is pronounced as the consonant 'B'. Hence, the name 'Ibn Rochd' is turned into 'aben Rochd', and by consonantal assimilation into 'averroshd'. As the letter 'CH' do not exist in Latin, it is replaced by 'the blowing S' and the name of 'Ibn Roshd' is turned, all over again, into averrosd. The consonant 'D' is dropped and substituted by the consonant 'S' because it is accusative in Latin language. Eventually, the name of a proper Muslim Arabic origin 'Ibn Rochd' is transformed into Averroes. Consequently, the terminology averroism is derived from this disfigured name.

In the same grammatical and linguistic fashion, 'Ibn Sina' is turned into Avicenna 'Ibn Baddja' into Avempace or Avenpace, 'Ibn Zohr' into Avenzoar,' Ibn Khaldun' into Abenjaldun, 'Ibn Masara' into Abenmasarra, 'Ibn Tofail' into Abentofail and the list is so long and we would gradually cover it throughout the thesis. These names are Latinized in most sources especially the Spanish ones. As we mentioned before the consonant 'V' is pronounced as 'B' and in many sources, it is written as 'B' as it is the case here in these last examples. Likewise, I will be using different vowels and consonants in the names of Arab theologians and philosophers. This would help non-Arab speakers to pronounce them in the correct way, so I will be using *AL*, *ED*, *OU*, *E*, and *Y* instead of *El*, *AD*, *U*, *O*, and *I*. Accordingly, I will be spelling Koran, or Alcoran as *Qur'an*, Ibn Tofail as *Ibn Tofayl*, Ibn Ruchd as *Ibn Rochd*, Musa as *Mousa*, Yusuf as *Yousef*, Yunus as *Younes*, Maimonides as *Maimon*, Ibn Zuhr as *Ibn Zohr*, Ubaid as *Ubayd*, Muhammad as *Mohammed*, and Bin as *Ibn*. Likewise, for a good pronunciation of names, I will draw a distinction between the

Preface

solar article in Arabic and the lunar one. The solar article in nouns such as az-Zahrawi and an-Nafis instead of Al-Zahrawi and Al-Nafis, and I will keep the lunar article as it is in most sources like Al-Kindi , Al-Biruni, etc. Throughout this thesis, I will be using the substantive *Rochdism* and the adjective *Rochdian*, and *Rochdist* instead of the substantive Averroism and the adjective Averroist. 1 am also using the substantive *Ibn Sinian* instead of Avicenian, *Farabian* instead of Farabusian, and *Ghazalian* instead of Gazelan .This distinction is of a paramount importance for non-Arab readers or researchers who do not know the real name of the philosophers and not familiar with these terms.

We have just to add that this corrupted translation did not reach only his name and the events of his life, but Ibn Rochd's works as well. Many of his works have come down to the hands of western scholars in a Hebrew translation of the Arabic text, composed by Samuel ben Judah in the early fourteenth century in Provence and preserved in eight manuscripts in varying states of completeness. In addition to this Hebrew translation, there have been one Hebrew summary by Joseph Caspi in 1331 and 4 translations -two in Latin by Elia Del Medigo in 1491 and by Jacob Mantinus in 1539, and 2 in English. Samuel himself was aware of his shortcomings as a translator of Arabic philosophy; he made tremendous efforts to provide the reader with a translation that was faithful to Ibn Rochd¹ and intelligible to one who knew Hebrew but not Arabic². Definitely, these divergent translations will make us call into question the partiality and the capability of these translators standing between the original author and western scholars. That is why, many of Ibn Rochd's doctrines were distorted and others were attributed to him. We have to mention that in many stages of Ibn Rochd's life, he was accused of being the enemy of all religions and God himself. Moreover, towards the end of his life, he suffered the exile from his disciples because of the aggressiveness of fanatic masses. He was the target of the theologians' feverish attacks, and exposed to the satires of poets, mocking his name through versifications: 'you did not stay on the right path (Rochd)* son of the right path (Ibn Rochd)!³,

¹ 'Rochd' means in Arabic the right path

 ² *Averroes on Plato's Republic*, Trans. Ralph Lerner (preface)
³IBN ROCHD (AVERROES), Leon Gauthier p. 3

Preface

The importance of what Ibn Rochd⁴ wrote towards the end of the twelfth century in Córdoba came from the fact that the author is coming from that pure Islamic descent. Such descent intrigued many scholars and made them think about the motives, which urged Muslim scholars, and especially Ibn Rochd to study a pagan philosophy while they have an inestimable divine gift called *Shari* ' a^5 . Such interest may lead non-Muslims to consider *Shari* 'a law, which addresses all men as not complete or sufficient, and consequently, in need of a supplement and correction. We have to point out that despite Ibn Rochd's colossal efforts to study and analyse the works of Greek philosophers, his name –and in the majority of cases- was ignored and referred to as 'the commentator' especially by both Aquinas and Dante⁶.

After Ibn Rochd's death, a legendary figure came into existence, he became so famous to the point that many partial scholars found it very hard to accept that he is coming from a pure Arabic and Islamic descent .They thought such an outstanding figure can only be a scholar coming from a Jewish descent and converted to Islam⁷.

⁴ Fifty years ago, during a conversation with an outstanding master, professor of philosophy in one of the first French faculties, we pronounced the name of Ibn Rochd.

^{&#}x27;Ibn Rochd', interrupted us our interlocutor, What is that? - Ibn Rochd, is Averroes.- how? It is Averroes! What a funny idea to call him Ibn Rochd?

Currently the Arabic name of Ibn Rochd starts to be a little known at least among the historians of philosophy. By the same token, and under the increasing influence of Arabized thinkers, we no longer write Mohamet, but Mohammed, Alcoran, but the Quran, Mecque but Mecca.(Leon, Gauthier,IBN ROCHD: AVERROES),p.2

⁵ The body of Islamic religious law

⁶, Averroes on Plato's Republic, Trans. Ralph Lerner .p.xiii

⁷ Leon Gauthier, IBN ROCHD (AVERROES). p. 3

Part One

Historical and Cultural Context:

1.1 The Islamic Contributions to Scientific Discoveries

No one would deny what the ancient Babylonian, Egyptian, Indian, Greek, Sumerian, Assyrian, Chinese, Roman, Persian Aztek, and Inka civilizations have brought to humanity regarding intellectual enlightenment and scientific discoveries. We all heard about Thales (624-546 BC), Pythagoras (569-475 BC), Empedocles (490 -430 BC), Socrates (469-399 BC), Plato (427-347 BC.), Aristotle (384-322 BC), Ptolemy (85-165/168 AD), Galen (131-201 AD), Plotinus (204-270 AD), Proclus (412-485 AD), and Philoponus (490- 570 AD).But a few of us have heard about Ibn Jubayr (665-714 AD), Khalid ibn Yazid (- d. 704 AD), Al-Asmai (740- 828 AD), Al- Khawarismi (Algorismus: 780-850 AD), Al-Kindi (Al -Kindus: 796-873 AD), Mousa ibn Shakir (800-873 AD), Jabir ibn Hayyan (Geber: ca.721-815 AD) Abbas ibn Firnas (810-887 AD), Al-Dinawari (828-896 AD), Ahmed ibn Yousef (835-912 AD), Thabit ibn Qurra (Thebit: 836-901 AD), Al-Fargani (AlFraganus d.861 AD), Ar-Razi (Rhazas:844-964 AD), Al-Balkhi (Albumasar :850-934 AD), Al-Battani (Albategnius: 858-929 AD), Al-Hallaj (858-922 AD), Al-Farabi (Al-Pharabius: 872-950 AD), Ibn Masara (883-931 AD), Al- Masudi (Herdotus :ca.896- 956 AD), Ibn al- Jazzar (898-980 AD), Abu Hamid al -Ustrulabi (- d.900 AD), As- Sufi (Azophi:903-986 AD), Ibrahim ibn Sinan (908-946 AD), Az- Zahrawi (Albucasis: ca. 936-1013 AD), Abu al-Wafa al-Buziani (940-998 AD), Ali ibn Isa (940-1010 AD), Al-Majriti(- d.1007/1008 AD) Ahmed ibn Younes (ca.950 -1009 AD), Ibn al- Haytham (Alhazen: 965-1039 AD), Ibn as-Saffar(d.1035 AD), Ibn Labban ibn Gilani (971-1029 AD), Al-Mawardi (Alboacen:972-1058 AD), Al-Biruni (973-1048 AD), Ibn Sina (Avicena: 980-1037 AD), Ibn Tahir al-Baghdadi (ca.980- 1037), Ibn Shuhayd (992-1035 AD) Ibn Hazm (994-1064 AD), Ibn al-Wafid(AD), Ali Ridwan Abenguefit(ca.997-1074 ibn (998-1061/1067 AD), Az-Zargali al-Andalusi (1029-1070 AD), Ibn at-Tayyib (Arzachel:1029-1087 AD), Said (Abulpharagius: -d.1043/1044 AD), Omar al-Khayyam (1044-1123/1124 AD), Ahmed as-Saraqusti(b.1046 - AD), Ibn Bassal (1038-1075 AD), Abu Said Ubaid Allah (- d.1058 AD), Abu-Hamid al-Ghazali (Al-Gazel: 1059-1111 AD), Malik ibn Wuhayb (1061-1130).Ad-Dani al-Andalusi(Albuzale :ca.1068-1134 AD), Ibn Zohr (Avenzoar: 1091-1113 AD), 1bn Bassam (- d.1147 AD), Ash-Shahrastani (1086-1153 AD), Ibn as-Salah(- d.1153 AD), Al-Idrisi (Dreses: 1099-1166 AD), Ibn Baja (Avempace: 1100-1138 AD), Jabir ibn Aflah(Geber: 1100-1150), Ibn Tofayl (Abubacer: 1100-1185 AD), Said ibn Hibbat Allah (-1101/1102 AD),

Abu-Abbas an-Nabati (Annabat:ca.1165-1239) AD), Ibn Rochd (Averroes :1128-1198 AD), Ibn Arabi (Abenarabi: 1165-1240 AD), Ibn Awwam (1170 - 1265), Al- Bitruji (Alpetragius: - d. 1204 AD), Ibn al-Baitar (Bitar: -d.1248 AD), Ibn an- Nafis (1213-1288 AD), At- Tusi (1201-1274 AD), Jalal al-Din al-Rumi (1207-1273 AD),Ibn Sabin (Avensabin: 1217-1270 AD), Ibn Battutah (1304-1366/1377 AD), Ibn al-Khatib (1313-1374 AD), Ibn Khaldun (Abenjaldun: 1332-1406 AD), Al-Kashi (1390-1450 AD),Ibn Miskawiyah (932-1030 AD), the prominent twelfth century philosopher Abu al- Hakam- al-Kirmani, and the list is inexhaustible.

Nowadays the scientific contributions of these Muslim geniuses are rarely mentioned and under Latinized names to obscure their Islamic identity and obliterate their ethnicity. This is irrefutable evidence that the medieval period was not sterile and dark as described in many books of history. If we contemplate the names of this glittering civilization, we would notice that most of them lived between (750 and 1100 AD), which is a very short period to accommodate all these outstanding scientists. These Muslim scientists managed to catalogue and develop all branches of sciences from the physical cosmos to the invisible world of human body. This includes mathematics, medicine, physics, biology, geology, psychology, optics, botany, astronomy, astrology, engineering, agriculture, agronomy, geography, history architecture, chemistry, mineralogy, pharmacy, mechanics, poetry, zoology, sociology, music, logic and horticulture. This tremendous scientific revolution occurred between the seventh and the sixteenth centuries when the Ottoman Empire was on the wane. Western scholars identify this era as the period between the demise of the Roman Empire and the Renaissance. At that period, Western Europe was dominated by superstitious beliefs, and intellectual obscurantism, while Islam was encouraging the pursuit of knowledge and regarded it as a spiritual duty. As Arabs used to trade with merchants from remote places such as China and India even in the pre-Islamic period (al-Jahiliyyah), practicalities of trading over such long distances helped them to learn how to tell the time and navigate from the stars. That is how equipments of timing and the astrolabe instrument came into being. Likewise, Avicenna's medical works were taught in the West till the 17th century. Al-Tusi's astronomical theories were essential to Copernicus(1473-1543) to challenge the authority of the church by proving that the Earth turns around the Sun. Copernicus was also inspired by the mathematical and the astronomical works of Ibn Aflah, and before him Regiomontanus (1436-1476 AD)whose 'On Triangles' is teeming with materials taken from the famous

works of Aflah who also invented the torquetum¹. Al-Khawarismi gave birth to algebra and algorithms that are central to the development of modern computing. Ibn Al- Haytham's works on the vision and light helped Isaac Newton (1643-1727) to formulate his theories on optics and the discovery of the pulmonary circulation is recorded in the name of the great surgeon Ibn an-Nafis. In addition to az-Zahrawi who wrote a book of 1500 pages about the science of surgery that was used in Europe for 500 years. Besides, he is believed to be the first one who made a caesarean section, and invented the surgical forceps. As Islamic civilization spread further into Southern Europe, these scientific enlightenments were taken back to Baghdad (*Iraq*), Damascus (*Syria*), Cairo (*Egypt*) Gondeshapur, (*Persia*) and Cordoba (*Andalucia*). These scientific treasuries brought intellectual enlightenment to the Iberian Peninsula. No wonder the historian Said of Toledo stated in his book *Tabaqat al – Umam* (Categories of Nations) that:

"In early times, al – Andalus (Spain) was devoid of Science, none of its former dwellers achieved fame in this field except some ancient indications to separate topics erected by the Roman kings. Al-Andalus remained stripped of wisdom until the Muslims settled there. Muslims themselves gave importance first to religious sciences and the science of language until the establishment of the Umayyad dynasty that opened the gates to the real quest for all sciences²".

We have to admit that there were some Christian and Jewish thinkers who contributed to this *Andalucian* intellectual revolution. This did not happen when Muslims first came to Andalucia, but later on, when they co-existed with them through either the conversion to Islam or because of their ethnicity, as they were Muslims coming from Christian, Jewish or Arabic descents. The vivid example of those coming from Arabic descents are the famous theologian Theodore Abu Qurrah (ca.750-820 AD), the Monophysite Christian Al-Masawaih al-Mardini (- d.1015), and Ibn Butlan (- d.ca.1038 AD). Undoubtedly, Andalucia witnessed the Hebraic golden cultural age that was embroidered with the works of Dunash ben Labart (920-990 AD), Jonah ben Janah (ca.990-1050AD), Solomon ben Judah (Ben Gabirol: Avicebron: 1021-1058 AD), the vizier, Joseph ben Naghrela(1035-1066) Moses ben Ezra(ca.1060-1138 AD), Judah Halevi(ca.1075-1141AD), Abraham ben Meir ben Izra(1092-1167 AD), and Mousa ben Maimon (Moses ben Maimonides: 1138-1204 AD). That is why,

¹It is an astronomical instrument used to take and convert measurements.

²Said ibn Ahmed al-Andalusi, Kitab Tabaqat al-Umam, (Cotegories of Nations), p.62.

Muslim scholars and historians alike prefer to call Andalucia 'lived' 'the missing paradise'. We have to bear in mind that the Jewish community in Andalucia lived side by side with the Christians and the Muslims in an atmosphere characterized by interfaith tolerance and cultural indulgence. The treatment of the Jews in Andalucia was unique at that time, as they were oppressed elsewhere especially in Eastern Europe. There were some interrupted periods when the Jews have not received the same treatment not because of their ethnicity, but because they were accused of stirring up racial hatred, feeding insurrections, or igniting religious conflicts.

1.2 The Historical Circumstances Surrounding the Emergence of

Philosophy in the Muslim World:

We have to point out that many Muslim scientists were excellent in other intellectual fields such as theology, jurisprudence and philosophy. However, some of them gave less interest to the latter and it was frowned by others because it was regarded as a complete waste of time, as it discusses matters already dealt with in the Holy Qur'an and the prophetic tradition. Early Muslim thinkers expressed their religious views in hundreds of outstanding works. However, they did not express their thoughts about the world and the secrets of nature and their sophisticated aspects until the great conquests brought them into close contact with other civilizations, especially the Persian one. The rational reasoning on the nature and attributes of God and His relation to man and universe led to the mushrooming of many politico- religious movements. The fact that led to the emergence of a new science of Muslim scholasticism called *Ilm al-Kalam* ¹(apologetic theology). The Mutazilites laid the foundation of this new science, as the first school in Muslim theology and made lasting contributions for its development. Orthodox Muslim opposed them and tried hard to refute their doctrines by traditional methods. Consequently, Maturidism appeared in central Asia in the second and third/ the eight and ninth centuries, Tahawism in Egypt in the third and fourth/ the ninth and tenth centuries and Asha'rism in Iraq in the fourth and fifth/ tenth and eleventh centuries. These movements tried hard to reconcile disputed ideas and settle the theological problems of the time by adopting a system that is compatible with the basic teachings of Islam. There is no room for doubt that the thought of these movements, enriched

¹ Al-Mutakallimin are a group of thinkers who appeared first in the 2nd century Hijri(AH) due to what the discussions raised about the Creed regarding the *takfeer*(accusation of unbelief) of those who commit *kaba'ir*(major sins), resurrection, judgement day and the free will and determinism. Among the First Mutakallimin Wasil Ibn Ata'(700-748 AD), Amr Ibn Ubayd(d. 761 AD) and Abu Hudayl al- Allaf (died after 840 AD) (Mohammed Basil al-Taee *Nakd Ibn Rochd li-Madhab Addariyyah Inda Al-Mutakallimin* (The Criticism of Ibn Rochd of Muslim Theologians' Atomism), p.3

Muslim theology in particular and broadened the horizons of human knowledge in general. In this new atmosphere, many foreign and divergent ideas were introduced by these religious trends bringing with them conflicting ideas and antagonistic attitudes creating chaos and confusion in Muslim thought. This situation dominated the intellectual Muslim life until the third /ninth century that manifested the rise of many intellectuals who started to use observation, inquiry, and deduction coupled with contemplation and meditation. Only at this particular stage of history, we started to talk about the Islamic thought as Falsafa (philosophy). This term itself is borrowed from Greek philosophy and little is known about the origins of Falsafa in Muslim West. During the reign of al -Hakam II (915-976 AD) in the third quarter of the fourth /tenth century, works of philosophy had been introduced into al-Andalus, and scholars started to study them. Many Muslims considered philosophy as a resurrection of a rational attitude justified and implied with the revelation of the Holy Q'uran. Such a philosophy was an intellectual activity produced within the framework of Islamic culture. We have to mention here that Islamic philosophy is not concerned only with religious topics and Muslims do not exclusively produce it. It is a rich philosophy ranging from mystical philosophy represented by Ibn Arabi, illuminationist philosophy manifested in the works of al -Suhrawardi, Dawani's political philosophy to the eclectic philosophy of Ikhwan as -Safa (Brethren of purity). It is worthwhile to point out that Peripateticism and Neo-Platonism were always predominant in all these Islamic philosophies.

1.3 The Flourishing of Philosophy in the Iberian Peninsula (Al-Andalus)

As it was in the Eastern part of the Muslim world, philosophy flourished in the Western part of it, and precisely in al *-Andalus* (The Islamic part of the Iberian Peninsula) and North Africa and especially Morocco. At that period both Morocco and Andalusia were ruled by the Sultans of *Al-Muwahiddum* (the Almohad) dynasty and before that by *Al- Murabitum* (*Almoravid*) dynasty. The reason why we mentioned Morocco is for the geographical and affinities factors, blood ties and parental links between it and Andalusia. In the sense that the vast majority of philosophers, theologians and mystics are either purely Moroccans, coming from a mixed race in which the Moroccan one is a part of it, or at least studied, visited, lived or died in Morocco. The latter, as we previously pointed out, was ruled by the *Almohads* who encouraged teachers and students to devote themselves exclusively to education by every means, paying them monthly salaries and ensuring their accommodation. Some of the sultans

themselves were poets, doctors and jurists. Libraries were established and books were brought from abroad. The Islamic philosophers, Eastern and Western alike took up the famous doctrines and theories of the ancient wisdom, simplified, criticised, rectified and developed them to fit pure Islamic patterns. Al-Farabi united the Aristotelian logical discipline to an emanatist schema of the world. Ibn Sina completed this fusion by extending it to intellectualist mysticism, while Abu-Hamid Al-Ghazali opposed syncretism; he rejected the mystics' science of the heart and replaced contemplation of the divine names with submission to the absolute being. Ibn baja drew an opposition between pure knowledge and semblances of the truth, which is only the other difference between the pure spiritual forms leading to knowledge and the individual spiritual form needed by the mystic. Ibn Masara and Ibn Tofayl established the harmony between reason and revelation. Al -Kindi went against the Hellenic philosophical tradition by propounding the ex-nihilo doctrine. Ibn- Arabi provided us with a detailed account of the types and essence of the philosophical truth and his concept of wahdat al-wujud (the universal being). The Moroccan-Andalucian philosopher Ibn Rochd, the doyen of rationalist philosophy, the pioneer of the enlightenment movement, the towering intellectual pyramid and the giant of Arabic philosophy¹ took from balanced rationalism the basis of his thought, as his philosophical works as a whole present apodictic demonstrations, Irrefutable evidences, avoiding innovation, modalities and barren comparisons. We must also mention the contributions of Malik ibn Wuhayb, Ibn Sabin and Ibn Zohr to this glittering intellectual arena. In all his philosophical debates, Ibn Rochd united what is given by the Ma'qul (reason) and what is provided by the Manq'ul (tradition). He accomplished this task by drawing a distinction between the batin (hidden meaning) and the *dahir* (apparent meaning)². In all his works, from short and middle commentaries on Aristotle's works to Kashf Manahij al -Adilla (The Exposition of the Methods of Proofs), Fasl al- Magal (The Decisive Treatise) and Tahafut al- Tahafut (The Incoherence of the Incoherence), he employs techniques of internal criticism through the comparison of texts, the contemplation of the comments of translators, and the suggestion of correction to dispel confusions³. As interest waned in the Muslim world, Ibn Rochd's philosophical systems found a new intellectual vigour in the works of Jewish and Christian philosophers. He played a magnificent role in the transmission of classical philosophy to the Western world. His

¹ Fauzi M.Najjar , Jbn Ruchd and the Egyptian Enlightenment movement, p.204

² Dominique Urvoy , Ibn Rushd(Averroes), trans. Olivia Stewart, p.77

³Ibid p.58.

works heavily influenced Western Scholasticism, the aspects of renaissance thought and the Politico-religious reform movement established by Almohadism in Moorish Spain. Besides, he fully contributed to make *al-Andalus* grasp the heritage of the ancient wisdom. This goes beyond the eurocentrist standpoint regarding Ibn Rochd as a mere propagandist or just an intermediary between Aristotle and the Scholastics.¹ We are not denying that Ibn Rochd was a commentator of Aristotle, but in addition to his great commentaries, he was a an original and demanding thinker in his own right ². However, his works did not find the same importance among the Muslims of that critical period of Islamic history, and especially his 'Exposition of the Methods of Proofs'. Even if he exposed his best intentions and reassuring phrases in this work. Ibn Roshd's criticisms were bound to raise dust and undermined his own standing in the community. His opponents publicly burnt his books; the teaching of his philosophy was banned throughout the realm of the Western Arab Caliphate. Moreover, he suffered banishment from his hometown in Cordoba³. Ibn Rochd was a victim of the general atmosphere of the reign of Almohads, in whose time Ibn Rochd lived was marked by outbursts of intolerance. These outbursts increased with the reconquista⁴ (the re-conquest) of the Iberian Peninsula by Saint Ferdinand III (1199-1252 AD). This phenomenon did not strike only the Muslim world, it is also common among the Jews who opposed the philosophical teaching of Mousa ben Maimon and his followers, and tried all the available means to ban and condemn their works⁵. The Andalucian intellectual atmosphere ignited the interest in debates and controversies. This paved the way for the emergence of a wide range of theological-philosophical doctrines on the universal of the intellect, anthropomorphism, fatalism, free determination, divine providence and the eternity of the world. The latter became so controversial and pivotal because it comprises many other theories and themes within itself like the origin of the world, God's existence, divine unicity and the immortality of the soul. Besides, it was the cause of disagreement between all the theological, philosophical and scientific schools. In this thesis, we would see how Hellenic philosophers and especially the Peripatetic ones regarded the status of the world? How was it received by the medieval Muslim philosophers in general and Ibn Rochd in particular? And to what extent the Islamization of such doctrine influenced the Christian and Jewish theologies?

¹ Majid Fakhry, Ibn Ruchd: Faylasufu Qurtuba, p.10.

² Barry S. Kogan, Averroes and the Metaphysics of Causation, p.272.

³ Majid Fakhry, Ibn Ruchd: Faylasufu Qurtuba, p.10

⁴ This is the Portuguese and the Spanish term of the Arabic word al-Istirdad : الاسترداد ا

⁵N. Golb, The Hebrew Translation of Averroes's Fasl al-Maqal, p.93.

PART II:

The Subject matter of the Thesis: The bone of Contention:

Before shedding more light on this controversial topic, we have to draw a distinction between the word eternal and the terms 'perpetual' and 'immortal'. The term' immortal' or 'perpetual' implies a beginning but no end, while an eternal existent cannot begin or cease to exist. The difference between eternity and perpetuity lies in the fact that eternity is a closed circle with no beginning and no end and perpetuity is a circle with a spiral character and open by very reason of its contingency¹. The eternity of the world is an old -brand -newconflict between religion and philosophy, between creationism and eternalism, between the sublunary world of the movement of alteration and the supralunary world of the unique circular movement of the eternal². In short, this controversial issue led to the multiplicity of schools, trends, sects and philosophies. It was, and it is still, a controversial issue between Muslims themselves, Jewish and Christian scholars, as it was the case between the Hellenes themselves many centuries ago. The theory of the eternity of the world is an Aristotelian idea. Aristotle claimed that he was the first one-at least among the Hellenes- who emphasized that the world in which we are living as a small entity and the cosmos as an orderly whole is eternal. Many of the predecessors of Aristotle believed that the world had come into being either from a primitive matter or after a number of other worlds, whereas Aristotle does believe in the finitude of causes because according to him, it is quite impossible that the movement should have started or can continue by itself. From this perspective, there must be a principle from which all movement derives. However, movement is eternal by itself. If we do suppose that the world is eternal, there will be an infinite series of causes and an infinite series of movers, and consequently, we will never ever reach a first mover or cause. Aristotle holds that both time and movement are infinite and that every causal series must be finite. From this particular point of view emerges the opposition of Muslim scholars to the Peripatetic standpoint. Muslim scholars do consider God as the first mover of the movement of the universe and the only cause of everything. ³That is why, neither the Platonic eternal ideas, the eternal hypostases of Plotinus nor the eternal henads of Proclus⁴ can bridge that gap existing between being and not being.

¹ Arvind Sharma, The Eternality of the Vedas and the Qur'an: A Comparative Study, p.269.

² Leon Gauthier JBN ROCHD (AVERROES), p. 114

³ Simon Van Den Bergh , the Introduction of Ibn Rochd's, *The Incoherence of the Incoherence*, vol. 1 p.xvi ⁴D. P. Walker, *Eternity and the Afterlife*, p.242.

The contradiction in the idea of the possibility of an eternal creation does form the chief argument of Al- Ghazali who refutes Ibn Sina's evidence for God's existence based on the Peripatetic concept of 'necessary by itself'¹. Al- Ghazali asserted, "Once the possibility of an infinite series of causes is admitted, there is no sense in positing a first cause²". If we go back to the Hellenes, we would find that the Christian commentator of Aristotle, John Philoponus, wrote a book entitled 'De Aeternitate Mundi'. This book was directed against another book written by the great Neo-Platonist Proclus who had given eighteen arguments to prove the eternity of the world. Plato, the other great pioneer of ancient wisdom, believed in the temporal creation of the world by what he called a 'Demiurge'. Plato's followers opposed their master regarding this interpretation, while the Stoics were the only post -Aristotelian school that assumed a periodical generation and destruction of the world. We have to point out that Theophrastus(ca.371-287 BC) tried hard to refute some of the Stoic arguments that were used by John Philoponus to defend the temporality of the world³. Even if the book written by Proclus is lost, John Philoponus put it back into memory because as a Christian, who had a strong belief in the creation of the world, presented all Proclus's arguments in order to refute them in his book De Aeternitate Mundi. This book was translated into Arabic and it was the main source of medieval philosophy in general and for Muslim scholars in particular whenever this issue arises. John Philoponus wrote also another work about the temporal creation of the world against Aristotle's theory of the eternity of the world 4.

Many Hellenes opposed later Islamic point of view about the eternity of the world, others supported it or supported at least some of it. Plotinus, for example, denies that God has the power to do one of two contraries, in the sense that God would necessarily choose the best, which implies that God necessarily will always do the best. In the meantime, Plotinus sees the world as the production of a natural necessity⁵. In the middle of these hot controversies, we have to introduce Ibn Rochd's standpoint, which is of a paramount importance, as he is the famous commentator of Aristotle's works and the transmitter of ancient wisdom to the West. This equation led him to deny that infinite time involves an infinite causal series and

¹ Ibn Rochd, The Introduction of , The Incoherence of the Incoherence, vol. 1, p.xvii

² Ibid.

³Tbid.

⁴ Ibid., pp.xvii-xviii

⁵ Ibid., p.xviii

the negation of a first cause¹. However, Ibn Rochd regards the world as Muhdath (eternally created) by God². Ibn Rochd was with the Peripatetic dictum stating that what has no beginning has no end. Accordingly, there is never an end of time and we cannot say that an infinite time is ended. Ibn Rochd was thinking that way because the series involved are only a temporal sequence and God is the essential cause. As mentioned before, this debate about the eternity of the world is very old and went back to the time of the pre-Socratic philosophers. Among them Parmenides(early 5th century BC) who went on to say that even if we do suppose that the world had a beginning, this means that before the existence of the world, there was an empty time in which there cannot be a motive for the supposed beginning. Consequently, there could be nothing that could incite God to start the creation altogether³. If all Muslim philosophers believe that God is the creator of everything, many non-Muslim philosophers even if they do not agree with that, they thought that who created the world had to end up to a necessary being with its essence and they believed that necessary being had to be one and unique. However, they disagreed about the nature of that one, some philosophers considered it as the Al-Aql (The Intellect), other philosophers saw it in the basic elements and others in the celestial $soul^4$.

Many philosophers do support or refute the eternity of the world by means of proofs based on time, movement and possibility, which we will discuss in depth in the forthcoming chapters. In the light of the possible creation of the world built upon the notion of time, Aristotle argued that the world could not have to come, simply because there is no absolute becoming. Many philosophers, and among them Aristotle, were thinking that way, as they relied on the constant observation of different things and wonders happening in their daily life and concluded that everything that becomes, has to come from something ⁵. Therefore, everything that comes to be is a development or evolution of something else that we are not always sure of. This analysis will lead us to talk about the famous dictum declared by the *Eleatics** that there is no becoming, either it is or it is not, if it is, no need to become, and if it is not, nothing becomes out of nothing. This is exactly the Aristotelian dictum stating that

¹Ibn Rochd, the Introduction of *The Incoherence of the Incoherence*, vol. 1 p.xx

²Harry A. Wolfson , *The Twice- Revealed Averroes*, p.377

³ Simon Van Den Bergh, *the introduction of Ibn Rochd's 'The Incoherence of the Incoherence*, vol. 1. p.xx ⁴Al-Shahrastani, *Nihayat al-AKadam fi Ilm al-Kalam*, (The End of Steps in the Science of Theology) pp.54-55.

⁵ Simon Van Den Bergh, The Introduction of Ibn Rochd's *The Incoherence of the Incoherence*, vol.1 p.xxi

becoming is nothing but the actualization of a potentiality. There is another dilemma raised by the Megarians* who deny the potentiality. They argued that there is no potentiality in nature, and accordingly, no becoming of things out of potencies. This dictum was taken over by the Ash'arites, and Al-Ghazali was one of them. He believed with the Ash'arites, as the Megarians did, that things do not become, and consequently, the future does not lie in the present. Therefore, everything that occurs is completely new and has nothing to do with its predecessor¹. Theologians do believe that the world is not an independent entity or a selfsubsistent system that has its own laws to develop by itself. That is why, it cannot be understood by itself, and always the mystery of becoming is connected to the mystery of God, as He is the source of all change in the world and the only one responsible for creation. Regardless of the existence and the non-existence of things, we have only to assert that God is in charge of the creation and the annihilation processes. This does not mean that these things become of each other, as there is no route or passage between being and not being². We have to mention here the importance of the problem of the incorruptibility of the world in defining eternalism. Many theologians, including Al -Ghazali regarded this problem as a synonym of its being uncreated. However, there is less opposition amongst theologians about the incorruptibility of the world than about its being uncreated. The Mu'tazilites do believe that God is the only source of knowledge of the nature and the destiny of our world. It is thanks to divine norms that we do come to know that the nature of our world is creation and its destiny is annihilation, but without any irrefutable evidence of such annihilation³. As mentioned previously, Ibn Rochd like Aristotle, tried to solve this problem of the corruptibility of the world by claiming that there is no difference between production and destruction .Ibn Rochd bolstered his claims by introducing three principles for them, which are form, matter and privation. He combines all these three principles in the production and destruction processes, in the sense that when a thing comes into being, its form arises, and its privation disappears. On the contrary, when it is destroyed, its privation arises and its form disappears. However, for both Aristotle and Ibn Rochd, these processes of production and destruction are eternal, circular and reversible⁴. Al-Ghazali was against this Rochdian logic because the fact of saying that the processes of production and creation are

¹Simon Van Den Bergh, The Introduction of Ibn Rochd's , The Incoherence of the Incoherence, vol I. pp.xxi-xxii

² Ibid., p.xxii

³ Ibid.xxiii

⁴Ibid., p.xxiv

eternal is contradictory since production and creation generate something after a non – existence state. Ibn Rochd does ague that the world is eternally produced out of something. It is worth noting that the statement of Giles of Rome (ca.1247-1316 AD) that Ibn Rochd, by denying *creatio ex nihilo* (creation out of something) was reviling both the Muslim and the Christian religion is baseless¹. Ibn Rochd did not deny the creation ex-nihilo, but he emphasized that there is no indication in Islam that God created out of nothing. This does not mean that God did not create out of nothing. As we are creatures and everything else around us seems to be created out of something, it is extremely hard to fathom the secrets of the creation from ex-nihilo. The theory of the creation regardless of its nature from ex-nihilo or from *ex-materia* (a pre-existing matter) leads us to discuss the Neo-Platonic emanation theory stating that the whole world was emanated from God's absolute Oneness².

Definitely, we are here facing the most controversial thorny issue in the history of philosophy and theology. Hot debates and intellectual conflicts emerged not only between the Hellenes who supported the eternity of the world and the Abrahamic philosophers who advocated its creation, but also between the Hellenes themselves. This is manifested in the differences between Plato and Aristotle and between the Abrahamic philosophers themselves such as the differences between Philoponus representing Christianity and Ibn Tofayl and Ibn Baja standing for Islam. The disagreement reached even philosophers of the same religion and the same creed and sect like the differences between Al-Ghazali and Ibn Rochd. Such intellectual conflict would reach later on the scientists of all disciplines; they joined this intellectual arena to contribute to it with their theories especially those dedicated to the topic. We have to bear in mind that the fundamental principles of the Aristotelian philosophy are based upon the conception of the universe. Such a conception was completed by his successors Apollonius, Hiparque and Ptolemy. The philosophical and theological works of these outstanding thinkers remained dominant for more than two thousand years. After that, the Muslim, Jewish and Christian thoughts started to take shape. Those thoughts were characterized by the physical, the metaphysical and the metaphysical-mathematic principles. Among these principles, we find the principle of the better or the final cause, the anteriority of the perfect, the superiority of the high over the low, the right over the left and the front over the back³. This was the era when the conflict between philosophy and religion began to

¹ Harry A. Wolfson , The Twice-Revealed Averroes, p.375

²Simon Van Den Bergh, the Introduction of Ibn Rochd's , The Incoherence of the Incoherence, vol. 1. p.xxv

³Leon Gauthier, IBN ROCHD(AVERROES), p.113.

loom to take different dimensions. Undoubtedly, the religious standpoint about the eternity of the world was different of that of the Hellenes. However, religious thinkers and theologians as a whole were fascinated by the Hellenistic way of thinking and their method of presenting evidence and refuting other theories. That is why, they tried hard to find some common points between them and the ancient wisdom¹. They achieved some of these targets by making some of the dogmas of religion homogeneous with Greek philosophy. Divine intervention in the mechanism of the world was beyond question, but the conflict was about the nature of this intervention. Anaxagoras is believed to be the first philosopher who explained such an intervention as the organization of an anterior chaos. The two first biblical Verses of Genesis support this idea in which God appears to be the organiser of a preexistent chaos.

This idea emerged in Judaism and it was later passed on to Christianity². In the Jewish tradition, God created the Sky and the Earth, the Earth was enforme (informe) and empty tohou va-bohou, and the spirit of God was flying at the surface of waters (or on the face of the...), then God, with his word, organized in six days or successive periods this tohu $-bohu^3$. Later on in the Qur'an, as Ibn Rochd himself has pointed out, we find some echoes of this ancient Jewish tradition: "Moreover He comprehended in His design the Sky, and it had been (as) smoke: He said to it and to the Earth: 'Come ye together, willingly or unwillingly.' They said: We do come (together), in willing obedience⁴". In the tenth century, the question whether God created the world from ex nihilo or from ex-materia was the same as whether 'the non-existing' is 'nothing' or 'something'. Regarding the creation out of smoke, there is still thorny discussion about that meaning. Az-Zamakhshari⁵ went on to say that the smoke proceeded from the waters under the throne of God, and according to Islamic tradition, the throne was one of the things created before the heavens and Earth. Ibn Rochd used this Our'anic Verse to prove that the heavens were created from something eternal ⁶. Ibn Rochd admitted that the path of creation and eternity is thorny, as in the Qur'an there is neither the term eternal nor an indication that God created the world from nothing.⁷

¹ Leon Gauthier ,IBN ROCHD (AVERROES), p. 198

² Ibid.

³ Ibid

⁴ The Holy Qur'an: Chapter Ha Mim or Fussilat, 41, Verse: 11

⁵His real name is Abu al-Qasim Mahmud ibn Umar az-Zamakhshari. Known widely as al-Zamakhshari ethnically, he was of Iranian origin, (in Arabic: الزحفشري). Also called Jar Allah (Arabic for "God's neighbour") (1074 - 1075 - 1143 - 1144) was a medieval Muslim scholar with *Mu'tazilite* theological influences lived in the Arabian Empire.

⁶ Harry A. Wolfson ,*The Twice – Revealed Averroes*, p.376

⁷ Ibn Rochd, Al-Kashf an Manahij al-Adilla, (The Exposition of the Methods of Proofs), p.81.

All Abrahamic philosophers do believe unanimously in the creationism theory stating that God Almighty, in the beginning, created everything from either something or nothing. This occurred due to His free will and out of His pure goodness. Therefore, everything was created by His word and thanks to the divine exemplars existing in this word. However, there are many divergences between the three Abrahamic religions regarding such divine authority and the concept of eternity. Despite some differences between the Abrahamic philosophers regarding the nature of creationism, they all meet in considering God's existence as immutable and His knowledge of all lives and eternal objects as non- successive. This notion of God's essence is contradicted with the successive eternity or the Platonic one that consists only of eternal objects¹.

Muslim philosophers, in discussing the eternity of the world, started with the rational and the theological proofs of the existence of God. This way led them to talk about the divine essence and consequently the divine attributes. Such a method paved the way for shedding more light on the God-world relationship. Eventually, we have to point out that the conflict was between not only religion and philosophy, but also between the Hellenes themselves. That is why, many Jewish, Christian and Muslim philosophers and theologians exploited these discrepancies in the Hellenistic views of the eternity of the world to their own interest in supporting or refuting other theories according to their compatibility with the dogmas of religion. Christian works about the eternity of the world appeared first by John Philoponus, while those of Jewish and Muslims are attributed to tens of thinkers and theologians. Ben Maimon taught temporal creation, and in the same time, emphasized that all creatures are continually dependent on the creator .Likewise, some Rabbinic traditions speak of the Torah as being in co-existence with God himself, whereas the Zohar stated that it existed even before the process of creation. ben Maimon stated, like Thomas Aquinas (c.1225-7-1274 AD), in many occasions that there is no clear philosophical proof against or for the temporal creation and this dilemma can only be solved through revelation 2 . This stance is quite different from that of the Jewish philosopher Hasdai Crescas (1340-1410 AD), who believed that the eternal creation ex nihilo is necessary for the explanation of God's existence as a necessary being. Ibn Rochd went on to say that the Loquentes of the three laws that exist

¹ D.P. Walker *Eternity and the Afterlife*, p.242

² Tony Dodd, The life and Thought of Siger of Brabant, Thirteenth – Century Parisian Philosopher: An Examination of his Views on the Relationship of Philosophy and Theology, p.142.

today believe in the creation ex nihilo, which he rejected it. Likewise, the Loquentes of the three religions supported the ex nihilo creation. As it is the case of Hasdai Crescas, many Jewish philosophers of Muslim Spain described the creation as being ex-nihilo. The Christian Patristic and Scholastic philosophers maintained it as well. In Islam, in The Fikh Akbar II (Compendium of Muslim Texts), which may have originated in the middle of the tenth century, says in Article 5 "God has not created things from a pre-existing thing"¹. In the same regard, Islamic teachings are manifested in the Holy Qur'an that indicates a temporal creation of the universe, which appeared also in the works of Islamic sects such as the Mu'tazilites who supported the created nature of the Qur'an and the Mutakallimin (Muslim Scholars) who asserted that the Holy Qur'an is uncreated. As a whole, many Muslim philosophers followed, with some reservation and different directions, the Greek tradition concerning the eternity of the world. Ibn Sina, for instance, relied upon Neo-Platonic reasoning based on the nature of necessary emanations, whereas Ibn Rochd, was heavily influenced by Aristotle's view of causality². What should be highlighted here is that we are not here just torn between eternalism and creationism, but also between the different scenarios of eternalism and those of creationism. eternalism includes three possible scenarios, the first one assumes a world with a beginning and an end and the second scenario, a world, which has a beginning but without an end, or what the scholastics call aeternitas a parte posteriori³.

The third scenario presumes a successive eternity, which means a world that has no beginning and no end like in the Neo-Platonic scheme. Here and all over again, we are facing a real dilemma, why is the successive eternity on the right –hand side rather than the left? In the sense that why not *an aeternitas a parte anteriori* instead of post (beings who have no beginning, but an end)? Or why not both? It is obvious that anyone thinking in the Platonic way, would find the scenario of *aeternitas a parte posteriori* highly paradoxical, as it would give an inadequate image of the ideal, still eternity⁴. Likewise, in creationism we are in front

¹ Harry A. Wolfson , The Twice-Revealed Averroes, p.375

²Tony Dodd ,The life and thought of Siger of Brabant, Thirteenth –Century Parisian Philosopher: An Examination of his Views on the Relationship of Philosophy and Theology, p,143

³ D.P. Walker, Eternity and the Afterlife, p.246

⁴ Ibid.,246.

of two scenarios, the first one supports the creation out of a pre-existing matter, the second one advocates the creation out of nothing. These are not the only problems facing us when studying the creationist status of the world. The adherents of creationism also disagreed about whether the world was created out of a necessity or it was a divine free will. Likewise, they disagreed about whether the world was created temporally or ab-aeterno(from eternity). However, all these scenarios discuss the status of the world within the scope of *creatio exdeo*(creation from God).

* "He comprehended in His design the sky, and it had been (as) a smoke: He said to it and to the Earth "come yet together, willingly or unwillingly" They said "We do come (together); in willing obedience" so He completed them as seven firmaments in two days, and He assigned each heaven its duty and command. And we adorned the lower heaven with lights, and (provided it) with guard .Such is the decree of (Him) the exalted in might, Full of knowledge" (The Holy Qur'an, Chapter Ha Mim or Fussilat, 41, Verse .11).

*"Say: Is it that ye deny Him who created the Earth in two days? And do ye join equals with Him? He is the lord of (all) the worlds" (Ibid, Verse : 9).

* "one day the earth will be changed to a different earth, and so will be the heavens, and (men) be marshalled forth, before God, the one, the irresistible" (Ibid, Chapter Ibrahim : Abraham, 14, Verse .48).

*"Verily your Lord is God, who created the heavens and the earth in six days, and is firmly established on the throne (of authority), regulating and governing all things. No intercessor (can plead with Him) except after His leave (hath been obtained). This is God your Lord; Him therefore serve ye: Will ye not receive admonition?(Ibid., Chapter Yonous: Jonah, 10, Verse.3)

* It is a school of philosophy founded in Greece at the beginning of the 4th century BC by Eucleides of Megara. It is noted more for its criticism of Aristotle and its influence upon Stoic logic than for any positive assertions. Although Eucleides was a pupil of Socrates and the author of Socratic dialogues, only imperfect glimpses of his thought survive. He is said to have held that "the good is one, though it is called by many names, sometimes wisdom, sometimes God, and sometimes reason" and that "the contrary to the good has no reality". (Online Encyclopaedia Britannica: www.britannica.com/topic/373025/Megarian-school. Access date: 07 Jun. 2007).

*In Eleatic philosophy, the assertion of <u>Parmenides</u> of Elea that <u>Being</u> is one (Greek: *hen*) and unique and that it is continuous, indivisible, and all that there is or ever will be. His deduction of the predicate one from his assertion that only Being exists is not adequately explicit; thus, later thinkers felt it necessary to fill in his argument. <u>Aristotle</u>, for example, wrote: "Claiming that besides Being that which is not is absolutely nothing, he thinks that Being is of necessity one, and there is nothing else." Aristotle suggested that, to Parmenides, Being must be all that there is (because other than Being there is only Not-Being), and there can therefore exist no second other thing. Moreover, one can ask what could divide Being from Being other than Not-Being? But because for Parmenides (as opposed later to the Atomists) Not-Being cannot be, it cannot divide Being from Being. It follows, then, that Being is whole, continuous, and "not divisible, since it is all alike." (Online : Encyclopaedia Britannica: www.britannica.com/topic/182278/ Eleatic-One : Access date: 14 Aug. 2007).

CHAPTER 1

ON THE HELLENIC VIEW OF THE ARCHITECTURE OF THE WORLD:

1.1 Grounds for the Hellenistic Enlightenment:

There is no room for doubt that living memory goes back to earlier stages of history to what we call the pre-philosophic era. The latter influenced earlier philosophers and helped them to elaborate many of their doctrines and theories. The heritage of that age helped us to trace the intellectual ancestry of Greek philosophy and the conceptual forces that shaped the mind of Thales, Empedocles and Plato¹. These are not the only factors that contributed to the advent of Greek wisdom. In the fifth century, the political and social upheaval caused by the Persian wars and the unceasing antagonise between Athens and Sparta contributed to the intellectual convergence between the two places. New ideas poured into Athens because of the influx of the Ionian thinkers into the Attic peninsula. This new situation made of Athens the intellectual capital of the Greek world. Therefore, a new era emerged to reject all the classical explanations and the traditional speculations of the nature of the world. As a result of this radical change, religious beliefs declined, in that the position of gods and goddesses was no longer outstanding, as it used to be one century earlier. The long Persian and the Peloponnesian wars taught people how to determine their destiny by their own actions and not 'Moira' for instance. Consequently, many of the notions of right and wrong were called into question. All this intellectual enlightenment was expressed in both the Hellenic tragedy and comed y^2 .

We have to bear in mind that not only the factors of affinities, convergence and interaction that led to this intellectual revolution, but also the creative and the innovational spirit of the Hellenes themselves. They used their energies to explain the mysteries of the nature of the world by resorting to history, tragedy, comedy, art and architecture. By the same creative mental tools, they invented the love of wisdom 'Philosophy'. All these occurred when the Hellenes became unsatisfied with the mythical and the supernatural explanations of the divergent phenomena of the natural world. This intellectual mutation in the Greek thought led the Hellenes to think that there must be rational and logical speculations of these unconvincing mythical explanations of the mysteries of the universe.

¹ George F. Mclean, Patrick J.Aspell , Ancient Western Philosophy: The Hellenic Emergence, p.7

² Online: www.historyguide.org/ancient/lecture8b.html. Access Date: 09 Jun.2007.

Chapter 1

Whenever we do talk about ancient Greece and ancient wisdom, we have to talk about the 5th century. This is the age of the great historians, Herodotus (ca.485-425 BC.) and Thucydides (ca.460-.400 BC). The former wrote a history that covered all the major events of the ancient Near East, Egypt and Greece. The latter firmly rejected any notion that gods intervene in human affairs, alternatively, he regards the fate of man in his own hands. This is also the age of great dynamists such as Sophocles (ca.496-406 BC.). He wrote a plenty of plays about the precedence of divine law over human defects to explain that human beings have to follow blindly the will of gods, as they stand for justice and order. Euripides (ca.480-406 BC.) made a new move by giving less importance to gods and considered them as inferior to human beings. Epicurus went further by discharging gods from their supposed role of running the world and replaced them by void and atoms as the ultimate causes of all natural phenomena¹. Aeschylus (ca. 525-456 BC.) was the first dramatist to express in his trilogy of plays 'The Agamemnon' 'The Libation Bearers' and 'The Eumenides' the agony of individuals caught in conflict, whereas, Aristophanes (ca.448-380 BC) ,like many of his contemporaries, used art to dramatize his ideas on the right conduct of the citizens and the value of the polis². All these Hellenistic products were contributing to the development of the embryo carrying wisdom and sageness. A long time before the appearance of Thales, ideas were conceived and developed in a very mythical way by Homer (ca. 800 BC) and Hesiod (-776 BC). When the earlier philosophers spoke of God and the soul, they were raising ideas that had a very long history in mythical representation. Those myths helped later philosophers to elaborate their views of reality³. Not to mention the outstanding philosopher Socrates whose works would be exposed in different occasions throughout the thesis. This is the same age when the Greeks embraced their brilliant experiment in direct democracy. The amazing monuments to human achievements were built in Athens and all the other Hellenic cities. It is an age of great discoveries, human enlightenment and the birth of rational thought. Even though the early religious thought and knowledge of nature had been conveyed in a mythical manner, the Greek mind in general is so rich and versatile. No wonder that this mythical manner that contributed to the advent of rational and speculative philosophy. Aristotle compared these two ways of thinking by viewing Homer and Hesiod as

¹ A.A. Long , Chance and Natural Law in Epicureanism, p.63

²Online: www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007.

³ George F.Mclean, Patrick J.Aspell ,Ancient Western Philosophy: The Hellenic Emergence, p.7
the primitive theologians and the forerunners of philosophy. The reason why Aristotle called them so is that they articulated many doctrines like philosophers, but they were unlike them in their use of mythical ways¹.Definitely, the shift from the mythical ways to philosophical thinking did not occur overnight, but rather, it was long and gradual. The evidence of that gradualness is found in some philosophers' works that combined what is rational and what is mythical such as Empedocles and Plato. Both used myths in a very philosophical way to reach facts and truths. Therefore, it is imperative to study the products of this pre-philosophic era based upon the nature of mythical thinking to achieve a better understating of rationality in Greek thinking and especially in both philosophy and theology².

Undoubtedly, mythical thinking is the outcome of an uncritical consciousness that conceives the world and everything related to it in a very symbolic meaning. When the prephilosophic Greeks were faced by natural disasters such as earthquakes and storms, they did not resort to logical explanations and analytical inquiries to understand the hows and the whys of these phenomena. They employed intuitive and imaginative insights, for instance, they thought that thunder and lighting occurred when Zeus hurled his thunderbolt. We have to bear in mind that the tool of imagination has a bigger space of freedom in mythical thinking than it is in philosophical thought. Such freedom compelled the mythicist to face a big problem in his attempts to provide others with acceptable explanations. Obstacles and difficulties do not prevent the Greek mythical thinkers from approaching nature and fighting to explain its phenomena with all the available mythical tools. Their ways were not scientific, their imagination uncritical and their thought with no intellectual content. However, we do find, in some occasions, partial insight into the meaning of some particular events³. What makes such mythical speculations of a paramount importance is that they covered all the aspects of natural life not like the pre-Greek view of the world that drew no clear distinction between the human and the non-human and between the animate and the inanimate. This means that everything that is alive is ensouled, and accordingly, of a divine nature⁴.

Hesiod's theogony is a vivid example of the rational inquiry into the origin of the world. He

¹ George F.Mclean, Patrick J. Aspell Ancient Western Philosophy: The Hellenic Emergence, pp.7-8

² Ibid.,p. 8

³ Ibid.

⁴Ibid.

went beyond the sense experience of the external world and he sought to explain the origin of things. Hesiod is considered the greatest cosmogonist in Greek mythical thought. In his attempts to trace the ancestry of gods in his theogony, he had to provide us with an account of the origin of the things:

"Aeons before the titans and Olympians even existed there came into being Chaos, a yawning gap or vast immeasurable abyss, followed by Gaia (Earth), Tartaros, and Eros. Erebus, and night conceived and bore Ether and day. Likewise, by a process of separation, Earth gave birth to an equal body starry Heaven, to the high mountains, and to Pontus, the sea. Earth and heaven were then reunited in marriage by the cosmis attraction of Eros, and his fritful union bore the ocean and the eldest gods or Titans, among whom were Cronus, Atlas, and Prometheus, the saviour of mankind. Eventually, the Titans were superseded by the more illustrious progeny of Heaven and earth, Zeus and the Olympians¹."

We do deduce from this mythical passage that the pre-philosophic thinkers do think that the cosmos, which made the gods and not the opposite gods who made cosmos. It is obvious that Hesiod' theology does contain the seeds of a philosophic cosmology. In earth, the fiery Heaven, Sea and Night we would recall the four basic elements earth, fire, water and air. Besides, the notion of chaos, the unifying force and the separating one 2 would all appear later on as controversial objects. The philosophers who would come later scientifically explored all these mythical thoughts and insights. Mythical thought is not rational, albeit it is important, as it deals with the same objects as philosophy. In other words, it is providing philosophy with what we can call 'unverifiable truth' that³ has to be explored by philosophers. In the sixth century BC, a religious movement among the Greeks named Orphism* inaugurated a new era of the consciousness of the self and a new look to human life. Homeric and Hesiodic Olympianism, with the doctrine of jealousy and the impassable gulf between gods and men exceeds the human needs and the human emotions. This religious movement provided man with the opportunity to take part in the divine. Orphism taught people that Zeus made man from the ashes of the Titans who killed and devoured Dionysus, the son of $Zeus^4$.

George F.Mclean, Patrick J.Aspell , Ancient Western Philosophy: The Hellenic Emergence, p.11

²Ibid

³ Ibid., pp.8-9

⁴ Ibid., pp.11-12

In the middle of all these debates, the fundamental principles of the Aristotelian philosophy are the most striking, as they came from the conception of the universe. The Peripatetic works that were completed by his successors Apollonius (ca. 262 .190 BC), Hipparchus (ca.190 -120 BC) and Ptolemy (ca.85 -165 AD) prevailed for more than two thousand years and dominated the Greek-Latin, Arabic, Jewish and Christian thought. These principles of metaphysical nature, mathematical metaphysics or physics are the principle of the best, or the final causes, the anteriority of the perfect, the excellence of the circular figure among surfaces, the spherical figure among the volumes, the superiority of the top over the bottom, the right over the left and the front over the rear. From these principles came the main consequences stating that as the circle is the most perfect figure, the circular movement is the most perfect movement, as it is continuous, uniform and eternal. It is the first movement because the perfect is anterior to the imperfect. Consequently, it is compatible with the first and the perfect body, which is the sky, the aether¹. This Hellenic age of the Greek civilization shaped a specific Greek mind in which the individual and the rationalistic spirit were of a paramount importance. Even if Athens never united all Greece, its culture was unchallenged. The trade routes from the Aegean brought ideas from almost everywhere to the great cultural centre of Athens. Thanks to its economic initiative, the Athenian polis was very wealthy. It sponsored the production of dramas and urged wealthy citizens to pay the expenses of production.

common people had the result of weakening the aristocracy, the social class from which he came. As the historian Thucydides pointed out, "he controlled the masses, rather than letting them control him." From the 450s onward, Pericles rebuilt the city of Athens, a city ravaged by years of wars with the Persians. He used the public money from the Delian League to build several masterpieces of 5th century Greek architecture, the Parthenon and the Propylaea It has been said that the Greeks are the first ancient society with which modern western society (since the Renaissance, that is) feels some sort of affinity. (Online: www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007).

^{*} A Hellenistic mystic religion, thought to have been based on the teachings and songs of the legendary Greek musician Orpheus. No coherent description of such a religion can be constructed from historical evidence. Most scholars agree that by the 5th century BC there was at least an Orphic movement, with travelling priests who offered teaching and initiation, based on a body of legend and doctrine said to have been founded by Orpheus. Part of the Orphic ritual is thought to have involved the mimed or actual dismemberment of an individual representing the god Dionysus, who was then seen to be reborn. Orphic eschatology laid great stress on rewards and punishment after the death of the body, the soul then being freed to achieve its true life(Online Encyclopaedia Britannica: www.britannica.com/orphism. Access Date: 12 of Jan 2006 * In the time of Pericles, that Athens enjoyed its greatest period of success. The period itself was dominated by the figure of Pericles and so the era has often been called the Age of Pericles (c.490-429 B.C.). Pericles offered many benefits to the common people of Athens and as a result, he earned their total support. Oddly enough, the benefits he conferred upon the

¹ Leon Gauthier , Ibn Rochd (Averroes), p.113

1.2. From Myths and Superstition to Rational Explanations Through The Great Three Phases of Greek Speculative Thought:

The early Ionic philosophers sought the origin of the universe in water, fire, earth and many other elements, and it is the inadequacy of these explanations that led to the growth of Greek intellect¹. However, and like any other human thought, the Greek philosophical thinking passed through an embryonic stage represented in speculative thinking based on expressing human curiosity about the world and understanding the wonderment of life. Then, there was an intellectual mutation in the practical thinking that focused on the comprehension of the nature of life and its relation to human beings. The last phase of this intellectual development can be called the critical thinking because it involved minute explanations, thorough examinations and rational assessments of all sort of things surrounding us or interacting with us in this melodious universe. Each of these phases has a particular name and certain pioneers.

The first phase is known as the age of Mythos (....600 BC), during this period, the focus was on the world of men and gods accompanied with anthropomorphic explanations, mythopeotic language and supernatural arches. The great pioneer of this age was Homer (ca. 750 BC) who claimed that Zeus created all things, as he is the king of gods. Homer saw all gods as human being with all the emotions and the vices, they interact mentally and physically with the ordinary humans with only one basic difference, the humans die but gods are eternal. Xenophanes, the first philosopher of religion, attacked this Homeric divine conception in a very satirical verses which only very few fragments remain².

In the second age named the pre-Socratic (ca.600-500 BC), philosophers came from the city of Miletus in the region of Ionia. Miletus was an outstanding trade depot and its dwellers have a direct contact with the ideas of the near East³. In this age, the Milesian philosophers focused on nature built upon naturalistic explanations, universal questions and the extended exploration of the speculative issues. Unfortunately, only few recorded works were left, or they wrote little themselves. Whatever the case, their common tenet is that the entire complex world is emerged from a simple permanent thing. Thales of Miletus (ca. 624-548 BC) was the representative of this age. Thales was the first systematic thinker who went on to say that water is the originating principle of all things. This standpoint was revolutionary

¹ H.F. Hose, *Lucretius*, p.161

² Anthony Kenny *Ancient Philosophy*, p.289

³ Online: www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007.

to the point that many scholars consider him as the world's first philosopher. Besides, by this natural explanation of the architecture of the world he omitted the notion of gods from this equation, as he did not give them any role in such architecture¹. From this particular stage of history, human interpretation of the cosmos changed from the anthropomorphic analysis to the scientific one. This shift in interpretation gave birth to philosophy and the two main routes of rational inquiry: the beginning of rational thinking led to the emergence of science, and consequently, the natural philosophy dealing with the quiddities of the cosmos and moral philosophy dealing with human self.

There are two famous saying recorded of Thales of Miletus, the founding father of Greek philosophy. The first one is 'all things are full of gods' and the second one is 'water is the first principle of everything². Even at those times when human rationality was at an embryonic stage, people found it extremely hard to understand Thales' adoption of water as the ultimate principle of explanation. He claimed that Earth rests on water like a log floating in a stream, but when Aristotle asked, what does the water rest on?(Cael.2.13.294a28-34), he said that everything came from or it is in some way or another, made out of water³. Aristotle objected to Thales' reasoning and thought that Thales was thinking that way as all animals and plants need water to live, or because semen is moist (Met.A3.983b17-27). We have to bear in mind that this is the same ancient phallicism based on the worship of the phallus or the lingam as a symbol of divine reproductive power, and a source of generation and propagation. The adherents of such belief associate phallicism with the discussion of some biological theories such as 'natural selection' and 'the survival of the fittest'. Aristotle accused Thales and his immediate followers of introducing no efficient cause of motion over and above the material cause into their systems⁴. The Aristotelian system sees the element as the primary, simple ingredient of a composite thing (Met.1014a26ff). According to Aristotle, the true elements of the natural world are not these four basic elements, but rather, the four main physical opposites: hot, dry, cold and wet. The combination of these opposites gave birth to the four elements: earth, water, fire and air. Therefore, Aristotle drew a distinction between three things: the tetrad of earth, water, air and fire, which are named 'elements', the idea of an element as such, and the primary opposites.⁵

¹ Online: www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007.

² Anthony Kenny , Ancient Philosophy, p.4

³Ibid.,p.5

⁴ Aristotle, De An. I. 411a8; Met. A984a16-27,.

⁵ Charles H. Kahn, Anaximander and the Origins of Greek Cosmology, pp.120-121

Aristotle thinks of a snug and finite universe in which fire rose to the top and earthly matter settled to the bottom. According to Aristotle, when fire rose to the top is more natural than when it came to rest at the top. Likewise, it was no less to earthly matter to rest at the bottom than to sink to the bottom¹. The Aristotelian system is, and in many occasions, built upon syllogism, as we would see in the forthcoming chapters, like in the case of the parts of animals, plants and the inanimate objects. If they are proved to be created, all the celestial spheres are created as well, as they all share the property of corporeality².

If we go back to Thales's claim that water is the arche of all things, we would find that it had shortcomings, according to his student and contemporary Anaximander of Miletus(c.611-547 BC), because Thales failed to establish the relationship between water and fire, in the sense that water cannot be the arche of its opposite. From this perspective, Anaximander sees the primal and the infinite apeiron as the main originator of all creations, or in other words, an indefinite substance, which he named the boundless as the source of all things. Anaximander achieved this conclusion because he sees that the changing face of the universe requires the cyclical interaction of things of at least four sorts: the cold and the wet condensed to form the earth and the hot and the dry formed the Moon, Sun and stars. The heat from the fire in the skies dried the earth and shrank the seas. It is through the gradual process of distillation that not only the four elements water, air, fire and earth emerge, but all living things as well³. All over again, we do notice with Anaximander's scheme of thought that he sought natural explanation for the origin of the natural world. Therefore, both Thales and Anaximander can be considered as 'matter philosophers' because they believed that every single thing in our world had its origin in a material substance. The next Milesian philosopher was Anaximenes (585 -528 BC) who was so close to Anaximander's definition by considering air (vapour or mist), as the main entity of our Cosmos. This because air is a warm wet air combining two of the four elements together and it provides a familiar pair of processes for changes in its own state which are condensation and evaporation. Therefore, because of its rarefied form of breath, or spirit, Anaximenes considered air as the most likely candidate for life representation. Parmenides of Elea (c.515 -450 BC) challenged the

¹ Normal W. DeWitt, Epicurus: His Perpendicular Universe, p.58.

² Ibn Rochd, *Talkhise Kitab al-Jadal*, (Middle Commentary on Aristotle's Topics), p.43

³ Online: www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007.

fundamental standpoints of the Ionian philosophers that all things came out from only one single substance. He applied logic to come out with his views in the sense that he sees reality as one, eternal and unchanging. Accordingly, we cannot achieve a better understanding of reality through our senses as they are deceptive. Therefore, we have to know it through our mind; in this case, we came to know reality through reason and not experience. We have to depict here that this view is central in Platonic philosophy. It is note worthy to mention Heraclitus of Ephesus (fl. 500 BC) who is known in many sources as 'the weeping philosopher' because of the mystical obscurity of his thought and his pessimistic views of human nature .He argued that life was kept by a tension of opposites, fighting unceasing battle in which neither side could win a final victory. Hence, movement and the flux of change were unceasing for individuals, but the structure of the universe was constant¹.

Cratylus²(5TH Century BC) a follower of Heraclitus went on to say that you cannot step twice in the same river as the water would be different water in the second time. This does happen because we do see the water reality in its form. That is why, Cratylus came out with the conclusion that the belief should be in the absolute, unchanging reality of which the world of change and movement is only a quasi-existing phantom and has nothing to do with the tangible reality³. This rational thinking introduced by the pre-Socratic philosophers from Thales to Democritus put an end to a very long era known by mythical explanations based on blind faith. This intellectual innovation did not reach philosophy only, but all disciplines of knowledge. The big example of this enlightenment was manifested by the Greek physician Hippocrates of Cos (c.460- 377 BC) who managed to distinguish between magic and medicine by saying:

"It is not, in my opinion, any more divine or more sacred than other diseases, but has a natural cause, and its supposed divine origin is due to men's inexperience, and to their wonder at its peculiar character⁴."

From this historical stage, physicians started to observe patients, classify symptoms and made predictions about the course of diseases. This enabled them to know the kinds of diseases and the possible natural remedy for each disease away from myths, legends and arbitrary speculations.

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¹Online: www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007.

² Ancient Athenian philosopher known through Plato's dialogues..

³ Online: www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007.

⁴ Ibid.

<u>1.3 The Pythagorean Theory of Numbers:</u>

Pythagoras of Samos considered things as numbers in their entire nature, and they were the first of every nature. He held that the final explanation of the secret of things lie in the knowledge of numbers and form, which means that the study of philosophy has to be linked to the study of applied mathematics¹. That is why, Pythagoras assumed that the elements of numbers were the elements of all things. In this regard, the whole world is generated from numbers, which are the true nature of things. Consequently, the entire universe is just a set of harmonious numbers. Pythagoras gave this paramount importance to numbers as first principles because of the symmetries existing in them. He assumed that one of the first principles, the monad, is God and the good, which is the origin of the one, and the undefined dyad is a divinity and the bad. The Pythagoreans went on to say that, there is but one number, the mathematical, but things of sense are not separated from this, for they are composed of it. We have to mention that in their endeavours to build up the whole cosmos out of numbers, they totally discard any role of unit numbers in this construction because they do think that the unities have quantity. In the 19th century, some of these Pythagorean principles would be borrowed by *Bahaism* and *Babism*² to build their understanding of things upon the notion of numbers, and especially the number nineteen, that was glorified and regarded as the secret lying behind the existence of everything in the world.

What is striking here is that if we do admit that all unities have a quantity, so in what way the very first quantity was built up to have such a quantity? In this regard, the Pythagoreans did not give us any convincing answer. On the contrary, the qualities of numbers do exist in harmony in the heavens and all the other things. The Pythagoreans proved to be accurate in many of their explanations of the phenomenon of the cosmos and the qualities and quantities of things. However, we are not quite sure that these explanations are about our cosmos and these qualities and quantities of things are about the things perceivable with our senses, for they made up with numbers, which have no weight and lightness, physical bodies, which have weight and lightness. This task becomes even extremely difficult and more sophisticated when it comes to virtues and moral values. The Pythagorean theory is of a

¹ W. W. Rouse Ball , Pythagoras, p.7

² These are two religious sects found in Iran by Mizra Hussain known as Baha'Allah(Glory of God) who was followed by the Bab. Western colonisation was behind the emergence of these anti-Islamic trends to disintegrate the Islamic unity and turn Muslims away from their basic issues. They believe that the Bab created everything in the world by his word, they also believe in the manifestation, the incarnation and the eternity of the beings and the reward and punishment are spiritual. That is why, there is nothing called heaven and hell. Likewise, they deny the truth of jinns and angels, the miracles of prophets and they thought that the religion of the Bab is abrogating the Islamic *Shari'a* (law).

crucial significance in understanding both the origin and nature of our cosmos, at least in a time when this issue was so controversial. Pythagoras emphasizes that the first causes of our cosmos were immaterial which interacted with other material causes to make up at the end the material world.

1.4. The Sophist Relative View about the Origin of the World:

The sophists* argued that there is nothing called absolute truth or universal that can be valid all the times and in different occasions. This logic is deduced from Protagoras (c.485-411 BC) who claimed that man is the measure of all things¹. This means that everything is relative, and consequently, there are no values, as the individual man is the measure of all things. In other words, as long as the man who is judging, evaluating and coming out with conclusions, truth can never be final and absolute because, for instance, it may happen that the same man may came across different findings sooner or later that may change the course of his previous discovery or evaluation. Besides, such a man is not the only one in the theatre of incidents, as the competition is very fierce from others who may oppose him, refute his sayings or even deny his findings. For the same reason, nothing can be evaluated as bad or good as long as man is the evaluator. Many scholars think that such relativism is not associated with all the sophists and it is restricted to moral and ethical issues and not the broader relativism regarding knowledge, truth and reality². Protagoras' relativism is an objective one, in that, it is the physical world that changes. That is why, we cannot have an objective knowledge of it. Plato agreed with Protagoras to some extent, as long as the physical world is concerned, and disagreed with him where there can be no knowledge of the physical world, then, there would be the world of essences in which there is knowledge³. We have to bear in mind that Protagoras used the term sophism in its later sense of professional teacher of virtue, which means that he was continuing the tradition of a long line of predecessors⁴. The other sophist Gorgias of Leontini (c.485-380 BC.) was a very well- paid teacher of rhetoric and famous for his saying that no man could know anything, and if he managed to do so, he could not describe it, and if he could do so, no one would understand him⁵. Whenever we discuss relativism, the peritropic argument⁶ is there, such argument

¹Online: www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007.

² Richard Bett, The Sophists and Relativism, p.139

³ Block, Irving ,Aristotle and Physical Object, p.93

⁴G. B. Kerferd , The First Greek Sophists, p.9

⁵Online: www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007.

⁶Aristotle, Met. 1008a28-34, 1012b13-18

stating that all truth is relative to the individual who believe it has to be an absolute truth itself, which means true to everybody. If it happens that a person denies it, it must be false to him, and consequently, it is both true and false to him. Hence, since relativism indicated that no one ever has a mistaken belief, the dissenter's denial of any truth would be a counter-instance to it¹.

The sophists became influential in the intellectual educational life of the Greeks because of the apparent failure of the pre-Socratic philosophers, as they had given birth to the tide of scepticism about the existence of objective knowledge and truth². That was the beginning of the sophists' challenge to all the values of the fifth century. They tried hard to get rid of all the old conventions and the archaic endeavours to achieve a better and comprehensive understanding of the universe, gods and even the man himself, as the most complex phenomenon of this amazing cosmos. We have to bear in mind that the sophists and regardless of their intellectual orientation and their interpretative manners in explaining the mysteries of the cosmos, have followed the path of the pre-Socratic philosophers based on natural explanations and the degradation of the role of myths and legends in the advancement of thought and enlightenment.

* Into such an atmosphere of change, came the travelling teachers, the Sophists. The Sophists were a motley bunch – some hailed from the Athenian polis or other city-states, but the majority came from Ionia, in Asia Minor. The Sophists were men whose responsibility was to train and educate the sons of Athenian citizens. There were no formal school, as we know them today. Instead, these were Peripatetic schools, meaning that the instructor would walk with students and talk with them – for a fee, of course. The Sophists taught the skills (*sophia*) of rhetoric and oratory. Both of these arts were essential for the education of the Athenian citizenry. After all, it was the sons of the citizens who would eventually find themselves debating important issues in the Assembly and the Council of Five Hundred. Rhetoric can be described as the art of composition, while oratory was the art of public speaking (*Online:* www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007).

¹J. D. G. Evans, Aristotle on Relativism, p.194

² Johnson Steve, Skills, Socrates and the Sophists: Learning from History, p.202

Even if he was not a sophist himself, Socrates (c.469-399 BC.) came from the ranks of the sophists. Socrates argued that humankind is born with knowledge, which is present in the human mind at birth. Therefore, the human being does not know too much in his daily experiences, but what he is doing is just recollecting the knowledge that was already there. This reasoning helps us to understand why Socrates was not used to give his disciples answers, but only questions. His duty was just to teach truth, but it is up to his students to pull that truth out of their mind, and that is why, Socrates often considered himself as midwife in the labour of knowledge. Hence, only through discussions, dialogues and conversations can both truth and wisdom come to the surface¹.

There is no room for doubt that the theory of atoms is developed from the ancient theories about the origin of the world. As the Stoics believed that everything in the world is providentially determined by God (Who is nature according to them²), they regarded all things material, and they tried hard to find out the original kind of matter out of which the world is made. They turned to Heraclitus by considering fire as the primordial kind of beings, and all beings are made out of it. Other theories are developed to include these theories in a single one like Empedocles' theory, which regards earth, fire, water and air as the four basic elements of the universe. The third age (500-BC) includes the Socratic philosophers and mainly the greatest two sages of ancient wisdom Aristotle and Plato. With the latter, we are asking the old pre-Socratic question what the world is made of?

It is of a paramount importance to mention here the Ionian standpoint of the universe that descends from Anaximander. The latter's 'principle' is the great cosmic mass that is encircling the spherical body of our star-studded heaven. Both the Epicurean and the Stoic cosmologies retained the Anaximander reasoning. This alternative conception of the physical universe, as a finite sphere began with Parmenides, and a similar view is held by Empedocles who applied the *Milesian* 'epithet' to' the immense sphere' formed by the union of all things in the sway of love.³

¹Online: www.historyguide.org/ancient/lecture8b.html.Access Date: 09 Jun.2007.

² A. A. Long ,Stoic Studies, p.436.

³ Charles H.Kahn, Anaximander and the origins of Greek Cosmology, p.234.

Aristotle supported the Anaximander's principle that had no limit and hence no origin as it is ungenerated and imperishable:

"It is believed to be the origin of other things, and to emcompass all things and guide them all (as those say who do not set up other causes besides the boundless, such as mind and love), and to be the divine; for it is immortal and uncorruptible, as Anaximander says and most of natural philosophers¹."

What we can come out from this passage is that, according to Anaximander, the divine principle must be not only imperishable, but also ungenerated². This means that it has no starting point and no origin. This analysis is in sheer contrast with the ageless but generated gods of the epics. We have to bear in mind that the philosophers of the sixth and early fifth centuries proclaimed a new conception of divinity, which is completely free from both birth and death. Definitely, these philosophers followed the path of Anaximander based on the belief that such principle guides and governs all things³. Furthermore, it is the vital source out of which the substance of the world has come and in the same time, the outer limit that encloses and defines the body of the cosmos as a whole. It is everlasting, as it is god-like power that is controlling the rhythmic life cycle of the world. Therefore, Anaximander provided the other philosophers not only with the concept of the very first time that we were in front of the concept of the natural world, as a unified whole characterized by order and equilibrium. It is this concept that gave birth to the first forms of monotheism in ancient times⁵. We have to emphasize that:

"God of the Greek philosophers is not identical with the world; his Decalogue is the law of nature, and his revelation is to be read in the ever-turning cycles of the sun, the moon, the planets, and the stellar spheres⁶." The answer to this thorny everlasting question led Plato to discuss the four basic elements of Empedocles, analysing them through the Pythagorean

Charles H. Kahn "Anaximander and the Origins of Greek Cosmology, p.238

² Ibid.

³ Ibid.

⁴bid

⁵ Ibid.,pp.238-239

⁶Ibid.,p.239

mathematical objects and the atomists' empty space. We have to mention here that Plato's view about the eternity of the world combine views of many of his predecessors such as Pythagoras who made the physical universe fundamentally mathematical and thought that everything was made of numbers. Plato made the geometrical figures the basis of his theories. In the *Timaeus*, he claimed that as fire and earth were solid matters, they need two intermediates to be combined. That is why, the Demiurge created air and water to arrange the four elements in a proportional way.

1.5 Democritus' Mechanistic Theory:

Since the dawn of history, man came to the idea of God and gods from the nonunderstandable things that were occurring around him in the world. Democritus confirmed this when he related the fear of ancient people from natural phenomena such as thunder and lightening to gods. Hence, man created gods to justify that fear. According to Democritus and many others such as Leucippus, all things are made of atoms of matter moving in a void. By thinking so, Democritus was involved in that time mathematics based upon infinite divisibility and points with no magnitude¹. Therefore, everything that happened in this world is due to a mechanical process driven by the velocities and the impacts of atoms because mechanistic collisions and overlaps are part of the atom's nature. All the mechanistic philosophers that supported or will support Democritus focused their research on the invisible mechanisms of that 'huge machine' called nature². Many of the Hellenes starting from Epicurus and ending by Plato and Aristotle and their followers opposed the explanation of natural phenomena in a mechanistic manner. These philosophers rejected such explanation, as it failed to answer many questions such as how can the combination of atoms circulating in an empty space be responsible for the constant movement of the heavens and all living things? Plato and Aristotle tried to replace such theory by introducing divine causation and the notion of the purposiveness in the structure and the architecture of the world³. Plato regarded it as based on chance and stated that the collision between atoms is not enough to produce all the beauties and the wonders of the world. Likewise, many philosophers objected to the idea of man who created God. In the Timaeus, Plato insisted that the universe was not eternal but created⁴, although his creator framed it after an eternal.

¹Raymond Godfrey, Democritius and the Impossibility of Collision, p.212

²Cristoph Luthy, The fourfold Democritius on the Stage of Early Modern Science, p.445

³ A.A. Long, , Chance and Natural Law in Epicureanism, p.63

⁴ Plato, the Timaeus, (28B-29A)

unchanging model. In his turn, Aristotle's ultimate being is God (*Theos*) who is an eternal substance. For him, matter is eternal like God and not created. That is why, both of them are independent of the world. As mentioned before, Empedocles'' theory of the basic elements of the world fire, water, air and earth was not taken without amendments and abridgements. These elements are said to be made of atoms, which means that the whole world itself is made of atoms. Plato objected to this point of view that regards the atoms as the only basis of reality. Plato has rejected Empedocles' theory because it is built upon mathematical grounds, in the sense that the atoms were made up of an unchanging level of reality. That is why, they cannot be the only basic level of reality.

Aristotle, in his turn, emphasized that these four elements earth, fire, water and air are continuous, which means that they are not made of atoms. According to Aristotle, any change that is occurring in our cosmos is due to the transformation of matter from what it was in potential to a new actuality and not through the rearrangement of atoms to make new structures. At that time, the Aristotelian explanation of the origin of the world seemed to be more rational that Democritus and Plato, for one simple reason, is that their theories remained pure speculations because they cannot be put to experiments.

When we are talking about the Aristotelian system about the origin of the world, we have to discuss Aristotle's active intellect and the First cause of the universe. However, it is worthwhile to mention that when Aristotle was talking about the First cause, he was not specifically talking about the origin of the universe, but rather but the universe's motion¹. Aristotle argued that even if we have this account about the origin of the world as seen made of water, air , fire or earth or the combination of some or all these(Met.A3.983b20-84a16), our scientific curiosity is not satisfied, as the ingredients of a dish do not put themselves together. If these ingredients are put the way they are only because there is an agent operation upon them by exercising all the known operations: cutting, mixing, stirring, heating and so on². Aristotle suggested that sometimes one of these elements does these operations, and he suggested fire for this role. The latter is capable to do that because it is the least torpid of all elements. It can also be pair of agents, which are more abstract and more picturesque, such as Love or Desire or Strife, or the Good and the Bad (Met.A3-4. 984b8-31).

¹ H.A. Davidson ,*Proofs for Eternity. Creation and the Existence of God in Medieval Islamic and Jewish Philosophy*, pp. 281-282

² Anthony Kenny ,Ancient Philosophy, p.2

The Peripatetic philosopher Alexander of Aphrodisias -who was active in the late second and early third century AD-, went beyond this Aristotelian logic by considering the first cause, as the cause of human thought and the principle of the existence of all other things¹. Therefore, the Alexandrian view is compatible with the Aristotelian one in regarding the first cause, as the cause of the motion of the universe, and surpasses it by seeing it, as the responsible for the existence of all beings and other things alike.

<u>1.6 The Platonist School:</u>

Greek philosophers, and for long centuries, were fascinated by our astonishing universe, its structure, its purpose and of course its destiny. They formulated plenty of theories and doctrines trying to find some answers of these thorny questions that were repeatedly asked by the philosophers of the time and those who preceded them from other civilizations. The theory that explains the structure of the universe as a unity composed of heterogeneous elements had to do that by assuming that everything was in reality different from the same thing. That is why, many of the pre-Socratic philosophers of the sixth and the early fifth centuries BC tried hard to find this single substance out of which everything was ultimately made such as air for Anaximenes, water for Thales, fire for Heraclitus and a combination of the primary elements air, water, fire and earth for Empedocles. Later on, Democritus and Leucippus came out with the idea that revolutionized our understanding of the world, and fully contributed to the advent of the Epicurean philosophy². We would shed more light on all these theories and doctrines in the forthcoming chapters.

The Epicurean philosophy is based on the atomic theory claiming that everything that exists in our world is made of matter and empty space. If the matter is made of invisible and indivisible corpuscles called atoms, the empty space is only the void or the vacuum that helps to keep the existence of atoms .We would discuss in depth all the aspects of these philosophies in the next chapters. We have to bear in mind that many of the problems of religion versus philosophy arose in the area of aesthetics and metaphysics and especially about the eternity of the world. To achieve a comprehensive understanding of this doctrine, we have to cover all views and standpoints from different schools and divergent trends. This comprises Platonism, Middle Platonism, Neo-Platonism, and medieval Islamic, Christian and Jewish philosophies, the Renaissance thought and theories of cosmology.

¹ Alexander (of Aphrodisias), *Scripta Minora.De Anima cum Mantissa*, (Commentaria in Aristotelian Graeca, Suppl.2, 1), ed. Bruns, I., p.89.

² Lucretius ,On the Nature of the Universe, trans. R.E Latham p. x (10).

It is evident that the Platonist school was the dominant philosophical thought in the ancient world for more than 800 years. It was the starting point of speculation. This school comprises Plato and all his followers such as Speusippus (c. 410-339 BC), Xenocrates (396-314 BC) Ptolemy and Philip of Opuntium (Plato's disciple), and what is anarchronically called Middle- Platonists like Antiochus of Ascalon (c. 130 -68 BC), Numenius of Apamea (2nd Century AD), Arcesilaus(c. 316- 241 BC), Carneades (214-129/8 BC),Clitomachus (187-109 BC) and Philo of Larissa(159/8-84/3 BC) and the Neo-Platonists, Plotinus and Eudorus of Alexandria(fl. Ca. 25 BC) and many other outstanding figures.

We have learnt from Platonic philosophy that the evidences proving the eternity of the world are linked to the origin and the architecture of the world itself. From the dawn of human thought, this issue was so controversial among all old civilizations: Babylonian, Indian and Chinese. Not to mention ancient Greek philosophy that has a big share of this hot debate.

1.7 Lucretius and the Seeds of Things:

Philosophers were always fascinated by the idea *ex-nihilo nihil fit* (out of nothing comes nothing). Among them, Lucretius who considered gods as the product of men's fear from the unexplained natural and supernatural phenomenon that occurs in our world. Lucretius' *De Rerum Natura* is a sort of reflection of certain developments that emerged in the Epicurean school after the death of Epicurus¹. Lucretius is famous by his dictum nothing can be produced from nothing, and in the same time all things are done without the agency of gods².Lucretius elucidated his theory by many evidences built on plenty of assumptions. If we do assume that things might be coming from nothing, then:

"Every kind of thing might be produced from all things; nothing would require seed. In the first place, men might spring from the sea; the scaly tribe, and birds, might spring from the earth, herds, and other cattle might burst from the sky; the cultivated fields, as well as the deserts might contain every kind of wild animal, without any settled law of production: Nor would the same fruits be constant to the same trees, but would be changed; and all trees might bear all kinds of fruit. Since, when there should not be generative elements for each production, how could a certain parent-producer remain invariable for all individual things?³" The most important point we do come out with from Lucretius perspective is that things are made of certain seeds. However, this rule does not apply to everything, as there is

¹ P.H. de Lacy , Lucretius and the History of Epicureanism, p.12

² Lucretius, On the Nature of Things, trans. John Mason Good p.10

³Ibid.,p.11

something called the first, or the primary matter or the first elements¹ that are responsible for the generation of everything without being generated because they are imperishable, and consequently eternal. Likewise, everything that comes into existence has to have an element that goes with it or responsible for its gradual growth or demise:

"Young men might on a sudden be formed from puny infants, and groves, springing up unexpectedly, might dart forth from the earth, of which things it is plain that none happen, since all things grow gradually, as is fitting, from unvarying atoms, and as they grow, preserve their kind, so that you may understand that all things individually are enlarged and nourished from their own specific matter... the earth cannot furnish her cheering fruits without certain rains in the year; nor, moreover, can the nature of animals, if kept from food, propagate their kind, and sustain life; so that you may rather deem that many elements are common to many things, (as we see letters common to many words,) than that any thing can exist without its proper elements²."

1.8 The link between the Agent and the Act:

Many philosophers do assert that the world can be only the act of God regardless of any explanations of how this act was generated. However, there are many other philosophers who do not believe in such link between the so- called the agent and the act, simply because they do believe in the principle stating that God is the Fist Principle. The latter can only proceed one. According to them, God as the First Principle is always one, while the world is made of different constituents. That is the main reason that compelled them not to believe that the world is not the act of God. As they do not believe in such link between the agent and the act, they created what we do call the 'mediator'³. The existence of this mediator means that the world as a whole did not proceed from God:

"What proceeds from Him is one single existent, and this is the first of the created principles, namely, abstract intellect, that is a substance subsisting by itself, not possessing any volume, knowing itself and knowing its principle, which in the language of the Divine law is called 'angel'. From it there proceeds a third principle, and from the third a fourth, and through this mediation the existent beings come to be many⁴."

¹ In modern scientist theories of atomism, pairs and triplets of fundamental quarks combine to create most typical forms of matter

²Lucretius, On the Nature of Things, trans. John Mason Good, p.12

³ Averroes, Tahafut al Tahafut, (The Incoherence of the Incoherence), vol. 1 p.104

⁴ Ibid.

From this perspective, the act can proceed from differentiation and multiplication through mediation, through which the agent does perform one act, and then the latter does perform another act. What is striking here is that all these divisions and multiplications cannot be performed in the First Principle, as there is neither differentiation, nor duality and multiplicity in the essence of God¹. Hence, if we do believe in such divisions, multiplicity or duality, we then believe in the existence of some existents that are on the same level as God acting as first effect, primary matter or first mover, which is quite impossible. There is no room for doubt that the majority of ancient philosophers do believe that out of the one only one proceeds, and they conclude that the first principle is one. Therefore, the problem was only about the source of multiplication. As there was an old common belief that the first principles are two, one for the good and one for the bad, it was not very hard for new philosophers to assert that all things go back to one ultimate end that really exists in our world, and that ultimate end is only one highest principle². This is the true sense of the holy words, "*If there were(in heaven and earth) gods beside God, both would surely have been corrupted*³."

These later philosophers were convinced that this first principle has to be one and unique. This notion of the oneness or the uniqueness raised many problems .Anaxagoras and his school, does believe that the plurality is only introduced through matter; others do believe that such plurality is manifested in the instruments, and others see it through the mediators.⁴ Plato is believed to be the first one who asked about the origin of plurality in the matters and the instruments. Plato's logic about the origin of plurality was so difficult to refute especially from anyone who asserts that from the one only one can proceed because he has to explain how plurality did come from the one⁵. We have to bear in mind that such difficulty was surmounted with the advert of the emanation theory stating that out of the one all things and creations proceed. Al- Ghazali raised many objections against the Peripatetics about this

¹ Averroes ,*Tahafut al Tahafut*,(The Incoherence of the Incoherence),vol.1,p.104 ² Ibid., p106

³The Holy Our'an, chapter, *Al-Anbiva* (The prophets),21, Verse.22

⁴Averroes, *Tahafut al Tahafut*, (The Incoherence of the Incoherence), vol.1 pp.106-107 ⁵Ibid.107.

thorny problem by arguing that if the plurality was introduced through mediators: "*There* could only arise a plurality of qualitatively undifferentiated agglomerates which could only form a quantitative plurality, does not touch them ¹." The Peripatetics do believe in the existence of a 'twofold plurality' that is of simple beings that do not exist in matter, and that some of them are the causes of others, but they all ascend to the same unique cause that is the first being of their genus. This analysis explains how the plurality of the heavenly spheres does arise from the plurality of these principles. Likewise, it explains how the plurality of the sublunary world does come only from matter, form, and the heavenly spheres ². It is obvious that Aristotle and his followers were not faced by the problem of the origin of plurality, even if they are some difficulties in their theory about the order of the world in general:

"The heavenly bodies are moved primarily through their movers, which are absolutely immaterial, and the forms of these heavenly bodies are acquired from these movers and the forms in the sublunary world are acquired from the heavenly bodies and also from each other, indifferently, whether they are forms of the elements which are imperishable prime matter or forms of bodies composed out of elements and, indeed, the composition in this sublunary world arises out of the heavenly bodies³."

1.9 The Divine Will and the Creation of the World:

We will discuss this point in depth the objections to this theory in the forthcoming chapters; we want here just to highlight one of the ancient theories regarding the origin and the creation of the universe, regardless of its strength or weakness. Many philosophers do hold the view that the origin of the world came from a divine will. These philosophers do think that:

" The world has been created by an eternal will, which has decreed its existence in the time in which it exists; that its non-existence lasts until the moment it ceases and that its existence begins from the moment it begins; that its existence was not willed before and therefore did not happen, and that at the exact moment it began it was willed by an eternal will and therefore began ⁴."

¹ Averroes, Tahafut al Tahafut, (The Incoherence of the Incoherence),vol. 1 p. 107

²Ibid.

³ Ibid.

⁴ Ibid., p.3

The arguments of this theory are sophistical, as they imply many other controversial issues such as the relation between cause and effect, the eternal and the temporal will and the divine and the empirical will. Whatever the case, this theory had occupied a big space in the explanation of the creation and the origin of the universe for centuries. The reason behind that is that it showed, as mentioned previously, the overlap existing between the effect and the cause and their need to a necessitating principle to establish such relationship. Likewise, it showed that there is no effect without cause, which means that the entire universe with its seen and unseen intriguing wonders is an effect that needs a cause. When we do think that the world is created, we believe that before its existence, a willer existed, and that willer is the one and the only cause of its existence. We do deduce from this way of analysing things that there is a sort of triangular relationship between the will, the willer and the thing willed. The cause itself is divided into necessary, essential and the effect into accidental and conventional¹. It is worthy noting that we cannot discuss the correlative relationship existing between cause and effect before the discussion of many other issues. We have to start by asking questions like whether our present world existed as it is now from eternity or it had come into existence after it had not existed. This would lead us to investigate whether the world is self-sufficient and causeless or its existence depends on a cause that is God, the Creator as described by all the Abrahamic religions².

This scenario of the origin of the world is the one who helped philosophers to elaborate the emanation theory through the discussion of the oneness and the plurality. By assuming that God is the creator of the universe, or by asserting that He is the First Mover, the First Principle or even the First Cause, we certainly believe in the oneness of God. At this particular stage, the only point of a paramount importance that has to be highlighted is that to prove the origin of plurality without falling into contradiction, as we have already asserted that the oneness and the uniqueness of God, and the belief in the plurality is a breach of the oneness of God. There were many attempts to solve this dilemma and by bridging the gap existing between the oneness and plurality. That is why, philosophers introduced many solutions like the existence of a determining principle that is acting between the oneness represented by God and the plurality manifested in all the other creatures. These attempts were not always successful as they left more many missing links and absurdity than solutions

¹ Averroes, Tahafut al Tahafut, (The Incoherence of the Incoherence), vol. 1 p.5

² Harry A. Wolfson, , The Twice-revealed Averroes, p.376

These theories were the seeds of the emanation theory that will be elaborated later on. The premises of this theory were simple and clear, as they did not draw a distinction between the oneness and the plurality, as it used to be with the precedent philosophers. All the creations are manifestations of God that proceeded from Him without the interference of any determining principle or mediator. By the introduction of this dictum based on manifestation rather than interference and mediation, the precedent belief that the plural cannot proceed from the one was on decrease. Regardless of the strength of the emanation theory's premises or their weaknesses, they stand for one of the famous theories that have given more rational explanation than the other theories. Besides, it is a reliable theory especially for those who support the creation of the world. This does not mean that the emanation theory was strong enough to be refuted, as it has faced itself many obstacles and left many questions unanswered such as when did this emanation take place? And why it did happen at a particular time and not another? And why such emanation did happen? Is this theory the only way by which the plural can proceed from the one?

It is worthwhile to point out that the divine will and the creation of the world is something different from the emanation theory and the manifestations of God. In the former, the dispute is about the world whether was created by a divine will or not and in the latter the dispute is about whether the plural proceed from the one or not. In either case, there is an assertion that the world is created by God or emanated from Him, and a denial of the interference of any external principle in such creation or emanation. However, the real dispute is about the ways and the means of this creation or that emanation.

1.10 The Materialist and the Causeless, Uncreated World

Materialist philosophers argue that the world has no cause and no creator. That is why, it can only be eternal in the condition in which it actually is. The materialists do not deny completely the existence of cause, as they do believe in the existence of a cause for temporal events. What they do deny is the existence of a cause for the world as a whole. The denial of the existence of a cause lying behind the making of the world, led the materialists to assert that," *No body comes into existence, and no body is annihilated, and only forms and accidents come into existence, for the bodies are the heavens, which are eternal, and the four elements which are the stuff of the sublunary world, and their bodies and matters are eternal too* $\frac{1}{2}$."

¹ Averroes , Tahafut Al-Tahafut, (The Incoherence of the Incoherence), vol.1 p.250

The materialists do mean by the causes of the temporal events the souls that come into existence. These souls are of living beings: man, animals and plants. The reason why these events are temporal because they come to an end in the circular movement. The latter is eternal and its source is the eternal soul of the sphere. This analytical standpoint about the nature of both the cause and the soul, makes the materialist philosophers believe in the non-existence of any cause for the world of whatsoever, and consequently, they deny the existence of any creator, or maker of this world¹.

If we do admit that that everything that has no cause, it has to be of a necessary existence, and the body is not one of them as it does not possess the qualities of the necessary existent.we would discuss this point in depth in the forthcoming chapters-. In the same time, the body cannot be a necessary existent by itself, simply because it is made of parts that brought its cause². The general rule states that the whole is constituted through the parts, and the latter in anything are prior to its whole. Therefore, if it the case, it must be no cause either for the parts or for their whole, and they are eternal without the interference of a cause. This logic is extremely difficult to refute, and the best way to do it, is in one of the philosophers' arguments denying the plurality in the First, which we will discuss in details later on in this work. It is the same when a philosopher does believe in the temporal creation of the bodies, definitely, he would not believe in the existence of a creator at all³.

The demonstration of the termination, a causal series does not mean necessarily that there is a cause for the world. The reason behind that is that the materialist themselves do believe, to some extent, in the termination of a causal series. We say to some extent, as they do believe in the termination of a causal series at the beginning of things when they claim that there is no cause for both bodies and forms. Hence, accidents are causes of each other and they do terminate in the circular movement⁴.

We will only believe -as Al-Ghazali did- that those who asserted that the bodies are eternal, and at the same time, they went on to say that these bodies have a cause are pure atheists. Ibn Rochd sees that the materialists reached the dictum of the non- existence of a cause, as the world is eternal by relying on their senses. Such reliance led them to think that when the

¹ Averroes, *Tahafut Al-Tahafut*, (The Incoherence of the Incoherence), vol.1 p.250

² Ibid., pp.252-253

³Ibid.,p.253

⁴ Ibid., p.251

movements terminate in the heavenly body, the causal series come to an end. Hence, the sensation will terminate as well, and this is the same destiny of the intellect. The Ash'rites do reject these sensible causes, in the sense that, they deny that some sensible things can be the causes of other sensible things. Alternatively, they claimed that the cause of sensible being is another non-sensible being by means of becoming, and such becoming is not experienced or perceived¹. Many philosophers did their best to prove the existence of a necessary existent, others tried to prove that an incorporeal being does exist at the top of the hierarchy of beings. Ibn Sina is believed to be the first one who did follow the notion of the necessary existent in an attempt to prove that an incorporeal being does exist. Ibn Sina claims that his method is superior to that of ancient philosophers who managed only to arrive at an immaterial being, which is the principle of the universe through derivative things and especially motion and time, while his proof enabled him to reach that principle, exactly like the ancient philosophers did, through the study of the nature of the existent, as it is an existent². Ibn Rochd was not satisfied with Ibn Sina's discovery because when we do assert that there is a necessary existent by itself, we are agreeing upon the fact that this existent is not made up of matter and form:

"If it is supposed to exist as composed of eternal parts which are continuous by nature, as is the case with the world and its parts, it may indeed be said of the world with its parts that it is a necessary existent, it being of course understood that there is a necessary existent...and the method Avicenna followed to establish an existent of this description is not demonstrative and does not by nature lead to it, except in the way we have stated ³."

1.11 Conclusion:

It is obvious that the notion of gods was prevailing in ancient Greek starting from the prephilosophic period based on myths and legends to the phase of rational speculations. There is no room for doubt that the notion of gods came as a result of that consisting desire to find out the architecture of the cosmos and the power behind its wonderful design. That is why, it is of a paramount importance to discuss the architecture of the universe, as a part of the discussion of the eternity of the world as a whole. All this started with Orphism, even based on mythical explanations, paved the way for debates and controversies about the origin of things.

¹ Averroes , *Tahafut al-Tahafut*, (The Incoherence of the Incoherence), vol. 1, p.251

² Ibid.,p.253

³ Ibid.

Definitely, the views that underestimate the pre-philosophic materials are not just, as thanks to these materials, the first philosophers, if we can call them so at those times, elaborated their first theories about the origin of things. We do not mean by that, the content of these pre-philosophic materials, but the intention, the desire and the interest of these pre-philosophic thinkers who tried hard to decode the enigmas of the cosmos in every possible way. They raised the topics of every discussion and suggested solutions to every single dilemma the way they saw it convincing and rational, at least according to their mental potentials at those times. Moreover, if we do contemplate human achievements in all disciplines and throughout history, we would notice that the gradualness from week to strong, refutation to support and myth to rationality is vital in every single achievement. This atmosphere was not prevailing only among the Hellenes, but also in other religions and philosophies like the Hindus who considered the *Alaya*, as the universal soul and the fountain of all things and beings. Likewise, they explained the genesis of the world through a series of recycling cosmic creations called *Manvantara*.

This is exactly the same case here, Greek thought had to pass through these embryonic stages to attain intellectual maturity. When the pre-philosophic thinkers thought the cosmos which makes gods, they based their studies on this mythical speculation to come out with the conclusion that gods who made cosmos and not the opposite. The gradualness in Greek thought is obvious, as it started with explanation based on fertile imagination by Herodotus, Thucydides, Aeschylus and many more. The main bone of contention at that time was not only the origin of things, but also the role of gods in the cosmos. Some totally deny the interference of gods in human fate and others saw is as a necessity that we cannot ignore. Then, we touched the first seeds of rationality in Hesiod theogony. From that particular stage of history, we started talking only about things that can be contemplated or somehow justified in some way or another. This new era was represented by Lucretius and his theory about the seeds of things, Pythagoras and his numbers, Democritus and his mechanism to end up with Platonic and Peripatetic concept of the divine and his relationship with the world. Whatever the case, we do find the discussion of the architecture of the universe, as a prelude to the discussion of the eternity of the world. If we do admit that this architecture has an artist, then, we are assuming that the world is eternal and vice versa. Likewise, the assumption that such an artist is responsible for the making of the universe entails the discussion of his nature, life and attributes, which all would be important to be discussed, as part of the discussion of the eternity of the world.

ON THE NATURE OF THE ELEMENTS

COMPRISING THE UNIVERSE:

2.1 The Elements: Plato, Democritus and Empedocles:

After the introduction of these various opinions about the origin of the universe, the question that imposes itself is that how these elements came into being? What are they themselves made of? Aristotle went on to say that we cannot assign a figure to any of these elements, because if we do that, we would soon discover that a part of an element is not made of its nature. If we do take for example fire, we would find out that a part of it is not actually a fire¹.We have to point out here that according to Aristotle, it is not a rule that an element should be all made of its nature. We have to point out that many philosophers talked about the principle from which the world is made of as a matter, regardless of its nature, corporeal or incorporeal, single or multiple. For Plato, for instance, it is the big and the small, for the Italian school, the indeterminate, for Empedocles, the fire, the earth, the water and the air, for Anaxagoras, the infinite of homeometries. Therefore, these philosophers were not attached to the material cause, others adopted the cause of mobility by focusing on the principle from which the movement is generated².Empedocles went further by describing in his 'cosmic cycle theory' how the world grows to be one from many and grows apart to be many from one³. Whatever the case, philosophers tried hard to find out the basic elements that are composing our cosmos and defining their nature. They argued that these elements are composed of geometrical forms called atoms and each atom is made of elementary triangles of different sizes and shapes and takes place in a receptacle (space). Plato took many of his views from Democritus regarding the types of atoms and developed them to make his theory more homogeneous and more effective:

"Compare (Plato's theory) with the best of its rivals, the Democritean. The atoms come infinitely many sizes and in every conceivable shape, the vast majority of them being irregular a motley multitude, totally destitute of periodicity in their design, incapable of fitting any simple combinatorial formula. If we were satisfied that the choice between the

¹ Aristotle ,On the Heavens, 304b5

²J Tricot ,La Metaphysique, Vol. 1, p.67

³Denis O'Brien, Empedocles' Cosmic Cycle, p.29

unordered polymorphic infinity of Democritean atoms and the elegantly patterned order of Plato's polyhedra was incapable of empirical adjudication and could only be settled by asking how a divine, geometrically minded artificer would have made the choice, would we have hesitated about the answer¹."

Likewise, Plato did not follow blindly Empedocles' theory about the four basic elements of the world. He developed it by finding a common atomic ingredient defining the origin of these elements, and consequently, explaining the transformation of one element into another. However, there are many shortcomings in Plato's theory. The latter, for instance, does not allow for transformation of earth into other elements because earth is made of different atoms. Besides, the transformation of elements is not compatible with the principle of the conservation of matter. What remains constant in every single transformation is:

"The aggregate surface area of the corpuscles. If you press him to say what happens to that portion of the matter within the icosahedron which can not be enclosed within the equivalent surface area of smaller polyhedra, Plato would say that there is no such matter: after creation matter exists only in the form of space encapsulated is empty space encapsulated by polyhedra; what is not thus encapsulated in empty space, which becomes matter when captured by envelopes of approved stereometric form 2 ."

Aristotle's analysis took another direction by investigating the primary mixture of the four basic elements in which none of the mixed elements abandons its essence. He also investigated the species of such mixtures since these mixtures are almost infinite. He did not find names for them .Likewise, he did not even find names for the ones that can be distinguished from each other, except for a few of them such as vapour, smoke, flame and the like³:

"He was forced to find names for many of them, he had to call each by the name of the element that predominates in its essence: Thus that in which air predominates, he called aerial; that in which fire predominates, he called fiery; that in which earth predominates, he called earthy; and that in which water predominates, he called watery. He went on to

¹CF .Vlastos ,Plato's Universe, pp. 93-94

² Ibid., p. 90

³ Al-Farabi , Philosophy of Plato and Aristotle, p.111

distinguish the different names for them by means of differentia inherent in them : Some by means of their local motions , and others by means of their sensible qualities; where two of these associate in combination, he combined the names, such as watery-earthy and the like¹."

In order to achieve a comprehensive understanding of these named and non-named elements, Aristotle investigated the bodies that originate in the combination of the four basic elements with each other. The bodies that originate from their combination can be divided in two categories: the first one is the homogeneous and the second one is the heterogeneous. The latter originate only from the combination of homogeneous bodies in which the essence of every one of these homogeneous bodies is preserved. This means that it is the combination of being together and in contact, while homogeneous bodies originate only from that combination, in which the essence of every one of the essence of every one of the sence of every one of the parts is not reserved. Homogeneous bodies themselves are of two types: bodies that only form parts of heterogeneous body and those every one of which is generated to form the sum of the generated bodies, and consequently, the sum of the whole world².

Plato relied on many of these principles to divide the world into two categories: the world of forms and that of physics (the cosmos). The former is a world of being, has not becoming, does not change and it is apprehended through understanding and not by senses. The latter is a world of becoming, everything in it comes into being and passes away and it is grasped by sense perception. There are many doctrines, which see these elements as infinite in number, divisible and a single unity. In fact, they are a plurality and limited in number.

It is worthwhile to point out that proving the eternalism of the four basic elements composing the world is clear evidence that the world itself is eternal. That is why, many philosophers concentrated on this task "*To be in process a thing must be capable of that particular process*³." We deduce from this definition that a thing to be altered, it must be capable of being altered, and in order to be in a local, motion, a thing has to be capable of

¹ Al-Farabi , Philosophy of Plato and Aristotle, p.111

² Ibid.

³ Aristotle , Physics, 251a, 14-15

change in place. Thus, before anything is burned, it must be capable of being burned, and if a thing starts fire, it has to be capable of starting fire. Hence, there was a time when these things did not exist, then, they must have been generated. If it was not the case, they must be eternal¹. Leucippus and Democritus of Abdera championed the view that the primary magnitudes are infinite in number, and at the same time, not divisible in magnitude. The generation process cannot be achieved through many out of one or one out of many; rather, it is the combination and the entanglement of all these bodies. Aristotle asserts that this school made the same old mistake by not grasping that the elements are finite in numbers. These philosophers contradicted themselves, in the sense that if these elements were indivisible, then it would be quite impossible for air, water and earth to be differentiated on the grounds of their greatness and smallness. If it is the case, then, they cannot be generated one from the other. This could not be the case, simply as the supply of large atoms would fail in the continual separating process needed for the occurrence of the mutual generation between water, air and earth².

2.2 The Nature of Generation:

Many philosophers did talk about the nature of this generation such as Empedocles and Democritus, but not in a very detailed manner. Theophrastus (ca.371-287 BC) argued that philosophers who predicted the generation and the destruction were deceived by four particulars, which are the inequality of the earth, the retreat of sea, the dissolution of each of the parts of the universe and destruction of terrestrial animals³. Whereas, others like Empedocles, were mainly concerned with the status of the elements as unchanging and eternal beings. Empedocles explained the phenomenon of death and birth of individual beings in the light of separation and combination are mutually dependent in the sense that there is not only genesis, but destruction as well⁴. Ibn Rochd in *Fasl-al-Maqal (Decisive Treaty)*, argued that the cause of disagreement between the *Mutakkalimin*(the Muslim theologians) of the *Ash 'rite* sect and the ancient wises is due to the difference in nomination. They all believed that there are three types of existents, they agreed about the two

¹Aristotle ,*Physics*, 251a,20-21

² Ibid, pp.291-292

³Brodie. John Macdiarmid, Theophrastus on the Eternity of the World, p.239

⁴ J. Mansfeld , Ambiguity in Empedocles B17, 3-5: A Suggestion, p.20

propositions and they disagreed about the middle. The first proposition is an existent that existed from a cause, made out of matter and it is posterior to time like the air, water, earth, animals, plants and so on. All philosophers agreed that these existents are created. The other proposition did not exist from a cause, not made out of matter, and it is anterior to time. This existent is only God, and they all agreed that He is eternal. The third existent between these two propositions is an existent that is anterior to time and caused by something, and this is the entire world¹. That is why, according to Empedocles, perception is due to a consistency between the elements of earth, air, fire and water both in the subject and the object². Aristotle talked about the nature of such generation in the physics and accused the followers of this reasoning of talking not about generation, but rather, about only the semblance of generation out of one another³. Their accounts about the nature of generation were not established in a very consistent way:

"They speak of each element 'inhering' and 'being separated out', as if generation were emergence from a receptacle instead from a material, and did not involve change in anything. Even granted that it were so, the consequences remain just as absurd. In the first place a body of a certain size is not observed to grow heavier by compression, but they are forced to argue that it does, and if they maintain that water inheres in air, and is separated out from it, for when from being air it becomes water, it gains in weight⁴."

Regarding the extraction and the extension, Aristotle went on to say that when a body is extracted, there is no obvious reason that its extension should be over a greater area than before. Moreover, when water is generated from water, it occupies more space, as the finer body does take up more space. On the contrary, water when it is in the shape of a liquid does turn to steam and vapour vessels that contain the substances do burst because of the lack of space⁵. Aristotle kept on reminding us of the probable difficulties that we may face in the case of the assumption that the bodies cannot expand, as there is no void. Likewise, if we do

¹ Ibn Rochd, Fasl al-Maqal, (Decisive Treaty),p.10

²D.A. Rees ,Greek View of Nature and Mind, p.100

³ Aristotle ,On the Heavens, 305a33

⁴ Ibid., 305b5,305b10

⁵ Ibid., 305b15

believe in the existence of void and the process of extension, it will be also very hard to admit that-and out of a necessity- a body has to take up more space if it is separated of f^{1} .

What is important in all this, is that the generation process from one element to another has to come to an end. This is the case of course if a finite magnitude can have an infinite number of finite magnitudes within it². For instance, every time the more is generated from the remainder when water is generated from earth through the process of separation, this means that something had been taken away from the earth. The same type of production does occur every time' the more' is generated from the remainder. If this process keeps on operating everlastingly, then, the finite will possess an infinity, and as we do believe in the impossibility of such occurrence, the elements in this case could not be everlastingly generated from each other³.

2.3 The Pluralist and the Monistic Theories:

Aristotle argues that those who do believe in the monistic theory face the difficulty of admitting the existence of only one natural motion, but there are many⁴. This because the specific differentiae of bodies is based only on the differences of shape. This would make an infinite number of elements superfluous, for all solids are analysed into pyramids as their sole principle. The argument against the infinite number of elements is that every simple body has a simple motion of its own, and the number of simple motions is finite⁵.

The views of philosophers who do support the monistic theory do conflict with the findings of mathematicians and the other natural scientists. They also demonstrated that the popular elements are composed of indivisible particles that are different in size. The fact that makes the generation of these elements into and from each other quite impossible⁶. To reach this conclusion we have to assume that the elements are either infinite or finite, and if they are finite, what is their number? Aristotle started with the assumption that they are not infinite by exposing the views of Anaxagoras, and his supporters who do consider all homeomerous substances as elements⁷.

¹ Aristotle, On the Heavens, 305b15

² Ibid.,305b20

³ Ibid.,305b20

⁴ Ibid.,303b9-10

⁵ Ibd.,303b4-8

⁶ Ibid.

⁷ Ibid.,302b10

Aristotle sees that many composite bodies can also be divided into homogeneous parts such as flesh, bone, wood, stone, and so on. In this case, what is composite is not an element, then, that element is not a homeomerous body, but one that cannot be analysed into constituents differing in kind. Aristotle went on to say that the same results can be obtained if there are only two or three of such bodies, as the demonstration of Empedocles. Likewise, the philosophers failed in forming everything out of homogeneous parts even with an infinite number. Aristotle concluded that if the distinction between bodies is made on the basis of their proper differentiae, and bodily differentiae are finite in number, it is quite obvious that the elements themselves have to be finite¹. In the same context, the limitations of bodily differentiae demonstrate that the number of elements has to be limited .Hence, every element has its own motion, and the motion of every single body is simple. In the meantime, there is not an infinite number of simple motions, simply because the directions of movement are restricted to two. In consequence, the places are limited, and on the ground of this argument, the existence of an infinite number of elements is impossible².

After the establishment of the limitation of the number of elements, Aristotle tries to define the number of these elements if they are more than one. As we do know, some philosophers posit one single element manifested in water, fire or air and sometimes an element that is rarer than water and denser than air. Such single element is to be said as infinite in extent and is the constituent of all worlds. The existence of one single element, regardless of its nature, water, air, fire or that element standing between water and air, or rather, between density and rareness, which is responsible for the generation of everything through the processes of condensation and rarefaction, is a unconscious supposition of the existence of a substance that is more fundamental than the elements. These philosophers see the generation from elements as synthesis and back into the elements as analysis³. This means that the substance with finer particles must be prior in nature. Hence, they regard fire as the finest of all bodies, and consequently, it is primary in the order of nature. This also applies to either water, air or any other substance. Each one can be a primary and not an intermediate. Other philosophers made from the greatness and the smallness of bodies the basis of distinction between them

¹ Aristotle , On the Heavens, 302b30,303a1.

²Ibid.,303b5,303b7.

³ Ibid., 303b9-20

other than the primary. On the basis of this criteria, all names of these elements are relative in the sense that we cannot nominate one thing as a fire, water or air, but the same body will be fire for example relatively to something else¹. From these divergent views, we deduce that the notion of quantity that distinguishes each element, for their magnitudes must have a certain ratio to one another, for these ratios may be found in the larger bodies and the smaller ones alike. We have to mention here that those who considered fire as that element, escaped these problems, but fell in other ones. Some of these philosophers gave the shape of pyramid to fire by claiming that the pyramid is the sharpest of figures, and consequently, fire the sharpest of bodies. As all bodies are made out of the finest body, and solid figures out of pyramids, therefore, as fire is the finest of bodies and , and the pyramid the primary and the finest among figures, and the primary figure does belong to the primary body, fire must be pyramidal². In this regard, those who made the elements divisible, they will find out that a part of fire is not actually fire, exactly like the pyramid is not made of pyramids³. It is not necessary the part of something is like its whole or the whole is made of its parts.

Those who built their argument on the size of the elements, and make it the differentiae, have to admit that there is an element prior to their element until the infinity. The common mistake done by all these philosophical groups is that in believing in the existence of one single element, they are allowing one natural motion to be shared by everything. On the contrary, every single natural body has its proper motion. Therefore, if we do admit that there is only one motion, this means that all bodies are one substance. For all these reasons Aristotle objected to the theory stating that there is one single element, but rather, they are plurality, not reducible to one, and in the same time, limited in number⁴. Aristotle summarized all his objections to the existence of one unique element responsible for the generation of everything in the world by saying that:

"In any case, no one who wishes to look at the matter scientifically can speak as they do. For if all bodies are comparable in respect of size, and the magnitudes of homoeomerous substances stand in the same ratio to one another as do their elements, (for instance, as the magnitude of the whole mass of water is to that of the whole mass of air, so that of the

¹ Aristotle, On the Heavens, 303b30, 303a1

² Ibid., 303a15, 303a17.

³ Ibid., 304b5-6

⁴ Ibid., 304b5,304b10-20

element of water is to that of the element of air and so on), and if further, air is more widely extended than water, and in general the finer body than the coarser, then clearly the element of water will be smaller than the element of air...If therefore the smaller magnitude is contained in the greater, the element of air must be divisible. The same applies to the element fire and fine bodies in general¹."

As mentioned before, those who support the existence of a single element do believe in one natural motion shared by everything. As we know that every natural body possesses a principle of motion, and if all bodies are one substance, then, they must have the same motion, which is impossible. Moreover, as these elements are generated from each other, they cannot be eternal².

2.4 The Extension of Elements:

The extension is a common form that characterizes all the four elements for each element is extended and is generated from another element, which is extended as well. Therefore, is it the extension that makes up the corporeality? In other words, as the extension has three different dimensions, are they the first forms that matter has to receive, in a hierarchical order, to become first one of the four elements, then, an inorganic composed of the four elements, then plants etc..? Alternatively, are they other sort of forms different from the ones we know³? The Peripatetic hypotheses regarding the bodily substances suggest that the body can be extended in all directions .Such an extension is due either to the interval between the parts of what is extended and the proximity of their positions or to something else. The question that insistently imposes itself here is that can we do consider the body as substance for all the attributes when it is extended? Or the extension of the body just means that it is the material from which the species of substance are generated and in which the form and the attributes succeed, while it remains unchanging? Or the fact that the body is extended means that it is a material substance from which the species of substance whose extension is in virtue of its having length, width and depth?⁴

¹ Aristotle, On the Heavens, 304a25-30

²Ibid.,304b11-15.

³ Leon Gauthier, IBN ROCHD (AVERROES), p.72

⁴Alfarabi , Philosophy of Plato and Aristotle, trans. Muhsin Mahdi, p. 100

Aristotle left these questions to be answered by his commentators and the philosophers who will succeed him. They do think that the first form that must be united with the matter which is informe and incorporeal to make up the corporeity, which do not exist, as they are in nature and exist only in the shape of an element. By adjunction, a sensible active form: heat, coldness, and a sensible and passive form: humidity and drought. This does not mean that the extension has three dimensions because each of these dimensions may vary in the same body. For example, if we say Plato in a gold ingot, Plotinus,¹ Saint Augustine, Al -Ghazali, Descartes in a piece of wax and Ibn Tofayl in a piece of clay, each of these bodies can receive the figure of a sphere, a cube or an ovoid. Besides, the whole volume of a body can considerably increase via dilatation, for instance, when water becomes air or inversely deceases through contraction when air re-becomes water². From this perspective, we deduce that the three-dimensional extension is not an essential character of the bodies, but an accident because an essential character of a being is invariable. If the extension were the essence of all bodies, the form of each of the four elements would have been only an accident. Moreover, the transmutation of an element into another would not have been no longer generation and corruption of substance, but a simple qualitative change³. The divergent points of view of other philosophers reflect the difficulty presented by the Aristotelian system.

Al- Ghazali in *Maqasid al Falasifa* (the Aims of Philosophers), opposed the doctrines considering the corporeity or the first form of all bodies as the cohesion or massiveness. He regarded that the element of air can be in the form of fire or water, but the superiority of coldness, compels it to be in the form of water. Al-Ghazali considered such process responsible for the generation and the corruption of all elements. The combination of these elements generates all the known bodies: the atmospheric elements such as the air, vapour, metals, plants, animals and humans at the end of the scale.⁴

¹ Many Arabs and Muslims alike are mistaken when it comes to the names of some Greek philosophers because of the Greek-Arab transliteration of *Aflathoun* who is Plato and *Aflotine* who is Plotinus and *Farfourious* who is Porphyry. In many occasions, they confuse Plato with Plotinus because of the big similarities between the two transliterated Arabic names.

² Leon Gauthier ,IBN ROCHD (AVERROES), p.72

³Ibid., p. 73

⁴ Al- Ghazali, Makasid al-Falasifah, (The Aims of Philosophers), pp.293-294

Al Farabi called water, fire, earth and water *al-Astoksat* (plural of *Astokse*, and it is that things are made of, it is not divided by form into another form¹). Al-Farabi argued that the generation of the body occurs when the form unites with the matter and the corruption happens when the form leaves the matter. That is why, matter is considered as eternal in the sense that nothing comes from nothing or turns to nothing; all what happens in nature is that the generation and the corruption of bodies is the transformation of matter into any sort of form and the abandonment of such form to take another one². In the same regard, Ibn Sina went on to say that, this first form is neither the cohesion, nor the extension; it is a simple predisposition to receive the three- dimensionality.

Ibn Rochd intervened in the debate to find another solution because Ibn Sina's one is not well supported. It sees the extension as a direct result of a non-extension without the intervention of a form, as a predisposition, is a non-extended thing on one hand and neither a predisposition nor the variable three-dimensionality is a form on the other hand. This Rochdian point of view was exposed nine centuries ago by Plotinus who established that nature stripped the first matter of any form, any quality and any determination. It does possess no bigness, no dimension and no volume. The first matter possesses only appearance by itself, a phantom of volume. It is just an indetermination by itself. It is more indeterminate with Plotinus other than with Aristotle. ³We have to point out here that the Aristotelian and the Rochdian standpoints about the notion of the matter and the notion of the extension differs form that of modern philosophers. According to all the modern scientists, astronomers and physicists, the existence of a real empty space has a three dimensions, continuous, homogeneous, infinite and divisible in the infinite. One century before the Aristotelian era, the Greek atomists, Leucippus and Democritus who followed, later on, Epicurus, conceived the space of this method except in their explanation of the eternal movement of their atoms in the infinite void. Aristotle, all over again, in order to discuss the nature of elements, he had to assume their generation, which has to be from what is corporeal or what is incorporeal. Besides, the generated thing in order to come into being needs something elsewhere to be so. If such generation does occur through the corporeal, it would be through each other or from an extraneous body.

¹ Ibn Rochd, Tafsieer ma Baeda al-Tabiah, (the Interpretation of Metaphysics), p.499

² Al-Farabi, Ihsa ' al-Ulum (Categories of Sciences), p.73

³ Leon Gauthier ,IBN ROCHD (AVERROES), pp. 73-75

On the basis of these two assumptions, Aristotle finds out that those who believe that the generation process is done through the incorporeal, they will have to believe in the existence of a void separate from the body¹. That is the main difficulty that they will face. Likewise, those who assert that the generation is done through the corporeal, are asserting at the same time, that there are two bodies existing in the same place and at the same time, which is quite impossible. In this case, there would be no body that could generate these elements, which affirms the prior existence of body to the elements². In terms of prior existence of a certain body or element to the other, we notice that some philosophers assumed that it is water, others argued that it is fire or air, but few who gave such priority to earth even if it is known for the majority that man himself is made of earth. Hesiod(ca.740-670 BC) himself asserted that earth was generated first before all the other bodies, so neither those who believe in other principle other than fire nor those who consider the primitive element more dense than the air and more subtle than water, are on the right path. What is posterior in the order of generation and anterior in nature, and if the composed or the mixed is posterior in the order of generation, then, it is the contrary of what we are talking about, water would be anterior to air and earth would be anterior to water³.

If this presupposed body is subject to weightiness, it will be itself one of the elements, and it will be unmoved if it has no impulse to any direction. Aristotle does assert that if this scenario did happen, this body will move to occupy a place either naturally or unnaturally to be one of the elements. If this did not happen, nothing can generate nothing, as the generator and the generated have to be together⁴. That is the way, Aristotle proved that the elements are not generated from the incorporeal or from extraneous bodies, and the only scenario left to be supported at this point, is the generation of the elements from each other.

2.5 Generation and Dissolution of Elements:

As mentioned before, if the elements are generated from each other and in this process, a new substance, matter or a body is born. However, which element is the prime responsible for this generation? Are all these elements generators, primary and then eternal? Or are they some elements only generated and then perishable? As these elements generate themselves in the sense that they generate each other because they are primary bodies, their materials are

¹ Aristotle, On the Heavens, 305a20-24.

² Ibid., 305a20-24.

³ J. Tricot , La Metaphysique, vol. 1, p.71

⁴ Aristotle , On the Heavens, 305a30-33.
one in species, and taken in their consecutive order. The material of each element is identical with the material of the next. They became elements only because each one is generated from the other and because there are in them principles and powers that enable them to be generated from each other, and above all, they generate the rest of generated bodies. We have to mention that the things generated from these elements are generated from the combination of these four elements, the mixture of some of them with others and their blending together¹. Al-Ghazali argued that when a change occurs, either the element in question keeps on existing or perishes, if it remains, it is eternal and if it is completely disappeared after that change, it is completely perishable². If we do believe in the process of generation as a whole, this means that there is no primary element, as each one is generated from the other. From this perspective, all elements are generators and generated at the same time in an everlasting natural vicious circle. However, if we do assume that there is a primary element responsible for the generation of all the other elements. Then, this element, the generator, is eternal and the other elements perishable. If we also believe that generation and corruption are alteration, that generation is growing, and corruption is diminishing, still the notion of perishability would be unclear and open to plenty of probabilities. We do still do not know if these elements are primary or do possess other elements within them or prior to them. Definitely, this Peripatetic analysis raises more questions and gives little answers. Are these powers and principles sufficient for their generation and the generation of the other bodies? Are the positions they occupy in relation to each other in the primary regions of the world sufficient for their combination so that the other remaining bodies can come into being from them? Or are they all in need of another agent from the outside to impart to them other powers and bring them close together so that they would be able to combine, and to provide them with the principles of generating a thing other than they? However, Aristotle was so clear about the last point when he emphasized that these elements are not sufficient in their substances or in any of their states without another agent beside them. Hence, these agent principles are only the heavenly bodies³. The perishability of these elements passes through their generation and their dissolution: "They can be seen in process of dissolution, and this process cannot either be of infinite duration, or stop before the whole of the element has perished. A second infinity would be required for the reverse process of synthesis, and

¹Al-Farabi , Philosophy of Plato and Aristotle, pp.105-106

² Al-Ghazali, Makasid al-Falasifa (The Aims of Philosophers), pp.306-307

³ Al-Farabi , Philosophy of Plato and Aristotle, p.107

the remnant could not be either indissoluble (proved elsewhere) or capable of, but never undergoing, dissolution¹."

Aristotle went further by regarding the process of dissolution depending on the size of the body. The smaller the body is the easier can be dissolved. Furthermore, elements cannot be generated from anything else incorporeal or corporeal. If the body from which they are generated has a motion, it will itself be one of the elements. If not, it cannot exist in space at all². Therefore, the motion here is of a paramount importance, for it determines the shape of the body. For instance, if the body is designated to make circular movements, it necessarily has to have a spherical figure. Hence, and as we have mentioned in the first chapter, the first figure, which is the spherical figure is the only one that is compatible with the first body. This is the case because it is not the nature of movement that is depending on the nature of the body, but the nature of the body that depends on the nature of movement.

From this brief analysis, we do conclude that the existence of the generation and the corruption world and the qualitative change is a fact of experience. This can only be explained by the first cause: what gives a true and last explanation is never the efficient cause, but the final cause, which is the cause of the cause. Consequently, the man is a sort of hyphen between the sublunary world, domain of a deterioration movement and the supralunary world, domain of the only local circular movement of the inalterable of the eternal³. Al- Kindi in *Rasa'il Falsafia* (Philosophical Epistles), supported the paramount importance of motion in the processes of generation and corruption. Likewise, he introduced the four basic causes interfering in the generation and the corruption and divided them into a remote cause like the shouter of the arrow and a close one, which is the arrow itself. Concerning the four basic elements, Al-Kindi argued that they do not perish altogether⁴, but they are generated and corrupted just in some of their parts⁵.

¹Aristotle, On the Heavens, 304b23-305a14.

² Ibid.,305a14-32

³ Leon Gauthier , Ibn Rochd(Averroes), pp.113-114

⁴I have to mention here that in many occasions and in different sources, we do come across the term " the last final". Philosophers and especially the non- Abrahamic ones do use this term to emphasize that there is no beginning after that specified end. The term final in its own, does not convey the meaning of deterioration and corruption because it may involve another beginning, as it is the case in religious ideologies. That is why, such a final is bolstered by the world 'last' to refer to the final of the final that involves with it no beginnings of whatsoever.

⁵ Al-Kindi, Rasa'il al-Kindi al-Falsafia, (The Philosophical Epistles of Al-Kindi), pp. 109-110

2.6 Matter and Form:

2.6.1 The Primary Matter:

The philosophers use this terminology to refer to the indeterminate and imperfect material, which means that this primary matter is without substantial and accidental determination. That is why, we cannot conceive it by our senses or even by our imagination. It is different from all the other inorganic bodies because it has no chemical or physical properties. Therefore, this ultimate substrate, which is regarded as the ontological support of form cannot be a 'separable being' capable to achieve an independent existence, and in the same time, it cannot be a determinate object¹. This prime matter is a super stuff, which has been given many descriptions² such as 'it is nothing that can become everything'³. Such ingredient is not anything; it is a pure potentiality ⁴ :

"We can say that matter, as opposed to substantial determination,, cannot be anything more than a mere determinability ...thinking this through, one seems compelled to ay that such mere determinability must exclude any determination. In other words, it has to be pure indetermination⁵."

The primary matter is not a being in itself, but the most important part of any material being. As the primary matter has these unique characteristics, it can only be detected or realized through its union with a form. Hence, it has no existence of its own because it is completely dependant on the form .From this perspective, we can deduce that the primary matter is prepared to host a determining principle or a form to fulfil its only and unique function. Its passivity enables it to extend to all essential perfections and accidental properties. It is worthwhile to point out here that the philosophers who do assume that the universe is one and that there is only one sort of matter as its nature, which is the corporeal matter, definitely, they are making a terrible mistake. They only directed their attention towards the elements of sensible bodies and excluded the incorporeal beings from the equation. Besides, in their attempt to explain the causes of generation and corruption and building a material system of the universe, they marginalized the principle of movement.⁶

¹ Jonathan Barnes Malcolm, Schofield and Richard Sorabji *Article on Aristotle*, pp.81-82.

² Jones Barrington Aristotle's Introduction of Matter, p.474.

³E. Zeller , Aristotle and the Earlier Peripatetics, p.247

⁴ Jones Barrington ,Aristotle 's Introduction of Matter, p.474.

⁵ E. Luyten. , Matter and Potency, pp.106-107.

⁶J. Tricot , La Metaphysique, Vol. 1, p.69.

The dependence of the primary matter does not mean that it is ready all the time to receive all kinds of essential forms, as its receptivity is extremely limited. Such receptivity is based on norms and laws governing chemical reactions. Thanks to these chemical reactions, many transformations occurred to the primary matter to end up by forming or residing in the living substance. The latter could be a vegetable, an animal and if these transformations happened in man's own sphere, this primary matter can even takes its place in a human being.

2.6.2 Aristotle's Theory of Substance:

Aristotle divided the substance into two main categories: the first substances and the second substances, which are forms eternally residing outside spirits in real individuals. The link between these substances is responsible for making up the immutable laws of the cosmos. Outside the spirit, the hierarchy of forms make up the harmonious universe; in the spirit, it makes up science and the image of the cosmos. Therefore, primary substances, which are the basic constituents of the world, are independently existing individuals; paradigm examples of which are particular living organisms ¹. It is worth noting that what we call 'substance without qualification', is a substance of one thing and an attribute in another thing. From this perspective, any intelligible nature of this description is a substance without a qualification. Accordingly, anything else is surely an attribute in relation to what is substance without qualification²:

"The other which we call 'substance' in relation to it, we call 'substance' to the extent that it is similar to this substance, then be what is substance without qualification: That is, insofar as it makes known what a thing is. Let substance, then, be what substance is without qualification is; those others he called in general "attributes in the substance³."

That is why, Aristotle's metaphysical conclusion that form is substance in the primary sense goes hand in hand with the notion of substantial form as one of the four causes.⁴

¹Norman O. Dahl, On substance Being the Same as its Essence in Metaphysics Z6: The Pale Man Argument, 1999, p.1

²Al-Farabi , Philosophy of Plato and Aristotle, Trans. Muhsin Mahdi.p.96

³ Ibid.

⁴ Robert Pasnau, Form, Substance and Mechanism, pp.31-32.

This division is of a paramount importance because some attributes in the substance are essentially in the substance and some are in it just accidentally. Some essential attributes in the substance are primary and others are secondary. We have to mention that such a substance is not disjoined from an attribute, either in sense –perception or when it is intellected. The latter may divorce it from its attributes, and the attributes from each other, not because this is how they are, but in order to independently perceive the substance ¹. Aristotle draws the attention to the fact that substance is something other than what is extended:

"Extended does not signify its essence insofar as it is a substance. Our saying extended indicates an idea similar to our saying that it is white .Our saying the substance is substance without qualification does not mean that it is extended, nor does it mean that it has length and width and depth, but other properties of the substance. The idea of the extended and the extension does not mean either the material or the form of the bodily substance, indeed, its material in itself is a nonbody, and similarity its form²."

The Aristotelian extension does exist in the composite, as something whose being adheres to the latter's form, as it is in virtue of the form that the substance is in act. Therefore, the material of the natural substance is not disjoined from its form, which means that substance is not composed of any extension. The extension ,with its all directions, is the most prior attribute in it. Such an attribute is engendered in it with all its aspects: increases, decreases and changes like any other attribute in the natural substance³. If Anaxagoras does believe in the existence of only one substance, which makes any change a sort of alteration, Aristotle regards every single substance as a compound of matter and form. That is why, generation, and not alteration, acquires a new form, and consequently, the loss of the former one and the coming- to -be of a brand- new substance.⁴

¹ Al-Farabi , Philosophy of Plato and Aristotle, trans. Muhsin Mahdi, p.96 .

²Ibid., p.100

³ Ibid.,pp.100-101

⁴ Josep Puig Montada , Aristotle and Averroes on Coming-to-be and Passing- away, p.5

Aristotle argues that substances are the same as their essences, but in Met Z4, 10-11 and 15, he takes essence to be form, where form is universal, so the evidence is not unequivocal. In the meantime, Aristotle went on to say at Met Z 13, that no universal is substance. In the light of this analysis, Aristotle seems to be caught in an inconsistency when he claims that substance is universal form because it is the same as universal form and in the same time, he sees that no universal is substance¹.

The substances that all philosophers accept as a fact, are the natural substances such as fire, earth, the water and the other simple bodies. After that the plants and their parts, the animals and parts of animals and at the end of the list we do find the physical universe and the parts of the physical universe. The substances that were admitted by some schools are the ideas and the mathematical things. However, the existence of other substances like the quiddity and the substratum may be logically established after reasoning. We have to mention that such reasoning leads to the assertion that 'the kind' is a substance more than species and the universal is more substance than the individuals². Regarding the ideas and the mathematical things, they are distinct substances of sensible substances. As mentioned before, this reasoning leads us to the substances that everybody agrees upon, the sensible substances that are all out of matter. In short, what we do call matter is the composite of matter and form that is subject to corruption and generation and that is existing in a state separate from the absolute matter³. The distinction between matter and form is the basis of the entire Aristotelian system. If form is character, matter is the subject of characters, if it is structure or the organization; matter is the content⁴.

Aristotle uses artefacts to compare the distinction between matter and form with a statue, which is itself made of matter and form .The latter stands for shape and axeity, and the former represents bronze and iron. Aristotle called it schema. Such a distinction is universal, for it is applied almost to all sciences. In logic, the specific difference is the form of the specie in which the genre is the matter; in geometry, the definitions are forms in an

¹ Norman O. Dahl, ,On substance Being the Same as its Essence in Metaphysics Z6: The Pale Man Argument, 1999, p.1

²J. Tricot, La Metaphysique, vol. II, pp. 453-454

³ Ibid., p.455

⁴Williams Donald. C ,Form and Matter, II, p.499

intelligible matter; in physics¹, heat and coldness, humidity and drought, heaviness and lightness, vegetative souls and sensitive souls, genres and living species are forms; in Metaphysics, there are forms totally separable of any matter².

Arab philosophers in general and Ibn Rochd in particular were obliged to react against this ambiguous terminology. Among the Arabs, the figure of whatsoever, plastic, geometric or syllogistic is called *chakl*; the specie is called *naw*'; the form in its broad meaning, as the opposite of the matter is called *soura*. The concept or the general idea is derived from the same root as *soura*: (*tasawor*) .We have to note here that the Arabs corrected many of the Aristotelian terminology .For instance, in logic, Aristotle means with the term *ousia* (the essence) and in ontology he means by it the substance. The Arabs made a clear distinction between these terms: the *dhat*, which is essence and *jawhar*, which is substance. However, these terms can be used in different contexts because of the assimilation between the logical point of view and the metaphysical one.³As mentioned previously, Aristotle and most philosophers argue that the first matter is not a body; it is a substance, a body factor, which cannot become a real body until it sunited with another body factor. For Aristotel, being has a unity that coincides with substance, and the latter has not only an ontological priority, but also a logical one as well over the other beings⁴.

It is the notion of a pure power, but it does work by itself if it does not enter in function with the form based upon the generation and corruption notion. The question that insistently imposes itself here is whether the whole universe is made of matter and form or are they just

¹ In physics at (192a31-34) Aristotle takes matter to be the substratum of substantial change, something that seems to provide him with a more basic subject that the particular living organisms that come to be or pass away in such a change. At one point he says: "Now we distinguish matter and privation, and hold that one of these namely the matter accidentally is not, while privation in its own nature is not; and the matter is nearly, in a sense *is*, substance, while the privation in no sense *is*. (*Physics*, 192a4-6, Revised oxford translation)

^{*} In De Anima at (412b10-12 and 414a12-14) Aristotle says that form is the essence of a living thing. Since the essence of a thing is the cause of its being (Metaphysics1041b7-9 and1041b27-29), and since the cause of a thing's being is prior to that thing (Metaphysics 1003b16-19), it now looks as if the form of a living organism is a better candidate for substance that is a living organism.

² Leon Gauthier ,IBN ROCHD (AVERROES), p.70

³ Ibid.,p.71

⁴Berti Enrico, Muliplicity and Unity of Being in Aristotle, p.185

entities among many others? If we go back to the four elements mentioned by almost all the Hellenes as the basic elements of our universe, we will observe that the water, for example, if submitted to a certain temperature, becomes a sort of air called vapour. This latter, in its turn, becomes water all over again under the influence of coldness. In these transmutations of elements, the first element disappeared and the second one generated, but the first one is not utterly destructed .If it were the case, the second one could not have been generated. This means nothing is coming from nothing. Hence, we have to admit the permanence of a common substratum in these four elements. This substratum is only the matter because in each transmutation, the form of the first element is destructed and the form of the second element is generated. This analysis leads us to think about the nature of the first form, which is united with the first matter to make up a corporeity¹.

It is of a paramount importance to mention here that Aristotle considers the homeomerous parts such as flesh and blood as the ultimate matter of living organisms. This led him to deny that the four elements are part of the matter of living organism².

2.7 Conclusion:

We do conclude from these debates that the cause of disagreement was about the nature and the generation of the elements. The focus on the nature of elements would help us to understand whether there is a generation in the first time or not. If there is, is it through eternal generators? Or is it a generation through the elements themselves? We do mean by that, things generating other things in an everlasting vicious circle with the existence of a primary matter that would imply the eternity of some generators and the perishability of others. In consequence, this would help us to understand the nature and the fate of the world as a whole, as these elements are the bricks making our universe. That is why, the eternity of these elements means the eternity of the world and their perishability stands for the perishability of the world. What is striking in these debates is the discussion of the nature of generation by including all its probable aspects, which are the change or the alteration (of shapes), the extension, the extraction, the condensation, the compression, the separation, the actual transmutation, the division, the dissolution and so on. Many of these generative ways-

¹ Leon Gauthier , IBN ROCHD (AVERROES), p. 72

²Martha C. Nussbaum and Amelie. Oksenberg Rorty , Essays on Aristotle's De Anima, p.7

if we can call them so-are not very helpful in the understanding of generation itself, as we cannot, for instance, consider the change or the alteration of shapes as a way of generation. Even if this process gives us a new form and an existent that were not existing before, but this newborn thing is not out of the scope of figures and sizes, the fact that does not make of it a real generated thing. For the same reason, this process does not make from the generator thing a real generator. What we do consider here as a generated thing is any substance or matter that is born from another substance or matter, but it is not necessarily that the generated and the generator things are bound by shape, size or even the nature and the characteristics.

There are many vivid examples of this generation, for instance, the combination of oxygen and hydrogen does generate water that apparently has nothing to do with the nature and the characteristics of these gases. Definitely, it is not the same when we do talk about water changing to vapour or the latter turning back to be water, as it is just water turning back to its real nature. The one who believe that such process is generation will be like the one who believe that water and the heat generate the rainbow, which is not the case, as the rainbow is only the result of the reflection of the solar rays on the little suspended drops of water, so it disintegrates the solar rays into its natural colours. Likewise, the combination of the male sexual cell with the female one that gives birth to an embryo falls into the same category, as these cells do hold all the seeds of that human being that is not different at all in either nature or characteristics. Therefore, this kind of generation-as we said if we can call it so- is not helpful at all to attain a comprehensive understanding of the nature of elements, as it is extremely difficult to associate the generation of the sexual cell with earth for example. Therefore, we have to go back to previous processes to find out what had generated man. We know that it is important to look gradually at all these stages to reach the former or may be the original generator, as sciences were not as developed as they are at the time being. However, looking at the advanced stages and describing them as ways of generation is not practical. Hence, we do not object to looking at these ways of production and analysing them especially at that time when little was known about modern sciences, but what we do object to, is the description of these processes as ways of generation. Otherwise, we can include ways such as cell proliferation and vegetal propagation to the list of the ways of generation, which is not rational, as these processes are only a continuation of an existing form and not a pure generation.

There is another point that should be highlighted here is that these philosophers, either they do believe in the generation or the eternity of elements, left many missing links in their interpretations of the ways of generation. They mentioned that these ways, or rather, principles are needed for the accomplishment of the generation process. What is not clear here is whether these principles are also needed if we do reach an eternal generator or not? If we say no, then we are respecting the properties of eternity, but we do fall into the co-eternity difficulty by making another eternal beside God-if you are a believer, of course, in the existence of God and His eternity-. If you say yes, you are breaching those properties of eternity, as these generators do need an intermediary to fulfil their functions, and without it, there will be no generation. From this point of view, this intermediary is the real generator and not the generator we are talking about.

We do believe that in order to reconcile these religious beliefs with what these philosophers are saying-as there are seeds of rationality in their interpretations-we have to surmount these difficulties raised from ascribing eternity to created originators. These generators, as they are created, would definitely need a principle to set the wheel of generation in motion and these principles have a sort of physical laws that allow them to function thanks to the will and the power of the Almighty God nothing more and nothing less.

We do deduce from this analysis that the principle of differentiae is of a crucial significance in the understanding of the eternity or the generation of elements, and accordingly, the whole universe. Furthermore, if you do fall into the category of believers in the creation of the world by a Creator, definitely, you are a believer in the creation from nothing. In consequence, you will not find it difficult to believe in the creation through a principle that is functioning through thorough and highly calculated physical and mathematical laws that are neither eternal nor independent. Empedocles, Plato, Democritus and many other Hellenes mentioned that the elements of the world are four and with Aristotle, these elements became five. In the middle ages, physicists were taking about tens of basic elements. However, nowadays the scientists prove that the basic elements of the world are at least 106 natural ones plus other which are artificial (made by man in laboratories).

The reason why these philosophers did restrict these elements of the world to just four or five is that because they considered water, air, earth and fire as indivisible, they did not understand that these elements could be divided into other constituents.

For example, if we do take water, they regarded it as an element, as they failed to disintegrate it into its real nature that is made of one atom of oxygen and two atoms of hydrogen. The atomists, themselves, who believe that the world is made of atoms, failed to divide those atoms into their basic constituents, which are the protons, the electrons and the neutrons and so on. These constituents are themselves made of quarks and leptons. The latter are indivisible at least at the time being according to modern physicists. That is why, they may be considered at the time being the constituents of everything in the cosmos, as they made up the first drops of matter in the time of the beginning of the cosmos. These quarks and leptons are susceptible to decay or what we call 'relative death' in the sense that they perish and reborn, and in their death and rebirth, the matter is renewing itself. The fate of these quarks and leptons is like the fate of human being, the death of one individual still alive and ready for the propagation of the race. From this perspective, nothing in this cosmos is immune from decay, demise, destruction and death.

Someone would then wonder; if what was said about the Hellenes and non-Hellenes about the four basic elements of the world did not survive even the *Copernican* era, and nowadays it seems like a myth that has nothing to do with the facts and truths revealed by modern physics, why are they discussed in depth in this thesis? The answer would be that what modern physics has achieved did not come by chance or overnight, it is rather, the colossal efforts of thousands of thinkers, theologians, philosophers and intellectuals in different scientific disciplines. History has proved that human intellectuality was not born as it is now; it has passed through many stages of thought and speculations, not just from the Hellenistic period until now, but inside the intellectual arena of ancient wisdom as well. It passed from myths to reason and from naivety to professionalism. Such gradual progress was very vital to the whole understanding of the universe, as it paved the road for discoveries, intellectual competitiveness throughout the ages. Undoubtedly, these philosophers with their great theories at that time were the founding stone of human intellectuality, the contributors to every single success of nowadays thought and the absent participants in the discoveries of modern sciences.

CHAPTER 3:

ON THE HELLENISTIC VIEW OF GOD'S EXISTENCE:

3.1 The Platonic Cosmological Argument:

No one would deny the non-Greek influences on the Platonic and the Aristotelian philosophies especially on their theories regarding the conception of God. These influences go back to the Indian civilization. Plato was also heavily influenced - as a disciple of Socrates- by the Socratic philosophy and the Sophistic schools. However, this does not underestimate the charismatic characters of the Hellenes in forming metaphysical and ethical speculations. The concept of God in Plato's philosophy has been interpreted in terms of his doctrine of ideas and forms. We have to bear in mind that the cosmological argument is a set of metaphysical proofs for God's existence. These proofs are traditionally known as the argument from causation, the argument from the first cause and sometimes the argument from the uncaused cause. Whatever the name is, the main purpose of this argument is to argue that such cosmic power must exist and it does not attempt to prove anything about God or the first cause. Both Plato and Aristotle posited many arguments about the first cause. In the *Timaeus*, Plato introduces a cosmic creator called the *Demiurge*, which is the supreme divinity in the universe he had created .The Demiurge is the maker of the world and the essence of all things. In the Sophist (248e, f), Plato regards the Demiurge as a supreme wisdom and intelligence. However, He lacked the supernatural potentials to create out of nothing 'ex nihilo'. His ability is restricted to the faculty of the organization of the 'anake'. This latter was the only other co-existent element in Plato's cosmogony¹. In the meantime, Plato focused on the analysis of a priori order and structure that existed formerly in the world. In the Republic, Plato states, that the idea of good is equal to the God or it is God himself. In Theaetrus(176 f), there is a distinction between the things of God and the things of earth and God is the only one capable of attaining metaphysical status. In Politics, God is a divine shepherd responsible for the self-moving cause of motion (269 f). We have to bear in mind that Plato's God -unlike the Abrahamic religions- did not create the world. He created man and put the intelligence in his soul. That is why, He is not a personal divinity, but the source of goodness. Plato considers his Demiurge as 'craftsman'. The creator of Plato's physical world is not a divine intelligence or a personal ruler, but (as it were) a manual labourer:

¹ Cf. Vlastos ,Plato's Universe, pp.26-27

"That the supreme God of Plato's cosmos should wear the mask of a manual worker is a triumph of the philosophical imagination over ingrained social prejudice. But this divine mechanic is not a drudge. He is an artist or more precisely, what an artist would have to be in Plato's conception of art, not the inventor of a new form, but the imposer of a pre-existing form as yet formless material. Hence, the supreme God of Plato's cosmos is not the inventor of a new form, but the imposer of pre-existing form."

According to Plato, when the Demiurge created the universe, he also created time. He sees time as the number according to which the image of eternity moves .On this regard, cosmos is the moving images of eternity and time is the number that measures the change in the cosmos. In the *Timaeus*, Plato considers time as a kind of celestial clockwork. It is a sort of motion rather than a measure of motion:

"The Demiurge brought into being the sun, the moon and five other stars for the begetting of time. These are called wanderers and they stand guard over the numbers of time...and so people are all but ignorant of the fact that time really is the wanderings of all these bodies²."

Plato also argued that motion in the world and in the cosmos was imparted motion that would have required some kind of 'self originated motion' to set it in motion and maintain that motion³.

3.2 The Peripatetic-Cireronian Maker of the Universe:

Aristotle held that the cosmos had always existed and has always been matter out of which the world has come to its current form. This eternalism came from his concept of the Divine as a supreme being that did not take part in creation or the lives of human beings. We do understand from the Peripatetic view that God has nothing to do with the creation and the demise of the world, his main role is to set its wheel in motion⁴. In consequence, the destiny of human beings is not under the control of God. According to Aristotle, the notion of cosmic God as the supreme *arche* in the soul superior to *logos, episteme, and nous* that everyone should live according to his requirements and commands as a slave is completely erroneous⁵. For Aristotle, God is not a ruler who issues commands⁶. In order to avoid this analysis, we have to make a distinction between senses of *arkhe*:

⁵ Anthony Kenny *Aristotle On the Perfect Life*, p.98

¹ Cf. Vlastos ,Plato's Universe, pp.26-27

² Plato, *The Timaeus*, pp.38-39

³, Cosmological Argument for the Existence of God, in Macmillan Encyclopaedia of Philosophy(1967), Vol.2, p.232.

⁴ Hollister C. Warren, J. Sear McGee and Stokes Gale, The West Transformed: A History of Western Civilization, p.95

⁶ Ibid.

"God is indeed the supreme arkhe of the soul; but not in the sense in which the analogy of slave and master would suggest¹." In this regard, Aristotle's God is not a personal God with a loving care and interest in His creation. Likewise, he is not a God, to whom all rational beings are responsible for every thought, word and act, so the divine truth:

"Was not to be expressed in the uplifting of pure hearts and hands to Him. Though the whole world might be found His temple, He was not to be worshipped as the Holiness of their shrines. Though the heavens were telling of His glory, and the stars were singing together for joy at His presence, yet no praise was to ascend to Him, the Lord of heaven and earth, in the perfumes of their altars or the poetry and music of their hymns. Thus devotion, being banished from the heart, sought a refuge for itself in the wilderness of a speculative theological philosophy²."

In the light of such analysis, could we explain the nature of God as health, which is the hou heneka or raison d'etre of medicine? Definitely, we all do agree that wisdom does not explain God's coming into being. Besides, there are two kinds of raison d'etre and God does not belong -if we can use the term belonging here- to the kind which needs to be brought into existence(like health) or provided with benefits- for God has no needs³. As we have seen in the previous chapter, Aristotle posited an underlying ousia (essence or substance) out of which the whole world is made up of. This is the ousia, which the prime mover organized and set in motion. What is understandable from the Peripatetic notion of the prime mover or the unmoved mover, is that the latter did not physically organize matter, but he is -regardless of his nature- the one who organized the universe as a homogeneous entity by making matter its building stone, its row material or the object of 'aspiration or desire'⁴. Therefore, every single incident that occurred and occurs in our universe is definitely the result of at least one cause or a complex set of causes. Each of those causes would be the outcome of another cause or a set of causes, which are on their turn the result of other causes. That is the way this universal chain is working, regardless of its beginning or its end, only this chain may has a beginning if you do believe in the existence of a first mover, which is

¹Anthony Kenny *Aristotle On The Perfect Life*, p.98.

² Renn. Dickson Hampden, The Fathers of Greek Philosophy, p.48

³ Anthony Kenny Aristotle On the Perfect Life, p.99

⁴, Cosmological Argument for The Existence of God, in Macmillan Encyclopaedia of Philosophy(1967), Vol.2,

p.232.

eternal and unmoved. The theory that we do come across in different occasions whenever a philosopher wants to prove that this world has a cause or a mover, is that of the agent and his relationship with the world. The adherents of such theory have to admit that this agent is acting from eternity and everlastingness and he is responsible for converting the world from a state of non-being to a state of being. This theory was the bone of contention between the Aristotelians and the Platonists. Plato does believe that the world has a beginning. That is why, his entire arguments were directed towards the existence of a creative agent of the world. As Aristotle does believe in the eternity of the world, he had to face all the Platonic proofs that support a beginning of the world. In the meantime, Aristotle had to defend himself against the accusations raised against him by the Platonists such as his disbelief in the existence of a creator of the world. Aristotle, and the Aristotelians later on, did introduce many arguments proving that he does believe in the existence of a creator and an agent of the world. The focus point of Aristotle is that the celestial spheres maintain their movement thanks to the agent of this movement and this is the only way by which the celestial spheres achieve perfection¹. Hence, the responsible for this motion is the agent of the celestial spheres². Besides, Aristotle proves that:

"God is the giver of the unity through which the world is united and the giver of the unity which is the condition of the existence of the composite; that is to say ,He provides the existence of the parts through which the composition occurs, because this action of combining is their whole world. And the statement that the act has come to be is true, for it is movement, and the expression' eternity' applied to it means only that it has neither a first nor a last term³."

From this perspective, we do deduce that Aristotle's God is not like the Abrahamic God Who is omnipresent and omniscient in every aspect of our daily life or the God of St Thomas Who is the God of faith and revelation, or like the God of the Nicene creed, in substance one

¹ The interpretation given here is set out at greater length in *the Aristotelian ethics 174-8.A very similar interpretation is set out independently by Brodie.* Ethics with Aristotle, *386:* ' in one sense (i) a person is "ruled" by a valuable objective, in another(ii) by the practical wisdom that sets about obtaining it. And in one sense(a), that for the sake of which is the good which one aims to achieve, and in another(b) it is the beneficiary of that good. That which *rules* in sense (ii) rules by issuing instructions (one part of the soul to the other, for instance, or a doctor to a patient), and *what is ruled.* In this way is that for the sake of which sense (b) .The good which is aimed for is also *that for the sake of which*, but not in the sense which implies that is ruled. It is not ruled by anything, but this not straightforwardly because it is a ruler-as if everything in this area of discourse is either ruler or ruled-for it does not rule in sense(i).(Anthony , Kenny *"Aristotle On The Perfect Life*, p.98)

² Averroes *Tahafut al Tahafut*, (The Incoherence of the Incoherence), vol. 1 p.103 ³Ibid.

and in personality three. This Aristotelian perspective considers God-as mentioned beforeas a mere unmoved mover who set the world in motion without creating it. Moreover, Aristotle goes on to say that the motion of this eternal world was necessary divine effect, but in the same time, it was not done by the will of God. We have to mention that Marcus Tullius, known as Cicero (ca.106-43 BC) made one of the earliest known theological arguments about the existence of a creator. In *De Naturae Deorum* (On the Nature of Gods) Cicero stated, "*The divine power is to be found in a principle of reason which pervades the whole of nature*¹." This *Ciceronian* point of view about the creator came as a result of his cultural background of the roman religion, for in Roman mythology, the creator Goddess Gaia was borrowed from Greek mythology. The Romans called her Tellus Terra. Cicero, as a writer and orator, used all his linguistic abilities and rational thinking to prove the existence of a creator to this astonishing cosmos:

"When you see a sundial or a water- clock, you see that it tells the time by design and not by chance. How then can you imagine that the universe as a whole is devoid of purpose and intelligence, when it embraces everything, including these artifacts themselves and their artificers²."

3.3 The Epicurean Denial of Divine Assistance:

The Epicurean point of view was not that far from the Aristotelian one. Lucretius does believe in the existence of gods, but they did not start the universe and they have no concern for men. Lucretius's scepticism led him to believe that he could free mankind from the fear of gods by demonstrating that all things occur by natural causes without any intervention by the gods. Historians of science, however, have been critical of the limitations of this Epicurean approach to science, especially as it pertained to astronomical topics, which he relegated to the class of 'unclear' objects³:

"Weather he really believed in the existence of Gods, that is, of being of a similar but superior nature to ourselves, it is not easy, from the perusal of his works, to decide. He at times speaks of Gods, like Epicurus, as certainly existing, and enjoying a state of tranquil felicity, unconcerned about the affairs of the world and unaffected by human good or human evil. At other times, he seems to consider them as mere creatures of the imagination, to

¹ Lucretius, On the Nature of Things, (De Rerum Naturae), p.34

² Ibid.

³ B. E. R. Lloyd .Greek Science after Aristotle, p.26

which men have attributed, in the operations of nature, those affects of which they cannot discover the causes¹."

In the meantime, Lucretius does believe in the existence of a natural power that produces, develops and sustains everything in the universe. It holds the first and the basic principles of all things responsible for the generation and dissolution processes. These generative things are the seeds or the primary bodies from which everything is derived:

"For the whole nature of Gods must necessarily, of itself enjoy, immortality in absolute repose, separated and far removed, from our affairs; for, exempt from all pain, exempt from perils, all sufficient in its own resources, and needing nothing from us, it is neither propitiated by services from the good, nor affected with anger against the bad.²"

3.4 The Stoic Notion of God:

The Stoic concept of God came from their logic based on the origin of knowledge and the criterion of truth. Even though the mind has many activities of its own, these activities are restricted to materials supplied by the senses. From this perspective, the Stoics denied the metaphysical reality of concepts, for they are mere ideas in the mind. As all knowledge is the knowledge of sense-objects, nothing is true except sense impressions. Consequently, the criterion of truth lies in sensation itself, in the sense that it is based on reason and not on feeling. From this analysis of the criteria of truth, the Stoics built their fundamental proposition stating that nothing incorporeal exists. In this regard, they consider the soul and even God as material nothing less and nothing more. This belief in the non-existence of anything incorporeal came form the Stoic concept of the world as unique and coming from one principle. Therefore, this theory denies the existence of a duality of whatsoever, between matter and mind or even between God and the world. The other Stoic belief contributing to the emergence of this theory lies in the relationship between soul and body and God and the world. The former are regarded as pairs acting and reacting upon each other. The body, for instance, produces ideas in the soul, and the latter produces movements in the former. This

^{*} The above passage is considered by Faber, Bentley, Wakefield, and others, to be out of place in the original. It occurs again II.645, whence Isaac Vossius thinks it was transferred to this place by some critics who wished to show that Lucretius was at variance with himself in invoking divine assistance, and yet excluding the gods from all concern with mortals. If it were so, the critics probably placed it in the margin, from which it crept into the text (Lucretius, *On the Nature of Things*, trans. John Mason Good, p.6)

¹ Lucretius, On the Nature of Things (De rerum Natura), p. 16.

² Ibid.,pp.5-6.

process is not possible if both soul and body were of different substance. Hence, the corporeal cannot act on the incorporeal and vice-versa. In order that this contact would be possible, they must be all corporeal. This pure materialism leads the Stoics to consider the primal fire as God who is related to the world as the relationship between soul and body. They compared the human soul with fire, which came from the divine fire. As the soul penetrates into the body, God, who is the primal fire penetrates into the world. However, the Stoics did regard God as an absolute reason.

It is worthwhile to mention here that considering God as an absolute reason do not incorporate God or make the Stoics idealists, for they still consider God as material. This means that the divine fire is a rational element. According to them, since God is reason, the entire world is governed through rationality. This means that this world is made for a specific purpose based on order, harmony, beauty, design etc, and as reason is a sort of law, the world is run and subjugated to that law. Consequently, it is governed by the rigorous necessity of cause and effect.

3.5 Plotinus's Cosmos Maker:

The conception of God, as seen by Plotinus, is defined by the relationship between plurality and relation. As it is known every duality implies a relation and every single relation establishes a brand-new unity .Since every whole is more than its parts, such a unity violates the supreme law of thought stating that a thing is what it is nothing more and nothing less. This is the way we may decode the enigmas of the world we are living in and unveiling some mysteries of its maker. Therefore, the world is a well-organized and well-ordered system and more complicated that the multitude of unities it encloses. According to Plotinus's logic states that:

"The force binding the plurality into unity, and the plurality of unities into the all-containing unit of the universe is the Archetype of unity, the ultimate, primordial Monad, God unattainable in His supreme simplicity even for thought. For all thought is relational, knitting together in the undefinable unity of a judgement a subject and a predicate. But in God's absolute and highest Unity there is no plurality that can be joined, since all joining needs a superior joining unit. Thus God must be the One and the Lone, having no attribute, no genus, , no species, no universal that He can share with any creatures of the world¹."

¹Simon Van Den Bergh, the introduction of Ibn Rochd's ,*The Incoherence of the Incoherence*, vol .I, pp.xxv-xxvi

The broad lines of Plotinus's conception of God can be summarized in three main points: God's existence can be expressed through God's essence and not through God's attributes, but this means that there is no bridge or passage taking us from the stable stillness of God's unity to the changing and varied multiplicity of the world. God's rationality can only obtained by regarding His relation to the world, as irrational .If God is not reachable for thought, the very affirmation of this will be self-contradictory¹.

3.6 The Neo-Platonist Views about the Creator of the Cosmos:

The Neo-Platonist philosopher Lamblichus Chalcidensis's(ca.245- 325 AD) concept of God was different of that of his Neo-Platonic predecessors who regarded the matter as corrupt and putrid and has nothing to do with the eternal divine. He considered the matter as divine like all the other elements of the universe. Lamblichus used many terms, that we have previously mentioned, to build up his theory about the divine. Among these terms, the monad, which is the absolute one or the indivisible entity, its first principle, is intellect or what he called 'nous'. Thus, Dirlmier, citing EE 1248a -26-9 and NE 1177a16, argued that *nous* is not considered as divine, but it is even called 'God'².

After that Lamblichus introduced another super existent one to stand between it and the producers of intellect or psyche and he called that the Dyad. The latter was represented by Plotinus under three stages: objective being, subjective life and realized intellect. Hence, the Platonic creator-God, the Demiurge, is identified with the perfect nous, and the intellectual triad is being increased to a hebdomad. As in Plotinus, nous produced nature by meditation of the intellect; the intelligible gods are followed by a triad of psychic gods.

According to Lamblichus, the first of these psychic gods is incommunicable and supramundane, while the other two seem to be mundane. Lamblichus wrote of gods, angels, demons and heroes, of 12 heavenly gods whose number is increased to thirty –six or three hundred and sixty, and of seventy-two other gods proceeding from them, of twenty-one chiefs and forty-two nature gods. Besides, there are guardian divinities, of particular individuals and nations.

¹ Simon Van Den Bergh, the introduction of Ibn Rochd's , The Incoherence of the Incoherence, vol.1 p.xxvi

² Anthony Kenny, Aristotle on the Perfect life, p.96

The whole of lamblichus theory is governed by a mathematical formalism (Triad, hebdomad...) .He applies numbers to all things from the Divine to the creatures. He went further by considering numbers as independent existences because they occupy a middle position between the limited and the unlimited. If Plotinus spoke about the generation of the intellect from the one, and the intellect attempt to go back to the one, Proclus set up a system to this process through a three-fold movement, which are remaining *(mone)*, procession *(Proodos)* and return *(epistrophe)*. This movement makes the intellect remain in the one, which means that it has the one as its origin, it proceeds from the one and it has come to be as a separate entity. In the meantime, it goes back to the one, which it does not cut itself from its source, for it receives the good that is its identity from the one.

Proclus used this threefold motion to highlight everything that is below the one and above the material reality. Proclus made a distinction between three moments in the intellect, which are the intelligible, the intelligible-intellectual and the intellectual. The intelligible in its turn is made up of three triads: the being, the eternity and the living being. The intelligible intellectual moment consists of three triads and the intellectual one is a hebdomad. We deduce from here that Proclus tried to give a hierarchical ordering to the various metaphysical elements and principles.

From the *Proclean* triadic logic of unfolding, we deduce that the cosmos is expanding from unity to multiplicity. The intellect gives rise to multiplicity, which allows one being to be different from another. However, as the intellect is a divine mind possesses a complete grasp of its moments in one single act of thought. That is why, the intellect is all the time outside the frame of time. It (the intellect) generates other individual intellects, which occupy different places in the *Proclean* cosmos, is like taking the Platonic forms and placing them in the self-thinking thought, which is simply Aristotle's unmoved mover.

3.7 Conclusion:

It is quite obvious that Hellenistic philosophers relied on their proofs that they regarded as irrefutable to prove the existence of a creator and sometimes creators. These proofs are the teleological one, which states that the cosmos as a homogeneous artefact should have a craftsman. The ontological proof sees in the wonders of the cosmos ranging from the beauties of the Earth to the enchanting greatness of the skies the name of the Divine. As all these creatures are well designed, definitely, there has to be something excellent, which is only the creator, as the good implies the best and the excellent.

The cosmological proof considers the first mover, which is immobile, immaterial and eternal as responsible for the existence of the cosmos. Aristotle in his efforts to prove the existence of a creator, relied on the eternity of movement and the eternity of time (which is the number of movement). He starts first to prove the existence of many movers and in order to limit the plurality of these movers, he proved the unicity of these movers and their connection to a first dominate mover. We will discuss the Peripatetic concept of movement in depth in the forthcoming chapters.

When we do talk about the first cause argument, we have to know that it combines a set of proofs and it is argued by different thinkers and covered by divergent philosophies. Each trend has a way of speculation and a specific manner of evaluation. However, all these arguments have many points in common, in that they do argue that every finite and contingent being has a cause, as nothing finite and dependent can cause itself. Likewise, a casual chain cannot be of infinite length because there must be a first cause or something, which is not an effect.

We have to be careful when considering the outcome of these thorny debates because reaching the same conclusion does not mean necessarily that there is an agreement about a certain argument. For instance, the Platonic Demiurge is not the Peripatetic prime mover, which is not in its turn the Almighty Divine, as known in monotheistic beliefs. As mentioned in the first chapter, the postulation of a creator to this cosmos would mean its createdeness. That is why, it is so crucial to discuss the proofs supporting or denying God's existence, as they are helpful in understanding the nature of the whole universe on the one hand and the essence of God, if proved to be existing, on the other hand. No wonder, the existence of a creator to our universe is among the old -new debate that involved all the intellectuals from all disciplines, it is the key factor that would pave the way for unravelling many of supernatural phenomena that are still shrouded in mystery. It is even logical to understand every multiplicity in our world if we do understand the oneness, and consequently, it is quite helpful to find the underlying cause of that tree of life if we can know its seed. Till nowadays, and despite the tremendous human achievements in all disciplines and aspects of life, any evidence leading to the refutation or the confirmation of a creator to our cosmos is taken into consideration in a world that many modern thinkers want to see as a God free zone for other considerations that have nothing to do with scientific honesty.

<u>CHAPTER 4:</u>

ON THE ISLAMIC VIEW OF GOD'S EXISTENCE:

4.1 Paganism in the Arabian Peninsula:

No one would deny that in al -Jahiliyya (the pre-Islamic period), the Arabs used to worship hundred of gods. Each one represents a specific cosmic phenomenon, climatic states, sacred places or just names of some celestial spheres. Each tribe had its own deity, even more than that, every single Arabic house had its own god. Among the famous gods, we find al- Uzzah (the mighty), Manate (the goddess of destiny) al-Lat (goddess), Hubal (The lord of the Ka'bah) and many more. It is well- understood that Quraish (the pagan Arabs) at that time kept claiming that they were not worshiping these gods themselves, but they made them just to get closer to the one¹, unique God (Allah)². What is striking here is that the *Meccan* Arabs created these gods not only for worship, but for the prosperity of their trade as well. Thus, polytheism³ for them was of a paramount importance to keep their trade prosperous and attract all the other tribes to their homeland Mecca. In the meantime, many people in the Arabian Peninsula and elsewhere used to worship stars⁴, planets, trees⁵, mountains⁶, persons⁷, stones, shrines and other specific celestial bodies and spheres such as the Moon and the Sun. We have to point out here that those who are in support of the idea that God (Allah) was worshipped by the pagan Arabs even before the coming of Islam, want us to believe that Islam did come first as a new religion. It came just to reform a chaotic belief in God (Allah) that was based on polytheism and intercession⁸. This sort of analysis should be taken with a tremendous pinch of salt because even if we do admit that God (Allah) was present in the minds and hearts of the pagan Arabs, He was not worshipped according to

¹ "Say, He is God, the one; God, the Eternal, Absolute, He begets not, and neither is He begotten; And there is nothing that can be compared to Him." (Qur'an, Ikhlase : sincerity.112).

 $^{^{2}}$ Allah was also the name of a god among the pagan Arabs even before the emergence of Islam. Allah was never presented by any idol of physical nature. The Arabs never created an idol to represent Allah because of their belief in polytheism. Allah is not a name but a description that means literally the God exactly like the Hebrew word *Elohim* or the Greek one *Theos* or the biblical name *Jehovah*.

³ Even the pagan Arabs, before Muhammad's time, knew their chief god by the name of allah and even, in a sense, proclaimed his unity...Among the pagan Arabs this term denoted the chief god of their pantheon, the Kaaba, with its three hundred and sixty idols. (Samuel M.Zwemer, *The Moslem Doctrine of God*, p. 24-25)

⁴ "Among His Sings are the Night and the Day, and the Sun and the Moon. Adore not the Sun and the Moon, but adore God, Who created them, if it is Him ye wish to serve." (Qur'an, 41:37).

⁵ The worshippers of trees believe that the tree is a symbol of everlastingness because of the story of Adam when commanded by God not to eat from a forbidden tree, but the Satan's insinuation persuaded him to do so to achieve immortality.

⁶ Mountains were regarded as an emblem of mightiness(height and bigness..), source of graces(rain, hail, snow..), and symbol of fears (volcanoes, earthquakes..)

⁷ Personality cult was also known in the Arabian Peninsula in the form of praising famous religious figures, and historic heroes.

⁸ Tor Andrae , Mohammed: The Man and his Faith, pp.13-30.

certain religious rites on one hand and He was associated with other divinities on the other hand. This kind of worship is against the teachings of Islam in general and the Islamic concept of God in particular. Likewise, we do not agree with those who assert that monotheism was in the pre-Islamic Arabian Peninsula because of non- Arabic terms used in the Qur'an¹. We do agree that the monotheistic believers of Jewish and Christian communities were living there side by side with pagan Arabs, but the non- Arabic terms used in the Qur'an were there not to serve these communities, but to prove the universality of the Qur'an. Besides, the Qur'an is teeming with terms also borrowed from Persian, Aramaic, Syriac Greek...As the Qur'an is the last God's speech addressed to human kind, and it has to be comprehensive and universal.

4.2 Monotheism in Islam:

The belief in the oneness and uniqueness of God is the fundamental belief of all Muslims from different sects and trends of the Islamic monotheistic creed .He is known as Allah², and He is the Creator of everything. He is not an idol, a spirit or a breath because nothing can be compared to Him. He is unrivalled, peerless, and Has a plenty of names, which Muslims use to describe His nature. The Islamic God is not a feminine or masculine name and it cannot be plural like in other beliefs: god, gods, and goddess. The Islamic belief is based on the concept of *tawhid* (unity of God)³. This monotheistic belief rejects all doctrines and theories considering God as a human or visible. Likewise, it rejects all forms of idol worships even if they are just means to get closer to God, as in Islam there is no mediation of whatsoever between God and His creatures. Consequently, this monotheistic belief rejects polytheism, atheism, dualism, and trinity. God the Almighty is beyond our sight and the human intelligence is unable to understand His nature .However, He is so close to us to the point that everyone can ask Him what he needs without resorting to any intermediary.

¹ Hamilton A.R Gibb, ,Pre-Islamic Monotheism in Arabia, p.270.

² Many non-Muslims mistakenly believe that the word Allah is an Arab God or a moon God, or some sort of idol. Allah is the proper name of the one true God known by Muslims and non-Muslims alike throughout the world.

³"If you ask them who it is that has created the heavens and the Earth and subjected the Sun and the Moon they will say God... If you ask them who it is that sends down water from the sky and thereby quickens the dead earth, they will reply God.. When they embark they pray to God with all fervour, but when He brings them safe to land they serve other gods besides Him." (The Holy Qur'an, Al-Ankabut(The Spider, 29. Verses. 61-65)

<u>4.3 Al-Ghazali's Proofs of God's Unity and the Impossibility of two Necessary</u> Existents without a Cause:

The philosophers' arguments about this topic are almost the same, as they see the existence of two necessary existents as a proof that the species of necessary existence would be attributed to them both. Moreover, the necessary existent¹ has to be independently so through itself, which means that it cannot be imagined to be so through another or it has to be so through a cause, which means the essence of the necessary existent will be an effect, and consequently, its cause determines its necessity of existence. In order to prove that, philosophers used the example of *Amr* and *Zaid*, the species 'man' is asserted of *Zaid* and of *Amr*, the former is not a man through himself. In this case, the latter would not be a man, but it is through a cause that makes both of them a man .In this regard, the plurality of men comes from the plurality of matter in which humanity inheres. Such inherence in matter is an effect in which does not lie in the essence of humanity.

The deduction that we do come with from all this speculation is that if the necessary existent is through itself a necessary existent, it is imperative that it exclusively possesses this qualification. On the contrary, if it exists through a cause, it is considered as an effect, and consequently, it cannot be a necessary existent². Al-Ghazali objects to this in many ways, first, the statement stating that the species of necessary existence has to belong to the necessary existent through the necessary existent itself or through a case, is a self-contradictory dictum. The expression' necessary existence' is vague and unclear without the denial of a cause:

¹ "Say: Who is the Lord of the heavens and the Earth? Say: God. Say: Do you then take besides Him guardians who do not control any benefit or harm for themselves? Say: Are the blind and the seeing alike? Or can the darkness and the light be equal? Or have they set up with God associates who have created creation like His, so what is created became confused to them? Say: God is the Creator of all, and He is the One, the Supreme." (Qur'an 13:16).

[&]quot;He is the Originator of the heavens and the Earth; He made mates for you from among yourselves, and mates of (and for) the cattle, too, multiplying you (humans and animals) thereby; nothing is like Him; and He is the Hearing, the seeing." (Qur'an 42:11).

² Ibn Rochd, Tahafut al- Tahafut, (The Incoherence of the Incoherence), vol. 1, pp.91-92

"To admit two existents without a cause and without the one's being a cause of the other is not impossible. And your statement that what has no cause has none, either because of its own essence or through some cause, is faulty disjunction, for one does not ask for the cause of a thing which is said to have no cause and need no cause for its existence¹."

In the same discussion, we have to bear in mind that the dictum claiming that what has no cause, has no cause because of its own essence or through the effect of a cause does not make any sense at all. Moreover, if philosophers do mean by the expression 'necessary existence' a positive qualification of the necessary existence and an existent without a cause for its existence at the same time, it is a complete obscurity of meaning:

"But the genuine meaning of this world is the negation of a cause for its existence, and this is an absolute negation about which it cannot be said that is due to its existence, or to a cause, such that the intended proof might be based on the supposition of this disjunction. To regard this as a proof is senseless and has no foundation whatever²."

This disjunction cannot be applied even to positive qualities; Al- Ghazali illustrated this point by presenting many examples like the one of black colour, which is a colour because of its essence or through a case. If it is a colour because of its essence, then, red cannot be considered as a colour, and consequently, the species of colouredness can only exist because of the essence of black, and if black is a colour because of a cause, which has made it a colour, in this case, black would be regarded as being without a colour. In the light of this analysis, this disjunction can be only fallible, as we cannot say that black is a colour because of its essence, and in the same time, we are unable to claim that this existent is necessary because of its essence. This means that this necessary existent cannot exist through anything else except its essence, and consequently, it has no cause because of its own essence. This way of proving the unity of God is associated with Ibn Sina and it is not found in any of the works of ancient philosophers. We have to bear in mind that the premises of this way of thinking are common-sense premises.³

¹ Averroes, The Incoherence of the Incoherence, (Tahafut al- Tahafut,), vol. 1, pp.170-171

² Ibid., p.171

³ Ibid.

What can be possible, it is possible to exist by its essence; its existence from its essence has no priority over its non-existence. If one of them has to have a priority over the other one, this is due to the presence or the absence of a thing. Ibn Sina in his attempt to prove the existence of *Wajib al-Wujud* (The Necessary Existent) as we would see in the following chapters, elaborated the following dictum: the possibility of both the existence and the nonexistence of a thing does not come from its essence, but if it existed, its existence has to be from another¹. This does not apply to the Necessary Existent, as His existence does not depend on any external factor on the one hand , and He is the One Who gave existence to all other existents on the other one.

When we do say that this method is Ibn Sina's invention, we do mean by that the way of analysis and the method of speculation and not the premises used in it. We cannot deny the heavy influences of ancient wisdom on the works of Ibn Sina as a whole, and especially in the works regarding the nature, the unity and the knowledge of God. Regarding the second proof of philosophers about the two necessary existents, the *Ash'arites* went on to say that there is a plurality in God. This assertion made them regarding Him as an essence with attributes. Al-Ghazali sees the fallibility of this proof in the impossibility of finding two different things having many things in common. For instance, philosophers attributed the word 'body' to both the transitory body and the body of the heavens and the term' intellect' is attributed to the intellect of man and the separate intellects at the same time. Likewise, the terminology 'existent' is attributed to eternal and transitory things².

Al-Ghazali refuted this proof by first introducing the fallibility of philosophers about God's unity that can only be possible through the singleness of God's essence and the complete denial of any plurality in Him. According to Al-Ghazali, philosophers deny the quantitative division of the First Principle in both the real and the fictive world. The one who believes that the First Principle is not a body, regardless of his belief of the nature of that body, he is definitely thinking that way. Al-Ghazali's second refutation is about philosophers' qualitative division of body into matter and form, which is stripped of the First Principle. The third one was about the denial of the plurality of attributes in the necessary existent.³

¹ Ibn Sina, Isharat Wa Tanbihat,(Remarks and Admonitions),p.40

² Averroes *The incoherence of the Incoherence*, (Tahafut al-Tahafut), vol. 1,p.175 ³ Ibid.p.177.

4.4. Ibn Sina and the Necessary Existence of God:

We have to mention that Ibn Sina has made massive contributions towards philosophy dealing with God's existence and divine essence. As the main focus of physics is the motion of things, metaphysics is concerned with the very existence of those things. There is no scientific or logical law that states that those things must necessarily exist, however, there is a possibility of their existence and an equally real possibility that they might not have existed. Unlike all other things and beings, God exists by necessity, and consequently, His non- existence is impossible. Existence does belong to both essence and nature of God. In other words, the existence of these things and beings that do not come into existence by an inner necessity of their natures proves the existence of the Necessary Being called God. It is worthwhile to point out here that even an infinite chain of these beings and things that are caused to exist by a source, which is external to itself, fail to explain how all of them come to exist the way they are existing. That is why, only a first cause that exists necessarily can explain the existence of all other things and beings¹. Therefore, if we do assume that there is a necessary being, then, a true proposition expressed the statement 'God necessarily exists'. Likewise, if we do suppose that God is not sempiternal, then, that statement would be changed into 'God did not exist', 'God does not exist' and 'God will not exist'. Hence, if God is eternal in terms of necessity, He must also be sempiternal. This means that timelessness and sempiternity are mutually entailing in that necessity entails sempiternity and not vice-versa or at least timelessness is identical with sempiternity². "This is what it means that a thing is created, that is, receiving its existence from another³, writes Ibn Sina, "As a result everything, in relation to the first cause, is created... Therefore, every single thing, except the primal One, exists after not having existed with respect to itself⁴."

That is, anything brought into existence by the first cause requires the action of this cause to remain in existence. Ibn Sina writes, "*That which is caused requires something which bestows existence upon it continuously, as long as it continues as existing*⁵."

¹ Roy Abraham Varghese ,*The Wonder of the World: A* Journey from Modern Science to the Mind of God, pp. 112-113

² M. Kneale, *Eternity and Sempiternity*, p.232

³Roy Abraham Varghese, The Wonder of the World: A Journey from Modern Science to the Mind of God, pp. 112-113.

⁴Ibid.

⁵Ibid.

No cause is required to explain the existence of a necessarily existing being. Ibn Sina observes, "That whose existence is necessary through itself does not have a cause while that whose existence is possible through itself does have a cause¹." And there can be only one necessary being. "That whose existence is necessary must necessarily be one essence²." is the first volley of his elaborate argument to prove the exactitude of his theory.

The general doctrine of Ibn Sina focuses on the idea that existence is something additional to the essence outside the soul and it is at the same time an accident of the essence. We may suppose that the existence was a condition for the being of the essence and a condition for the essence of the necessary existent. In this case, the necessary existent would be composed of the conditioning and the conditioned ,and therefore, it would be of a possible existence. Moreover, Ibn Sina emphasizes that what can exist as an addition to its essence, has a cause. From this perspective, the existence, for Ibn Sina, is an accident that supervenes on the essence and this is the main point Al-Ghazali was referring to in this passage:

"For man before his existence has a quiddity, and existence occurs to it and enters into relation with it, and in this way the triangle has a quiddity, namely, it is a figure surrounded by three sides, and existence is not a component of this quiddity, and therefore the intellect can perceive the quiddity of man and the quiddity of a triangle without knowing whether they exist in the exterior world or not³."

From this perspective, any being has to be *wajib* (necessary) in itself due to its own nature, if it is not, then, it has to be not necessary. Therefore, the being that is not necessary in itself can, in its turn, be divided into two categories: to be *mumtani*' (impossibility) or *mumkin* (contingency) and any being that is impossible in itself, cannot achieve realization (al-wujud), so it can never be realized (mawjud). Accordingly, such a being has to be contingent due to itself and necessary due to the *shart*(condition) that its cause exists, while it is an impossibility because of the condition that its cause does not exist ('illat nist). Therefore, we are in front of two factors: one is its being (khwudi) and the other one is manifested in the condition of the existence or the non-existence of a cause. We have to point out here that when we do consider its being-qua-being (khwudi-i wai) without any other conditions, it is not a necessity and not impossibility either. On the contrary, when we do consider that a

¹ Roy Abraham, Varghese , *The Wonder of the World: A Journey from Modern Science to the Mind of God*, pp. 112-113.

²Ibid.

³Averroes , The Incoherence of the Incoherence, (Tahafut al-Tahafut), vol.I,p.179.

determined cause that is the condition for realizing its cause, it become a necessity. If we do regard its cause as the condition of the *na-hasil* (non- realization) of its cause, then, it becomes impossibility. The conclusion that we do come out with here is that when we do consider number without the resort to any conditions that are connected to it, its nature cannot be an impossibility¹. Ibn Sina went further in the explanation of this point by using many examples:

"If one regards the state of the number four which results from two times two, the result (hasil) must be necessity, for its non-realization as four is an impossibility .Hence, any existing entity, for which existence is not intrinsically necessary (Wujudi Wajib), is contingent in itself. Therefore, this entity is a contingent being in itself and a non-contingent being (namumkin) with regard to something else (ghair).Its existence is not yet realized in such a manner that it must exist due to that reason(hukm)²."

This *Ibn Sinian* passage emphasized that becoming an existent is a contingency and the latter in itself can never be realized, for it has not come from a cause. That is why, it is necessary that the contingency be realized through a cause in order to become necessary to that cause as an existent. Above all, a cause becomes a cause because of its acting *('illa)* or its action so that an effect may result from it. *Ibn Sinian* reasoning leads us to understand that the Necessary Existent cannot be united in itself with any *sabab* (cause). This means that as its being is necessary in itself without being caused; its being cannot be because of a cause. If it were not the case, then, it would not be the Necessary Existent in itself³. Ibn Sina Highlighted this correlative relationship existing between the cause and the existent by arguing that:

"The Necessary Existent cannot be united with something in a reciprocal union. If it were in a reciprocal relation with another entity, and if one were the cause of the other, each would then be prior to the other, and the being of each would henceforth be prior to that of the other. As its cause, therefore, the being of one would be posterior to that of the other. Consequently, its being would then be conditioned by another being which could be realized only posterior to its own realization, therefore, its being could never be⁴."

¹ Avicenna , The Metaphysica of Avicenna (Ibn Sina), trans. Parviz, Morewedge.pp, 47-48

² Ibid.,p.48

³Ibid.,pp.48-49

⁴Ibid.,p.49

Ibn Sina concluded that if there are two entities that are not causes of each other, even if one of them is related (*charanist*) to the other, they are then simultaneous (*barabar*), which means that they are neither posterior nor prior to one another, exactly like the case of two (twin) brothers. Accordingly, either *ad-dhat* (the essence) of each of these two entities is necessarily in itself or it is not necessary in itself. If it happens that one entity is necessary in itself, then, the non-being of the other would not cause any harm to it. That is why, it could not be possible that there is such a union between two necessary entities, in the sense that, if the non-being of one entity would harm the existence of the other, then, it would not be necessary in itself, and consequently, it would be contingent in itself. From this perspective, Ibn Sina argued that there is a cause for the existence of any contingent being and such a cause is prior to it in essence (*dhat*). Therefore, if one were a cause (*'illa*) and the other *ma'lul (effect)*, then, both of them would not be necessary. Thus, the Necessary Existent does not possess a *juz'* (element) or a *bahra (a part)*, simply because elements and parts are coming from material causes, this is the fact that make the Necessary Existent not united essentially with anything¹.

Ibn Sina was also –like all other philosophers and thinkers- heavily influenced by the great pioneers of Greek philosophy Aristotle and Plato. This is obvious in his belief that there was a hierarchy of intelligent beings in the universe. That is why, many critics considered him as a pantheist, but these accusations are baseless, for Ibn Sina is the one who underscored the essential difference between God, the necessary being whose essence is to exist and all the other things and beings². Despite the belief of Ibn Sina in the world being created by God, he admitted –under the impact of Hellenistic philosophy and like many of his contemporaries-that both God and matter existed eternally³. Ibn Rochd rejected the view that the world is co-eternal with God, in that, the world is eternally emanated from God .Ibn Rochd went on to say that we can describe the world as co-eternal with God only if we do mean that the world is eternally moved by God⁴. There are many thinkers and critics who do not see any contradiction in this equation because creation does necessarily require a beginning in time.

¹ Avicenna , The Metaphysica of Avicenna (Ibn Sina), trans. Parviz, Morewedge.pp. 49-50

²Roy Abraham Varghese, *The Wonder of the World: A journey from Modern Science to the Mind of God*, pp. 112-113.

³ Ibid.

⁴Harry A. Wolfson, *The Twice-revealed Averroes*, p.37.

Ibn Sina argued that the world in itself is only possible and requires a cause of its existence; - we would come back to this point in depth in the forthcoming chapters. Accordingly, God necessarily exists and He is the one Who brought the world into being from nothing. This means that such an act could either have a beginning or be both beginningless and endless. If the professor of philosophy at the University of Waterloo (Ontario, Canada) F.F Centore sees in the *Ibn simian* supposition that the world necessarily emanates from God a defect¹, Ibn Rochd did not support arguments of God's existence taken from the impossibility of an infinite regress of efficient causes².

4.5. The Ash'arites-Mu'tazilites Debate Concerning the Divine:

This debate is only the starting point as by the beginning of the twenty century the materialists' fierce attacks were, and are still, directed to the branch of philosophy dealing with metaphysical topics or what we call divinities³. If we go back to our debate, we find that there were many Islamic trends, which tried hard to understand the nature of the Divine because they were inspired by the Greek philosophy, and among these trends we find the Mu'tazilites . In the meanwhile, there were other trends, which focused on the understanding of the unique nature and characteristics of God regardless of any outside cultural influence like the Ash'arites. They emphasized that the nature and the characteristics of the Divine can never be understood because they are beyond reason, while the Mu'tazilites's philosophy sees that God is one, and His unity makes Him unique. That is why, He is different from all existing beings. It is worth noting that even differentiation between God and His creatures is not accepted by many religious trends, as this would imply a knowledge of God' essence or attributes. This make us conjure up the Plotinus' dictum 'God is other than being', so He did not belong to a genus in which He would have something that differentiates between Him and the other creatures. This reasoning was reflected by Imam al-Qasim ibn Ibrahim (d. -860 AD) when he was asked what is God, he replied 'He is He'⁴. Abbad ibn Sulayman (d. -864 AD) went further by rejecting all expressions that involve mutual relationship between God and man such as the possibilities of man's turning to God and man's causing God to act.⁵

¹Roy Abraham Varghese , The Wonder of the World: A journey from Modern Science to the Mind of God, pp. 112-113.

²Herbert A. Davidson ,Proofs of Eternity, Creation and the Existence of God in Medieval Islamic Jewish Philosophy, p.598

³Sulayman Donya , Attafkir al-Falsafi al-Islami, (the Philosophical Islamic Thought), p.7

⁴ Binyamin Abrahamov, Fahr al-Din al-Razi on the knowability of God's Essence and Attributes, p.206.

⁵Ibid.

Therefore, there are no similarities of whatsoever between God and his creatures. This basic belief, led the *Mu'tazilites* to metaphorically¹ interpret all the Qur'anic Verses stating likeness between the Divine and His creatures. If these Qur'anic Verses are understood literally, then, we are falling in anthropomorphism, which the *Mu'tazilites* are against. Accordingly, anthropomorphism is against the oneness and the unity of God. We have to bear in mind that the belief in the existence of an eternal existent, which is not necessarily God, compelled Muslim orthodox to believe in the reality of eternal attributes in God even if they do believe in His absolute unity².

As God pervades all nature and human beings, His transcendentalism was a basic tenet for the *Mu'tazilites*. Anthropomorphism was not the only dispute between the *Mu'tazilites* and the *Ash'arites*³. There were many other hot issues; the most important of them all is whether the Qur'an is created or eternal. For the *Ash'arites*, as the Qur'an is the speech of God, it has to be eternal, while, the *Mu'tazilites* claimed that the Qur'an is created. This dispute was a real ordeal in Islamic medieval theology because when you support the creation of the Qur'an, you are denying the eternity of God, as the Qur'an is the speech of God Who is eternal. According to Muslim orthodox, eternity is a property that is associated with God, that is why, eternal things must not *ipso facto* be God, as their eternity means they are eternally created by the only Eternal (God). It is on the same ground that orthodox Islam, even if they rejected the belief in the eternity of God⁴.

¹ "When my servants ask thee concerning me, I am indeed close (to them). I respond to the prayer of every suppliant when he calls on Me. Let them also, with a will, listen to my call, and believe in me. That they may walk in the right way (Qur'an 2: 186)."

^{* &}quot;It was We Who created man, and we know what dark suggestions his soul makes to him: For We are nearer to him than his jugular vein (Qur'an 50:16)."

^{*&}quot;And call in remembrance the favour of God unto you, and His covenant, which He ratified with you, when ye said: "We hear and We obey" and fear God, for God knoweth well the secrets of your hearts (Qur'an 5: 7)."

² Harry A. Wolfson, *The Twice- revealed Averroes*, p.377.

³ The Ash'arites are also known as the Ash'ari Madhhab and al-Ash'airah(al-Asha-'irah) in some sources and the Ash'arite school in others. It is a school of early Muslim speculative theology founded by the outstanding theologian Abu al-Hasan al-Ash'ari. This school radically changed the Muslim theology, and contributed to its development. They are in sheer contradiction with the Mu'tazilites who are Greek-inspired theologians. They did not rely on rationality; they consider the comprehension of the supernatural phenomenon in general and the nature of God in particular beyond human intellectual potentials.

⁴ Harry A. Wolfson, *The Twice- revealed Averroes*, p.377.

4.6 The Rochdian Proofs of the Existence of God:

4.6.1 Ibn Rochd against the Other Schools of Theology:

Ibn Rochd and Al-Ghazali were faced by two enemies one within the Islamic arena and the other from the outside. Al-Ghazali in his work Fadaeh al-Batiniyah(the Infamies of the Esoterics), sees that he has to establish the proof and the evidence to upgrade the beliefs from the depths of doubt and uncertainty to the highest level of sureness and certitude. This step would enable him to face the heresies occurring in the assets of religions, the creeds of dualism and the limits of logic brandished by the ancient sages and philosophers.¹ It is true that all arguments about God's existence do cover the areas of the concept of particularization, design and motion, but we do not agree with some scholars who thought that the Muslim and Jewish philosophers focused on arguments taken only from cosmology, teleology and there is no trace of any ontological arguments². On the contrary, Muslim and Jewish philosophers did cover all areas and every single corner of discussions regarding this issue. Al-Ghazali, is one of them, argued that all philosophers, with the exception of materialists, do admit that the world has a creator and God is that creator, or at least, God is that agent of the world. Hence, the entire cosmos is a projection of His act and his work. Philosophers' belief in the existence of a creator of the world starts from their standpoint of the agent, the act and the relationship between them. The agent is equipped with the power of knowledge and choice in addition to the will, in the sense that, He is aware of what he is willing. Many philosophers argued that God has no attribute³ of whatsoever. He does not will⁴ and everything was created through the compulsion of necessity. That is why, God, according them, can only proceed one thing, and as the world consists of diverse components

¹ Al-Ghazali, Fadaeh al-Batiniyah, (the Infamies of the Esoterics), p.4.

²D. Herbert, Proofs of Eternity, Creation and the Existence of God in Medieval Islamic Jewish Philosophy, p.598

³The Mu'tazilites opponents called them al-Mu'atillah because of their denial of God's attributes. After the defeat of the Mu'tazilites at the hands of Asharite and Maturidite theologians, their teachings found no place in Muslim thought. The Shi'a Twelvers and the Zaidiya have adopted many of the Mu'tazila theses, and in such circles Ali (the son-in-law of the prophet Muhammad and the fourth *Khalifah*) is erroneously held to have inspired the teachings of the Mutazilites. The Shi'a Twelvers also call their Imams 'the people of Justice and the Unity' — a title which the Mu'tazila first used of themselves — and have also adopted the Mutazili doctrine that the Quran is not eternal but was created. The earlier Shi'a and some Sufis also maintained that new circumstances may bring about an alteration in an earlier divine determination. God may 'change His mind'. The Mu'tazilites also, objected to the orthodox doctrine of the divine decree, spoke of free futures and free possibilities in human life. In medieval Iraq, the Mu'tazili theological movement was made a state doctrine in 832, igniting the Mihna (ordeal). A struggle over the application of Greek logical proofs to the Qu'ran; people who would not approve Mu'tazili claims that the Qur'an was created rather than eternal were sometimes persecuted. The most famous victims of the Mihna were Ahmed Ibn Hanbal, who was imprisoned and tortured, and the judge Ahmad Ibn Nasr al-Khuza'i who was crucified.

⁴ In many Arabic sources, the anthropomorphists are referred to as the Mushabihah or the Mujassimah.

it is quite impossible that it proceeded from Him¹. Ibn Rochd, as he is always doing throughout the entire of his Tahafut al-Tahafut (The Incoherence of the Incoherence), introduces the arguments of his components and tries to gradually refute them. He starts by presenting Al -Ghazali's argument that the agent must be willing, choosing and knowing what he wills to be the agent of what he wills. Then, he went on to say that Al-Ghazali's dictum is by no means self- evident, and accordingly, cannot be considered as a definition of the maker of the world without evidence. This can be possible if it is justified by deduction from the empirical to the divine. The reason why this inference is of a paramount importance is that in the empirical world, there are two kinds of agents: the first one is the one called by natural philosophers the natural agents such as the warmth that causes heat and the coldness that generates cold. The second agents are those that do perform a certain act at one time and in the meanwhile, they can perform its opposite at another time². These agents are called by philosophers 'voluntary and selective agents'. The problem of Al- Ghazali's dictum is that he who performs the processes of choosing and willing, he is lacking the things, which he wills. This is not possible in the case of God because He cannot lack anything He wills. Likewise, who he chooses, definitely he is making a choice for himself of the better of two available things. All over again, God does not need a better condition or situation. Furthermore, the will is a change and a passive quality, and the willer after attaining his target, his will would cease, and God is not subject to passivity or change:

"God is still farther distant from natural action, for the act of natural thing is a necessary in its substance, but it is not a necessity in the substance of the willer, and belongs to its entelechy. In addition natural action does not proceed from knowledge: It has, however, been proved that God's act does not proceed from knowledge³."

Al-Farabi sees that the world was eternally emanated from the essence of God by the will of God^4 . Such a belief is not totally compatible with the theories of creation. It is worthwhile to mention here that orthodox Muslims were in favour of creationism. That is why, they rejected Al-Farabi's reasoning, but without brand it a heretical, as Muslim orthodoxy believe that God' will is behind the genesis of the world whether it was emanated or created. Al – Ghazali, the champion of Muslim orthodoxy, by asserting that the world was created by the will of God; he was rejecting the view stating that it was created or emanated through

¹Al-Ghazali, *Tahafut al-Falasifa*(The Incoherence of Philosophers), p.134.

²Averroes , The Incoherence of the Incoherence, (Tahafut-al-Tahafut), pp.87-88.

³Ibid.

⁴Harry A. Wolfson , the Twice-Revealed Averroes, p.377.

necessity, as the advocation of the last scenario would be an obvious assertion of the coeternity of the world with God.¹ Consequently, such belief is minimizing the power and the authority of God over the world. Ibn Rochd sees the manner in which God plays the role of an agent or a willer are not so clear because there is no counterpart to God's will in the empirical world. Therefore, anyone who analyses things in this way, he can be only an impostor. Even if Ibn Rochd is a very harsh critic, he is always beside the philosophical contemplation. That is why, he refuses to call philosophers impostors, as they are truth seekers. Even if they err while seeking the truth, they remain in the scope of philosophers and not impostors, as the latter, do not seek the truth; they only seek to perplex ².To sum up his argument about the fallacy of Al-Ghazali's conception of divine will and choice, Ibn Rochd argued that:

"There is no difference between the one who says that God wills with a will which does not resemble the human will, and one who says that God knows through a knowledge which does not resemble human knowledge: in the same way as the quality of His knowledge cannot be conceived, so the quality of His will cannot be conceived³."

Ibn Rochd fortified his stance and the coherence of his arguments by exhibiting some assumptions regarding the structure and the nature of the world. If the world were existing and eternal by itself, it would not be in need of an agent. We do mean here by itself its independent existence regardless of its movement that is constituted of produced parts⁴. However, this would also depend on the meaning of eternal .If it is the everlasting production that has no beginning and no end. From this perspective, the entire universe is God's product. Accordingly, the terminology 'production' is more accurate and suitable than the term' eternity'. This distinction between production and eternity is related to that between existence and non-existence. Philosophers do define the production as any thing that exists after non-existence. This is a very controversial point, as it would lead us to discuss what proceeds from the agent when God performs the act of production, and what is connected directly with Him. Is that production a pure existence, or rather, a pure non-existence or both of them?⁵ Both Al-Ghazali and Ibn Rochd do agree that it is impossible that non-existence was connected with God, since the Agent cannot exert influence on non-

¹Averroes , The Incoherence of the Incoherence, (Tahafut-al-Tahafut), vol.I, pp.87-88

² Ibid.,p.88.

³Ibid.

⁴ Ibid., p.96.

⁵ Ibid.,p.97.

existence. Hence, it is quite obvious that non-existence is not linked to the agent, and what proceeds from God is pure existence. In this regard, temporal production implies a sheer contradiction, in the sense that, it has to be connected with the agent, as it is a condition that in order to be produced, it has to be preceded by non-existence, and as mentioned previously, non-existence cannot be linked to the agent¹. Concerning the issue of the agent-as in all other issues-Ibn Rochd was against the *Ash'arite* logic especially regarding the relation between the agent and the world. Ibn Rochd admits such a relation to prove that the act of every existent has to be combined with its existent. This is always true if nothing happened to this existent, or if it is not subject to an accident, but the *Ash'arites* do confuse the others when they do think:

"Who assumed an eternal existent, but denied that He acted during his eternal existence, but then however, allowed this agent to act eternally in the future, so that the eternal existence of the Eternal would become divided into two parts, an eternal past during which He does not act and an eternal future during which He acts!²."

Ibn Rochd criticised most of the theologians 'arguments about the existence of God. In his famous work Al-Kashf an Manahij al-Adilla (The Exposition of the Methods of Proofs), Ibn Rochd directed a bitter criticism to all these theologians and their refutable proofs for the existence of God. He tried hard to detect the problems and the fallacies in these arguments. In the meantime, he presents his own arguments. The Ash 'arites were among the theologians who have received the lion's share of his criticism. He accused them of exercising baseless power to control the lives of the Muslim community to achieve political targets. He benefited from the mistakes of the other schools of theology in general and the Ash'arites in particular to elaborate his theory of God's existence. Ibn Rochd started his attack against the theologians from their ill interpretation of the Qur'anic Verses .He went on to say that the Qur'anic Verses that cannot resist the scrutiny of reason are extremely dangerous to accept. According to Ibn Rochd, these theologians have interpreted the Holy Scripture in a way that made them influence ordinary people and control their minds and lives alike. The truth was worse than that because anyone who opposed them or even argued with them, he was accused of religious innovation and unbelief. They ostracized "Whoever disagrees with them as heretics and unbelievers whose blood and property are free for all³. " In many occasions.

¹ Averroes ,The Incoherence of the Incoherence (Tahafut al-Tahafut), vol.1,p.9

²Ibid.,p.101

³ Averroes, The Exposition of the Methods of Proofs. (al-Kashf an Manahij al-Adilla), p.133.
they were exposed to crucifixion and capital punishment in public to sow fear in the other people's hearts. Even if there were many sects in Muslim theology at that time, Ibn Rochd states that:

"The most famous of these sects in our time are: the sect called the Ash'arite, which is believed by most people of our day to be the orthodox, that which is called the Mu'tazilite, the group which is known as the batini and the one called the literalist¹."

We have to point out here that Ibn Rochd dismissed the literalists because they completely adhere to the apparent meaning of religion, which is regarded as a total ignorance of rationality. Ibn Rochd objected to their method because their: "Method of knowing the existence of God Almighty is by way of report not reason²."From this perspective, we do understand Ibn Rochd's important means to know the existence of God, which is reason. The Qur'an itself is teeming with Verses encouraging man to use reason to decode the enigmas of the creation and the secrets of the cosmos. Besides, reason is the most universal and common way available to human kind to know God. There are a plenty of occasions where many people "Would be required to believe in God by way of report³." This does not mean that this kind of people is not capable of understanding, analysing and reasoning on condition that these arguments must be delivered in a simple and understandable fashion. Ibn Tofayl, in his discussion of God's existence added many points that are worthy to be mentioned like the proofs taken from the absence of necessary connection between causes and effects and the proofs taken from intuition⁴. The proofs taken from the absence of necessary connection between causes and effects were built upon the dictum stating that no material object can set itself in motion. Likewise, it is not possible for any form to independently change to another one. Therefore, in order that this process can be achieved, there must be an Immaterial Being Who is the efficient cause. Ibn Tofayl added that according to logical necessity, the universe did not jump into being on its own ex nihilo; it must have a productive factor. The latter

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^{*} Ibn Rochd's criticisms were bound to raise dust and undermined his position in the community. His books were burnt in public, the teaching of his philosophy was banned in many areas of the Muslim world, and he himself was expelled from his native town.

¹ Ibn Rochd , *The Exposition of the Methods of Proofs*, p.133.

² Ibid.

³ Ibid., p135

⁴ Sami S. Hawi, Ibn Tofayl: on the Existence of God and His Attributes, p.59.

could not be a matter, as its fate would be like that of all material objects and it would be itself in need of a generative factor. If we do assume that this generative factor is physical, then, it would need a third, a forth and so on ad infinitum, which is not rational and since this cause is not physical, it cannot be understood by senses or perceived through sensible qualities¹. Regarding the premises taken from intuition, Ibn Tofayl considered them superior to other proofs, as they are a means for the knowledge and the apprehension of God. If the man does refrain from worldly pleasures, he would experience a subjective transformation that would put him face to face with God. In other words, the metaphorical glimpse of God, which is acquired through reason in the phenomenal world, would place him in the core of reality, which is a direct confrontation with the basic and fundamental source of all beings².

4.6.2 Ibn Rochd's Debate with the Ash'arites:

4.6.2(a) The Will and the Action:

As mentioned previously, the literalists were dismissed by Ibn Rochd because of their suspension of the paramount importance of reason in knowing God. On the contrary, the *Ash'arites* applied the tool of reason³ to gain any knowledge regarding the Divine and went further in relying totally on rationality. Ibn Rochd is on their side in using rational arguments, but blamed them for not using religious ones. "*They were led to this position via arguments that they are not the religious ones that God has drawn attention to and through which He called upon all men to believe in Him⁴."*

The Ash'arites argued that the world is created and it must necessarily have a Maker Who created it⁵. However, Ibn Rochd objects to them because they did not specify the mode of the existence of the Maker of the world whether He is eternal or created. *The Ash'arites* want to show that the world is created in time, whereas God is eternal⁶. It is obvious that the *Ash'arites* could not support the idea that God is created, for this would mean that He is in need of a creator. The latter would be created by another one, and the process would continue ad infinitum. In the meantime, the *Ash'arites* argue that if God is eternal, then, His

¹ Sami S. Hawi , Ibn Tofayl: on the Existence of God and His Attributes, p.61.

² Ibid., p.62

³ It is worthwhile to mention that the theological group called Ikhwan as-Safa wa Khillan al –Wafa(Brethren of purity) is an eclectic group that appeared in a period when the theological debates were at the climax of fierceness. According to them, the truth can be anywhere, that is why, they neither shun sciences, nor rejected books. Their philosophy is built upon the stances of all creeds to establish their own creed that combines all sciences as "All existing things derive from a single principle, a single cause, a single world, and a single soul". (Rasa'il Ikhwan al-Safa, Beirut: dar Sadir,1957).

⁴Averroes , The Exposition of the Methods of Proofs (Al-Kashf an Manahij al-Adilla), p.135.

⁵ Ibid.

⁶ Ibid.

actions must be eternal .Accordingly, the world that is created by Him, must be eternal as well, simply because it is His act. Ibn Rochd argues that the *Ash'arites* tried to solve this dilemma by claiming that God is eternal, but his actions are created by an eternal will. According to Ibn Rochd, this reasoning would not be helpful, as it put them even in a very sophisticated position. The *Ash'arites* view that God created actions through an eternal will is refutable because the relationship between the will and the actions is a conditional one *"The will is the pre-condition of the action, rather than the action itself^d." Ibn Rochd did not find it difficult to refute the <i>Ash'arites'* claim by depicting that the will, which is actual, exists alongside the act that produces the object. Hence, the action and the will are two correlates. Ibn Rochd states that if:

"One of the two correlates existed in actuality, the other would have to exist in actuality as well, like father and son, but if one of them existed potentially, the other would also. Should the will that is actual be created, then the willed action must necessarily be created (in actuality).Furthermore, should the will, which is actual, be eternal, then what is willed, which is equally actual, will be eternal²."

From this *Rochdian* analysis, the result that we do come out with is that there is a sort of overlap between the will and the action, in that, the relation between them is symmetrical. This means that any attribute that describes the will for example, has to describe the action as well. Therefore, if we do admit that the action is created and the will that produced it has to be created, the *Ash'arite* theory will be in deep trouble. This because the *Ash'arites* do believe in the existence of an eternal will, the fact that made them unable to convince us how the action can be created from an eternal pre-condition.? Not to mention that the eternal will has to be related to what is created before and after its creation. We are talking here about the endless time when the product had no form of existence. This adds more difficulties to this *Ash'arite* logic. According to the Peripatetic perspective, when the object does not exist in actuality, it has to exist in potentiality. Consequently, what is created, must have no form of existence during an infinite period of time before coming into existence. The *Rochdian* logic started from this point when he sees that the will "*Cannot be related to what is willed at the time in which it necessitated its coming-to-be, except after a lapse of an endless time, and what has no end, does not cease. Thus, what is willed must not become actual, unless an*

¹ Avertoes , The Exposition of the Methods of Proofs, (Al-Kashf an Manahij al-Adilla), p.135.

² Ibid.

endless time has elapsed, which is an evident absurdity¹."

The *Rochdian* standpoint is considering the will as something that comes before both the action and the willed object produced by it. We have to mention here that this rule is relative, and Ibn Rochd emphasized that by introducing the term *Azm*, the closest meaning to it in English is determination or effort, that occurs in the will to produce the action. This happened because when the action takes place, a specific active element is required to account for it. Thus, if such an extra state does not influence the willing agent at the time of the action, the occurrence of the action at that time will stay inexplicable². Definitely, the *Ash'arites* would not accept such an analysis because it is suggesting change to the Divine and compromising His eternity. This dilemma did not puzzle the *Ash'arites* only, but all schools of theology and the craft of dialectics³ as well. Ibn Rochd argues that common people are not in a position to understand this reasoning .The Qur'an itself when it refers to God as the creator of the world, it does not state whether He created it with an eternal will or a created one. "*Indeed when we want a thing to be, we just say to it: "Be" and it comes to be*⁴. "</sup>Hence, both ordinary people and those who are schooled in all disciplines of knowledge have their convincing arguments to refuse and refute the *Ash'arite* theory of God's existence.

4.6.2(b)The Creation of Accidents:

To defend their standpoint about the creation of the world, the *Ash'arites*, present two main arguments, the first one is based on three premises "Which act like first principles from which they hoped to deduce the creation of the world. The first(premise) states that substances never exist apart from accidents, i.e., they never exist without them, the second states that accidents are created, and the third states that what cannot exist, apart from accidents is created, i.e., What cannot exist without accidents is created¹."

¹ Averroes, The Exposition of the Methods of Proofs, (Al-Kashf an Manahij al-Adilla), p.137.

²Ibid.

³The ancient Greek philosophers used to use the terminology dialectic to refer to various methods of reasoning, analysing and for the divergent discussions to find out the truth. More recently, Kant applied this terminology to the criticism of the contradictions, which arise from supposing knowledge of objects beyond the limits of experience, for instance the one applied to decode the enigmas of the soul. Hegel, in his turn applies this terminology, but to the process of thought by which apparent contradictions are regarded as a part of a higher truth.

⁴The Holy Qur'an (16: 40)

¹Averroes , The Exposition of the Methods of Proofs, (Al-Kashf an Manahij al-Adilla), p.148.

The difficulty of this first argument lies in the second premise because of its centrality. This premise, as we have depicted above, states that the accidents are created. The Ash'arites, in their attempt to prove that all bodies are created, they have to get through this stage by proving that all accidents are created. Consequently, they can prove that all bodies that cannot exist without accidents are created. This logic did not help the Ash'arites to prove that accidents are created because this means that there would be a sort of inductive leap from the visible world to the invisible one and from the tangible world of senses to an abstract world in which there are no experiences. Furthermore, it is extremely difficult to extend this inductive leap from the past to the future. The Rochdian induction is made up on a legacy that goes back to the time of Ibn Sina, Al –Farabi and Aristotle of course. As an Aristotelian philosopher, Ibn Rochd makes a clear distinction between complete and incomplete induction. In the complete induction, all individuals on the basis of which an inference is made are enumerated, but this is not the case with the latter¹. The question that insistently imposes itself here is that on what basis the Ash'arite assumption that all accidents are created when all bodies are created is made? Definitely, not on the basis of the world of experience, for not all celestial bodies are parts of the world of experience.

In the light of this analysis, it is a very sophisticated task to prove that whether a certain heavenly body is created or its accidents that are created "Since neither its creation nor that of its accidents is sensed²." Likewise, it is extremely difficult to justify that all accidents are created or all bodies are created without assuming a principle of the uniformity of nature. Ibn Rochd describes the latter as if the nature of the visible world were to be supposed equal to the nature of the unseen world³. Thus, the Ash'arite's second premise ceases to operate because it did not take into account the principle of the uniformity of nature. Even if the Ash'arites wanted to formulate their theory about the second premise, they would not have succeeded. First of all, this would make them contradict their occasionalist view of causation and their atomistic view of the world, which we will discuss in details later on. Ibn Rochd refuted the Ash'arites premise stating that all accidents are created by presenting the example of the space-time. Ibn Rochd argues that time is an accident, but it is very hard to believe that it is created. In other words, every single created substance must be preceded by non-being

¹ Aristotle gives an illustration that has become proverbial: "Man, the horse, the mule \bigcirc are long-lived (A).Man, the horse the mule(c) are gall –less (B). Therefore, (if B is no wider than C) all gall-less animals (B) must be long –lived (A)" Sir David Ross *Aristotle*, (London : Methuen and Co., 1968) p.38¹

²Averroes, The *Exposition of the Methods of Proofs*,(Al-Kashf an Manahij al-Adilla) .p. 140. ³Ibid.,p. 141.

in time, because we are unable to get the meaning of the terminology 'proceeding ' through other source other than time. We can apply the same rule to the space, for it is extremely difficult to claim that the space is created, while every single object exists in a place that has preceded it. Many philosophers identify space as a void or the limit of the specialized body. If it is the former, then, the present void has to be preceded by another void-as a place that accommodates it-, and that void by another one to infinity. If it is the latter, then, this body needs a place to be in it, this process requires another body and the series continues to infinity.

4.7. The Occasionlalist View of Causation:

This doctrine emerged much earlier in the Islamic schools of theology and it states that matter cannot be a cause of events because all events are caused by a supreme power, which is the Almighty God. This theory emerged, as a response to the dualist belief that mind and matter are different things and they cannot influence each other. This means that mind¹ is not responsible for any physical action and the latter cannot be the cause of any mental process. This doctrine emphasizes the total intervention of God in the direction of our actions. Hence, the physical world has no direct impact on the individual's destiny. The *Ash'arite* occasionalist doctrines of causation will be continued and developed by the outstanding Islamic figure Al- Ghazali in the eleventh century. Ibn Rochd directed his bitter criticism about the creation of the world to 'Abu al-Ma'ali' because he was committed to the *Ash'arite* occasioanlist view of causality according to which we cannot predict the result of two causally connected events. For instance, when a cotton ball meets the fire or when the knife cuts the throat of a human being, we cannot predict the burning of the cotton will result or that of death of the person will occur necessarily¹. Ibn Rochd considers this *Ash'arite*

¹*It is quite obvious that whenever we mention the term philosophy of mind, we do mention occasionalism and dualism. The latter is opposed to all forms of materialism, monism, physicalism and phenominalism. The use of two irreducible, heterogeneous principles (sometimes in conflict, sometimes complementary) to analyze the knowing process (epistemological dualism) or to explain all of reality or some broad aspect of it (metaphysical dualism). Examples of epistemological dualism are being and thought, subject and object, and sense datum and thing; examples of metaphysical dualism are God and the world, matter and spirit, body and mind, and good and evil. Dualism is distinguished from monism. which acknowledges only one principle, and from pluralism, which invokes more than two basic principles. Philosophers sometimes employ more than one dualism at the same time; e.g., Aristotle simultaneously invoked those of matter and form, material substance. (Online Encyclopaedia Britannica: immaterial and and and soul, body www.britannica.com/topic/172621/dualism. Access Date: 15 Jan 07).

¹ Al-Ghazali, *Tahafut al- Falasifa*, (The Incoherence of Philosophers), p.225.

occasionalist view of causation untenable and he went further by doubting whether this view could be taken as a serious philosophical position¹. The *Rochdian* real knowledge lies in the cause underlying a given process and ignoring efficient causation Abu al- Ma'ali in particular and the *Ash'arites* in general undermine a very important element vital to the acquisition of real and genuine knowledge. Ibn Rochd exposes the irony in the *Ash'arite* position. He said they start rational when following the course of explanation, but they end up by repudiating reason through their reliance on assumptions. Ibn Rochd concludes that the *Ash'arite* methods and ways to know the creation of the world and God's existence are not reliable at all and he advised the common people not to follow them because if they do so they will go astray.

4.8. The Atomistic View of the World:

The atomistic philosophy emerged in the history of Islam with the emergence of Islamic schools of theology. This atomistic philosophy was brought from the Greek and the Indian thought. No wonder this kind of philosophy was the subject of conflict between all religious orthodoxy. As mentioned earlier, the Ash'arite school of philosophy is a shining example of this Islamic atomism. All traditional philosophers do agree that the atoms are the main building blocks of reality .Accordingly, they make up anything that exists. Other developed theories of atomism believe in the momentary atoms that flash in and out of existence. What matters here is the belief based on the pure existence of atoms, as they have no physical parts, while all the other objects and bodies with parts have no existence such as human bodies, celestial spheres, sees and the list is very long. The Mutakallimin (the Muslim theologians) believed in the possibility of dividing the bodies finitely and they called the part in which ceases the division al-Jawhar al-Fard (The individual substance), which is the basic entity that does enter in the generation of all bodies. This reasoning is contradicted with the claim of the majority of philosophers emphasizing that such division of bodies is infinitely¹. The teacher of al-Ghazali and many Ash'ari scholars Imam Al-Juwayni² (1028-1085 AD) argued that Muslim philosophers did agree that all bodies are finitely divisible until they become afrad (individuals). Some philosophers who were excellent at geometry

¹ Al-Ghazali ,*Mi'yar al- Ilm*, (Criterion of Knowledge), p.140.

¹ Mohammed Basil Al-Taee , Nakd Ibn Rochd li-Madhab Addariyah Inda al-Mutakallimin. (The Criticism of Ibn Rochd of Muslim Theologians' Atomism), p.8

² Al Juwayni is called also *Rukn al –Islam* (The pillar of Islam), Al-Ghazali *Hujjat al-Islam* (Sign of Islam) and al-Kindi *Faylasouf al- Arab* (The philosopher of the Arabs) and Ibn Taymiyyah *sheikh al- Islam* (holding Islamic superior authority).

compared the part with a dot that is indivisible. They also provided the example of the elephant that is bigger than the atom. If there were no target behind the quantities of the elephant and the quantities of the atom, none of them would have more quantities than the other. Thus, none of them would be bigger than the other. That is the way, they reached the following dictum: ان كل ما يحصره متناهي يجب أن يكون متناهي ومالا يتناهى لا يحصره منتاهي : Inna *kolla ma yahsorohu motanahin, yajibu an yakouna motanahi, wama la yatanaha layahsorohu motanahi* (what is finitely counted has to be finite and what is infinite is not counted by a finite).

As influenced by the Greek and Indian theories of atomism², the *Ash'arite* view was not that far from this traditional perspective. The *Ash'arites* do consider the atoms as the only perpetual, material things in existence. Thus, everything which is not an atom itself or not coming from an atomistic nature, it must have no existence in our world, and consequently, it has to be accidental, in that, it will lasts only for a while. This means that all bodies and objects, which are not atoms, can never ever be the cause of something else simply because their existence is limited in time and space. The *Ash'arite* point of view is of a paramount importance because it will lead us to unconsciously think that things of no logical necessity, or rather, events that are produced by chance are not exposed to natural or physical causes. These things and events are the outcome of a permanent intervention of God, which is responsible for the occurrence of everything in the world. Ibn Rochd was not the only one who rejected the *Ash'arite* atomism; it was rejected by the vast majority of Islamic schools as well ,and before that, it was rejected by some of the Hellenes themselves like Aristotle who does not believe that matter is made out of indivisible bodies.¹

¹ Abu al-Ma'ali .Abdel -Malik al-Juwayni *Al-Shamilo fi Asuli al -Dine* (the Comprehensive in the Assets of Faith).p.158. ² We have to mention here that atoms with tiny size are called Democritean atoms (attributed to Democritus)., and there are a plenty of Indian and Buddhist theories about atoms which fully contributed to the richness of human thought in general and the development of the Atomistic philosophies in a particular. Atomism is referred to in many sources as mereological nihilism or metaphysical nihilism. The atoms that all physicists of the early nineteenth century thought were indivisible are in fact made up of even smaller entities, which are electrons, neutrons and protons. The latter are also composed of quarks. This leave the gate widely open to question whether the matter is infinitely divisible or it is made up by an indivisible entity.

¹ Josep Puig Montada Aristotle and Averroes on Coming -to be and Passing away, p.4.

In order to refute atomism, Ibn Rochd resorted to many Greek texts, and especially those of Aristotle. By refuting the *Ash'arite* atomistic view of the world, Ibn Rochd is refuting precisely the position of the prominent theologian Al –Ghazali who is himself an *Ash'ari*. As an Aristotelian philosopher, Ibn Rochd does believe in the existence of a void to violate physical principles. Any specific change in this world of whatsoever occurs not only through the rearrangement of atoms to make new structures, but also through the transformation of matter from what it was in potential to a new actuality.

4.9. Ibn Rochd's Principle of Corruptibility:

The claim that the world existed without beginning or it is eternal without a final term, is also so controversial, in the sense that, it makes its demise and its corruption unimaginable, *"It never began to exist in the condition in which it exists, and it will never cease to exist in the condition in which it exists*¹." The philosophers claimed that the world is caused, and its cause is without beginning or end .This applies to the effect and to the cause alike. Hence, if the cause does not change, the effect cannot change as well. On this basis, philosophers built their proofs of the impossibility of the beginning and the ending of the world. On the same basis, they regarded the eventual annihilation of the world, as an event that has to occur after its existence. Here we are facing another dilemma because the term' after 'implies an affirmation of time. This system was built upon another evidence stating that the possibility of the possibility. The last argument can be easily refutable, as it is impossible that the world should last eternally. For instance, if God should make the world last eternally, it is not necessary that what begins must have an end, even if it is necessary for any act to have a beginning¹.

The prominent Muslim figure Abu Hudayl al-Allaf who is famous by supporting the Islamic creed against the beliefs of *Manawiyyah* and the *Samniyyah* (two famous sects in India with beliefs different from the pure Islamic ones) after the conquest of India by Muslims joined this fierce debate². He thought that the world must have an end; he went on to say that the infinite circular movements are impossible in the past as they are in the future.

¹ Averroes , The Incoherence of the Incoherence, (Tahafut al- Tahafut), vol.I,p.69.

¹ Ibid., pp.69-70

²see Mohammed Abid al-Jabri , Nakd al-Aql al- Arabi(The Criticism of The Arabic Mind), Markaze Dirasat al-Wahda al-Arabiyah, Beirut: 1982.

This logic seems to be untrue because the future ,as a whole, never enters into existence simultaneously or successively. However, the whole past is there simultaneously, but not successively. As we do not consider the incorruptibility of the world as impossible, we do consider its incorruptibility and corruptibility as equally possible. We do know thanks to the divine law the scenario that would occur and which of the two possibilities that would be realized. However, this should be proved though reason and through methods and means stripped of any religious impact. Here we are face to different kinks of eternities and every eternity is supported by specific arguments. There are those who assert that the eternity of the world is possible only in the past, those who claim that such eternity is only possible in the future and a third party see the eternity of the world in both cases. With the exception of Abu Hudhail al-Allaf who thought that the eternity of the world is impossible in both directions¹. Philosophers claimed that:

"The possibility of the world had no beginning and that with this possibility a condition of extension, which could measure this possibility, was connected in the same way as this condition of extension is connected with the possible existent, when it is actualized, and it was also evident that this extension had no initial term, the philosophers were convinced that time had no initial term, for this extension is nothing but time, and to call it timeless eternity is senseless²."

From this perspective, Ibn Rochd deduces that the theologians' dictum stating that everything, which existed in the past had a first term, is completely futile because the First exists in the past eternally as It exists in the future eternally. The philosophers fell in this thorny problem because they have drawn a distinction between the First and Its act. In order to establish such a distinction, the theologian would need evidence that the existence of the temporal that occurs in the past is quite different from the existence of the eternal that happens in the past. This distinction is of a crucial significance because the temporal that occurred in the past is finite in both directions, in the sense, it has a beginning and an end, while the eternal that happened in the past has neither a beginning nor an end¹. Since philosophers do not admit that the circular movement has a beginning, they are not obliged to admit that it has an end because they do not consider the existence of the circular movement in the past as transitory. Any philosopher who is thinking this way, he is

¹ Averroes, The Incoherence of the Incoherence, (Tahafut al- Tahafut,),vol.I,pp.69-70

²Ibid.

¹Ibid., pp.70-71.

contradicting himself, and accordingly, he is unconsciously asserting that everything that has a beginning has an end¹. From all these analyses, we can come out with a lot conclusions and deductions:

"That anything could have a beginning and no end is not true, unless the possible could be changed into the eternal, as everything that has a beginning is possible. And that anything could be liable to corruption and at the same time could be capable of eternity is something incomprehensible and stands in need of examination²."

There is no room for doubt that ancient philosophers had tackled this problem in some way or another, Abu Hudail does agree with philosophers that whatever can be generated is susceptible to corruption. This can be solved through the rectification of the stance that draws a distinction between the past and the future: "*Because what is in the past is there in its totality, where as the future never enters into existence in its totality (for the future enters reality only successively*³)." Abu Hudail sees this dictum as deceptive, as past is that entered time and when we do say entered time, we do mean that time is beyond it in both directions and possesses totality. On the contrary, that which has never entered the past in the way the temporal enters the past can be considered in an equivocal way to be in the past, and therefore, possesses no totality in itself, even though it parts are totalities⁴. If we do assume that it has no initial beginning in the past, it will be time itself as:

"Each temporal beginning is a present, and each present is preceded by a past, and both that which exists commensurable with time, and time commensurable with it, must necessarily be infinite. Only the parts of time which are limited by time in both directions can enter the past, in the same way as only the instant which is ever-changing and only the instantaneous motion of a thing in movement in the spatial magnitude in which it moves can really enter the existence of the moved^l."

We are not claiming that the past of what never ceased to exist in the past ever entered existence at an instant because such assumption would mean that its existence had a beginning, and consequently, time is limited in both directions. From this perspective, past "Stands with that which is simultaneous with time, not in time²."

¹Averroes , The Incoherence of the Incoherence (Tahafut al- Tahafut), vol.I, p. 71

² Ibid.

³ Ibid.

⁴ Ibid.

¹ Ibid.

²Ibid.,p.72.

This analogy helps us to understand that among circular movements, only those that time limits enter into represented existence. On the contrary, those that are simultaneous with time do not enter past existence. Likewise, since no time limits the eternally existent, it does not enter past existence:

"When one imagines an eternal entity whose acts are not delayed after its existence-as indeed must be the case with any entity whose existence is perfect-then, if it is eternal and doe snot enter past time, it follows necessarily that its acts also cannot enter past time, for if they did, they would be finite and this eternal existent would be eternally inactive, and what is eternally inactive is necessarily impossible¹."

Concerning the arguments taken from God's providence or intelligent design to maintain the existence of human being and achieve his well-being was an old idea that was frequent in the works of many Hellenes. Plato, for instance, demonstrated, in many of his dialogues, that the world is organised as an intelligent and melodious cosmos in order that human being can fulfil the best life². Ibn Rochd, in his work Al kashf an Manahij al-Addilla fi Akaid al-Milla (The Exposition of the Methods of Proofs in the Beliefs of the Creed), argued that all existents are compatible with the existence of man. Such compatibility is a necessity established by a maker with both intention and will and these properties can only be associated with God³. To imagine a world without intelligence where human beings have to lead a beautiful and harmonious life thanks to a mechanical necessity is certainly absurd¹. This is the case of the mechanistic theory as mentioned before, which explains the natural phenomena of the universe only through a necessary physical condition without any resort to causes, which are the best for human beings². It is worth noting that the *Timaeus* does not focus only on intelligence to explain the generation of the world, but also on necessity. Intelligence uses necessity to achieve its own objectives, in the sense that, intelligence always focuses upon what is good and necessity produces randomly its effects. That is why, it is of a paramount importance to draw a distinction between causes that work with intelligence to produce everything desirable and melodious and causes that are stripped of reason and randomly produce their effects.³

¹ Averroes , The Incoherence of the Incoherence, (Tahafut al- Tahafut), vol.I,p.72.

² Plato, *Timaeus*, 90d6

³ Ibn Rochd , Al-Kashf an Manahij al-Adilla, (The Exposition of the Methods of Proofs), p.80

¹ Carlos Steel , The Moral Purpose of the Human Body, p.107

² Aristotle, Phaedo, 97c8-d1

³ Carlos Steel, The Moral Purpose of the Human Body, p.10

Ibn Rochd's world is an organic one, in the sense that, the organization of its parts did not come from a mere coincidence. Definitely, the thorough organization of the world can only came from an intentional agent and a creative artisan called the Almighty God. Thus, if any basic part were missing from this homogeneous unity, the whole life in our world would be affected or even at a high risk of destruction. Ibn Rochd cites many examples to prove that many things exist to be conductive to man's existence from the cycles of nature to the presence of natural phenomena, animal and plant species necessary for man's well being. Since our world is an organic whole that is conductive to human life and as any substantial change in its organic constitution leads to the corruption of the whole, then, the world is coming from *Fa'ilun qasid wa murid* (a willing agent). Accordingly, it is not possible that this conduciveness results from coincidence ¹. This is obvious, according to Ibn Rochd, in the succession of the day and the night, the Sun and the Moon, the succession of the seasons and everything is destined for the life and the interest of human beings².

The second proof concerns *dalil al- Ikhtira*' (The proof of invention) which proves that all existents are invented and this is obvious in everything around us. In the animal and the plant kingdoms:

"O people, a parable is set forth, so listen to it. Surely those whom, you call upon besides God cannot create a fly, though they should all gather for it. And if the fly carry off aught from them, they cannot take it back from it. Weak are (both) the invoker and the invoked¹."

We do see inanimate objects that turn to be filled with life and we know that there is an agent that bestowed such life on them. Likewise, we do know from the unceasing movement of the celestial spheres that they are invented, guided and predestined with providence and anything that is predestined and guided is invented by another as a necessity. This means that every invented thing has an inventor and the one who does know the truth of the thing can never know the truth of the invention, and we do mean by the truth of the thing the cause and the purpose of its existence². By presenting this analysis, Ibn Rochd is denying the naturalists' view that attributes the wonders of our universe to coincidence. He said that as rational beings, experience justifies us in attributing this wonderful design to God.

¹Fakhry, History of Islamic Philosophy, p.281

² Ibn Rochd ,*Al-Kash an al-Manahij al-Adilla*,(The Exposition of the Methods of Proofs),p.80

¹ The Holy Qur'an, Chapter al -Haj (The Pilgrimage : 22) Verse. 73.

² Ibn Rochd ,Al-Kash an -Manahij al-Adilla, (The Exposition of the Methods of Proofs), p. 119

" If a person were to see a stone somewhere on earth and find it conductive to being sat on, in a certain position, and of a certain size too, he would realize that this –stone- must have been made in such a form and size by a maker who put it in that place. But when –that person- does not see it conductive to being sat upon, he would realize that its being in that place with a certain quality is due to coincidence and would not attribute a maker to it¹."

At the end of God's existence discussion, we have to affirm that Ibn Tofayl's proofs taken from intuition are very subjective. In order that man can achieve that sublime spiritual state leading him to the apprehension of God, he has to be equipped, to some extent, with the weapons of piousness, faith and a sort of pre –acceptability of God's existence. Concerning the argument stating that everything has a cause, in order to clear and contradiction that may occur such as why when do follow all these series of causes, we do stop at God as a final cause? Ibn Tofayl presented the argument that way to avoid falling in an ad-infinitum argument, and consequently, avoid many absurd questions like what caused God? If we do follow Ibn Tofayl's dictum as it is, this would mean that if the conclusion is true, the premise is false and if the premise is true, the conclusion is false². Therefore, Ibn Tofayl's dictum has to be re-formulated to state that everything has a cause except God to get rid of all probable difficulties that may minimize the strength of this argument.

4.10 Conclusion:

The arguments proving the existence of God Who is the First Agent, the First Cause, and the Ultimate Truth are of a crucial significance in the understanding of the entire universe. If we do assume, for instance, that the there is no creator –regardless of the nature and our understanding of this creator-it would be a very hard task to imagine the existence of our world. In the same way, if we do suppose that the creator is non- existent, this would make the world non-existent as well. By admitting the existence of a world whose nature is based on experience and which is finite and an unseen and another world that is infinite, Ibn Rochd is dismissing any proof that can be offered concerning the latter world, based on the knowledge of the former one. In other words, those who accept the existence of God as Artisan, Creator, Inventor or Originator of the world cannot do so with deductive certainty. For the same reason, Ibn Rochd is tolerant with those who disagree with him, since the proofs that apply to this world do not necessarily apply to the other¹.

¹Averroes, The Exposition of the Methods of Proofs, p.194.

² Sami S. Hawi, On the Existence of God and His Attributes, p.62.

¹ Ibn Rochd , *The Exposition of the Methods of Proofs*, p.220.

After examining the divergent arguments of all the theological groups regarding the origin of the universe and God's existence, Ibn Rochd came out with a result stating that all these arguments are neither conclusive nor authoritative. He proceeds to give us his arguments which seems to be irrefutable. Ibn Rochd considers that the arguments that convince people of God's existence are universal and simple at the same time and they are two in number: The arguments covering *Dalil al-Inava* (the design or providence), or what Abd al-Jabbar al-Hamajani(935-1025 AD) calls *the concept of lutf*¹ and the arguments taken from *Dalil al-Ikhtira*², (invention or creation).

The arguments covering design or providence state that everything exists for a purpose, while the arguments taken from the invention or the creation suggest that things are invented or created, exactly like the invention of life from matter. Ibn Rochd defends his first arguments through the principle of conduciveness and that of the willing agent, while he supported his second arguments by relying on the observation of life issuing from material bodies and helping us to "*Know for a certain that there is here a producer of life and a provider of it that is God the Almighty*¹."

When we do contemplate the astonishing natural balances, we can only believe that a nature that can organize itself in this thorough manner must have a soul. The latter cannot be eternal, as it is created by the Eternal because we cannot speak of nature as a designer, as this will imply intelligence, craftiness and providence. We have to bear in mind that the process of natural selection is restricted to some forms of instinctual behaviours and natural skills and it cannot go beyond that. Therefore, what we are seeing here is something totally different, we are in an amazing natural and physical factory where everything is calculated by seconds, inches and pounds, without decrease or increase. Either the increase or the decrease of time, space or weight will jeopardize our life on Earth and annihilate our existence altogether. There are thousands of other examples in nature about species, especially in the kingdoms of animal and plant, which have to behave, protect, develop or even struggle for their lives in ways that nor evolution, neither natural selection can provide us with convincing explanations. Besides, the human being who is equipped with the weapon of the intellect and rationality remains speechless, so where did these non-intellect living

¹ Maha Elkaisy, Gods and Humans in Islamic Thought : Abd al-Abbad, Ibn Sina, and Al-Ghazali, p.97.

² Fakhry , History of Islamic Philosophy, p.281

¹ Ibid., p.151.

beings bring such intelligence? So how can nature, which does possess no intellect grants the other creatures with these intelligent behaviours? Our answer would be as simple as that, nature is ,in its whole entity, an ensouled creature among all other creatures that are designed and controlled by divine norms manifested in natural and physical laws. According to Ibn Rochd, both philosophers and the masses achieve the knowledge of God through these two arguments, but with slight differences based on their natural skills, rational capacities and their own ways of assessing things or as it is highlighted in *'History of Islamic Philosophy'* as:

"The difference between the two ways lies in the details, that is, the common people know of the design and invention of what can be known through primitive knowledge that is based on sense perception. But the scientists go further to know what can be perceived rationally on the basis of proofs...and the scientists do not reveal a greater understanding of these two arguments except in the manner of greater detail and more depth in the knowledge of the selfsame thing¹."

We do deduce from this statement that both philosophers and ordinary people achieve their knowledge of God's existence. The former, achieve this understanding through sophisticated means and complicated methods, which are beyond the comprehension of the other people, whereas the latter achieve such knowledge through the created things. There are many philosophers who do not believe in God's existence. Accordingly, they dismiss any argument trying to prove that existence. Ibn Rochd was aware of this truth when he mentioned that there are some pre-Socratic naturalists-who are known in Islamic philosophy as *ad-Dahriyun*- who do not believe in God and they would reject his two arguments regarding God's existence. However, their position would not undermine the validity and the strength of these arguments because Ibn Rochd had never claimed that his proofs are demonstrative for the existence of God. However, as human beings, we are thinking beings; this logic is the utmost that we can reach, as it is completely based on the knowledge of ourselves as rational beings and the principles of induction that we use in knowing the world and everything surrounding us are relative.

¹ Fakhry ,History of Islamic Philosophy, p.155

On God-World Relationship:

5.1. Different Types of Beliefs:

5.1.1 Polytheism and Monotheism

The distinguishing characteristic of polytheism is the belief in the multiplicity of gods such as in Hinduism, Zoroastrian dualism, Mahayana Buddhism, Confucianism, Taoism and Shintoism. In Hinduism itself, as a major religion, many sects have divergent forms of polytheism, but they differ in the way they do perceive such gods. In Henotheism- it has a historical roots in ancient Egyptian religion, pagan Hermetism and Hermeticism-, for instance, the worship is directed to one among many other gods, for it is more powerful and deserves to be praised and worshipped more than the others. In Ayyavazhi, the worship is for all gods without any difference or discrimination. In Kali Yukam, All worshippers are unified in the Ayya VaiKundar for destroying the kaliyan. In Kathenotheism, the same belief is always there, but the only difference is that they worship different gods at different times and places. Regarding the Abrahamic religions, we have to mention that the Jewish and the Christian monotheism is based on a sort of plurality. In Trinity, the Christians do believe that only God the father must be worshipped, whereas, they minimize the divine importance of Jesus Christ and the Holy Spirit. Ancient Judaism is not far away from the same conception by divinely praising Uzair (Ezra). The religious sect called 'Druze' (related to the 11th century Ismaili preacher ad-Darazi) was inspired by this Jewish-Christian concept. The Druze movement is a *shii* sect coming from the *Ismaili*¹ branch that makes from the divine praise of the sixth Fatimid² Caliph Imam al Hakim bi-Amr Allah (985-1021) its basic tenet. We have to bear in mind that Shiism, as a whole, considers the cousin and son-in-law of the prophet Ali ibn abi Talib(ca.598-661 AD) as an incarnation of God. On the contrary, The Sunni Islam is characterized by the worship of God stripped of all manifestations, personifications, incarnations or associations, which make monotheism, stripped of any kind of polytheism or plurality of whatsoever. This notion of the relation of God with the world is not new, as it goes back to thousands years. Heraclitus dealt with this fundamental metaphysical problem in the form of questions about the nature of the relation between the absolute and the relative, between the one and the many, between God and the phenomenal

¹ The second largest branch of Shii sect, the Ismailis accept Ismail ibn Ja'far (ca.721-755 AD) as their divine spiritual Imam. This is opposed to the twelvers (the Ithna'achariyah) the largest Shii sect believing that Mousa al-Kadim (ca.745-799 AD) is their spiritual Imam.

² This is a Shii dynasty ruled by Ismaili Imams (909-1171AD), the name is derived from Fatima az-Zahrae, wife of Ali ibn Abi Talib, son-in-law of the prophet Mohammed.

world¹. The general stance of the Islamic God-human relationship based on pure monotheism is manifested in the works of three major thinkers: Abd al-Jabbar (d.1025 AD) as a representative of the Mu'tazili Kalam tradition, Ibn Sina in the philosophical tradition and Al-Ghazali in the sufic one². What matters us in the middle of these troubled polytheistic beliefs is the Hellenic one that existed in many forms, in the sense that, the Hellenic worshippers used to worship different gods in different places and times. They worshipped their outstanding ancestors, their heroes and heroines who turned them into gods and goddesses. They also worshipped the nature divinities and the underworld deities such as Isis, Astarte, Diana, Hecate, Demeter, Kali, Innana, and many more. The Greek gods always do take human forms and personalities and they interfered in the daily human activities. This does not mean that polytheism was the only sort of belief prevailing in ancient Greece, in that, many philosophers attacked and mocked the way gods are portrayed and the manner they were seen. Among them Xenophanes of Colophon (ca.560-478 BC) - the founder of the Eleatic school of philosophy- who attacked in his poems polytheism associated with anthropomorphism and anthropopathy especially in the poems of Homer (ca. 8th BC) the author of the lliad and the Odyssey and Hesiod (700BC). Xenophanes asserted, in all his poems, the unity of God .By declaring that God is one; Xenophanes was asserting all the known divine attributes such as the perfect, the eternal and the immanent intelligent cause. That is why, they are some critics, who put him in the list of monotheists or pantheists, but what matters us here is that he was not at least a polytheist, which affirms that there were other beliefs existing at that time other than polytheism. Many other prominent philosophers were of the same view like Parmenides (ca.515 -450 BC) - who used the Xenophanes's theory of the unity of God to elaborate his doctrine of the unity of being- Theophrastus (ca.372-287 BC) and many more. Whenever we talk about polytheism, we have to mention monotheism either to refute the former or to support it. We all understand that monotheism is the belief in the oneness of God, as it is the case in the Abrahamic religions: Judaism, Christianity and Islam with the reservations we have mentioned previously. Monotheism also differs from one religion to another in terms of the way each religion is looking at the nature and the attributes of God. However, they all consider God as a supreme, eternal, beneficent. omnipotent, omniscient, omnipresent, all perfect, all merciful, all just and all loving. What is striking here is that in some beliefs God is regarded as a male. This means that he has a

¹ Frankel Hermann , Heraclitus on God and the Phenomenal World, p.230.

² Maha Elkaisy ,Gods and Humans in Islamic Thought: Abd al –Jabbar, Ibn Sina and al-Ghazali, p.97

sexual nature and the latter requires certain physical organs that are associated with males. These speculations about the Divine are not rational at all, on the one hand, they are a sort of anthropomorphism and they are in clear breach of one of the most important characteristic of the God as supreme and unique, on the other hand. Xenophanes seems to be, as we mentioned before, the first philosopher of religion. His inclinations to this theological path started when he attacked the Homeric anthropomorphism and replaced with a very sophisticated monotheism.¹This complete refusal of Homeric conceptions of gods compelled Xenophanes to upraise against them through monotheistic divine values and attributes:

One god, lord over gods and human kind,

Like mortals neither in body nor in mind (DK 24 B23)

Xenophanes argued that there could be only one God as the most powerful of all things and it could not be more than one God, as in this case no god would have the superiority over the other. Accordingly, none of them would have the ability to do what he is willing. These divine properties lead us to think that God must always have existed, as He could not come into being from something like him because there cannot be anything equal to him¹. What is striking here is that this Xenophanian ancient conclusion about the nature, the oneness and the eternity of God is compatible with Abrahamic religions. If we do take, for instance, the Islamic concept of God we would find that God describes himself as: "There is nothing whatever like unto Him²", and in other chapter "If there were, in the heavens and the earth, other gods besides Allah, there would have been confusion in both! but glory to Allah, the Lord of the Throne: (High is He) above what they attribute to Him!^{3"}. Likewise, Xenophanes sees that God could not come into being from something unlike Himself, as the greater cannot be brought into being by the lesser⁴. All these divine properties, made Xenophanes assume that God is a living being, but not an organic being like the other living species (humans, animals and plants). This means that God is not made of parts: "He sees as a whole. He thinks as a whole, and he hears as a whole (DK 21 B24)." The nature and the essence of God are beyond physical things, that is why, He has no physical contact with anything in the world, but 'Remote and effortless, with his mind alone he governs all there is (DK 21 B25)." Despite all these speculations about both God's nature and essence,

¹ Anthony Kenny , Ancient Philosophy, p.290.

¹ Ibid.

² The Holy Qur'an: Chapter Ash-Shura (The Counsel), 42, Verse. 11

³Ibid., chapter Al-Anbiya'(The prophets),21. Verse. 22

⁴ Aristotle, MXG976b14-36

Xenophanes did not accept that God is finite or infinite, changing or changeless¹. He supported some arguments and refuted others without a clear stance. He sometimes proves that God is finite and sometimes infinite .Likewise, he directed some of his arguments towards the changeability state of God and others to His unchangeability. Xenophanian sources, or at least those sources that are available to us, left us very unsure about many of his conceptions of God. We do not know whether Xenophanian God is transcendent or He is identified in some mysterious way with the entire Eleatic universe², "The clear and certain truth no man has seen nor will there be anyone who knows about the gods and what I say about all things (DK 21-B34)." Xenophanes' concept of the Divine does not mean that he is the first monotheist, as he was anticipated much earlier by the Pharaoh of the Eighteenth dynasty of ancient Egypt Amenhotep IV, known as Akhenaten¹. Xenophanes' monotheism was not presented as an oracular revelation, but rather, it was the outcome of a rational argument. In other words, the prophets who came later on asserted such monotheism through the religious revelation, while Xenophanes achieved that as a natural theologian². The conceptions of the absolute that appeared in the writings of Plato, Aristotle, Plotinus and Later on Spinoza and Leibniz do not coincide with the idea of God that is mentioned in Hebrew books, the Torah, the prophets of the Psalms and the Gospels.

This idea is well presented by Pascal who said that "God of Abraham, God of Isaac, God of Jacob and not of philosophers and scientists³."He meant by the philosophers those who have a pagan conception of God, the philosophers who paganised the living God⁴. Whatever the case, we have to mention that the Abrahamic religions are innocent from the claims stating that there is a paradox in thinking that God is knowable to His creation, while He is distinct from anything He had created and how is it possible to understand God as outside the world and at the same time knowable within it⁵. We do reply that this is one of the properties of transcendence, the immanence and the ineffability of the Divine to be known and accessible

¹ Anthony Kenny , Ancient Philosophy, p.290.

² Ibid.

¹ Akhenaten (often alt: Akhnaten, or rarely Akhnatonking (1353–36 BC) of ancient Egypt of the 18th dynasty, who established a new cult dedicated to the Aton, the sun's disk (hence his assumed name, Akhenaton, meaning "beneficial to Aton").)(Online Britannica encyclopedia: www.britannica.com. Access Date: 11 May 2008).

² Anthony Kenny, Ancient Philosophy, p.290.

³Claude Tresmontant , la Metaphysique du Christianisme, p.194.

⁴ Ibid.

⁵ David B. Burrell, Knowing the Unknowable God, p. 507.

to His creatures, as an act of providence, and different from all His creatures, as a property of transcendence.

5.1.2 The Basic Tenets of

Pantheism, Panentheism,

Before introducing some definitions of the terminology 'Pantheism', and 'panentheism' we have to mention that these terms are modern and did not appear in any of the ancient Greek texts. However, it is useful to highlight them to elucidate any misunderstanding that may occur in any stage of this debate. We have also to mention that there are many disputes about its various significances and who should be considered pantheist and who should not. Some consider philosophical Taoism as the most clear example of pantheism .Others also include *Advaita Vedanta*, certain forms of Buddhism and some mystical monotheistic trends.

Pantheism is the religious position claiming that "God is everything and everything is God... the world is either identical with God or in some way a self- expression of his nature¹." This led to the view that "Everything that exists constitutes a 'unity' and this all – inclusive unity is in some sense divine²." There is another definition given by Huw Parri Owen(1926-1996) who went on to say that, "Pantheism ... signifies the belief that every existing entity is, only one being, and that all other forms of reality are either modes (appearances) of it or identical with it³. "In addition to Spinoza, many others are considered by many scholars as pantheists such as some of the pre-Socratics, Plato, Plotinus, Schelling, Hegel and many more. From this perspective, pantheism does not believe in the existence of a personal God. Thus, the Pantheists are in total disagreement with both the theists and the atheists. From this particular point starts the difference between pantheism and theism. The latter does believe in the existence of a personal God who is ,in some way or another, totally separate from the world. Hence, pantheism came in an attempt to solve many of the theistic problems about the nature and the transcendence of the Divine. However, many of the problems of theism also exist in pantheism especially those related to evil and creation. The term pantheism was used in the eighteenth century as "A large, vague term of theological abuse⁴." Therefore, pantheism is neither theistic, as it does believe in God, but who was not transcended from the world, nor atheistic, as it does believe in the existence of God. That is why, we can only consider it, as a form of non -theistic monotheism.

¹ H. P. Owen, *Concepts of Deity*, p.74

² Alasdair Macintyre, Pantheism, In Encyclopedia of Philosophy. Ed. Paul Edwards. p.34.

³ H. P. Owen, Concepts of Deity, p.65

⁴ A.H. Armstrong, The Architecture of the Intelligible Universe in the Philosophy of Plotinus, p.187.

Many critics compare pantheism to atheism, simply because the belief in God has to be accompanied with the belief in a personalistic (as a person) god. Such a god is not a condition at all, in the sense that, you may believe in any god who might be an idol, a spiritual or even a sort of an idea in your mind. In his non –pantheistic stage, Samuel Tailor Coleridge (1772-1834) claimed that, "Everything God, and no God are identical options¹." Huw Parri, Owen went on to say that "If God (theos) is identical with the universe (to pan) it is merely another name for the universe, It is therefore bereft of any distinctive meaning; so that pantheism is equivalent to atheism¹." Likewise, Arthur Schopenhauer (1788-1860) claimed that, "To call the world 'God 'is not to explain it, it is only to enrich our language with a superfluous synonym for the word 'world²."

These accusations addressed to pantheism, as atheism is so old because it goes back to the time:

"When Cicero's Velleius describes Speusippus' pantheism as an attempt to 'root out the notion of gods from our minds', he is echoing a charge which was commonly made against the pantheism of the earlier Greek natural philosophers ... like Anaximander or Heraclitus. These tended to be identified as atheists in the popular mind; and indeed Plato himself implies a similar view ... the opponents who classify them as atheists are in reality attacking them for undermining traditional beliefs about the gods — or, to borrow a phrase from the indictment against Socrates, 'for not believing in the gods the city believes in³."

Definitely, panentheism is another philosophical- religious stand stating that there is no devil or other malevolent cosmic forces that are in opposition with God. Santiago, Sia in his, *God in Process Thought*, summarises the panentheism of Charles Hartshorne (1897-2000) as follows:

"Panentheism . . . holds that God includes the world. But it sets itself apart from pantheism in that it does not maintain that God and the world are identical. . . . Hartshorne explains that God is a whole whose whole-properties are distinct from the properties of the constituents. While this is true of every whole, it is more so of God as the supreme whole. . . . The part is distinguishable from the whole although within it. The power of the parts is something suffered by the whole, not enacted by it. The whole has properties too which are

¹ Thomas McFarland, Coleridge and the Pantheist Tradition, p.228.

¹ H. P. Owen, Concepts of Deity, pp.69-70.

² Arthur Schopenahuer, ., A Few Words on Pantheism, In Essays from the Parerga and Paralipomena. trans. T. Bailey Saunders.p.40.

³Christopher Rowe, One and Many in Greek Religion, In Oneness and Variety. Ed. Adolf Portman and Rudolf Ritsema, pp..54-55.

not shared by the parts. Similarly, God as whole possesses attributes, which are not shared by his creatures. . . . We perpetually create content not only in ourselves but also in God. And this gives significance to our presence in this world¹."

From this perspective, we do understand that the term 'God' in panentheisn is so broad in comparison with that in pantheism. According to the panentheistic belief, everything is within God as a part of it. Therefore, the whole universe is the body of God that is consisting of many parts, each part has the power to create the same, as God .This notion is different from pantheism that regards God, as the only creator and actor in the universe. His presence is an overriding presence that cancels the possibility of the existence of anything else. That is why, the existence of anything else including the human existence is completely shrouded in mystery¹. There is a sort of overlap between theism –with all its branches-pantheism and panentheism. Such overlap is due to the way each religious or philosophical position is regarding the Divine nature. We would not find better than the following passage to describe such overlap:

"It is not necessary to go to pantheism, with a god that acts as a universal wet blanket, smothering the possibilities of everything else's genuine existence. Panentheism gives all that one could want: an all-encompassing, growing, perfect God, everywhere present and containing everywhere within himself; and the reality of oneself and others, freely deciding within God, responding to God's overtures in the process of co-creation. Theism denies that the world (including us) shares in God's being. Panentheism recognizes that everything shares God's being (or becoming) but that God's being operates from innumerable relatively freely choosing canters or perspectives of existence. God and the world, which is God's body, are interdependent²."

5.2 Evil Creation and the Principle of Perfection:

If we do admit that God is the maker and the creator of everything on Earth and elsewhere, we would definitely admit that God created evil as well, as a part of all these creations. Likewise, if we do admit that omnibenevolence is among God' attributes, so how do evils exist in our world? We have to admit accordingly, that the evil can only occur in the absence of good. Consequently, the evil does not exist in God, as for all God is good, so it must exist in human beings, and when we say a human being, we are talking definitely about minds,

¹ C. Alan Anderson and Deborah G.Whitehouse , New thought: A practical American Spirituality, p.90.

¹ Ibid., p. 89.

² Ibid.

souls and bodies. Themistius (ca.317-390 AD) was not far from this reasoning when he adopted the Peripatetic view minimizing evil and considered it as a defect in matter and human being¹. No one would deny that the notion of evil is so confusing because when we do talk about evil, we are talking about authority and power in the same way when taking about good. Ibn Sina in his *Kitab ash Shifa* ' (Book of Healing), part of *llahiyyat* (Divinities), does not consider all the imperfections and the defects that occur to the matter as evils. He sees, for example, the blindness as evil, as it can only occur in the eye and not somewhere else, but this does not apply to the heat even if it causes pains, as it can occur somewhere without causing evil and sometimes it is a source of good¹. Whatever the case, where did evil get this power from? Is it created or is it eternal? Does It exist in the mind, in the body or in the soul? Ibn Rochd tried to solve this dilemma through many philosophical questions such as what is the common character found in everything we call good? What is the opposite character common to all evil things?²

All these questions have been and for long centuries, the bone of contention between philosophers, thinkers and theologians. If we do assume ,for the sake of argument, that evil gets its power from God ,we would be contradicting ourselves, for in this case evil cannot be evil, simply because the good nature of God. If some one says that evil is made up of soul and body, it is even more vague and dull, as the evil will have no existence only in the combination of both soul and body. Consequently, if body and soul are separated, the evil will have no existence, on the contrary, if they join each other, the evil then, is created. If we do assume that evil is co-eternal with God, we are denying that God created everything. In this case, another question of a paramount importance crosses our mind is that is evil there against the divine will or is it a divine wish? Even with the last probability, we can still think whether the divine power is associated with the divine wish or not ,in the sense that, God can create evil, but He did not wish or He wishes to create evil, but He could not. In Islamic tradition, this dilemma is solved through the concept of *tawallud*, the closest meaning to this Arabic term in English is 'generation'. This concept reveals the casual relationship between the internal act of the will and the external action, which followed hard upon it.

¹ Guy Guldentops, *Themistius on Evil*, p.189

¹ Ibn Sina, Kitab al-Shifa, (The Book Of Healing),p.223.

²George F. Hourani , Averroes on Good and Evil, p.15.

Bishr ibn al- Mu'tamir (- d.825 AD) argued that man 'wallada' (generated) this external action, that is why, he is responsible for it¹. Abu- Hudhayl agreed with Ibn al-Mu'tamir that man generated his own actions, but he disagreed with him in terms of responsibility, as he sees man responsible only for the acts he intends directly and he is not responsible for the results of other acts. Hence, this concept does abrogate the atomic occasionalism and confirm the secondary causality. The full credit goes to Mu'ammar ibn 'Abbad ((ca.786-809 AD) who introduced the concept of nature tab' (physis) into Mu'tazilite physics, according to him, accidents act one upon the other through tab'an (natural necessity) or through an act of ikhtiyaran (human volition). Since God created substances, accidents are subject to secondary causality, and consequently, God is completely free of any kind of responsibility of having created evil¹. Ibn Rochd, in his turn, sees that God is not responsible, at all, for evil, as evil is a concomitant of matter and that God does not know. He went on to say that ignoring some things is better than knowing them and this cannot be regarded as a defect or imperfection. The fact of making God knows the particular to save Him from responsibility of creating evil by claiming that good and evil are only in relation to us, but to God they do not exist is a dangerous doctrine². All over gain, Themistius was not that far from this Rochdian stance when he emphasized that matter is not ugly by itself, but rather, accidentally, as it has a share of the privation³.

We do understand from this reasoning that privation is the source of evil. Themistius, as a Peripatetic philosopher, argued that there is a mentioning to privation in Plato's claim that matter is not a being. Therefore, there is an obvious link between matter and privation, as matter is accidentally non-being and privation is an accidental property of matter that is not yet a concrete thing. Albeit, matter is a potential part of a composite substance and so close to be a being⁴. Many philosophers do believe that the good is prevailing in everything and evil is present in a casual way exactly like the punishments which good governors and rulers ordain .Even if these punishments are evils, they are performed for the sake of the good, not by primary intention⁵. Therefore, good things and evil ones do co-exist at least in the nature of man who is composed of a rational and an animal soul. According to these philosophers,

¹ F.E. Peters *Aristotle and the Arabs*, p.144.

¹ Ibid.,pp.144-145.

² Isaac Husik , Averroes and the Metaphysics of Aristotle, p.427.

³ Guy Guldentops, *Themistius on Evil*, p.190.

⁴ Ibid.

⁵ Averroes, *Tahafut al Tahafut*, (The Incoherence of the Incoherence), vol.1, p.106.

divine wisdom allowed that a big quantity of the good should exist, but it had to be mixed with a small quantity of evil "For the existence of much good with a little evil is preferable to the non existence of much good because of a little evil¹."

Ibn Rochd, as usual, criticized the Ash'rite position that justice and injustice are there because of a prohibition of religion against certain acts. Hence, a man is just only, when he does something just according to the law and he is not, if he does what the law enforced as unjust. As God is not under such a prohibition of the law, there is nothing just or unjust for Him. In other words, there is nothing just or unjust in itself¹. Ibn Rochd described such analysis as shani'a (disgraceful), as in this case, there would be nothing that is good in itself and nothing that is evil in itself; but in the same time, it is self-evident that justice is good and injustice is evil. This would mean, according to Ibn Rochd, that associating other gods with God would not be unjust in itself, but only from the perspective of the law². Likewise, Ibn Rochd opposed the Platonic view, that is not far away from the Ash'arite one, stating that good and evil have no definite nature in themselves, but they are good or evil by supposition³. Ibn Rochd went on to say that Plato, Aristotle and many of their followers resort to the assertion that the existence of objective values is a self –evident truth, which cannot be accepted as a rational argument. The same can be said about subjectivism, which regards the value of the religious rituals as conventional and not intrinsic⁴. Aristotle has another point of view when he identifies the nature of any thing because of its end and final cause⁵. The end of such a thing is its function⁶ and its defining principle⁷. Hence, Aristotle understands good and evil in terms of his teleology. The natural end of organism and the means to this end is good for it and what defeats or impedes this end is evil. For instance, he went on to say that animals sleep in order to preserve themselves because nature operates for the sake of an end. This is a good, as sleeping is necessary and beneficial for entities, which cannot move continuously⁸. For human beings, the ultimate good (happiness or what Aristotle calls eudemonia) consists in perfection, the full attainment of their natural function,

¹ Averroes , *Tahafut al Tahafut*, (The incoherence of the Incoherence), vol.1, p106.

¹ George F. Hourani , Averroes on Good and Evil, p.17.

² Ibid.p.18.

³Ibid.

⁴ Ibid.

⁵ Aristotle , Physics II", 2.194a28-9, 8.199b 15-18.

⁶ Aristotle, EE *II.1.1219a8*.

⁷ Aristotle ,Meteor *IV.12.390a10-11*.

⁸ Aristotle , De Somno 2.455b17.

which Aristotle analyzes as the activity of the soul according to reason that is in accordance with the most perfect virtue or excellence¹. This also provides a norm for politicians "What is most choice worthy for each individual is always the highest it is possible for him to attain.²"

We have to mention that Aristotle's perfectionism is opposed to the subjective realism of Protagoras. According to the latter, good and evil are defined by whatever human beings happened to desire. We all unanimously agree with this principle, if we focus on the nature of evil itself. The adulterer, for example, sees his act as evil, but the pleasure he is taking out from it as good .Likewise, he who harms an enemy, thinks that he is doing well by so and does not regard it as an evil. In the same manner, the murderer considers his act as a crime, but in the same time, it is good for him either because it is an act of revenge or a means to get some financial benefits and you can yourself imagine the length of the list of examples.

This complex ethical system leads us to call the term 'good' into question because it is relative, in the sense that, its connotations and symbols change according to circumstances. What a person may see as a good thing, as he is involved in an act compelled by certain circumstances, is seen as evil by another one who is directly affected by such act. Whatever is the definition, evil co-exist with the good, in some way or another, like all other contraries in our world: darkness and light, cold and heat, bravery and cowardice, intelligence and stupidity and so on. From this perspective, we are talking about sin and sinners as a description of evil acts. Regardless of the origin of evil, its power and its connection to the Divine, we do understand that there is a sort of overlap between good and evil. As the good is the real nature of any human being unless he sins, God created many other things that help us to overcome such evil and clean our souls from any devilish acts through religious rites such as prayers, sacrifices and initiations. For the same purpose, man invented laws, constitutions, judgements and punishments. Ibn Rochd takes into consideration all the views of Aristotle and Plato on the one hand and those of the Ash'rites on the other hand to solve this theological problem of evil. As a whole, Ibn Rochd's stance is based upon the irresponsibility of the perfect God from evil creation and asserting His creative power over everything. It is not like the Ash'arites who used their definition of value to demonstrate that evil is a quality of individuals that consists of disobeying God's commands, and since God never does this, He is not evil at all. Therefore, He creates evil in the world without

¹ Aristotle, EN *I.7.1098a7-17*.

² Aristotle , Politics VII.14.1333a29-30; cf. EN X.7.1177b33-4,

becoming evil Himself. For Ibn Rochd, if God created evil, the qualification of evil is applied to him as well and it has nothing to do with obeying or disobeying commands¹. This stance makes us conjure up the *yazidi*² sect that considers the Satan (source of all evils according to the majority of beliefs) the leader of the archangels. According to *Yazidis* Satan's name is (degeneration degree degreee

If we go back to Ibn Rochd, we will find him disagreeing with the Zoroastrian dualism that evil is caused by other persons (devils or demons), but he agrees with them that evil is not created by God. Ibn Rochd stated that dualism implies tagsir (shortcoming) in the supreme agent. The only rational reasoning to Ibn Rochd is, first of all, to endorse the Platonic perspective of God as the absolute good, does not do evil at any time and He is not the cause of it. Secondly, He attributes evil to an impersonal force named matter, as the existence of ash-Urur (natural evils) is due to the necessity of matter. This is the case because such existence is only possible, if the things to whose existence some evil is attached should not exist or they should exist in this condition, as more than that is not possible in their existence. Ibn Rochd illustrated his standpoint by the example of fire, which is useful, but it can occur incidentally bil'arad (incidentally) and destroys many things. However, that destruction is not its nature, if it was not brought near to those sensible things². When the soul produces matter-evil, it does so in all innocence, so the production of matter is due to an imperfection proper to the nature of the soul. Hence, as long as matter is there, the soul is subject to evil and conditions have to be fulfilled in order that soul becomes evil, in the sense that, a certain weakness has to be present in the soul, which needs, in its turn, to be in contact with matter³.

¹ George F. Hourani , Averroes on Good and Evil, pp.20-21.

² Their name is taken from the word 'Yezdan' or Ezid who is God according to them

¹ Mostapha Mahmoud, Hiwar ma Sadiqi al-Molhid, (A Dialogue with my Atheist Friend), p.13.

² George F. Hourani, Averroes on Good and Evil, p.21.

³Jan Opsomer, Proclus against Plotinus on Matter, p.157.

5.3 God's Knowledge:

This is the most controversial issue that has to be tackled whenever we talk about the nature of the world and its destiny. Philosophers tried to apply the principle stating that every living being knows itself; this applies to God as well. As He is alive, He has to know Himself and His essence too. Al-Ghazali blamed philosophers for denying divine will and the creation of the world and for believing that what proceeds from Him proceeds only in a necessary and natural sequence. Al-Ghazali went on to say that philosophers might say why the creator created the world through His will at that particular time and not before or after? This situation may lack the will and it needs another will ad infinitum¹. Al-Ghazali replied that the world existed through an ancient divine will decided its existence in the time it existed and decided its beginning in the time it began and any existence before that existence was not willed. Al-Ghazali stated that the world before did not exist, as it was not willed and when such a will occurred, it existed 2 through that ancient will that distinguishes a thing from its likeness, and if it were not so, power would be sufficient. That is why, it is the combination of both power and will that makes the world exists³. AL-Ghazali carries on his arguments by accusing philosophers of denying that the nature of God' essence is the first effect proceeded from it, afterwards, the second effect came after the first one till the hierarchy of existents was reached⁴. From this perspective, the First Will does not know Itself "Just as neither fire from which heat proceeds, nor the Sun from which light proceeds, know themselves or anything else⁵?" Al-Ghazali in Tahafut al-Falasifa(The Incoherence of Philosophers) attacked the philosophers who claimed that God knows only Himself. He emphasized that God is the intellect, the intelligence and the intelligible and all these is one. If it were said that it is impossible to unite the intellect, the intelligence and the intelligible, then, the creator of the world would not be able to know His work, which is impossible⁶. From this analysis, Al-Ghazali deduced that the being that knows what proceeds from itself is the only being that knows itself and it would be rational to think that it knows other things around itself. What is striking here, is that the theory of philosophers states that the First does not know other things, and if it were the case, it would be irrational to think that the First knows itself. Besides, philosophers put themselves in trouble when they claimed that anyone who does

¹ Al Ghazali, *Tahafut al-Falasifa*, (The Incoherence of Philosophers), p.91.

² Ibid., p.97

³ Ibid.,p.102

Averroes, Tahafut al Tahafut, (The Incoherence of the Incoherence), vol. 1, p.270.

⁵ Ibid.

⁶ Al-Ghazali, Tahafut a-l- Falasifa, (The Incoherence of Philosophers), p.99.

not know himself, must be a dead, and we do know very well that we cannot even assume that the First is dead. The same applies to their doctrine that everything, which is free from matter; it must be an intellect by itself, and accordingly, thinks itself⁴. Al-Ghazali concluded that this theory is refutable, as it is based on fragile grounds by stating that:

"There is no difference between you and those who say that everyone who does not act through will, power and choice, who neither hears nor sees, is dead, and he who does not know other things is dead. And if it is possible that the First is destitute of all these attributes, what need has it of knowing itself?²

Al-Ghazali is always anticipating what the philosophers may say to defend their position, even if they did not say that like in this passage in which such anticipation is so obvious:

"If they say the proof is that what is existent is divided into what is alive and what is dead, and what is alive is prior and superior to what is dead, and the First is prior and superior: therefore let it be alive; and every living being knows itself, since it is impossible that the living should be amongst its effects and should not itself be alive³."

Al-Ghazali does consider this virtual analysis as a mere presumption, as it is possible that what knows itself can follow that which does not with or without mediators. The rationale lying behind this impossibility, according to philosophers, is that in this case, the effect will be superior to the cause. Al-Ghazali does affirm that there is no irrationality in the superiority of the effect to the cause, as such a superiority is not regarded as a fundamental principle. Moreover, it is extremely difficult to falsify the standpoint stating that its superiority does not lie in its knowledge, but rather, in the fact that the existence of the world is a consequence of its essence. The irrefutable evidence of that is that, while the First neither sees nor hears, there are many other beings that have knowledge about other things that do hear and see^4 .

In order to highlight the relationship between the cause and the effect, Ibn Rochd focused on the Last Mover or God. As He has no cause higher than Himself and not knowing the lower movers, He knows Himself only. Ibn Rochd did not stop at this particular point; otherwise, he would be denying all knowledge in God of things below, and consequently, all divine providence. He stated that anything should emanate from a knower qua knower

¹ Al-Ghazali, Tahafut a-l- Falasifa, (The Incoherence of Philosophers), p.99.

²Ibid.

³ Averroes, *Tahafut al Tahafut*, (The Incoherence of the Incoherence), vol. II, p.270. ⁴Ibid.

without the latter knowing it and all what we need to recognise providence is an observation of nature. Therefore, the upper intelligences do have knowledge of the lower¹. Ibn Rochd exhibits Al-Ghazali's assumption stating that, "*If it were said that the existents are divided into the seeing and the blind, the knowing and the ignorant*²." Then, we would let the seeing be superior, and we would let the First see and have knowledge of things. Al-Ghazali believes that philosophers object to this dictum as:

"Its excellence does not consist in seeing and knowing things, but in not being in need of sight and knowledge and being the essence from which there proceeds the universe in which the knowing and the seeing beings exist³."

There is another assumption indicating that, as the First has knowledge of Itself, its essence does not excellence. Hence, philosophers do deny that the First knows Itself, simply, as there is no evidence that proves this kind of knowledge. The only thing that can be provable is will and what proves will is the temporal beginning of the universe⁴. On the contrary, Al-Ghazali sees that philosophers in their denials and refutations do possess no irrefutable proofs just those related to the attributes of the First. Ibn Rochd was not far away from this stance when he emphasized that the First Intelligence or God knows the same things as we do know, but in a different superior manner. Furthermore, God's knowledge of Himself is identical with His knowledge of the universe, but in the same time, His knowledge is not the same as our knowledge. That is the way, Ibn Rochd established his theodicy⁵.Besides, Ibn Rochd stated that those who think that God does not know all the particularities are on the wrong path, as they can see the prediction of events through true dreams. These premonitions of particular events can be seen by man even before the eternal knowledge destined for everything⁶. The Aristotelian Arab scholars regard God's knowledge as different from that of human beings, simply, as God is the cause, not the effect of the object known⁷. They even went to say that Such reasoning of God's knowledge led some scholars to think that, as God is timeless: He cannot be omniscient, as He would know only the truths that are tenseless⁸.(truths that are beyond past, present and future).

¹ Isaac Husik , Aristotle on the Metaphysics of Aristotle, p.426.

² Averroes, *Tahafut al Tahafut*, (The Incoherence of the Incoherence), vol.1 p.271.

³ Ibid.

⁴ Ibid.

⁵ Issac Husik *Averroes on the Metaphysics of Aristotle*, p.426.

⁶ Ibn Rochd , Fasl al-Maqal, (Decisive Treaty), p.9.

⁷ George. F Hourani , Averroes on the Harmony of Religion and Philosophy, p.636.

⁸Stewart R. Sutherland ,God, Time and Eternity,p.104.

We do reply that being timeless does not mean necessarily that there is no past, present or future in God's knowledge; we would explain in depth God's sempiternity in the forthcoming chapters. Concerning God's knowledge, many philosophers draw a distinction between what is universal and what is particular, in the sense that, God possesses knowledge of that which will be and the universals are not among them, but rather, this knowledge is about the particulars and individuals. This means that if God knows a future event, definitely, He knows that it is not yet a present, and when it is present, He knows that it has become present. Accordingly, whenever this event perishes, God knows that it is past and is no longer existent¹. This analysis of God's knowledge would lead us to think that:

"The cognition (gnosis) in virtue of which he knew that it will be is before the one in virtue of which he knows that it no longer exists. Therefore, if time clearly arises (emphainetai paruphistamenos) in direct consequence of the phrase 'before and 'after', then will not place the creator of time outside the relationship of time²."

God's knowledge should not be understood this way, as the notion of 'before' and 'after' does also exist in the mind of the Divine and also in the intellects of angels and the spirits, but this does not mean that God is within the relationship of time. First of all; this is just a divine way to make things clear and conceivable to human intellect, as man is unable to understand the nature of something that is outside such relationship. Secondly, 'the before', 'the after' and even 'the now' are just a way to describe the order of things and have no implication of time. Therefore, the present, the past and the future are included within the everlasting day of God, which are all a present to Him, as God does not remember or expect, He only knows. This does not mean that historical time is not real to God, but it is real and different from the way we conceive. In any process of passing away, time does not disappear, but it passes to God's undying day³. From this perspective, God's knowledge covers everything in both the microcosmic and the macrocosmic worlds. Likewise, His knowledge is particular and universal, about individuals and congregations. In short, we cannot find something describing such omniscience better than the following Qur'anic Verse: "With Him are the keys of the unseen, the treasures that none knoweth but He. He knoweth whatever there is on the earth and in the sea. Not a leaf doth fall but with His knowledge:

¹ John Philoponus ,*Philoponus on the Eternity of the World against Aristotle*, vol,1,trans.Christian Wilberg, p.136.

² Ibid.

³ Roger Hazelton, Time, Eternity and History, p.11.

there is not a grain in the darkness (or depths) of the earth, nor anything fresh or dry (green or withered), but is (inscribed) in a record clear (to those who can read¹."

Ibn Rochd took a third position when he mentioned that the temporal becoming of the world indicates that it has come into existence through a will or as he called it 'it has been willed by a will². However, we do find that the temporal things may happen through three means which are nature, will and chance. The things that do happen through will are the products of arts and those that do happen through nature are natural things. In this respect, if the temporal things did happen only through will, then, the will would have been a part of the definition of the temporal, but this is not the case, as the definition of the temporal becoming is 'existence following non-existence'³. Ibn Rochd came out with the conclusion that, as the world is a natural existent, if it had come temporally into existence, it would have come from principles that are appropriate to natural things and not from principles that are appropriate to artificial things⁴. God's knowledge is linked to the notion of eternity as a whole, as it helps us to understand the successive eternity, the Abrahamic religions' eternity and the temporal existence of our created world. All other Hellenistic eternities know of this world only its simple immutable causes, principles and forms, which is what they are themselves. This means that the content of the knowledge of the Neo-Platonic eternal beings consists only of eternal objects, while the content of all the other Abrahamic religions' God's knowledge consists both of such objects in our existing life and the hereafter⁵.

5.4 Between God's Attributes and God's Essence:

The Mu'tazilites do agree with some philosophers that we cannot ascribe attributes such as power, will, knowledge and so on to God, simply because we come to know all these attributes thanks to divine law. The Mu'tazilites do consider these attributes as:

" Verbal expressions, but that they refer to one essence ... and that is not permissible to accept an attribute additional to its essence in the way we may consider , as regards ourselves, our knowledge, power, and will as attributes of ourselves, additional to our essence⁶."

From this Mu'tazilite stance, Muslim theology was divided into two main categories: via negativa (negative way or what we call the apophatic theology) and the cataphatic theology.

¹ The Holy Qur'an ,Chapter Al- An'am(cattle, or livestock), 6 Verse.59.

² Averroes, Tahafut al- Tahafut, (The Incoherence of the Incoherence), vol.I p.271...

³ Ibid.

⁴Averroes , *Tahafut al- Tahafut*, (The Incoherence of the Incoherence), vol. I p. 271.

⁵ D.P. Walker, *Eternity and the Afterlife*, p.242

⁶Averroes , Tahafut al- Tahafut , (The Incoherence of the Incoherence), vol.I p.186.

The apophatic theology is known among Muslims as al-Lahout as-Silbi, and it teaches that, as God is ineffable, the attainment of divine knowledge has to be through the Ta'til (negation) of God's attributes. This means describing God through apophasis (what God is not). That is why, the adherents of such kind of theology are famous by Al-Mu'atila(المعاتلة : those who use negation). The cataphatic theology opposes such reasoning, as it teaches the attainment of the knowledge of God through cataphasis (what God is), which means through positive attributes as mentioned in the Holy Scriptures. This also explains the dispute of Muslim theologians over God's essence. A group did assert that God's essence can be known and the second one did affirm that it cannot be known. Many Qur'anic Verses, when taken literally, prove that God's essence and attributes cannot be known, as He does not like anything: "There is nothing whatever like unto Him¹". In other Verse: "There is none equal to Him²". Al-Ghazali, in al-Oistas al-Mustakim(The Correct Balance), stated that we must believe in all the attributes of God cited in the Qur'an with the denial of anthropomorphism and the satanic barren dialectics leading to blasphemy and unbelief³. In his other work entitled Al-Iktisad fi al-I'tikad (The Economy in Belief), divided God's attributes into four main categories. As-Sifa an-Nafsivah ad-Dativa (The self-psychological attribute), which is the existence. As-Sifat as-Silbiyah(the negative attributes) such as the oneness, the eternity, the everlastingness and the opposition to accidents. Sifat al-Ma'ani (the attributes of meanings) like power, will knowledge, speech, hearing, sight and life, and finally As-Sifat al-Ma'nawivah (moral attributes) such as He is the omnipotent, the willer, the omniscient, all-Hearing, all-Seeing and the Living⁴. In addition to this problem, there is another one, which is not less serious that its precedent, in the sense that, by ascribing these attributes to God, we are causing plurality to the First Principle. There are two cases concerning these attributes and both of them do cause plurality in the First Principle. The first one is manifested in the attributes that do happen to us in the course of our development. In this case, they are additional to our essence, as they would be considered as new facts. In the second case, the attributes are simultaneous with our essence and this state of simultaneity is also an addition to our essence. This analysis is so clear and obvious, as it states that whenever one thing is added to another, and they are characterized by not being identical. they are making up two, even if they are simultaneous. Consequently, this is a clear plurality

¹ The Holy Qur'an, chapter As –Shura (The Counsel), 42, Verse. 12.

² Ibid., chapter Al-Ikhlas(The Sincerity),112, Verse. 5

³ Al-Ghazali, *al-Qistas al-Mustakim*, (The Correct Balance) pp.64-65.

⁴ Ibid, Al-Iktisad fi al-I'tikad, (The Economy in Belief), p.31

in the First Principle Who is the necessary existent¹. That is the starting point of philosophers to achieve their denial of attributes. Ibn Rochd sees the problem of the philosophers who does not agree with the plurality of attributes in the fact that the does believe in the existence of both essence and attributes that are additional to that essence. We have to bear in mind that the attributes can be reduced to one essence. If we do take, for example, the attributes of will, knowledge and power, we would find out that they have the same meaning and describe the same unique essence². Gahm ibn Safwan (- d.745/6 AD) is believed to be among the first theologians who dealt with the topic of 'God is not a thing' (shay'). Gahm ibn Safwan was on the same line with Plotinus that God is not a being. Accordingly, He is transcendent, which means other than creation and above all attributes. Hence, if we deny the fact that God is a being, it is impossible to apply attributes that are entities existing in God. Moreover, what is not a being is not composite like created things and cannot be divided into parts. Dirar ibn Amr (- d.815 AD) believed that God's essence can only be known through a divine act, as in the resurrection day, God would create a sixth sense by which people would be able to know God's essence.

This view was rejected by speculative theologians such as *Mu'tazilites*. *Kharajites* and *Mu'rji'ites*³. This view led the head of the *Basrian*⁴ *Mu'tazili* School Abu Hudayl al-Allaf (- d. ca. 850 AD) to conclude that God's incorporeality made His attributes identical to His essence, which means that even these attributes do belong to the divine essence; they do not tell anything about it. Therefore, God's essence cannot be known, defined or perceived by our intellect. The only thing that we are capable to know about God is His signs left in the universe. We have to bear in mind that Muslim theologians, and Abu Hudayl is one of them, established a link between knowledge and sight, in the sense that, if you see God in the hereafter means that you managed to know Him⁵. Likewise, if we do separate God' essence from His existence, we are just like asking whether God has existed for a longer time since He created Adam than He had before, which falls in the same absurdity⁶.

Ibn Rochd solves this problem in a very convincing way when he affirms that:

¹ Averroes, *Tahafut al Tahafut*, (The Incoherence of the Incoherence), vol.1 p.186.

² Ibid.

³ Binyamin Abrahamov, Fahr al-Din al-Razi on the Knowability of God's Essence and Attributes, p.205. ⁴A relation to the city of Basra in Iraq.

⁵Binyamin Abrahamov, Fahr al-Din al-Razi on the Knowability of God's Essence and Attributes, p.205.

⁶ M. kneale, Eternity and Sempiternity, p.235.

"The essence becomes a condition for the existence of the attributes and the attributes a condition for the perfection of the essence, and that their combination would be a necessary existent that is one single existent in which there is neither cause nor effect¹."

It is worthwhile to mention that such a problem can be surmounted, if we assert the existence of an essentially necessary existent .This would indicate that the necessary existent has to be one all the time and it is not composed of the condition and the conditioned, and accordingly, of the cause and the effect. The reason why such a composition is not possible is that it has to be through two means, which are necessity or possibility. In case of necessity, such a necessity has to be through another agent or mediator and not through itself ,and as we know, it is extremely hard to suppose the existence of an eternal compound by itself. In the case of possibility, there would be a dire need for a cause that put together the cause and the effect. The general idea that we would come out with here, is that, it is quite impossible that a compound exists by itself and possessing eternal attributes, as such a composition would be, as mentioned before, a condition of its existence. Furthermore, it is not possible that the parts of the compound can be agents for the composition, simply because such a composition would have to be a condition for their existence².

Ibn Rochd went further in the explanation of this dilemma by arguing that:

"When the parts of any natural compound are disjoined, their original name can be only applied to them equivocally, for example, the term' hand 'used for the hand which is a part of the living man and the hand which has been cut off; and every compound is for Aristotle transitory and a fortiori cannot be without a cause³."

The system of Ibn Sina is different of that of Al-Ghazali, Ibn Rochd and Aristotle, in the sense that, Ibn Sina's division of the necessary existent led to the assertion of the existence of an eternal compound. When we do suppose that the possible ends in a necessary cause that has to have a cause or not and in the former case has to end in a necessary existent that has no cause:

"This reasoning leads through the impossibility of an infinite regress to a necessary existence which has no efficient cause-not, however, to an existent which has no cause at all,

¹ M. kneale, *Eternity and Sempiternity*, p.235.

² Averroes, *Tahafut al Tahafut*, (The Incoherence of the Incoherence), vol.1, p.187.

³ Ibid
for this existent might have a formal or a material cause, unless it is assumed that everything which has matter and form, or in short, every compound, must have an external cause¹."

The demonstration based on the principle of the necessary existent does not contain a proof to clarify this difficulty and corroborate this reasoning. This is the same dilemma like the one faced by the *Ash'arites*, when they went on to say that every temporal occurrence is in dire need for a cause does not help them to reach an eternal First Principle that is not composite, but rather, they only attain a First Principle that is connected with temporality. Besides, the existence of these pairs of things such as knower and knowledge, will and willer, power, and the possession of power are necessary, as they are one and they lead to the unity of their concepts². There are other philosophers who did not complicate such attributes like Ibn Tofayl who summarized them to immateriality, non –contingency, self causality and the logical guarantee for the existence of other entities.³

5.5 Between the Empirical and the Invisible:

5.5.1 Divine Incorporeality

This is an old debate started when philosophers start to draw a distinction between the corporeal and the incorporeal. The pre-Socrates natural philosophers assumed that there is nothing but corporeal existence, while Anaxagoras, the Megarians and Plato argued that, the incorporeal does exist also, beside what is corporeal⁴. There is no room for doubt that we can prove some facts and reach some truths that are based on sense -perception or subject to scientific experiences or practical observations. However, it extremely difficult to unravel those things, which are, out of the scope of our vision and sometimes beyond our perception without the backing of religious revelations. Therefore, to what extent can we be more rational and logical, if we do discard these religious revelations and rely on our reasoning? Ibn Rochd emphasized that Al-Ghazal's theory about the essence of God is more convincing than that of the other philosophers. However, when it is put under test, it seems to be facing many difficulties. Regarding eternity of God, theologians compared the world with the products of arts designated by God's will and knowledge with human power. Such comparison is reducing Divine eternity to a just a human one, and accordingly, it is making God corporeal. Even if theologians are faced by this self-contradiction, they kept defending their stance by claiming that God is eternal because all the bodies, without the least

¹ Averroes, *Tahafut al Tahafut*, (The Incoherence of the Incoherence), vol. I, p. 187.

² Ibid., pp.187-188

³ Sami .S Hawi , Ibn Tofayl : on the Existence of God and His Attributes, p.64.

⁴ Eduard Zeller , Aristotle and the Earlier Peripatetics, vol.1, trans.B.F.C Costelloe and J.H Muirhead.

exception, are temporal. In this case, theologians are compelled, because of this self – contradiction, to admit that the world is the product of an immaterial being¹. There is also another point that is worthwhile to be mentioned here, is that when the theologians do assert that God wills and knows, He must be alive, they did not specify exactly what kind of life, is that life, which is a condition for the existence of living beings (man, animals and plants)? Or is it a Divine life that we do know nothing about it? Or is it a life that is a condition for the existence of knowledge, power, will and all the other attributes? The Holy Qur'an gives us an account of the divine nature, as God knows the curiosity of man and his dire need to know everything that occurs around him. In chapter *Al-Ikhlas* (the unity, the sincerity or the oneness of God), He says *Say:*

"He is God, the One and Only; God, the Eternal, Absolute, He begetteth not, nor is He begotten; and there is none like unto Him^2 ". The very detailed account of the nature of God's essence does exist in the chapter of An –Nur (the light) "God is the Light of the heavens and the Earth. The Parable of His Light is as if there were a Niche and within it a Lamp: the Lamp enclosed in Glass he glass as it were a brilliant star: Lit from a blessed Tree, an Olive, neither of the east nor of the west, whose oil is well-nigh luminous, though fire scarce touched it: Light upon Light! God doth guide whom He will to His Light: God doth set forth Parables for men: and God doth know all things³."

We have to bear in mind that, this is not a tangible and clear comparison, as its purpose is just to make the nature of God's essence understandable to human mind and conceivable by its impotent intellect, as man is unable by nature to know the true nature of God's essence. This incapacity is not due only to man's intellectual impotence, but also to the will of God manifested in the purposes of His sublime wisdom. Likewise, in chapter of Ar-Rahman(The Beneficent or The Mercy giving), there is a an explicit indication that the nature of God's essence can never be conceivable later or sooner, as it is not made of matter or bound by space-time system:

"All that is on earth will perish: But will abide (for ever) the Face of thy Lord, - full of Majesty, Bounty and Honour, Then which of the favours of your Lord will ye deny? Of Him seeks (its need) every creature in the heavens and on Earth: every day in (new) Splendour

¹ Averroes ,*Tahafut al Tahafut*,(The Incoherence of the Incoherence),vol.II, p.256.

² The Holy Qur'an, Chapter Al-Ikhlas (The Sincerity) 112

³ Ibid., chapter An-Nur: (The Light) 24. Verse. 35

doth He (shine)!, Then which of the favours of your Lord will ye deny?, Soon shall we settle your affairs, O both ye worlds!, Then which of the favours of your Lord will ye deny?¹."

Therefore, God is neither corporeal, nor incorporeal; He is also neither material nor immaterial. He is as He describes Himself:

"(He is) the Creator of the heavens and the earth: He has made for you pairs from among yourselves, and pairs among cattle: by this means does He multiply you: there is nothing whatever like unto Him, and He is the One that hears and sees (all things)²."

Alternatively, we can conclude as our predecessors that God is neither a substance, nor a body, nor an accident. He cannot be found in a specific direction and He does not station Himself on the throne.³ In other word, God is neither in a place, nor in any given direction, He is neither inside the world nor outside it and He is not connected to the world or separated from it⁴.

5.5.2 The Nature of the Divine's Life:

The same problem occurs when theologians ascribe the faculty of sense perception, without sense –organs, to God and deny completely His motion in space⁵. All over again, and as we have mentioned above, the perception, knowledge, power and all their attributes are identical with life, and we do know already the dilemma raised from the discussion of God and His sublime life. Ibn Rochd went further by emphasizing that:

"The meaning of will in man and in animal is a desire which rouses movement and which happens in animal and man to perfect a deficiency in their essence, and it is impossible that there should be in the Creator a desire because of an imperfection in His essence, which could be a cause of movement and action either in Himself or in something different from Himself⁶."

When it comes to the essence of God, Ibn Rochd is asking questions more than giving answers such as how can we imagine an Eternal Who is the cause of an act occurring without an increase of the desire at the time of the occurrence of the act? Therefore, how could a

¹ The Holy Qur'an, chapter Ar-Rahman(The Beneficient), 55. Verses. 26-32

² Ibid., chapter Ash- Shura (The Counsel) 42, verse: 11

³ Binyamin Abrahamov, Fahr ad-Din al-Razi on the Knowability of God's Essence and Attributes, p. 207. 4 Ibid., p. 208.

⁵ Averroes , Tahafut al- Tahafut, (The Incoherence of the Incoherence), vol.1 p.256.

⁶ Ibid.p.257.

desire or a will, which were before, during and after the occurrence of the act in the same state and without the least change? All these thorny problems emerged on the assumption that the Creator is corporeal. If we do admit that the desire is also among the causes of movement, which is only found in animate bodies, we are asserting that the First Principle, the Creator is a body. In brief, philosophers went on to say that there are only three attributes, which are most appropriate to God: Knower (He has Knowledge), excellence and power, but unlike man, His power is not inferior to His will¹. Undoubtedly, the dispute over the corporeal or the incorporeal of the Creator does entail many difficulties either in the case of assertion or in that of denial. Among these difficulties, some of God's attributes themselves, especially those related to perception and sensation. What is certain here is that we shall not understand the life of the Divine as a condition of existence, as it is the case with ours as human beings. It is rather, both eternal (*aionios*) and sempiternal (*aydios*)², in the sense that, God's eternity entails His sempiternity. In other words, there is one- way entailment, which means that every eternal object is sempiternal but not vice versa³.

5.5.3 Bodily and Spiritual Resurrection:

The other controversial issue is that of the notion of resurrection, first, is it possible? If it is so, is it a physical resurrection or a spiritual one? We have to point out that this problem is not found among older philosophers. However, Pythagoras mentioned spiritual resurrection through his doctrine of the transmigration of souls. Bodily resurrection was mentioned almost in all religions thousands of years ago, but we can deduce from the teachings of the Psalms, and all the other books attributed to the Israelites, that bodily resurrection was first mentioned by Israel after Moses. Likewise, the New Testament asserted bodily resurrection, but it was an attribution by Jesus Christ to the theory of the *Sabaeans*⁴. It is also an issue among the free thinkers called by the Talmud the Epicureans⁵. This doctrine is of a paramount importance, as it is helpful in understanding the existence of human being and highlighting the nature of his destiny:

¹ Averroes , *Tahafut al- Tahafut*, (The Incoherence of the Incoherence), vol. 1, p. 257.

² M. Kneale, *Eternity and Sempiternity*, p.225.

³Ibid.,.226

⁴ Averroes, *Tahafut al- Tahafut*, (The Incoherence of the Incoherence), vol. I, p.359.

⁵ Ernest Renan, Averroes et L'Averroisme, p.457.

" It is conductive to an order amongst men on which man's being, as man depends and through which he can attain the greatest happiness proper to him, for it is a necessity for the existence of the moral and speculative virtues and for the practical sciences in men¹."

We do deduce from this passage that philosophers argue that man is unable to live in this world without practical sciences. Likewise, he cannot live either in this world or in the hereafter without the speculative virtues. However, the practical sciences and the speculative virtues do take their strength from knowledge and the worship of God. The latter can only be achieved through religious norms such as offerings, prayers, supplications and so on^2 .

All Abrahamic religions do agree that there is another existence after our non-existence, but they disagree about the nature of that existence as they agree about God's knowledge and attributes and they disagree about the nature of this knowledge and these attributes. That is why, according to philosophers, religious norms are important and obligatory, as they help to achieve a universal wisdom known to all human beings³. Religions in general do establish communication with the masses that do form the majority of people. That is why, they do acquire such importance, as philosophy is only directed to the elites who can attain wisdom by means of their intellectual potentials and mental capacities, "*It is the truest of all sayings that every prophet is a sage, but not every sage is a prophet; the learned, however, are those of whom it is said that they are the heirs of the prophets⁴."*

This would lead us to discuss the agreement between religion and philosophy, which is not our concern here, as we will discuss it in the forthcoming chapters. Anyway, regarding resurrection, Al-Ghazali declares that what arises from the dead is simulacra of earthy bodies and not the bodies themselves because what has perished can only return as an image of what

^{*}The Sabaeans (Arabic: السبابين), the Minaean, the Qatabanian, and the Hadramawtian are the four known South Arabic dialects of ancient times. The earliest South Arabic inscriptions, dating from the 8th century BC, are in the Minaean dialect. Sabaean is the dialect of the majority of South Arabic inscriptions; the latest inscriptions are from the 6th century AD. Any of a group of minor scripts originating in the Arabian Peninsula in about 1000 BC, possibly related to the writing system used in the Sinaitic inscriptions. These scripts, most of which were used only in the Arabian Peninsula, are of note because of their great age and because of the lack of any clear link between them and the North Semitic alphabet, which dates from about 1100 BC and is probably ancestral to all subsequent alphabetic scripts except the South Semitic group. The South Semitic alphabets generally have 28 letters, all representing consonants, and were usually written from right to left. Online Encyclopaedia Britannica: www.britannica.com/topic/514 903/sabaean. Access Date: 23 Apr., 2008).

¹Averroes , *Tahafut al- Tahafut*, (The Incoherence of the Incoherence), vol.1, p.359.

² Ibid.

³ Ibid.

⁴ Ibid.,p.361

has perished and not like an identical being with what has perished. Hence, the theological doctrine of resurrection stating that the soul is an accident and the bodies that would be resurrected are completely identical with those that have perished, is not convincing at all: *"For what perished and became a new can only be specifically, not numerically, one, and this argument is especially valid against those theologians who hold that an accident does not last two moments ¹."*

The dispute is not only about the doctrine of resurrection itself and we do mean by that the resurrected bodies and the perished ones, but about the types of this resurrection as well. When we draw a distinction between these two types of bodies, we are definitely asserting that there exists a bodily resurrection. On the contrary, many theologians deny this corporeal resurrection, as they do believe in a spiritual one. The Islamic concept of the resurrection is clear and obvious, as it states that the resurrection is corporeal like in chapter of Al -Waqi'a (The event or the Inevitable):

"And they used to say, "What! When we die and become dust and bones, shall we then indeed be raised up again?- "(We) and our fathers of old?" Say: "Yea, those of old and those of later times, "All will certainly be gathered together for the meeting appointed for a Day well-known. "Then will ye truly, - O ye that go wrong, and treat (Truth) as Falsehood.²" Likewise, in the Chapter of Yasin, there many verses discussing the issue of resurrection: "Verily We shall give life to the dead, and We record that which they send before and that which they leave behind, and of all things have We taken account in a clear Book (of evidence)³." In the same chapter, there is a description of the last day, the resurrection agonies that were denied by many people, and the description of their big surprise when they will be resurrected as they did not believe in it in their worldly life:

"Further, they say, "When will this promise (come to pass), if what ye say is true?" They will not (have to) wait for aught but a single Blast: it will seize them while they are yet disputing among themselves! No (chance) will they then have, by will, to dispose (of their affairs), nor to return to their own people! The trumpet shall be sounded, when behold! From the sepulchres (men) will rush forth to their Lord! They will say: "Ah! Woe unto us! Who hath raised us up from our beds of repose?"... (A voice will say :) "This is what ((God))

¹Averroes, *Tahafut al- Tahafut*, (The Incoherence of the Incoherence), vol. I, p. 362

² The Holy Qur'an, chapter Al-Wagi'a (The Inevitable, or the Event), 56, Verses: 47-51.

³ Ibid., chapter Yasin, 36 Verses. 12

Most Gracious had promised. And true was the word of the apostles!" It will be no more than a single Blast, when lo! they will all be brought up before Us!¹."

It is worthwhile to mention here that the notion of resurrection is among the causes that had discouraged many people from embracing Islam in the time of its emergence. Those people found the notion of resurrection very hard to believe, as it was the first time they heard about it, as they were idle –worshippers. There is a whole chapter in the Holy Qur'an called (The resurrection), as it is the case of many Qur'anic Verses teeming with that challenging tone to those who do not believe in it:

" I do call to witness the Resurrection Day; and I do call to witness the self-reproaching spirit: (Eschew Evil). Does man think that We cannot assemble his bones? Nay, We are able to put together in perfect²."

The Islamic theology³ is abundant in discussions and debates raised by the doctrine of resurrection. In the Qur'an and almost in every single chapter, we do find a direct or indirect indication to resurrection. That is why, Muslim theologians do take the doctrine of resurrection seriously and not like a fable⁴. Ibn Rochd showed, in many occasions and in different works, his antipathies against some Muslim and non-Muslim theologians alike. According to Ibn Rochd, the first who talked about resurrection were the prophets of Israel after Moses, and after that the Gospel of Christians and the *Sabaeans* who had, according to Ibn Hazm, the most ancient religion of the world. Ibn Rochd considered the doctrine of resurrection elaborated by many religious thinkers as a way to urge people to do good deeds and discard bad ones:

"I do not blame Al- Ghazali and the other Mutakallimin* for saying that the soul is immortal, but to pretend that the soul is only an accident, and that man will take the same body that had decayed. No he will take another one similar to the previous, for what is once

¹ The Holy Qur'an, chapter Yasin, Verses. 48-53

² Ibid., chapter Al Kivyama (The Resurrection),75, Verses 1-4.

³ In Islam, speculative theology. The term is derived from the phrase *kalam Allah* (Arabic: "word of God"), which refers to the Qur'an, the sacred scripture of Islam. Those who practice *kalam* are known as *mutakallimun*. In its early stage, *kalam* was merely a defence of Islam against Christians, Manichaeans, and believers in other religions. As interest in philosophy grew among Muslim thinkers (Online Encyclopaedia Britannica: <u>www.britannica.com/eb/article9044375/kalam</u>. Access Date: 02 Feb., 2007.

⁴ Ernest Renan , Averroes et L'Averroisme, p.457.

corrupt cannot go back into life. These two bodies do make up only one in terms of type, but they are two in terms of number¹".

This is also the Aristotelian view, in the last lines of '*The Generation and the Corruption*', Aristotle stated that the corrupted being can never become identical again with itself, but it can go back to the specific variety to which it belongs. Aristotle illustrated his stance by means of this example: when the air comes out of the water and water comes out of the air, each of these substances does not go back to the individual where they used to be, but to the type where they used to be².

5.5.4 Reward and Punishment:

Definitely, we cannot believe in something called reward and punishment, if we do not believe in the first place in resurrection regardless of its nature corporeal or spiritual. Resurrection was not an issue among ancient philosophers and so it is the notion of reward and punishment, as there is a sort of overlap between the two issues. If you do believe that the life of man ends with his death and there is no existence after existence, it is very unlikely that the punishment -reward equation would cross your mind. There is another link of crucial significance between resurrection and the punishment -reward equation is that the purpose of existing. Why does man exist in this life? Is his existence arbitrary? Is there any purpose³ behind it? If it is so, why does his destiny go towards demise? Is his demise a declaration of the end of his purpose? Many ancient thinkers and philosophers had some belief in the existence of another world where souls would be fairly judged. If Callicles⁴ considered this process a mere fiction, Socrates made it in a reasoned account. He follows the account of the three judges of the underworld who sit in the meadow at the parting of the ways, the soul appears, bearing all the marks of evil or good brought with it from its previous earthy life, totally stripped of all the trappings of power, wealth and social standing under which it was concealed⁵. This is exactly the notion of the day of judgement that we do find in the Abrahamic religions. In the Republic, we have also the story of Er, the son of Arminius, an elaborate eschatology, which tells the judgement after death, which means retribution for

¹ Ernest Renan "Averroes et L'Averroisme, p.458.

² Ibid.

³" I have only created Jinns and men, that they may worship Me." (The Holy Qu'ran, chapter Adh-Dhariyat (the winnowing winds): 51:56

⁴ Callicles is an Athenian citizen who is a student of the sophist Gorgias .He appeared as a character in Plato's dialogues.

⁵ Patrick Duncan, Immortality of the Soul in the Platonic Dialogues, p.309.

good or evil and the return of the soul ,after its allotted period of purgation, to another life on earth(614.b).All these questions above can be answered- to some extent- by Abrahamic religions better than through philosophical speculation. If we do want to understand the Islamic reward-punishment system, we have to go through the notion of resurrection. Muslims do not agree at all with the spiritual resurrection, as it is against the pure Islamic teachings and opposed to Qur'anic instructions. The Holy Qur'an is teeming with religious Verses dealing with corporeal resurrection especially when talking about the reward and the tortures of the hereafter. However, there are some indications that souls themselves will be rewarded and punished, but we can only understand the contents of the Qur'anic Verses dealing with the punishment and the reward of souls through interpretations and metaphors. This is due to the richness of Arabic vocabulary, its flexibility and its susceptibility to divergent interpretations. Sometimes the term' soul' refers to man himself and sometimes to 'Nafs', which is another type of soul that had existed ,according to Islamic teaching, even before the creation of man. This kind of souls has negative connotations in comparison with the soul (Ruh) that is always connected with positive dimensions. What is said about resurrection can also be said about the reward and punishment for the correlative relationship that does exist between the two. All over again, the Qur'anic teaching highlighted the notion of reward and punishment in hundreds of Verses:

"Then, on that Day, not a soul will be wronged in the least, and ye shall but be repaid the needs of your past deeds, Verily the Companions of the Garden shall that Day have joy in all that they do; they and their associates will be in groves of (cool) shade, reclining on Thrones (of dignity); (Every) fruit (enjoyment) will be there for them; they shall have whatever they call for; "Peace!" - a word (of salutation) from a Lord Most Merciful¹."

The same meaning is found in chapter of Al- Insan (The man):

"But God Will deliver them from the evil of that Day, and Will shed over them a Light of Beauty and (blissful) Joy. And because they were patient and constant, He will reward them with a Garden and (garments of) silk. Reclining in the (Garden) on raised thrones, they will see there neither the sun's (excessive heat) nor (the moon's) excessive cold. And the shades of the (Garden) will come low over them, and the bunches (of fruit), there, will hang low in

¹ The Holy Qur'an, chapter Al- Insan (The man), 76, Verses. 11-15

humility. And amongst them will be passed round vessels of silver and goblets of crystal¹." In chapter Al-Waqi'a (The event or the inevitable), there is a very detailed description of the position of those who would be awarded and the reward depends on the size of noble deeds done in worldly life:

"Then (there will be) the Companions of the Right Hand; - What will be the Companions of the Right Hand? And the Companions of the Left Hand,- what will be the Companions of the Left Hand? And those Foremost (in Faith) will be Foremost (in the Hereafter). These will be those Nearest to God. In Gardens of Bliss: A number of people from those of old, And a few from those of later, times. (They will be) on Thrones encrusted (with gold and precious stones), Reclining on them, facing each other. Round about them will (serve) youths of perpetual (freshness), With goblets, (shining) beakers, and cups (filled) out of clear-flowing fountains: No after-ache will they receive therefrom, nor will they suffer intoxication: And with fruits, any that they may select: And the flesh of fowls, any that they may desire. And (there will be) Companions with beautiful, big, and lustrous eyes,- Like unto Pearls well-guarded. A Reward for the deeds of their past (life). Not frivolity will they hear therein, nor any taint of ill, - Only the saying, "Peace! Peace²."

Likewise, those who will be cursed, the size of their curse depend on the evil deeds they have done in their lifetime:

"The Companions of the Left Hand, - what will be the Companions of the Left Hand? (They will be) in the midst of a Fierce Blast of Fire and in Boiling Water, and in the shades of Black Smoke: Nothing (will there be) to refresh, nor to please: For that they were wont to be indulged, before that, in wealth (and luxury), and persisted obstinately in wickedness supreme...taste of the Tree of Zaqqum³. "Then will ye fill your insides therewith, "And drink Boiling Water on top of it: "Indeed ye shall drink like diseased camels raging with thirst!" Such will be their entertainment on the Day of Requital!⁴."

The purpose of man in life is related to the secrets that lie behind his existence, according to monotheistic beliefs in general and the Islamic one in particular, man was created only to praise and glorify God. Such worship is performed through very minute divine norms and thorough instructions that have to be practised in the form of worships such as prayer, almsgiving, fasting, pilgrimage and many other related to his behaviours and manners. All

¹The Holy Qur'an, chapter Yasin 36, Verses. 54-58

² Ibid., chapter al-Waqi'a (The Event), Verses.9-26

³ A Tree of fire grows in the bottom of hell

⁴ The Holy Qur'an, chapter al-Waqi'a (The Event), Verses.41-46 and 52-56

these practices have to be done in his worldly life that is considered as a test where he will be examined and a passage to the other world where he will live forever either in complete happiness or in absolute misery. This purpose called in Islam Al – Amanah (The Trust) is the one that leads the Muslim to believe in the doomsday as an end to human race and the entire world. In addition to the belief in the resurrection, the transition to the other world and the last judgement that has to be based on reward and punishment depending on every individual's acting in accordance with the instructions and norms as stated by the Trust. There is no room for doubt that the Abrahamic theologians and philosophers alike did benefit from these religious revelations in their debate with their non-religious counterparts. The issues of resurrection and the punishment - reward system helped them to unravel some enigmas of our intriguing existence. We do know that the universe comprises many complicated dilemmas and intriguing wonders built upon sophisticated equations, but we did not know until recently that we are -the human beings-the most sophisticated part of it. Besides, these religious revelations, helped theologians and philosophers to enrich the debates about the eternity and the creationism of the world, as they combined what is acquired from ancient wisdom and what is learnt from religious teachings. The discussion of the resurrection doctrine and the award - punishment equation is of crucial significance, as it asserts the immortality of souls and the existence of another life called the hereafter or the afterlife. The Abrahamic stance based on the createdness of the world is regarded as untidy and inelegant¹ because of the dilemma of the afterlife. There were many attempts to reform the religious afterlife by Christianizing some parts of the Neo-Platonic scheme built upon an eternal, cyclical created world, with souls endlessly circulating from heaven to earth, to hell and back again and probably ending in universal salvation. Such reform started by the elimination of the aeternitates a parte post by asserting the pre-existence of the soul in dealing with heaven and the extension of the aevum backwards to infinity in the case of hell through the denial of its eternity(giving it an end as well as a beginning)². We have to mention here that the pre-existence and the universal salvation doctrines are supported by arguments based on time and eternity. The Neo-Platonic³ theologians and philosophers do

¹ D.P. Walker , *Eternity and the Afterlife*, p.246.

²Ibid.

³ There were also several variations on the Neo-Platonic scheme: Two friends of Henry More, Lady Conway and Francis Mercurius Van Helmont, proposed an eternal cyclical universe combined with a cabalistic (relation to kaballah) circulation of souls (Proclus *Elements of Theology*, p.304). Only one person solved the problem by denying the eternity of both heaven and hell: William Whiston, the great English Arian (D.P, Walker *Eternity and the Afterlife*, p.246).

see, as mentioned before, the *aeternitas a parte post* as absurd ,as in this case, if human souls are immortal, then, they must have existed, at least as ideas in the mind of God, *ab aeterno*. Moreover, the sins and the miseries of hell, which have begun in time, and have no eternal roots in God, must end in time¹.

Definitely, the demise of the world with all its implications starting from the dooms day passing through the resurrection day, the judgement day and the punishment and reward equation have a strong link with the Creator. The relationship of God with His servants is like that of a doctor with his patient. When a doctor prescribes a medicine to his patient, he would not be affected by the patient's response to his recommendations, as the doctor is only a guide. If the patient follows the doctor's medical advices, he may recover if not he may perish and both survival and death are equal to the doctor². The Almighty God created a cause for happiness and another for misery; neither the servants' disobedience will harm him nor their obedience will benefit him. He is beyond the limits of harm and benefit.

5.6 Conclusion:

We have discussed the God-world relationship in this chapter by introducing all the types of beliefs just to mention that relationship that is and always existed between the Creator and His creations regardless of the nature, the essence of that creator and the kind of worship that is followed by every believer. That is why, we have highlighted, for example, polytheism, pantheism and panentheism. It is to mention this sophisticated God-man relationship on the one hand and to expose the divergent means of perceiving God and assessing His power and control over man since the dawn of history on the other hand. It is man' fear from the unseen and from the unexpected and his worries about his life and his destiny that makes him in a constant attempt to unravel anything shrouded in mystery and decode the enigmas of his existence. Man was always overwhelmed by this discovery of his self and the nature of things around him as a colossal step to find out what lies beyond. These types of beliefs are of a paramount importance in understanding the nature of the creator, as they all do believe in the existence of a maker of our universe either he is one and unique as in the monotheistic beliefs or he is one beside many others like in the polytheistic beliefs. Whatever the case,

¹ D.P. Walker, Eternity and the Afterlife, p.248

² Al-Ghazali, Majmu at Rasa il al-Imam Al-Ghazali (The Compendium of the Epistles of Al-Ghazali), p. 362.

they all have a common point asserting that this cosmos has a creator and it cannot be eternal. If we do contemplate the Islamic concept of the nature of existence, we would notice that it is divided into two categories: the temporal existence and the eternal one; the former is manifested in all creations including souls, celestial spheres and invisible things and the latter is represented only by God and His attributes. Therefore, everything in our infinite universe is His act and His creation, but it is created by Him on a temporal basis, as it would collapse and demise at a certain time in the near or the remote future. We are not here very interested in the ways and the manners by which the cosmos came into existence, what matters us more, is whether this cosmos is created or eternal as it is the case throughout the whole thesis. The reason why we have exhibited Al-Ghazali's reasoning based upon the creation of the cosmos through both God' will and knowledge, as anything willed has to be known by the willer is just to prove that the cosmos has a creator and an artisan. Such evidence would lead us to the assertion that such a creator has to be eternal by His will, His knowledge and His attributes. In this regard, nothing can come to existence without God's will and God's knowledge, which means that everything has a temporal existence. Accordingly, everything is going towards demise and the everlastingness is restricted to God only, as He is the only eternal being if we could of course call Him a' Being'. As mentioned before, the discussion of both God's knowledge and will is of a crucial significance because by proving that God knows Himself and everything around Him and as we asserted that He is eternal, His Knowledge, His will, and consequently, all His attributes have to be eternal as well.

All these assertions would pave the way for the affirmation that the entire universe with its empirical and visible creations is eternal. We do also discussed the claims raised over the corporality or the materiality of God because if we do admit such claims regardless of the nature of this materiality or corporality, we are admitting ,in some way or another, that God is not eternal. In this case, even if you do assert that God is the Creator of the world, it would not make such world eternal, simply because it is extremely hard to affirm that a creator who is not eternal is able to create something eternal. It is not easy to refute this naked truth even if we did try to bridge the gaps and the missing links existing between God, the Creator and the world, His creation by introducing, or rather, imagining the interference of intermediaries

and mediators in the temporal or the eternal creation of the world. From all these troubled discussions and controversial debates, we have to admit the closeness that does exist between all these stances and between all these systems of beliefs.

We can only come out with the conclusion that there is a fine line between eternity and temporality¹, between materiality and non- materiality, between existence and non-existence and between the demise and the everlastingness. Therefore, any small addition can create a difference, anything is subject to irrefutability or falsifiability except what concerns God's essence and anything related to it, as it is the core of every comprehensive study of the enigmas of our existence, our destiny (corruption, demise) and our relationship with the whole cosmos as a dependent entity. We do find in the discussion of resurrection and the reward and punishment doctrines many important keys to open the gates of the unknown and uncover things shrouded in mystery to make a way in the labyrinths of life and death, the meshes of the demise and eternity and the maze of existence and non-existence. These two doctrines are not just important, but very essential to the comprehensive understanding of the nature of the world because they are all related to God, the Creator and the Maker of the entire universe. We cannot for example, imagine a resurrection made by nature or a punishment inflicted on man by the vacuum or a reward granted by evolution, as the process of resurrection does require the interference of a sublime intelligence. Even if we do imagine that such a process can be done by nature or evolution in some phases, it is quite impossible that nature can inflict punishment on man or grant him with a reward. Hence, we can only believe that the punishment -reward system is the act of a Creator Who was not made of matter, moved by energy or imprisoned in the space -time equation. Such a sublime power has to be the first before creation, the last after eternity, not bound by the laws of limit and the norms of boundaries. All these discussions would be insufficient without tackling the problem of evil, as it is the other side of this eternalism-crteationism intricate equation.

¹ Aevum is always defined as an intermediate state between time and eternity, less objection can be taken against the term in this sense, for it was just in this sense that it arose in Christian thought, which felt the need to distinguish between the supratemporal in a creaturely sense and eternity in the sense of the Being of God.

If we assert that evil is created by God, this would be an affront to His benevolent nature and undermine His omnipotence and authority over His creation. Likewise, we cannot affirm that evil is created by another supreme cosmic power, as this would make associates with God, which is a complete breach of His uniqueness and oneness. Moreover, justice and injustice would be meaningless in the presence of divergent powers imposing different laws and norms. This dilemma cannot be solved by claiming that evil is not created, rather, it is eternal as it is the case of God, as this would make something else eternal beside God, which is against the properties and the conditionality of the notion of eternity itself. We do agree, to some extent, with Plato that God is the measure of all things, but in the same time, He is the source of good and not of evil. This does not minimize God's omnipotence as the maker of everything, for He is the source of good, but He allowed the existence of evil for a wisdom we are not acquainted with. Our solution to this religious-philosophical dilemma is that evil has something to do with matter, but not like the Aristotelian matter or what the Muslim theologians call Al- Huyula, which is co-eternal with God. Matter is created by God, but without having a malevolent authority over man on condition that he (the man) obeys the laws and abides by norms. If we do take, for example, death, which is an evil, is the opposite of life, which is in its turn, an epitome of eternity. In this case, the existence of death as an evil and opposite of life is very important, as its absence would mean eternity and then the hereafter, the last judgment and the establishment of the ultimate truth would be unjustifiable and purposeless. The same can be applied to all other matter-related evils such as sickness, physical abnormalities, senility and so on. Some thinkers would say why then God Who is good and omnipotent did not create a world free of evil? Here becomes the equation of the reward-punishment to answer this question because without the presence of the evil, the moral tests in this earthy ephemeral life would be meaningless. Here, as mentioned before, comes the role of the Al-Amana (The Trust), The Almighty God says:

"Truly, We did offer Al-Amanah (the Trust or moral responsibility or honesty and all the duties which God has ordained) to the heavens and the Earth, and the mountains, but they declined to bear it and were afraid of it (i.e. afraid of God's Torment). But man bore it. Verily, he was unjust (to himself) and ignorant (of its results)¹."

¹ The Holy Qur'an, Chapter al-Ahzab(The Parties, or the Allies: 33), Verse.72

This means that before existence, man accepted to take such *Trust*, which is only the belief in God through obeying His commandments to achieve happiness and the reward or disobeying His commandments entailing the curse, damnation and punishment. Some would say what kind of *Trust* have I accepted to take in the eternity when I was still a non-existent? Islamic teaching has the answer to that, as it divided the human life into four main categories. The first one, is life in the eternity (life before life) when man was still a '*Nafs*'(Spirit):

"When thy Lord drew forth from the Children of Adam - from their loins - their descendants, and made them testify concerning themselves, (saying): "Am I not your Lord (who cherishes and sustains you)?"- They said: "Yea! We do testify!" (This), lest ye should say on the Day of Judgment: "Of this we were never mindful¹."

The second life is the one that every one lives in this world, the third one is that of *Barzakh* (life between death and resurrection) and the fourth one, the eternal life of the hereafter. That is why, man is praised and his standing among other creatures is very high because of this 'divine contract', called the *Trust*. Even better than angels, as the latter were obliged to obedience and created without passions and better than animals, which were created without Intellect, so they are not subject to any obligations or duties. Man have taken both of them the passions of angels and the rationale of animals. If he managed to take control of his passions, his rank is higher than that of angels and if he is controlled by these passions, he is degraded to the rank of animals.

From this particular point came the rationale behind classifying human *Nafs* to three main categories: an-*Nafs* al-Ammara bi as-Soue (the commanding *Nafs*) that is engaged in all kinds of worldly pleasures. An-*Nafs* al-Lawwama (the blaming *Nafs*), which is committing sins, but in the meantime, always repentant and contrite and an-*Nafs* al-Motmaenna (the peaceful or the assured *Nafs*) that is the highest rank of *Nofous*(plural of *Nafs*) stripped of all these evils. Al-Ghazali, in his book *Mizane al-Amal*(The Balance of Deed), talked about this ranking of human beings, as they can attain human perfection when they perceive the rationalities without illusions and sensuous deceptions that they do share with animals. The soul innately desires such rationalities, but its occupation with the pleasures of the body

¹The Holy Qur'an, Chapter, Al – A 'raf, (the Heights, or the Elevated Places: 7), Verse. 172.

prevents it from achieving this rational spiritual objective¹. For these reasons and others, we can never solve the problematic of evil existence without discussing the existence of another life and all its implications. The importance of the discussion of evil existence within the discussion of the eternity of the world is of crucial significance. It we do assert that evil was always existed, this means that it is eternal, and as evil is part of our world, the whole world then must be eternal because we cannot assume that a part of the world is eternal and the other parts created. This reasoning proves why many thinkers do not accept the dictum stating that if God created the world and He is eternal, then, the whole world must be eternal. We would reply to this by emphasizing that he who does support this dictum, he then believes in the co-eternity, which means sharing authority and the total absence of a unique superiority, and we all know the consequences that we may be generated in ignoring such total and complete authority. Likewise, all other beliefs focusing on God-world relationship or denying altogether such relationship such as atheism, pantheism, panentheism, deism, pandeism, Gnosticism and henotheism do not explain adequately the intriguing wonders of the universe and failed to define the faith of human race as the most sophisticated phenomenon in our astonishing cosmos.

We have to mention here that many archaic forms of atheism appeared since the beginning of divine messages to humanity. People used to deny the existence of a creator, denounce one religion, support other and sometimes reject them all. The reason behind such rejection was their disbelief in the notion of resurrection or their religious shock after the death of the prophets whom they believed supernatural, metaphysical and sometimes immortal. There were times when people could reject the whole credo including God's existence, but they have never been called atheists or described by any term bearing the same meaning. The only term that was frequent is apostasy. According to the ideology of that age, the renunciation of a religion means the rejection of its prophet, and consequently, the Divine Who charged him with that message. Nowadays, atheism has more to do with the scepticism raised over the existence of evil and the emergence of scientific theories and philosophical doctrines such as humanism, rationalism and naturalism. These doctrines did not manage to bridge the gap existing in human understanding of unseen world and to challenge the power and the authority of revelation as a tool of attaining sublime knowledge and a vehicle to dive into the maze of our intriguing existence.

¹ Al-Ghazali. Mizane al-Amal,(The Balance of Deed),p.15.

<u>CHAPTER 6:</u>

ON THE ETERNITY OF THE WORLD: ARGUMENTS TAKEN FRON TIME, MOVEMENT, POSSIBILITY AND VUCCUM:

6.1 Aristotle's Doctrine of the Co-eternity of Matter and God:

Aristotle does hold that matter is eternal, for it was not the result of a divine creation or emanation. However, it is God who caused it and made it change from one state to another. This means that matter always existed and it inspired its eternity from its uncreated nature. Hence, it is like God neither created, nor emanated from divine essence, but caused by it. We have to bear in mind that even if Aristotle does believe in the co-eternity and the independency of both God and matter, he does assert that the former and not vice-versa caused the latter. Aristotle holds that substratum is the responsible for the existence of everything. Aristotle was arguing this way to avoid any probable contradiction in his system and to prove the eternity of matter. If we do assume that matter came into existence from another matter, we are confirming its creation and consequently, we would be against its eternity. Aristotle defends his theory through many arguments, in physics "We can always observe something underlying from which the generated object comes, plants and animals, for example, coming from seeds¹." Besides, in metaphysics, Aristotle considers the impossibility that "Generation should take place from nothing" is self-evident². This Peripatetic reasoning is not always true; with the Abrahamic religions emphasizing that the creation is both free and immediate and does not presuppose a pre- existing matter, the creation does not meet any co-eternal principle opposed to God as the only creator of the particular beings in their multiplicity and their diversity³.

Aristotle's concept of God is associated with the existence of a Prime Mover and First Principle of all things. This prime mover has to be necessary being who has to have intelligence. Since the latter is an activity and activity is life and such a life must be eternal. This process of life-activity that requires such intelligence can only be ruled and organised by an eternal mind. From this perspective, we do understand why Aristotle is putting matter and God on the same level regarding the eternity and the capability of causing and generating other things and beings. We would discuss this point in depth in the forthcoming chapters. Definitely, when we do talk the Aristotelian matter, we are talking about the world as a whole as a material existent. That is why, many philosophers argued that the world is

¹Aristotle , *Physics I. 7, 190b, 3-5*,

² Aristotle , *Metaphysics III*, 4,999b, 8.

³Claude Tresmontant ,La Metaphysique du Christianisme, p.194

co-eternal with God. Al-Ghazali explained, in the Tahafut al-Falasifa (The Incoherence of Philosophers), that these philosophers considered the world as God's effect and it is posterior to time. Such co-eternity of God and the world is exactly like the relation between cause and effect, light and Sun. Even if God precedes the world, it is as the precedence of cause over the effect. Such precedence is of essence and rank and not of time¹, philosophers claimed that God's precedence over the world does not exclude the world from being with God in the same temporal existence, but God preceded it as the individual's movement with the shadow movement following him, the hand's movement with the ring's movement and the hand's movement in water with the water's movement. Al- Ghazali attacked these views about the nature of such co-eternity by explaining that even if these examples of movements seems to be simultaneous, we always say that the shadow moves with the movement of the individual and water moves with the movement of the hand in water. This means that both movements must be either eternal or created, so it is impossible that one movement is eternal and the other created². We have to mention that Al-Ghazali's harsh critic was not addressed to the Hellenistic philosophers, but rather, to their Muslim adherents and especially Al-Farabi and Ibn Sina. Al-Ghazali's teachings of philosophers who were opposing him were through the exposition of their contradicted views and erroneous theories. He accused them of blindly following Greek philosophers without drawing a clear distinction between what is right and what is wrong .Al-Ghazali tried be just when he stated that it is impossible to refute any philosophical theory without thoroughly studying and analysing it³.

6.2 Argument from Movement:

There are many questions that need to be solved to prove the eternity of the movement such as was there ever a time when movement came into being? Is movement doomed to pass away? Will time return when nothing will be stirred into activity? Is movement ungenerated and indestructible?⁴ All those interested in the mysteries of the cosmos acknowledge that there is a movement because without it, there would be no sign for the generation and destruction processes. Such a movement is always there either for those who believe in the existence of an infinite number of worlds or those who support the theory of the existence of one single universe. There are two ways in which there is a time when nothing at all comes to pass. One set forth by Anaxagoras who states that all things are

¹ Al-Ghazali, Tahafut al-Falasifa, (The Incoherence of Philosophers), p.88

² Ibid., p.110

³ Ibid.,p.31

⁴ 'Aristotle , *Physics*, 251a11

together for an infinite time until mind imports movement and distinction into them. The other is derived from the teaching of Empedocles who went on to say that rest alternates with movement .The latter is always there when love unifies the manifold diversity of things or when strife disrupts the unity:

Since unity takes its rise from plurality, And plurality, from a diffused unity, Things come and go and are without stability, But since their rotation continues forever, They form a cycle with eternal steadiness¹.

Aristotle also joined this debate by giving a detailed account of many axioms concerning bodies that follow from their motion and from the principles that move them. The moving bodies are moved by other bodies that are:

"Together and in contact with them, and these in turn by others together and in contact with them, and the latter in turn by others together and in contact with them; the bodies that move each other are contiguous in their positions or in contact, succeeding each other; and this succession is infinite in number²."

Certainly, there are modes and ways in which the natural body moves another body. The last of the bodies that moves the moving things that come after it, must also be moving, but only with local motion. There cannot be beyond this body another one that moves it. Hence, there is here, a finite body that is moving all the natural bodies. Aristotle came out with the conclusion that the body that moves in a circular motion has a mover³. After this analysis of the modes and the ways of movement, Aristotle became convinced that, "Which gives circular motion to the bodies at the limits is a certain being that cannot be a nature or a natural thing, or a body or in a body, or ever in a material at all⁴."

This finding compelled Aristotle to use another investigation and another theory, which is totally different from the natural investigation theory. In *Physics*, Aristotle pointed that there would be a period of time, when a first mover would be active and a thing acted upon would react, but there would be another period of time, in which nothing of this kind takes place just a continuing rest. This means that anything, which was at rest, but it is in movement,

¹Aristotle, *Physics*, 251a30

² Al-Farabi , Philosophy of Plato and Aristotle, p.102

³Ibid.

⁴ Ibid.,104

must have witnessed a change before its supposed first change. In this regard, Aristotle proceeds as follows: if an absolute beginning of motion should be assumed, the object to undergo the first motion, must either have come into existence and began to move or have existed in an eternal state of rest before beginning to move¹. From this particular point started the Aristotelian syllogistic argument stating that the activity of the Prime Mover is to think itself .Knowledge has to be that which is the best and that which is the best is God². Aristotle explains this syllogistic point by the statement, "*If it is best, it thinks itself, and the thinking is a thinking of thinking*³."

Before reaching this conclusion, Aristotle started by emphasizing that the object must have come into existence and began to move is self-contradictory, for an object cannot move before it comes into existence. Besides, the act of coming into existence is itself a movement that requires another movement before it. Regarding the arguments stating that the object have existed in an eternal state of rest before beginning to move, Aristotle argues that it is unsatisfactory for two main reasons: firstly, if the world began at a state of rest, the coming into existence of that state of rest would itself have been a motion. Secondly, if the world changed from a state of rest into a state of motion, the cause of that change to motion would itself have been a motion⁴. Ibn Tofayl entered this debate by arguing that if we do suppose that the world is eternal, its motion would be eternal, which means it had neither begun nor started from rest. Accordingly, as all bodies in the world are finite, they cannot produce the eternal motion of the world that is an infinite effect. That is why, Ibn Tofayl believes in the eternity of the world, and in the meantime, such belief does not compel him to change his mind about the God's existence as an irrefutable fact⁵.

Aristotle failed to explain why the act of coming into existence could not have been the required first movement. Similarly, he did not state clearly, in which scenario the starting of movement and the coming into existence is not self –contradictory. However, he concluded that for these reasons motion has to be necessarily eternal.

¹ Aristotle .*Physics VIII*, 1,251a, 8-20

²Richard Norman, Aristotle 's Philosopher-God, p.63

³ Aristotle , Metaphysics, 1074b34

⁴ Ibid , Physics, VIII, 1,251a,8-20

⁵ Sami S. Hawi, Ibn Tofayl : On the Existence of God and His Attributes, p.61.

The Aristotelian system of analysing the nature and the mechanics of movement is based upon some universal hypotheses that focus on natural beings. These hypotheses are a set of universal propositions, premises and rules that cover all these natural beings. These hypotheses, of course, are not self –evident first premises. They are just universal propositions that can turn to be evident by means of demonstrations made up of self-evident first premises. Aristotle applies the dialectical faculty in his investigation. This means that whenever he achieves useful knowledge about any particular natural being, he uses it in the explanation and the investigation of all other natural beings¹.

No wonder, the first of all these propositions are the universal rules dealing with the principles of the being of nature and the purpose of all bodily substances. Aristotle sees that each of these bodily substances have two principles: "A principle in virtue of which it is potentially, which is called the material, and a principal in virtue of which it is in act, which he called the form²."

From this Aristotelian standpoint, we do deduce that the principle that exists potentially, which is the material, is not sufficient to make what is potential come to be in act. Hence, it must necessarily be a third principle that can move it from potentiality to actuality. This principle is called by Aristotle 'the agent principle'. Aristotle concluded that everything that moves and changes, has to necessarily be moving toward an end and a finite purpose³. From this perspective:

"Everything that is a bodily substance is either for a purpose and an end, or is a concomitant of, and adheres to, a thing that is for a certain purpose and end. Therefore it became evident to him that bodily substances have all the principles ;all the principles of their beings are of four kinds, no more and no less; and those four are the material ,the whatness, which is the form, the agent and the end¹."

¹Ibid.

¹ Alfarabi , Philosophy of Plato and Aristotle, Trans. Muhsin Mahdi, pp.98-99.

² Ibid.,99.

³ Ibid.

In tackling the doctrine of the eternity of the world in general and that of movement in particular, Al-Ghazali addressed many embarrassing questions to philosophers who are backing such a doctrine. These questions do take the shape of a challenge, as Al- Ghazali is not expecting convincing answers because of the sophisticated nature of this challenge. These questions are like 'what would your response be to those who say-as the *Ash'arites-*: The world was produced (which means created in time) thanks to an eternal will, which had decided the world had to appear in this moment and not another?' 'What is your objection to this thesis and what is irrational about it?¹'.

It is of a paramount importance to mention here that there are many elements within the doctrine of the eternity of the world supporting the doctrine of creation. The eternity of the world doctrine is extremely controversial, for it leads to discuss the rotations of celestial spheres .The numbers of these rotations are infinite and their unities cannot be numerated even if there are finite numerical links between them. For instance, the sphere of the Sun makes one turn a year and the sphere of Saturn in thirty years. The number of turns done by Saturn is one thirtieth of the number of turns done by the Sun and the number of turns done by Jupiter is one twelfth of the number of turns done by Sun, as it makes a turn every twelve years. Hence, the number of turns of Saturn would be infinite if the world was pre-eternal².

All these turns are non-existent: those, which have gone are no longer existent and those, which are coming up are still non-existent. Therefore, in both cases, there is nothing existent. Ibn Rochd went on to say that the number ceases to be existent after it had existed is only true, if it has a beginning and an end outside the spirit or in the spirit. Thus, the number, which has neither a beginning nor an end, is not true regardless of its oddness or evenness, its commencement, its end, its belonging to the past or the future. According to Ibn Rochd, these are the characteristics of the non-existents, which made philosophers consider the turns that took place in the past or those that will occur in the future as non-existents¹.

¹ Leon Gauthier . IBN ROCHD (AVERROES), p.205.

² Ibid.,p. 206.

Ibid., p. 207.

We do deduce from this analysis that there is an eternal principle motor, which its existence has neither a beginning nor an end. In addition to that, its action has necessarily to be accompanied by its existence without any delay. Therefore, any anterior action cannot be a condition of the existence of the following one because neither the former nor the latter are an agent by essence. If one of these actions took place before the other one, this would only happen by accident. This does not apply only to successive and continuous moving things, but also to things that we do think that the precedent is the cause of the following, for example, the man who generates another man like him¹.

The man, who produced such a man designated by the mean of another man, has to be eventually a first eternal agent that its existence had neither a beginning nor its action can produce a man coming form another man. Moreover, the ad infinitum production of a man coming from another man is an accidental production, while the anteriority and the posteriority are by essence. When *the Motakallimin (Muslim theologians)* do believe that what is coming by accident is coming by essence, they are refusing its existence. According to philosophers, this kind of the infinite has no beginning and no end. Consequently, we cannot say that this kind of the infinite had ended, it is entered in the existence or in the past time, for everything that ended had begun and what have not begun had not ended².

This is also evident when we do see the commencement and the end belonging to the category of relationship. Accordingly, he who says that the turns of the sphere have no end in the future, he has not to give them a beginning, for the one who has a beginning, has an end, and the one who has no end, has no beginning. In other words, the one who has a first has a last and the one who has no first, has no last and the one who has no last, none of his components is really ended. Likewise, none of his components has a real commencement.¹ What is striking about the whole Peripatetic system of movement is that it is investigating whether the world is homogeneous or heterogeneous. Consequently, the system investigates whether these moving or moved bodies are the first constituents of the world, or in other

¹ Leon Gauthier ,IBN ROCHD (AVERROES), p.209

²Ibid.

¹ Ibid.,pp.209-210

words, the primary parts of the world. This leads us to assume, if one of these primary parts are missing, the whole system that the world is based on would vanish, be demolished or turned to be not the world we do know¹. Even if Aristotle did not specify exactly which of these bodies are the first to constitute the whole world, but he was quite sure that such bodies do exist. However, he mentioned their nature and summarized them in five primary simple bodies:

"One of them is the outermost body that moves in a circular motion. The remaining four have common material but are different in their forms. The fifth differs from these four in both its material and its form, and is the cause of the existence of these four, of their constitution, of the continuity of their being, of their positions and of their ranks: These four are the elements from which all bodies below that outmost body come into being, and these elements are also generated from ach other and not generated from a body simpler than they or from any body at all. Besides, the mentioning of these primary bodies, lead us to think about bodies posterior to them which may help us to achieve better understanding of the nature and the origin of the primary bodies²".

The Aristotelian system sees these four bodies as elements generating each other because they are the primary natural substances and the rest of the generated bodies are generated from them.

6.3 Argument from the Nature of Time:

First of all, and before shedding more light on the nature of time, we have to mention Aristotle's definition of time as a kind of number and that number is motion in respect of before and after³ because we judge more and less by number and more and less motion by time¹. The first question that may jump into our mind when talking about time is whether time is eternal or produced because the concept of talking about time before time is self-contradictory. Anyway, this concept of movement leads us to interject questions such as when there was nothing going on, can there be time? And if there was no time, can there be

¹Al-Farabi , Philosophy of Plato and Aristotle, p.103

² Ibid. 104.

³Julia E. Annas, Aristotle, Number and Time, p.97

¹Aristotle, *Physics*, 219b3-5

any terms like 'after' and 'before'? In this regard, we have first to investigate the nature of time and all what is concomitant with it on the one hand and to motion and natural beings on the other one. Likewise, we have to investigate whether natural beings or motion in order to exist, they have to exist in time and whether time is a consequent attribute not required for the existence of any being at all¹.

If Democritus proved ,in his way, that time is ungenerated to refute the view claiming that all things are generated, Plato was for the generation of time, as he considers time and heavens as contemporaries coming from the same origin and with the same age. As time can never be conceived without present, which is the starting-point of the future and the end-point of the past, there must always be time. Therefore, as time, which is an aspect of movement is eternal, movement must be eternal as well². Plato in particular and the Greeks in general, are accused of employing the principles of time and eternity to theoretically split the universe in two. Definitely, eternity and time are not the same and each of them cannot be reduced to the other by means of rigorous dialectic. Plato sees the past and the future tenses as not applicable to eternity or to what he calls(*aionios*), we can only use the term ' that it is' to express the timelessness(the limitation of existence in time) of Plato's forms and mathematical objects.

Aristotle used the same terminology to describe the nature of the Sun and the stars³. In other words, time is not a duplicate of eternity and it has a dynamic kinship with the eternal. This is the case of time because it has its share of the nature of eternity through the imitative participation process that is common to all empirical events and objects. Hence, the question about time is a question about the world's relation to God. For Plato, God is the originator of the eternal forms in which all temporal facts participate, he is the maker and the father of all things and time is a creature-like all the other God's creatures- that is made by a will not by its own and bearing the marks of likeness to its creator¹. If many philosophers linked eternity to timelessness and necessity, another non- temporal view of eternity goes back to Plato and Aristotle associated eternity with immutability or the total absence of change. This means

¹Al-Farabi .Philosophy of Plato and Aristotle, p.102.

² Ibid. p.146.

³ M. Kneale, Eternity and Sempiternity, p.225.

¹ Roger Hazelton , Eternity and History, p.7.

that whatever is changeless is necessarily non-temporal, and accordingly, eternal, which is not the case of time, as it is subject to changeability¹. We have to bear in mind that for the Abrahammic religions, 'creation is different from the Platonic one, which is a mythical – mathematical fashioning of the world through the agency of the Demiurge². Therefore, the Platonic position stating that time is the moving image of eternity created many unanswered questions, as eternity is not a simple state of timelessness or changelessness. Plato emphasizes in the Sophist:

"Can we ever be made to believe that motion and life and soul and mind are not present in the absolute Being? Can we imagine Being to be devoid of life and mind and to remain venerable, holy, mindless, unmoving fixture?³"

On the other side, Plato always explains and understands time by means of eternity and not all the way around, thus, eternity cannot be considered only unending prolongation of time. Moreover, the Platonic view states that eternity may become temporal, but time does not become eternal, as the relation of time to eternity is not merely paradoxical, it is analogical as well. After proving- to some extent- the fallacy of these two meanings of eternity, what it is left to us is a third meaning emphasizing that eternity is that mode of reality, which includes time by transcending it. Thus, time is not a synonym of eternity, but it may be, in some occasions, a symbol of it⁴.

For a better understanding of the *Ghazalian* chronological posteriority and anteriority of the temporal existence, we do suppose that the creator is anterior to both the world and time, not with His essence, but temporally. Then, before the existence of the world and time, there was a time in which the world was non- existent, since the non-existence preceded the existence. Consequently, God had preceded such non-existence for a long space of time, which had an extremity at the level of the end and had not that extremity at the level of the beginning. Therefore, before time, there was an infinite time, which is contradictory, and makes the theory of the creation of time even more vague and ambiguous¹. Al-Ghazali in *Mi'yar al-Ilm(*The Criterion of knowledge), gives the same dimensions to eternity proceeded from essence and that from time. Eternity that is proceeded from time is that which has no

¹ E.J. Khamara , *Eternity and Omniscience*, p.204.

² Roger Hazelton , Eternity and History, pp.7-8.

³ Ibid., p.8

⁴ Ibid.

¹ Al-Ghazali , *Tahafut al-Falasifah*, (The Incoherence of Philosophers), p. 110.

beginning to its existence and that which is proceeded from essence, is which its essence has no principle or a cause. According to philosophers, the world is created in relation to the first and eternal in relation to the second¹. There are also two other argumentations of a paramount importance in clarifying the notion of time. First, the assumption of philosophers affirming the existence of 'a first moment' is ambiguous and unclear assumption. That is why, Al-Ghazali, and in order to prove the necessity of a first moment created along side with the world, he uses the argument of ad hominen to make these philosophers contradicting themselves. Regarding the infinity, space and time are identical (similar in all details), which means that beyond the exterior surface of the supreme sphere there was nothing neither fullness nor vacuum or extension. Therefore, philosophers have to admit the existence of a first moment of time before which there was neither a full time nor a void time (a before without before or an anteriority without anteriority). God created the world after it was not, this does not mean after a time where it was not, but means God without the world, then, God with a world².

Philosophers may say that time is not comparable to space, and since the parts of space were co-existent, the positions in space are reversible ad libitum and dependent on the position chosen by the object. On the contrary, as the parts of time are successive, the present is stable not depending on an arbitrary shift of the object, the anterior or the past cannot become the posterior or the future. Al -Ghazali answered this objection by depicting that, without cease, the present is shifting: the past was a future and the future will become a past; thus, time and space are assimilable. The before and the after are like the high and the low: what distinguishes time from space diminishes in the vision of reason and becomes a pure rational co-existence exactly like the case of space³. The Abrahamic religions in general, see the incarnation and the manifestation of eternity in time and the constant struggle between eternity and time is, in fact, a struggle between life and death, between substance and shadow and reality and reflection. The Abrahamic religious teaching is based upon the notion that what is seen is temporal and what is invisible is eternal¹ and both time and eternity are associated with the Divine as properties and creatures. In discussing the notion of time and its nature another point has to be highlighted here is that of the term sempiternity(avdios)

¹ Al-Ghazali, *Mi yar al-Ilm*, (The Criterion of Knowledge), p. 334.

²Al-Ghazali, *Tahafut al-Falasifa*.(The Incoherence of Philosophers),p.111. ³ Leon Gauthier ,IBN ROCHD (AVERROES), p.227.

¹Roger Hazelton, Eternity and History, p.9.

that was used by many philosophers and theologians alike. They discussed whether an eternal object has to be also sempiternal¹. Aristotle argued that the heavens are sempiternal and Epicurus ,and many of his followers, asserted that the primordial atoms are everlasting². If Aristotle argued that eternity and sempiternity are compatible, Plato emphasized their incompatibility, as eternity excludes succession (the before and the after), whereas this succession is involved in sempiternity. Epicurus and Lucretius thought that 'the before' and 'the after 'express a single notion³.

6.4 Argument from Possibility:

The existence of other worlds along with our existing world and the possibility that other worlds other than our own could exist, were among the intriguing questions asked by all natural philosophers from the Hellenistic Greece, through medieval ages, the Copernican revolution to modern philosophical doctrines. The multiple worlds front is represented by the atomists like Lucretius, Epicurus, and Aristotle is the pioneer of the one world front. The terminology here is of a paramount important because the world meant to be synonymous with cosmos, which is the totality of the universe. Aristotle's cosmology, unlike the atomistic one that allowed the existence of more that one world, is very strict and precise regarding the existence of one and unique world. The Aristotelian system is based upon the natural places of the movement of elements, which did not allow the existence of more than one world. In their debate about the multiplicity of worlds, the atomists started with the idea that the universe is changing and infinite and nothing comes into being from nothing. This is well – depicted in these Lucretius's poetic verses:

"add to this that nothing in the universe Is born unique and grows unique alone, But all belong to a species, very many, Of the same kind. Consider animals: You will find this rule applies to the wild beasts That roam the mountains, to the human race, To the dumb shoals of fish, to all things that fly

¹M. Kneale , *Eternity and Sempiternity*, p.223.

² Ibid.,p.224.

³ Ibid., p.225.

Therefore likewise one must accept that sky And earth and sun, moon, sea and all else that exists Are not unique but in number numberless. No less a deep-set boundary stone of life ¹".

In order to achieve a comprehensive understanding of Lucretius poetic cosmic principle, we have to establish a good balance between the philological meaning, the poetic meaning and philosophical one. This balance is well portrayed in Fowler's commentaries on Lucretius poems. In his comments on Summa (154-156), Fowler mentioned that Lucretius uses this terminology in divergent senses. Sometimes Summa is 'the sum of things' in this world and sometimes it is the sum of things in the whole universe. This shift in meaning is not arbitrary, but of a paramount importance, as it serves a dialectic purpose:

"As Lucretius leads us from the comforting thought at the beginning of Book 2 that life goes on as material is recycled in our world, to the end of Book 2, where "this consolation is removed, and we have to see that only the summa summarum as to pan, the whole infinite universe, is really immortal" (155). The commentary is full of insights like this, as Fowler shows us how carefully Lucretius chose his words and to what effect he used them²."

In the theological hypothesis, the creation of time and the world was possible. Therefore, the possibility is an attribute that supposes an object, but there is no possibility in the Divine, for everything in Him is a necessary immutable act. The object of the eternal possibility can only be the matter and if we do prove that the matter is eternal, then, the whole universe is eternal as well. To clear the confusion between the two meanings of possibility, Al –Ghazali drew a distinction between the logical point of view, in which the opposite of the term possible is impossible and the ontological standpoint, in which the opposite of the term possible is real, or rather, the absolute real, which means the necessary¹. In *Tafafut al-Falasifa*(The Incoherence of Philosophers), Al-Ghazali exposed the views of philosophers of the possibility of the existence of the world. Philosophers argued that the existence of the world was possible before its existence, as it is impossible that the world was impossible and then, became possible. This possibility has no beginning because it is still there, and

¹ Lucretius, On the Nature of the Universe, trans. Ronald Melville, Don and Peta fowler, p.66.

²Don Fowler, Lucretius on Atomic Motion. A Commentary on De Rerum Natura, Book Two, Bryn

Mawr Classical Review. p.513.

¹Al-Ghazali, The Incoherence of Philosophers, p.97.

consequently, the world is still possible to exist. Al-Ghazali replied to these claims by stating that when we say the world is possible to exist, means that it is not impossible to exist. If it is possible to exist eternally, then, it is not impossible to exist eternally. In this case, we cannot say the world is possible to exist eternally, and accordingly, we cannot say it is still possible to exist. If we do deny that the world is not still possible to exist, then, we can assert that this possibility has a beginning. In consequence, if we can assert that such a possibility has a beginning, then, the world was not possible before that. Al-Ghazali concluded that the assertion that the world was not possible before leads to the possibility that God was not capable of its creation. Furthermore, the estimation of the world is bigger than it is, and the creation of a body above the world is possible, and another above that body is also possible ad infinitum. There is no end to the possibility of the increase, albeit the existence of infinite fullness is not possible. Likewise, an infinite existence is not possible,¹ Al-Ghazali went further by falsifying the view of philosophers arguing that, as the world did not exist before its existence, its status changed from impotence to capability and the world itself from impossibility to possibility. According to Al-Ghazali, this view is not logical and the only rational explanation is that the world existed through a divine will².

Ibn Rochd, and as usual, proves that he is realistic by attacking *the Mutakallimin*(Muslim Theologians)-that are defended by Al –Ghazali-and describing them as nominalists. He accused them of destructing many metaphysical idols that Peripateticism was built upon. However, they considerably contributed, through the intermediary of conceptualism and nominalism, to the advent of science and modern philosophy. Ibn Sina holds that prior to anything coming into actual existence; its existence must have been possible. The discussion of the eternity of the world in the future, is connected to that of its pre- eternity, paves the way for the same old- new arguments about the impossibility of the Divine Cause of the world to remain inactive after the disappearance of the universe, and accordingly, the possibility of time to remain empty. The second and the third evidences have no secondary importance, as they are subsidiary evidences backing the first one, which is the main evidence¹. In this fierce dispute about the eternity of the world, we have seen the two

¹ Al-Ghazali, *Tahafut al-Falasifa*, (The Incoherence of the Incoherence), p.118.

² Ibid.,pp.90-91.

¹ Leon Gauthier ,IBN ROCHD (AVERROES),p.235.

adversaries exhibiting their ingenuity and their considerable profundity in their analyses. This enabled them to occupy an outstanding position in the history of universal philosophy.

6.5 Argument from the Vacuum:

Obviously, we do understand vacuum-whatsoever it is- as the space which is devoid of matter, and whenever we talk about the emptiness, the void or the vacuum, the very first thing that may cross our minds is atomism and its outstanding pioneers. Among these pioneers Epicurus and Lucretius¹ who do believe in the existence of atoms. The latter are responsible for the existence of the whole cosmos. The atomists do believe that everything in the universe is made of indivisible atoms and the remainder is void. Therefore, the nature of the world is boundless and its constituents are infinite in quantity:

"Nothing comes into existence from non-existence, for if that were possible, anything could be created out of anything, without requiring seeds. And if things which disappear became non-existent, everything in the universe would have surely vanished by now. But the universe has always been as it is now, and always will be, since there is nothing it can change into. Nor is there anything outside the universe which could infiltrate it and produce change²."

This doctrine leads us to deduce that nothing can be made of nothing. Likewise, nothing can be destroyed into nothing. Consequently, when the destruction does happen; it definitely led to what the atoms are made of. We do mean by that the atoms real nature whatsoever it is, particles, corpuscles or something that is still shrouded in mystery. The atomists do believe in the existence of atoms because they are also believing in the existence of empty space, which is only the void or the vacuum, simply because the cosmos, as a whole, is made of atoms, which are solid matter and the space, which is the void. Thus, the atoms need that void to keep them in a constant movement, and in the same time, they have no place, where they can take rest:

¹ Lucretius's poem on the nature of the universe combines a scientific and philosophical treatise with some of the greatest poetry ever written. With intense moral fervour Lucretius demonstrates to humanity that in death there is nothing to fear since the soul is mortal, and the world is governed by the mechanical laws of nature and not by Gods; and that by believing this men can live in peace of mind and happiness. Lucretius bases his argument on the atomic theory expounded by the Greek philosopher Epicurus, and the poem explores sensation, sex, Cosmology and Meteorology, and Geology with moving sympathy for man's place in the world ("Lucretius, "On the Nature of the Universe, trans. Ronald Melville, Don and Peta Fowler. An extract from the book introduction).

² Lecritius , Letter to Herodotus, trans. C. Bailey, p.39.

"If you think that the atoms can stop and by stopping generate new motions in things, you are wandering far from the path of truth. Since the atoms are moving freely through the void, they must all be kept in motion either by their own weight or on occasion by the impact of another atom ...as a further indication that all particles of matte are on the move, remember that the universe is bottomless: There is no place, where the atoms could come to rest. As I have already shown by various arguments and proved conclusively, space is without end or limit and spreads out immeasurably in all directions alike¹."

Even if the atoms are the building blocks of everything including human beings, there are many phenomena that are caused by the different combinations of these atoms. The doctrine of the indivisibility of atoms is proved by the continuity of their existence:

"If there were not some level beyond which matter could not be divided any further, then everything would have dissolved into nothing long ago. These atoms are always flying off the surface of objects and forming fresh compounds and they can not themselves be destroyed, although the compounds they make they can be broken up (e.g., at death). The atoms go on for ever making new 'bodies' of matter²."

In general context, the matter does not stick together as a unity of a solid mass because the generative bodies of matter are responsible for the birth of various things. The bodies that are waning or fading in a certain world; they are in fact enlarging the other world they are joining. They do bring decay in one side, life and growth in the other one through this interchange process. In other words, one world increases at the expense of the demise of another one in a mutual relationship, "The generations of living things pass in swift succession and like runners hand on the torch of life¹." Hence, the indivisibility or the non-destructivity of atoms is not possible without the existence of an empty space, which is vital for these two processes, "Empty space must also exist to give the atoms room to move at all²." Later on and precisely in the De Caelo, Aristotle, like Plato, rejected the assumption of the existence of many worlds when he was discussing the plurality of immovable movers³.

¹Lucretius, On the Nature of the Universe, trans. Latham, p.40.

 $^{^{2}}$ Ibid. p.(X:5)

¹Ibid.,p.39.

² Ibid., p. (X: 5)

³ Harry A. Wolfson , The Plurality of Immovable Movers in Aristotle and Averroes, p.236.

The movement of atoms and the existence of a boundless void are governed by a plenty of rules. As we have seen previously, atoms need empty space to travel though. However, the heat and the bright light emitted by the Sun do not need such a void to travel through. That is why, they are forced to move slower than the other atoms to clear their way through waves of air. Furthermore, the atoms that are composing the solar radiance do not travel individually in an isolating manner, but linked to each other ¹.As there is no void, the bodies move circularly at the circumference surrounding all the other bodies. What is inside every single body, is bodies that are continuous and in contact, simply because there is no void at all in the interval between them².

"Thus their pace is retarded by one dragging back another as well as by external obstacles. But when separate atoms are travelling in solitary solidity through empty space, they encounter no obstruction from without and move as single units being composed of their own parts, on the course in which they have embarked. Obviously therefore they must far outstrip the sunlight in speed of movement...³."

We have to mention that these symmetrical principles were revolutionary, for they came to refute the common belief -that was prevailing at that time- stating that the whole universe was created by deities. Lucretius, and in many occasions, tried to highlight the existence of void through many clear and tangible examples like the one in the following passage:

"This process, as I might point out, is illustrated by an image of it that is continually taking place before our very eyes. Observe what happens when sunbeams are admitted into a building and shed lights on its shadowy places. You will see a multitude of tiny particles mingling in a multitude of ways in the empty space within the actual light of the beam, as though contending in everlasting conflict, rushing into battle rank upon rank with never a moment's pause in a rapid sequence of unions and disunions. From this you may picture what it is for the atoms to be perpetually tossed about in the illimitable void...their dancing is an actual indication of underlying movements of matter that are hidden from sight. There you will see many particles under the impact of invisible blows changing their course and driven back upon their tracks, this way and that, in all directions¹."

¹ Lucretius, On the Nature of the Universe, trans. Latham, p.41.

²Alfarabi , Philosophy of Plato and Aristotle, p.103

³Lucretius, On the Nature of the Universe, trans. Latham, p.41.

¹Ibid., pp.40-41.

Aristotle criticized the atomist stance that the void is the primary cause of motion: "Yet it is illogical that bodies should move upwards on account of the void if the void does not do so itself^d." Therefore, the atomistic theory does attribute motion to the void, Aristotle objected to that, as his fundamental tenet, is that, the first cause of motion is that which moves itself².

All these cosmological principles do corroborate the atomistic standpoint stating that our world is definitely not the only one in this world. For the Aristotelian system, the nature of the world is not as sophisticated as it is seen by the atomists, for it is comprised of four elements. Each element has a specific movement, even if we suppose that there are many worlds, they have to be made of the same nature, which is the four basic elements. This means that we are still talking about the same world and not a different one. Hence, we are projecting the characteristics of the uniqueness and the oneness of our world on other worlds that we completely ignore.

"Therefore the parts of earth in another world are such as to move to the centre here and fire there towards the extremity of our world. Yet this is impossible: for if this happens ,earth in its own world must move upwards, while fire must move to the centre, and similarly earth from this world must move from the centre naturally in moving to the centre in that world, because of the way in which the worlds are mutually positioned. For either we ought not to lay down that the simplest bodies in the many worlds have the same nature, or in saying that they do we must make the centre single, as well as the extremity; yet if this is so, there cannot be more than one world¹."

On his commentary on Aristotle's *On the Heavens*, natural medieval philosopher Nicole Oresme or Nicolas d'Oresme(ca.1323-1382 AD)- even before the Copernican revolution in which atomism was not so popular to be backed – remained on Aristotle's side, but in the same time, he reached a different conclusion by claiming that it could be more than one world. This crucial conclusion was reached when Nicolas d'Oresme came across the Aristotelian argument stating that there cannot be more than one world because of the way in which the elements move in relation to each other:

¹W.K.C Guthrie, Introduction of Aristotle's ,On the Heavens, pp. xxii-xxiii

²Ibid.,p.xxiii

¹Aristotle , On the Heavens, book 1 276b11

"But up and down are used otherwise with respect to heavy and light objects, as when we say the heavy bodies tend downward and the light tend upward. Therefore, I say that up and down in this second usage indicate nothing more than the natural law concerning heavy and light bodies, which is that all the heavy bodies so far as possible are located in the middle of the light bodies setting up for them any other motionless or natural place¹." The advent of the renaissance, compelled philosophers to draw a distinction between the terms world and cosmos .Such distinction had not existed before. From the Hellenistic period to the medieval one, world and cosmos were regarded as two synonymous.

6.6 The Aristotelian System Repudiates the Existence of Vacuum:

6.6.1 Nature Abhors a Vacuum Doctrine:

Aristotle, and his followers, do not believe in the existence of vacuum, as for material objects can only come into existence in place. This view was supported by the Aristotelian Arabs, and among them, Ibn Hazm who argued that the substance is only a body, every substance is a body and every body is a substance and there is no vacuum in nature, as the entire world is a ball without any space for emptiness. The Hazmian-Aristotelian view came as a response to the Mutakallimin (Muslim theologians) who thought that the world is like an onion and the orbits in which turn the stars and the planets are like the skins of that onion². This conclusion started by investigating whether or not for motion to exist, the moving thing requires void. The conclusion reached was that void is not required by the moving thing or for the existence of motion. Consequently, no void is required for the existence of a natural thing regardless of its nature, substance or attributes¹. Therefore, no place in the space can be completely empty. In other words, in order that these material objects achieve a physical existence, have to occupy a space. It is worthwhile to mention here that this Aristotelian stance is against creationism, as it made from the empty space, which is according to him, no matter, a condition for the existence of all things from the tiny to the giant. If we do believe that material objects can come into existence from a place, which was previously occupied by a vacuum, we believe that something can come from nothing. According to the creationists, God created the dimensions at the same time he created the matter, so there was no vacuum before there was matter. According to Peripatetic philosophers, the vacuum has

¹Nicole Oresme, *The Possibility of a Plurality of Worlds*, trans. Albert D. Menut. pp. 550-551.

²Ibn Rochd, *Al-Kashf an Manahij al-Adilla*, (The Exposition of the Methods of Proofs), p.38.

¹ Al-Farabi . Philosophy of Plato and Aristotle, Trans. Muhsin Mahdi, p.101.
no existence, simply because the matter is eternal. Accordingly, if we do believe in the existence of vacuum, we are denying the eternity of matter. We have to bear in mind that the terminology 'vacuum' is so puzzling because if the vacuum is not the emptiness, how can be called a vacuum? ¹All over again, we have to draw a distinction between the classical vacuum represented by classical physics and modern vacuum defined by modern physicists. The former is achieved -or at least perceived- when all matter and heat radiation have been removed from a region of space, while the latter is defined as any region of space empty of all matter, heat radiation and pattern of electromagnetic fields. Therefore, the vacuum is the experimentally attainable void². The scientific revolution of the seventeenth century rejected Aristotle's doctrine that nature abhors vacuum. However, the advent of brand- new theories in modern physics prove the exactitude of many of Aristotle's speculations -but not all of them of course- and helped to elaborate many of the renaissance theories about matter in particular and the cosmos in general.

6.6.2 Aristotle Filled the Vacuum with the Aether:

In *De Caelo*, Aristotle develops his famous theory of the Aether by claiming that the universe does not consist of four concentric elements, which are earth, water air and fire. There must be a fifth element or what he calls '*Proton soma* or *Aether*'. According to Aristotle, this Aether ,as a self-mover, is the Supreme Being³ and it is the fifth body from which the heavens are made .Such element makes up a set of spheres surrounding the other four elements. It is prior and more divine than the other four elements. The latter are called sublunary because of their position below the Moon .That is why, they are imperishable. It is actually Aristotle's theory of motion, which led him to make such distinction, in the sense that, he considered the motion of heavens as circular, which is natural to them, while that of the four basic elements as done by nature upwards and downwards in a straight line¹. Therefore, this material of the heavens named the Aether is completely different from all the other material out of which are made all the other bodies we do know. It is not generated and it cannot be destroyed and moves with the purest form of movement.²

¹ Timothy H. Boyer , *The Classical Vacuum*, Scientific American Magazine, Aug 1985, p.70. ²Ibid

³ W.K.C. Guthrie, Introduction of Aristotle's On the Heavens, p. xxiii

¹ John philoponus , Philoponus against Aristotle on the Eternity of the World, Trans. Christian Wilberg, p.23.

² Josep Puig Montada , Aristotle and Averroes on Coming-to be and Passing -away, p.4.

As mentioned previously, vacuum was invented as a part of the atomic theory by Leucippus and his student Democritus in the fifth century BC. The pioneers of this theory needed the void to provide us with a rational explanation of the architecture of our startling world. They build their theory on many tangible and simple examples taken out from our daily observations and experiences. If matter is unbroken and continuous, were would a knife for example find room to begin the process of slicing into a piece of wood? And how would milk find room to dissolve into water? All these enigmas can be solved easily and convincingly, if we admit the existence of a void between atoms to accommodate the edge of the knife or to allow milk atoms to intermingle with water atoms¹. We can imagine here the inexhaustible list of examples. This theory is rejected by philosophers who had different view of the architecture of the world on one hand and because the atoms are invisible on the other hand. We have to mention here that Aristotle's theory based on the rotating of this fifth element the 'Aether' will not survive the theory of Copernicus stating that it is the Earth which rotates around the Sun and not the Sun which orbits the Earth. However, in 1616, Cesare (1550-1631 AD) Cremonini (1550-1631 AD) was sill defending Aristotle's theory of the Aether against Philoponus' stance².

We have to bear in mind that the church, which was at that time, the icon of Christian religion par excellence; will not allow the Copernicus' theory of the rotation of the Earth around the Sun. Ironically, the belief of the church was not against the Aristotelian theory of the Aether, even if many of Aristotle's views were against the Abrahamic religions. The reason behind this discrepancy is that this time the Peripatetic system of the rotation of cosmic things was compatible with the church basic beliefs. After the death of Copernicus, the Aristotelian theory of the Aether was prevailing until the first third of the seventeenth century. The most powerful opponent of this atomic theory built on the belief in the existence of vacuum was Aristotle who considered the existence of vacuum physically unacceptable. He filled the vacuum with the Aether because it is the stuff of the stars and heavens and also permeated the four basic worldly elements (water, air, earth, and fire)¹. We have to mention that Aristotle's theory takes its powerfulness from the fact that even

¹Hans Christian von Baeyer, Vacuum Matters. vol.13 No.03, March 1992.

²Jhon Philoponus, Philoponus against Aristotle on the Eternity of the World, trans. Christian Wilberg, p.21.

¹ Hans Christian von Baeyer, Vacuum Matters, vol.13 No.03, March 1992.

when these elements turned out not to be elemental, the Aether keeps on surviving, as it survived for centuries. By the seventeenth century, Aristotle's objections to the Aether were deflated, as scientists managed to obtain a vacuum or something close to it, with the help of the newly invented vacuum pump. There scientific experiments were not perfect of course, but they provided us with the belief that vacuum can be made. However, the Aether remains powerful as long as no totally empty space was achieved¹.

The Aether would be revived all over again to be an essential component of the nineteenth century physics because of the advent of the wave theory of light, as we all know, light was found to be consisted of waves. This time, the question that insistently imposes itself here is that what are these waves made of? Waves can be sounded in air, water waves in oceans, but we have never imagined waves of void. We do know- at least at the time being- that sound cannot travel through empty space, but we do admit that light can travel through an apparent empty space. However, such emptiness cannot be completely empty, but filled with Aether.² It is worth noting that the Aether we are talking about here has more definite physical properties than the Aristotelian one. This is well depicted when we do talk, for instance, about light speed:

"It was known that sound waves move faster in a denser medium, such as water, than in a thinner one like air. Since the speed of light is so tremendously high--186,000 miles per second—the a ether had to be exceedingly firm, even solid. And yet planets move through it without encountering any detectable resistance. It was strange stuff indeed, this ether, at the same time denser than steel and more tenuous than air, but the physicists of a century ago could see no way to do without it¹."

In 1887 ingenious experiment was conducted to prove the existence of the Aether by the two American physicists Albert Michelson and Edward Morley. If Earth was moving through stationary Aether, it should be feeling an Aether wind and when light was bucking this head wind, it should move more slowly than when it was cutting across the wind. Our two physicists made a device called interferometer that is able to measure this tiny effect. They came out with nothing; the speed of light was constant so the Aether's foundations were shaken. Eighteen years later, Albert Einstein (1879-1955) refuted the old- new claim of the existence of the Aether. In his theory of relativity, he declared that the theory of the

¹ Hans Christian von Baeyer, *Vacuum Matters*, Discover Magazine, vol.13 No.03, March 1992.

² Ibid.

¹ Ibid.

Aether is superfluous because not all waves need a medium to carry them. It may happen to some waves, but it is not the case for light¹.

6.7. Peripaticism and Islamic Reasoning:

The Peripatetic Muslim philosophers, in general and Ibn Sina in particular, did face many of the *Mutakallimin*'s argumentations by introducing many unsolved problems. Before the moment in which the *Mutakallimin* supposed that God had created the world, did He have the power to create another world identical to the first one, but which would have begun, for instance, hundred years earlier? Likewise, did He have the power to create another world, which would have begun hundred years before the second one and two hundred years before the first one? These philosophers concluded yes, following very homogeneous scholastic argumentations based on the logical articulations of the question. Therefore, they came up with the conclusion that there were before the so-called' the created first moment' possible periods, which have been between them, for example 100, 200, 300, etc., until the infinite. This period that measures all these worlds, cannot be a non-being because the non-being is unable of measuring: This quantity capable of measuring ontologically precedes all produced things. It is exactly the same when we think that the measurement precedes the measured and this is what we call the eternal infinite time².

Ibn Rochd argues that Ibn Sina's argumentation involves at least this postulate that the anterior possibilities of the world in the hypothesis of a creation of the world and time, would be of the same nature as the possibilities that do exist in this world. Al Ghazali interferes in the debate by establishing a comparison between time and distance and concluded that there are outside the world many possibilities in ad infinitum spaces, full or empty, between them there are plenty of determinate, qualitative links, which reinforces the existence of an infinite space that is denied by philosophers. Ironically, their infinite time is submitted to the same reasoning¹. We have to point out here that if the comparison between time and space is valid for the *Mutakallimin*, it is not the case for philosophers who proved that the world would be neither bigger nor smaller. Thus, the comparison between time and space is the nillegitimate because the possibility of a space outside the world is of an

¹Hans Christian von Baeyer, Vacuum Matters, vol.13 No.03, March 1992.

² Leon Gauthier, IBN ROCHD (AVERROES) p. 229.

¹Ibid.

imaginative nature, while the possibility of the necessity of a time before any moment belongs to the intellectual order¹. The first evidence based on the idea of movement, which is a synonym of change. The movement is eternal in the past, simply because we cannot conceive a first movement, as God the author of movement, is Himself eternal and the effect has to follow the cause without delay, for the latter would not have a sufficient reason. Hence, this first proof is built upon' the principle of the sufficient reason'. However, as this proof applies this principle to establish the impossibility of a delay, we can see already in this first proof, the second one based on time. In this first proof, Al -Ghazali replied by taking the opposite direction of the first premise. We reluctantly have to admit that there is a first movement because the eternity of the world involved an infinite number of turns accomplished by each of the diverse celestial spheres and these infinite numbers had defined links between them and none of them would be even or odd. This is a triple mathematic absurdity, which makes us only assume that God produced the world at a given moment².

The question that is persisting here is that why the creation had taken place at such a moment. Al -Ghazali responded to this question that there is no sufficient reason. God and even man when making some choices, does not need always a sufficient reason. From this perspective, Al- Ghazali exposed his theory of a liberty of disinterest. When Ibn Rochd disagreed with Al Ghazali about the status of the world, this means that the former is confirming and the latter refuting the universal value of the sufficient reason principle. Philosophers turned against Al-Ghazali the objection of infinite number by applying it to time in which God abstained from the creation of the world. Al- Ghazali initiated the second proof ¹, which does form with the first one a very striking analogy. The first one established straightforward that if God is eternal, the world is necessarily eternal, for the world is His art. The second evidence indirectly established the eternity of the world by depicting that we cannot suppose a first moment because God is eternal and so it is time. Similarly, he showed that time is the measurement of movement and as the world is a set of movements, it must be eternal². First, we have to object to Ibn Rochd's claim in the last evidence when passing from

¹ Ibn Rochd , Tahafut al- Tahafut, p.87.

² Ibid., p.230.

¹ Ibid., pp.230-231.

² Leon Gauthier , IBN ROCHD (AVERROES), p.231.

the eternity of God to that of time¹. He confused time with eternity: the eternity is immobile, indivisible and not capable of measurement, while, time is mobile, divisible and capable of measurement. That is why, it is the cause of the world. Ibn Rochd is always replying that it is only about the possibility of an infinite time. In the first evidence, why among this infinity of possible, identical and successive moments, God had chosen one, which is of preference to others? ¹. We do deduce from here that these two evidences are supporting each other, and in many occasions, they do form clear and irrefutable evidence. Regarding the second evidence, Al-Ghazali, by an argument *ad hominem* objected to the argumentation by which philosophers want to establish the limitation of the world into the space, for they want to establish its limitation into time as well. Consequently, this would make the world in a need of a first moment. Ibn Rochd replied by refusing this assimilation to the space, which does form a whole and time, which does not.

¹ Ibn Rochd criticized the two adversaries of regarding the subject of the infinite. We obviously conceive what Ibn Rochd means by something infinite: It is something that has no components, and consequently; does not form a whole. But our philosopher does not confuse the mathematical point of view with the metaphysical one. In Mathematics, the whole and its components are things of the same order, ideal or abstract. The whole is purely and simply the sum of the components. In Metaphysics; as the main focus is not only to represent things, but to conceive them as they are as well, and the requirements to rigorous measurements through mathematical schemes completely constructed by human intelligence, the notion of the infinite is different: The order of subordination of the whole and the components in both cases is reversed. For it is a must to distinguish between two kinds of the whole and the components: When the components are real, indivisible, the whole is fictional and divisible, for example, the soldiers and the army; when the whole is real, the components are fictional, for example, the soul and its faculties, or from a modern point of view, the conscious life and the states that we can distinguish. Therefore; when 1bn Rochd conceive an infinite thing as "a thing that has not got components, can not form a whole", he is exclusively place in the mathematical point of view, and not in the metaphysical one. This is due to his conception of time as not a mathematical abstraction, but an independent reality of movements that accompany it. Even if Ibn Rochd and El-Ghazali are in disagreement about all points, they fall here in total agreement by confusing the mathematical and the metaphysical point of views. They claimed that the two infinite numbers cannot have definite links between them. Today, this is among the fundamental principle of mathematical sciences that the infinite quantities can have definite links between them. We have to point out that for Aristotle and his Greek and Muslim disciple, the infinite, in metaphysics, in the order of the essence, the quality, means incomplete, imperfect, it is also an epithet that they never apply to God or its attributes. For Descartes, Spinoza, Leibniz, the infinite is synonym of perfect (Leon ,Gauthier ,IBN ROCHD (AVERROES), pp. 231-232).

¹ Leon Gauthier, IBN ROCHD" (AVERROES), p.231.

6.8 The Eternal Determining Principle:

There are many other proofs related to the ones we have mentioned previously either supporting or refuting the eternity of the world such as the impossibility that 'the temporal proceeds from the Eternal '.In order to refute this dictum, we have to elaborate assumptions and formulate hypotheses about the divergent scenarios of the making of the world.

"If we assume, the Eternal existing without, for instance, the world proceeding from Him, then at a certain moment, the world beginning to proceed from Him –that it did not proceed before, because there was no determining principle for its existence, but its existence was purely possibility¹."

This means that we are here before two probabilities: when the world starts in time, a new determinant arises or does not arise. If it does not arise, the world will stay on the same position, the position of pure possibility as it was before. If a new determinant arises, the question that insistently imposes itself is why it does arise at that particular moment and not before, and consequently, are we before an infinite regress or a principle that determines eternity?²

Ibn Rochd replied to this argument of the determining principle by exhibiting all the available types of the term 'possible. The latter is used in an equivocal manner of the possible that occurs more often than not, of the possible that occurs less often than not, and of the possible with equal chances of occurrence. All these kinds of the possible do not have the same need for a new determining principle. Besides, and unlike the possible that has equal chances of occurring and not occurring that has its determining principle outside, the possible that occurs more often than not is believed to have its determining principle in itself. Furthermore, we have to understand that the necessity for a determining principle is not the same in all cases .The possible resides sometimes in the agent, this is seen in the possibility of acting and sometimes in the patient and this is manifested in the possibility of receiving¹. As mentioned before, these two types of possibility do not have the same need for the determining principle:

¹ Averroes , *Tahafut Al-Tahafut*, (The Incoherence of the Incoherence), vol. I, p. 1.

² Ibid.

¹ Ibid., p.2

"For it is well known that the possible in the patient needs a new determinant from the outside; this can be perceived by the senses in artificial things and in many natural things too...therefore it is believed of many natural things that they move themselves, and it is by no means self-evident that everything that it is moved has a mover and that there is nothing that moves itself¹."

We have to add that in any case, the possible in the agent can be actualized without any external principle. This occurs because the transition in the agent from a state of inactivity to a state of activity is considered a change that does need a principle. Ibn Rochd cited some examples in which the change that occurs at the level of the possible in the agent does not require any external principle such as the transition in the geometer from non-geometrizing to geometrizing or in the teacher from non-teaching to teaching. We have to mention that all changes that are considered as needing a principle of change can sometimes be "Changes in substance, sometimes in quality, or in quantity, or in place²."

6.9. Aristotle's Doctrine of Natural Motions:

This doctrine is based upon the movement of objects spheres and celestial bodies. Aristotle states that everything that is in motion must be moved by something else. Self-motion is impossible because motion is defined as the actualization(*energeia*) of the movable *qua* movable¹, Aristotle deduced from this definition that the potentially moved object pre-exists the motion in time². Hence, it is very hard to believe in an uncaused motion or an infinite series of moved movers. Therefore, a cause that can be considered as original is a cause that generates a movement without being moved. Ibn Sina in his work *Uyun al-Hikma* (The Eyes of Wisdom), sees that every mover has either a power in itself or it is moved by something external by means of friction. All the movers and the moved end up with unmoved mover, as it is impossible to imagine succession of bodies moving themselves infinitely. Regarding the nature of these movements, Aristotle sees that there are two kinds of motion: one natural and the other unnatural. This motion can be moved by the thing's own nature, an external mover

¹Averroes, *Tahafut al-Tahafut*. (The Incoherence of the Incoherence), vol.1, p.2.

²Ibid.

¹Aristotle , Physics, 251a9f

²Ibid.,251a10-23

(energizer) that boosts the nature of the moved and reaches the target to which the moved is aiming at or by an external force that prevents the object from following its natural course. From This trichotomy of movement, we deduce that the motion of stars cannot be natural, for the natural motion can be upward or downward. Likewise, it cannot be enforced because there is no force more powerful than the stars themselves, which may move them contrary to their nature. Hence, their motion can only be voluntary. Therefore, they are living sentient and intelligent beings. Consequently, no enforced motion can be eternal. All these types of movements do form the Aristotelian theory of the motion ¹.We have to point out here that this theory helps us to understand the Aristotelian doctrines of matter and form and potentiality and act. It is quite clear here that Aristotle does not support the possibility of self-motion. Moreover, this theory proves to us his strong belief in the aliveness of the heavenly substance and refuting his former explanations about the spheres movement built on a pure mechanistic basis.

6.10. Types of Movement and Kinds of Beings:

The existence of a cosmic unmoved mover is the main concern of the last two books of Aristotle's physics. This Aristotelian concern did come from the argument that everything that is in motion is moved by something else. Aristotle elaborated a *reductio ad absurdum* of the idea of self –movement stating that the self- moving object, in order to be in motion, has to have parts. Its motion has not to be just in one of its parts, but it has to be as a whole and this self-moving object has to originate its own motion¹. Aristotle deduced that if any part of the body is at rest, the whole of it is at rest, but if the whole body is being at rest, as one part of it, is being at rest, then, the motion of the whole body depends on the motion of the part. This means that it does not originate its own motion. Therefore, what was supposed to be moved by itself is not moved by itself (Ph.8.241b 34-242a49).

If we do observe non-living things, we would come out with the result that some are partially at rest and others are not only unmoved, but without power of self-movement. In

¹Aristotle . On the Heavens 1, 268b1a-270a12

¹ Anthony Kenny Ancient Philosophy, vol.II, p.296.

spite of that, these things are capable of being moved and are given a start at some time. In this respect, we do argue that if self- movement, which is not in being, cannot be generated and then all things are either in or not in movement¹. We do agree-to some extent- that these considerations are evident in case of the living being:

"There are times when there is no transition within ourselves, but only complete repose and when nothing external moves us; but presently we find ourselves in the midst of an activity which we have ourselves set on foot²."

This does not apply to the non-living beings because they always need an external mover, but what is striking about this Peripatetic concept of movement is that of the animal's movement. As we know, the animal moves itself as we do exactly, but if there is a time when an animal is in a wholly unmoved state, it is possible for movement to be generated in non-living being by its own power without the interference of an external mover. From these comparisons between the motion of human beings, animals and non-living things, Aristotle applied his theory to the universe as a whole. He considers the animal as one fragment of this universe and what happens to it, may occur to the whole cosmos: "What happen in a 'microcosm' can happen in the' megacosm' and what happen in the cosmos can happen in the infinite¹."

This Aristotelian notion of movement does not give convincing answers to solve the core of this kinetic problem. Why the unmoved comes to be moved? Why the external mover is sometimes present and other times absent? How the same thing can be sometimes put in motion and other times not? Why are some beings always in quiescent state and others always in motion? However, he found some solutions to the last question by dividing human being into different categories. Each category is defined according to its activity, mode of life and its psychological state. There are some beings who are transient and others inert .Some beings are always in process, whereas others in a state of repose. Some beings are always independent of movement and others subject to movement².

¹Aristotle, Physics, (252b 18-25)

²Ibid

¹ Ibid

²Ibid.(253b23-26)

6.11. The First Mover as a Self-moved:

There are two ways in which an agent acts upon a thing .This agent can be itself acted upon by another or it is the one, which exercises the impact. Such an impact can be done directly or through intermediate agents. This means that everything that is in process must be acted upon by an agent. The latter is -in its turn- acted upon by another .Thus, a moved mover requires a first unmoved mover, whereas the latter does not require the former. Accordingly, the first moved must be a self-moved. This means that if an object is not directly acted upon by a self-mover, the series of its movers may reach a self-mover¹. Aristotle assumes a plurality of immovable movers as many as the number of the spheres, but all these immovable movers are, like the first immovable mover, transcendent beings, existing apart from the spheres that are moved by them². This concept of the first mover led Aristotle to formulate many other principles. There are things that can be moved, but in the same time, they cannot put other things in motion. There are other things, which are moved only by themselves and not by anything else. Aristotle praises Anaxagoras for having made intellect an immaterial form, the prime mover and for this reason:

"It does not suffer any action from anything, for the cause of passivity is matter and in this respect the passive potencies are in the same position as the active, for it is the passive potencies possessing matters which accept definite things¹."

In other words, Aristotle does believe in the existence of a prime mover which is responsible for making things change from something to something else and from one state to another because the matter is not created or even emanated, but eternal. Besides, there is a third kind of being, which is an unmoved mover and it was presented by Anaxagoras as the 'mind'. He considers it as 'impassive' and 'unmixed'². This notion of the first mover widely opens the gates to many unanswered questions. If we do admit that, a certain object is a mover, is it then necessarily unmoved? As the unmoved mover is dominating, is it comprised of the characteristics of all other movers? And if everything that is moved has a mover, then, everything capable of moving anything, would not be capable of being moved? From these divergent arguments and thorny questions, it appears that we are coming out with more absurdity than clarity, more questions than answers and more gaps than bridges. Let us admit for the sake of controversy that there is a self-mover with all these features. How does this

¹ Aristotle , *Physics*, 252b18-25

²Harry A. Wolfson , The Plurality of Immovable Movers in Aristotle and Averroes, p.234.

¹Averroes, *Tahafut al-Tahafut*, (The Incoherence of the Incoherence), trans. Simon Den Bergh, p.358.

² Aristotle , Physics, 257a, 24-26

self-mover do that? Aristotle tried to solve this dilemma by going on to say that the selfmover, in order to be so, must have two aspects: one to initiate the process and the other to undergo it. The eternity of this process does not require that an agent be acted upon. The only thing that matters is the existence of some unmoved and self-moved movers¹. We have to point out here that, according to Aristotle, if we do believe in the plurality of worlds, we have to believe in the existence of an infinite number of first immovable movers. Therefore, by rejecting this theory and replacing it with the one world theory, philosophers busied themselves with answering the question whether, in the latter theory, did exist only one first principle². The first mover as being indivisible, it is regarded as beyond time and quantification. For Ibn Rochd, its unique nature allows it to escape from an infinite regress of causes. Ibn Rochd drew a distinction between the first mover and the first moved through the accidental necessary-nature of their relationship³. Both Ibn Rochd and Ibn Sina called these immovable movers' Intelligences', but Ibn Sina went further by seeing these Intelligences as a series of successive emanations, in that, there is a causal relation between them. Each Intelligence is the cause of another one emanating from it until we reach God that is at the top of these series as an uncaused cause¹. Ibn Rochd was somewhere between Aristotle and Ibn Sina as he was not with the view that the Intelligence emanates, so he did not make a distinction between Intelligences in the sense of cause, but in the sense of nobility bil-sharaf (nobility). This is what it was emphasized by Al-Ghazali in Maqaid al-Falasifa, when he made a distinction between the two parts of the passive intellect on the basis of nobleness². This view is closer, to some extent, to that of Aristotle who made that distinction on the basis of excellence, but at the same time, in the sense of 'cause'³.

6.12. The Immobility and Eternity of the First Mover:

In order that the movement must be eternal and continuous, it has to have a unity. Such a feature can only be acquired through a unitary mover and a unitary subject⁴. By the eternity of any movement, we do simply mean that such a movement is neither generated nor

¹Aristotle , *Physics*, 257a, 31-35

²Harry A. Wolfson . The Plurality of Immovable Movers in Aristotle and Averroes, p.236.

³ Alfred L. Ivry Epitome de Fisica (Filosofia de la Naturaleza).p.648

¹lbid.p.244

² Al-Ghazali, Makasid al-Falasifa. (The Aims of Philosophers),p.290.

³ Ibid.,pp.244-245.

⁴ Aristotle *Physics*,259b,17-18

destructive. The movers must be eternal, for the features they possess. They are of necessary relation to the eventfulness of the cosmos. Furthermore, they are indefinite in numbers and are not simultaneous beings. Even if we do admit that there are some unmoved movers and self-movers, which perish, this does not mean that there are not eternal. The perishable unmoved movers and self-movers are replaced by others Even if when an unmoved being moves another one and the latter –in its turn –moves another, there is a sort of a permanent continuity¹. From this everlasting vicious circle, we have only to deduce that there is a plurality of eternal movers and which all go back to one unique, immovable self-mover. Aristotle went further in his analysis by claiming that anything unmoved, which accidentally moves itself, cannot generate continuous movement. Since there must be a continuous movement, the first mover must be immovable even accidentally. Only perishable things are accidentally moved by themselves, but being accidentally moved by something else belongs to celestial bodies².

Plato focused on the nature of the self- mover, as it is of a paramount importance because if we do assume that the self-mover ceases to move, it would be against its nature. In other words, the self -mover had to abandon its nature by ceasing to move. Is that Platonic reasoning strong enough to demonstrate that self-moving things are eternally in motion? The answer to this question is simply no because if we do suppose that a self- mover had to cease to move itself, then, it could resume moving again if it galvanised into motion by itself or by something else. Here we are in front of two probabilities, if it is set in motion by itself, this had to happen through the agency of some part of itself that was already in motion, which means that this self-mover did not cease to move itself. If it is moved by something else, we cannot consider it as a self-mover. Only we can call a thing a self-mover if it can move continually itself¹. There is further evidence that the first mover is eternal, in that, the processes of generation, destruction and transformation would never occur without the impact of an eternal mover, which is eternally unmoved. We have to point out here that these processes are not actually changes that happened to things and altered their quiescent state or change their natural course. Therefore, they are not eternal because every single change has a definite start and a definite stop. Accordingly, it is limited, as it cannot continue indefinitely.

¹ Aristotle, *Physics*, 259a, 35-40.

²Ibid.

¹ Richard Bett, Immortality and the Nature of the Soul in the Phaedrus, p.5

Ibn Rochd illustrated this standpoint by many vivid examples when he imagined two circular movements at the same finite time. Likewise, he also imagined a limited part of theses movements at the same finite time. The outcome of this imagination will be that the proportion between the parts and the wholes of these two circular movements will be definitely the same. However, there is no proportion between two movements in their totality, as they are both potential, for instance, they have neither a beginning nor an end, but there exists a proportion between the parts, as they are both actual. In this case, the proportion between the wholes is not necessary the same in comparison with the proportion of the parts¹.

For Ibn Rochd, since motion is associated with life, the movers do not only move the heavenly bodies, but they give them their forms, thus, they are agents. In this regard, the forms of the heavenly bodies are what they conceive of the other movers above them. Therefore, these movers are pure intellects, and their function is knowing and conceiving, such function made them immaterial and immovable¹.

The ancient philosophers do believe that the totality of movements of the Sun and Saturn had no beginning and no end. This means that there could be no proportion between them because this would have implied the finitude of both these totalities². In order to refute the theory of *Al-Ghazalian* philosophers or the adversaries, as Ibn Rochd call them, he introduced all their arguments about the proportion and his at the same time:

"Our adversaries believe that, when a proportion of more or less exists between parts, this proportion holds god also for the totalities. But this is only binding when the totalities are finite. For where there is no end, there is neither 'more' nor 'less'³."

The fact of admitting that there is a proportion of more or less generates another vague consequence, which is that one infinite, cannot be the same as the other. However, such a proportion of 'more' and' less 'can be unclear when we do assume two actually infinite

¹Averroes , *Tahafut Al Tahafut*, (The Incoherence of the Incoherence), vol.II, pp.9-10.

Isaac Husik Averroes On the Metaphysics of Aristotle, p.426

² Averroes , *Tahafut Al Tahafut*, (The Incoherence of the Incoherence), vol. II, p.10.

³Ibid.

things because a proportion exists between them. There is another dilemma that was raised by ancient philosophers when they went on to say that:

" If the movements in the past are infinite, then no movement in the actual present can take place, unless an infinite number of preceding movements is terminated 1 ."

This dictum became more rational when the anterior movement is the condition for the occurrence of the posterior one. This is quite obvious when one single movement indicates an infinite number of causes. We have to point out here that no philosopher, including the materialists, does believe in the existence of infinite number of causes, as such belief will indicate the existence of an effect without cause, and consequently, a motion without mover². The discussion of the existence of infinite number of movements leads us to talk about the existence of an eternal prime mover. The latter cannot be posterior to his being, if it is the case, his act would be possible and not necessary, and accordingly, it cannot be a first principle. The agent who has no beginning for his existence and for his acts, he does perform without instrument. Definitely, he has no first instrument to perform his acts without beginning¹. Ibn Rochd went on to say that, as theologians confused the accidental with the essential, the result was the complete denial of this eternal agent. Aristotle solved this problem when he asserts that "*If motion were produced by motion, or element by element, motion and element could not exist²*."

There is no room for doubt that this is a kind of infinite in which philosophers do admit that there is no beginning and no end. Accordingly, no one can claim that something in these infinite things has ended or has begun, and as a result of this belief, anything that has ended has to have a beginning and what has no beginning, does not have an end. A good and comprehensive understanding is achievable if we do know that there is a mutual relationship between the beginning and the end ³. That is what Al-Ghazali was aiming at when he went on to say that the movement have to be infinite and eternal with the passive intellects, as they have to be moved by a moving power. It is quite impossible that the bodies possess the

¹ Averroes, Tahafut al -Tahafut, (The Incoherence of the Incoherence), vol. II, p. 10.

² Ibid.

¹Ibid., pp.10-11.

²Ibid. p.11

³Ibid.

power of moving themselves infinitely. Therefore, every body is divisible and movable infinitely, in this case, the part would be like the whole without any superiority, which is impossible or it is movable towards an aim and the other part towards another aim. Therefore, the total of movement would be infinite¹. From this perspective, if we do affirm that there is no end of the celestial spheres, we cannot assert that there is a beginning for them. For the same reason, if we do believe that these celestial spheres have an end, we are confirming that they have a beginning. This is the same relationship that exists between the first and the last, for instance, what has a first term, has a last term as well. Similarly, what has no first term, it must have no last term. Besides, anything that has no beginning for any of its parts, it must have no end for any of them as well:

"When, therefore, the theologians ask the philosophers if the movements which precede the present one are ended, their answer is negative, for their assumption that they have no beginning implies their endlessness. The opinion of the theologians that the philosophers admit their and is erroneous, for they do not admit an end for what has no beginning¹."

Ibn Rochd concluded' the first discussion' of his '*The Incoherence of the Incoherence*' by suggesting a good and suitable answer to all these difficulties and among them the question: Where in the past was the starting point of his acts? The answer would be the starting point of his acts was exactly at the starting point of his existence as none of them has a start².

In the middle of all these discussions, we do deduce that the theological arguments of the temporal creation of the world represented by Al-Ghazali are sufficient to achieve very stringent evidence. The same are all the other premises represented by him in his book *Tahafut al-Falasifa* (The Incoherence of Philosophers) in the name of Muslim philosophers and especially Ibn Sina, Al-Farabi, Ar-Razi and the Hellenic ones and especially Plato, Aristotle and Plotinus. As we know, Aristotle was the disciple of Plato and he never ceased to be so, that is why, the Platonic philosophy was his starting point. The Platonic analysis focuses on motion to define eternity, as he sees that what is always in motion, must always exist, and has to be eternal. Consequently, only that moves itself never cease moving and what is moved by something else, there is a probability of cessation of its movement, and accordingly, a cessation of life³. However, there are many convergences as there are many

¹ Al-Ghazali, Makasid al-Falasifa, (The Aims of Philosophers), p.279.

¹ Averroes , Tahafut al- Tahafut, (The Incoherence of the Incoherence), vol. 1, pp. 11-12.

²Ibid., p.12.

³Richard Bett, Immortality and Nature of the Soul in the Phaedrus, p.4.

analogies between the two great minds. Plato does not consider self-motion as impossible and regards the prime mover of all is a self-mover. This latter is identified with the soul as the primary cause, but we have to admit that Aristotle criticizes the pre-cosmic chaos of Plato's *Timaeus* in many passages like this one:

"The motion must have been either enforced or natural. But if it is natural, careful consideration will show that there must have been a cosmos. For the self- caused motion of the first heaven must be natural...¹"

In this passage, we deduce that Aristotle believes in the self-caused motion as a foremost and highest god, immutable and owing no superior. This does not mean just a supernatural force, "but movement is also due to the original creative force and to that which removes the hindrance.... as was explained... when we tried none of these things moves itself^d."

Therefore, Aristotle does believe that the outermost heaven as the primary being and it is the self-caused revolution of this primary being that is responsible for the motion of everything in the universe. Aristotle did not deny that this outermost heaven could be associated with a superior unmoved mover². The heavenly system is described by Aristotle as 'the foremost and the highest divinity' and in unceasing motion because there is nothing powerful that can move it³.

This leads Aristotle to discuss the notion of god and his activity as immortality, which means eternal life, in consequence, god has to be associated with eternal motion. Aristotle applied this argument to 'the first body' as the necessity of movement of this first body is seen to follow from its divinity ⁴. This first body is said to be god, as there is a necessity for a transcendent mover that it has an eternal life, consists of pure intellectual activity and entirely unmoved ⁵.

¹ W.K.C. Guthrie, Introduction of Aristotle's ,On the Heavens, p. xxi

¹Ibid.

²Ibid.,p. xx

³Ibid.,xxi

⁴ Ibid.,p. xxii

⁵Ibid., p. xx

6.13 Conclusion:

It is quite surprising how Democritus managed to find the underlying cause of the heart of nature when he considered reality as a combination of atoms and void. Likewise, the Peripatetic reasoning added many ambiguities and mysteries by claiming that no space can be completely empty. What is striking more, is no one at that time realized that the stars, the atoms and the vacuum are just a part of a single harmonious cosmos. If we do look at the atomistic view of the architecture of the world, we will find out that it is the most consistent one in comparison with the other views. However, we have to take their stance with some reservations; we know very well that the atomists see the atoms as the main constituents of the world, as they are indivisible, according to them of course. They do not only believe in the postulation of the void, but they also see it as essential and vital for the occurrence of any event. Even if this is not true in modern physics, as atoms are divisible to other constituents, which are the real bricks of the world, the atomists were within this logic. Regarding the void, all over again, the atomists were turning around what is rational to some extent, as the void is still controversial in modern physics, for the nature of non- matter is even more sophisticated than matter. Scientists do regard the vacuum in space as a matter that is made of constituents exactly like matter. This means that this vacuum itself needs to be disintegrated into its real constituents, as matter can be disintegrated into its real nature manifested in atoms. Such dream would enable us to find out other worlds that are completely unknown to us. That is why, we do find the theory of the multiplicity of worlds quite rational, as we are still in the threshold of discoveries regarding matter and vacuum as opposites or as completing each other to achieve the harmony and the melodiousness of our cosmos.

The Islamic concept of the atoms and its constituents does support the existence of other worlds other than our and we do find such assertion at the beginning of each Qur'anic chapter: "*Praise be to God, the Cherisher and* Sustainer *of the worlds*¹". We have nothing to add to the Aristotelian Aether, as it did not survive even the Copernican cosmic theory, which was elaborated in the seventeenth century and it has no place in modern physics. The eternity of time and motion is another story, in the sense that, -and till nowadays-what is applied to motion is applied to time, as we cannot separate them or treat them separately, for the correlative relationship existing between them. The difficulty that arises here is that time

¹ The Holy Qur'an, chapter Al-Fatiha (The Beginning or the Opening : 1) Verse. 1

and motion are not like matter that we can disintegrate its basic constituents or investigate its real nature. Neither the Platonic assumption that time came into existence along with heavens and the destruction of the heavens would imply the destruction of time, nor the Aristotelian eternity of time and motion are helpful enough to decode the enigmas of such two existents called respectively 'time' and 'space. Likewise, the Aristotelian theory of motion is not consistent, as it is refuted by many philosophers who could not give the alternative in the form of a convincing and coherent theory. In addition to the proofs we have presented about the fallacy of the nature of the self-movers and the unmoved movers, we can sum up this discussion by introducing a very simple evidence about the notion of the selfmover. It is like a dictum stating that the self -mover can never be so, if it has not the ability of both moving and ceasing without the intermediary of an outsider mover. We know very well that philosophers do agree that a self-mover has to move itself eternally without cease, but if it ceases to move and resumes its movement, again, it cannot be a self-mover. We do not agree with this reasoning, as among the properties of any self-mover is to stop and resume its movement. In other words, if the self-mover carries out the two processes of movement and cessation without the interference of any cosmic power, that is the genuine and the reliable definition that can be given to any self-mover body. As mentioned above, motion is only the half story of the problem and the other side of it lies in time, which is the other metaphysical dilemma shrouded in mystery. If we are unable to understand the notion of time, at least we have to make many distinctions that seem to be, to some extent, available to us.

The distinction between God's time, which is timelessness, and man's time that is based on complete relativity would lead us nowhere, as this is the final conclusion and not the starting point. More attention has to be directed to the relativity of time in the world we are supposed to know such as the mechanisms of time in our planet and those in other celestial spheres. Such attention would help us to unveil some of the mysteries of the relativity of time. This would help us to know the life-spam of different beings living either together with us in this universe or in other one that is still shrouded in complete mystery. We would not then be surprised if we do hear in the Islamic prophetic tradition that a day in the life of an angel equals seventy thousand years in the life of man. This is clear evidence that would make the angel an eternal being, according to our belief, even if he is not. The religious traditions, and especially the Islamic one, are teeming with this relativity of time. Among them, the Qur'anic kasas (true stories) like that of a man called *Ozayer (Ezra)*, there also some hints to

this kasas in Hebraic revelation: "Or like the one who passed by a town and it had tumbled over its roofs. He said: "Oh! How will God ever bring it to life after its death?" So God caused him to die for a hundred years, then raised him up (again). He said: "How long did you remain (dead)?" He (the man) said: "(Perhaps) I remained (dead) a day or part of a day". He said: "Nay, you have remained (dead) for a hundred years, look at your food and your drink, they show no change; and look at your donkey! And thus We have made of you a sign for the people¹."

We do find this relativity between the supposed life in the different planets of our solar system in our galaxy and other systems in different galaxies. Likewise, we find it in the distinction between life and death. Islamic tradition teaches that once the individual emits his last breath, many hidden truths will be exposed and among them the real nature of time: "On the day when they see it (resurrection), it will be as if they had but tarried for an evening or a morning ¹." In some occasions, The Almighty God simplified the notion of time in the hereafter to human mind "To Him (God) ascend the angels and the Spirit in a day the measure of which is fifty thousand years²." In other occasions, He reminded us (the human beings) of our weakness and our dire need for a celestial system to organise our earthly life in terms of time: "He it is Who made the sun a shining brightness, and the moon a light, and ordained for it stages that you might know the computation of years and the reckoning. God created not this but with truth. He makes the signs manifest for a people who know³."

Here life itself is a barrier preventing us from understanding many phenomena that occur in our life. We would understand many of them when we emit our last breath. No wonder, many theologians consider life as a trap that man has to release himself from. Likewise, philosophers who make no distinction between life and death are compelled to think so because of the sophisticated nature of life and the mysterious labyrinths of death. According to Islamic teachings, a dead person has the power more that a living one, in the sense that, after his death, he would be able to know the destiny of all the members of his family. He could not enjoy such power in his life, as there was still a union between body and soul on the one hand and he was still in his earthy trial on the other hand. Even if we do not know exactly the nature and the limit of such power, but we know that has something to do with the notion of time that collapses entirely after death.

¹The Holy Qur'an, chapter Al-Baqarat, The Cow. 1), Verse.259.

¹ Ibid, chapter Al-Nazi'at(Those who yearn. 79), Verse.46

²Ibid., chapter Al-Ma'rij (The Ways of Ascent. 70), Verse.4.

³Ibid, chapter Yonous(Jonas. 10), Verse .5

<u>CHAPTER 7:</u>

ON THE IMMORTALITY OF THE SOUL:

7.1. The Hellenistic-Islamic Concept of the Soul:

7.1.1The Nature of the Soul:

The nature, the fabric and functions of the soul were and are still controversial and raise unsolved disputes between thinkers, philosophers and theologians in our living memory, as soul is much older than philosophy. Some see it just a mere body different from ours in structure and they called rarefied body (*Pneuma*) or blood in some form¹. Others regard it as breath and it cannot be corporeal. While others consider it as a matter made of atoms like any other matter nothing less and nothing more. With Aristotle, the soul is the recognition of the difference between the living and the dead, but in the middle of this recognition, he did not find the soul to be like a being that is conceived to enter and leave¹. It is the active intellect and it is thought to be 'what it is only when separated', and this alone is immortal and eternal.² Aristotle was advised to put the study of the soul among the priority of priorities as it is, as it were, the start of all things that live³. There is no room for doubt that anyone fascinated by the ancient wisdom, should be familiar with the Homeric poems teeming with the notion of soul. It is something that human beings risk in the battle and lose in death. After death, it endures as a shade in the underworld⁴.

There some philosophers who went further in their explanations like Socrates who claimed that the soul has a sort of existence even after the death of the person. This leads us to think that disembodied souls are as ensouled bodies do enjoy the life of thought and intelligence. Beside this *Socratian* view of the nature of the soul, there are the Epicureans who thought that the soul is an arrangement of indivisible bodies called the atoms, some of which made up the flesh, blood and bones and others are responsible for the existence of vital powers of the body⁵. They went on to say that, the soul is completely destroyed at the moment of death, the Stoics who believed in its survival and the Peripatetics who were concerned with the immortality of the mind⁶. Unlike the Epicurean materialistic view of the soul, Plato may have a dualistic view, in the sense that, he is with Socrates that the soul can exist without the

¹ Plotinus , On the Nature of the Soul, p.131.

¹ Frederick. J. E. Woodbridge Aristotle's Vision of Nature, p.110.

² Aristotle (*De an.3.5,430a22-23*).

³ Frederick J. E. Woodbridge , Aristotle's Vision of Nature, p.111.

⁴ Snell , The Discovery of the Mind, p.19.

⁵ A.A. Long ,Soul and Body in Stoicism , p.34.

⁶Merrill Orne Young ,Did Some Middle Platonists Deny the Immortality of the Soul, p.59.

body, as he regards it as an incorporeal substance, and consequently, immortal¹. In the Phaedo-was also known to ancient readers as 'On the soul' and in' the Republic', which was also known by its ancient title 'On justice'- Plato sees the soul as a possessor of cognitive and intellectual features. Platonic view of the world is compatible with that of the soul, in the sense that, as he believes in the successive eternity of the world, he believes in the successive eternity of human souls². Plato represented his arguments about the immortality of the soul in a very simple rule stating that the soul is that, which is its own source of motion and that, which is its own source of motion is immortal, therefore, soul is immortal¹. Many scholars asserted that Plato's immortality of the soul does concern only part of the soul and not all of it like in the *Republic X*, Plato went on to say that we cannot judge the true nature of the soul as long as it is associated with that degraded state when living side by side with the body. Hence, we have to contemplate the soul when it is isolated from all miseries, blemishes and vices of the $body^2$. In this regard, in *the Republic*, a distinction was made between the *logistikon*, a soul that is exhausting the plenitude of psychic activity in pursuing and loving phronesis(the passions and emotions confined to the body). From this perspective, the moral conflict can only be understood as a dispute between body and soul³. Hence, the study of the nature of the soul leads us to understand the everlasting course of the world, which is cyclical and souls endlessly descend into earthly bodies and on death re-ascend to the intelligible world. However, souls destiny is not always the same as other souls descend still further to Hades where they can be justly punished and some souls remain there forever⁴. In the Phaedo, we are told about such a destiny:

"Those souls, which seem to be incurable because of the greatness of their crimes, having committed many great acts of sacrilege, or many wicked murders, or any other such things, these their fitting destiny throws into Tartarus, whence they never come out⁵."

No wonder as Plato never ceased to be Socrates' bright disciple. Aristotle developed a conception of the soul close to that of Plato's in the *Phaedo* as he was against the view that the soul is an attunement of the body by claiming that it is imprisoned in a carcass or in,

¹ A.A. Long, Soul and Body in Stoicism, p.34.

²Proclus, The Elements of Theology, E.R, Dodds, pp. 50-55, 226-29.

¹Richard Bett, Immortality and the Nature of the Soul in the Phaedrus, p.1.

² T.M.Robinson, Soul and Immortality in Republic X", p.147.

³ Ibid., p. 149.

⁴ D.P. Walker, *Eternity and the Afterlife*, p.243.

⁵ Ibid.

what the Orphic language of the mystics call, a tomb¹. The soul is capable of happier life once separated from it. That is why, the dead are more blessed and happier than the living. Therefore, it is good, for all men and women not to be born, and if this does happen, once they were born, it is better for them to die quickly, as death is the return to one's real home². Ibn Sina, in his turn, in kitab an-Najat (Book of Safety), asserted that the soul does not perish with the demise of the body and it is not subject to corruption. He argued that everything that is corrupted with the corruption of something else is related to it either through a coexistence, posterior or anterior to it in existence with essence and not with time. If they were equal in existence, both of them would be substances and the corruption of one of them does not mean necessarily the corruption of the other and if such relation were based upon the posteriority in existence, then, the body would be a cause of the soul¹. All these reasonings are about the soul when it is separated from its body, but there are many mystic views stating that the soul can achieve its essence even during the life of the body. Among these Sufis (mystics) Ibn Arabi who went on to say that the individual has to go through the experience of 'the fana' (passing away) if he wants to achieve the goal of union with God. In such a case, "The soul is stripped of all its desires, affections and interests, so that in ceasing to will for itself it becomes an object of the Divine Will, that is the beloved of God^2 ." In such spiritual case, the individual will see only one and because of that, he will not see himself, and, as he does not see himself because of his occupation with the unification, he is Fani (passed away) in himself³. Al-Hallaj (c.858- 922 AD), the famous Persian Sufi (mystic), thought that in every mystic experience, soul has to start with Zuhd (asceticism) and terminates with Tawahhud⁴ (unification, or rather, unicity). In his book of Tawasin(The Sufic Path Series), expressed such feeling that can be attained from the union between soul and God: I am He whom, and He whom I love is I **We are two spirits dwelling in one body

If thou seest me, thou seest Him And if ** thou seest Him, thou seest us both ⁵. The mystics are thinking that way, as they believe that the body is the temporary dwelling of the soul, which is considered as a bird. Such view is expressed by the other Persian mystic Jallal ad-Din al-Rumi :

¹ Patrick Duncan , Immortality of the Soul in the Platonic Dialogues and Aristotle, p.305.

²Anthony Kenny , Ancient Philosophy, Vol. I, pp.66-67.

¹Ibn Sina ,Kitab an-Najat,(Book of Safety),p.153

² Frazee Charles A., Ibn al-Arabi and Spanish Mysticism of the Sixteenth Century, p.230.

³Al-Ghazali, Ihyae Ulum al-Din,(The Revival of the Sciences of Religion),pp.158-159.

⁴Muhammad Ghallab, At-Tanassuk al-Islami(The Islamic Hermeticism), p. 128.

⁵Nicholson Reynold A., The Idea of Personality in Sufism, p.18.

I am a bird of God's garden I do not belong to this dusty world For a day or two they have locked me up in the cage of my body¹.

It is quite banal to think that the soul is just what distinguishes a living human body from a corpse; rather, it is more sophisticated than that as it is responsible for the activities, responses and the operations of a person's life. In the Homeric poems, only human beings are thought to have souls. Likewise, we only recall and talk about soul when someone's life is at risk. After that period, the terms 'ensouled' (empsuchos) and 'alive' were applied not just to human being, but also to other living being (animals and plants) and non-living beings (heavens and celestial bodies). This precisely what happened when Thales of Milletus predicted a solar eclipse relying on the capability of the magnets to move iron. The point Thales was making is that since the magnets has this power to initiate movement by attracting the iron, it must be ensouled. The pre-Socratic theories are teeming with the notion of the soul, which they regard as a fine kind of body made of flesh and blood exactly like our bodies. Whatever the case, soul has moral and intellectual virtues. In order to possess any kind of virtues, you have to possess all 'the partial virtues' (tas kata meros aretas). This means that: 'The virtues of the parts of the soul, just as the partial virtues of the body are the virtues of the various parts of the body. So it must include the virtues of the intellectual part of the soul, including the supreme and the theoretical part^l."

In this regard, the relationship between body and soul is not like the relation of medical skill to health, but like health itself. This is exactly the same relationship that exists between the first class happiness consisting of the exercise of *Sophia* and the alternative second –class happiness that consists of wisdom and moral virtues. Such a relationship is based upon activity, productivity and not on superflousness². This concept of the soul goes hand in hand with the two dominant Hellenistic schools: the Epicurean and the Stoic sharing the view that the soul is 'corporeal ', which means it is a body and not a sort of smoke or breath, as it is the belief in other philosophies³. However, the Epicurean school, as the atomist does, believe that such a body is made of atoms. The notion of soul was always present whenever we talk about inner feelings and psychological troubles alike such as love, hatred, happiness and

¹ Cyprian Rice, *The Persian Sufis*, p.67.

¹ Anthony Kenny , Aristotle On the Perfect Life, p.94.

² Ibid., p.92

³ Annas Julia, "Epicurus' Philosophy of Mind, pp. 39-41.

sadness. Besides, many human virtues and moral qualities like courage, altruism and knighthood were associated with the soul. If we go back to the structure and the nature of the soul, we would find Abu- Barakat (c.1080-1165 AD) refusing to recognize a single active intellect as the cause of the existence of souls in the sublunary world. He went further by claiming that a single cause cannot suffice even for the existence of human souls, so what about the souls of the other creatures? Besides, the causes of the existence of human souls have to be sought not among the incorporeal intelligences, but rather, in another echelon of the hierarchy of existence¹. This *barakatian* reasoning leads us to talk about the differences between human souls defined by Abu -Barakat in 'the substances' and 'the quidditties', that is every human soul, or rather, every class of human souls has its individual cause from which it proceeds. This reasoning proves that human souls do receive their existence from a plurality of causes. Abu-Barakat argued that bodies cannot produce the different classes of human soul, since bodies are not 'the efficient cause of anything' and these causes cannot be accidents that exist through bodies, as a cause has to be of a more perfect existence than its effect². This is what explains that, "Anything having its existence through a body... cannot be the cause producing an incorporeal substance³." Ibn Sina also did believe in the possibility that human souls have bodies or accidents in bodies as the cause of their existence. However, he argued that the souls of the spheres could not be the cause of the existence of the human soul. That is why, its cause can only be an incorporeal intelligence and particularly the active Intellect⁴. The objection of Abu- Barakat started from this particular point, as he did not agree that 'the holy substances that have no link with bodies', are the immediate cause of the existence of human souls, that is the incorporeal intelligences, including the substance called 'the active intellect'⁵.

Abu -Barakat explained his objection in many passages like the following one:

"For in every instance, an effect is similar to its cause, and everything belonging essentially to the effect comes from the cause'. Incorporeal intelligences, which do not operate through bodies, for the intelligences to be taken as the immediate cause of the

¹Herbert Alan Davidson, Alfarabi, Avicenna and Averroes On the Intellect, p.156.

² Ibid.

³Ibid.

⁴ Ibid.

⁵Ibid.,p.157.

existence of human souls. The cause of each class of human soul must accordingly be one of' 'the celestial souls', that is a soul of a celestial sphere, or the soul of a star inbedded in one of the spheres 1 ."

Abu-Barakat inclines to the view that the human soul is an incorporeal substance. According to Ibn Sina, this can be true only if the indivisible incorporeal thoughts are present in the human soul and anything in which something indivisible is present is equally indivisible. Abu-Barakat pointed out that there are kind of knowledge that cannot be present in the body. However, they are present in human soul, he argues that:

"If a certain thing is present in another and the second in a third, then the first is also present in the third. Hence, if the human soul resided in the body, anything in the soul would likewise be in the body; any percept in the human soul would be present in the body as well¹."

Abu-Barakat concluded that since those precepts cannot be present in human body, the soul also could not exist in the body. He went on to say that, the soul does not exist within a spirit that envelops the human body. Both Abu barakat and Ibn Sina concluded that the soul is an incorporeal substance and that it does act through the body². This was also the view of John Philoponus who considered the soul as immaterial substance whose existence predated its bodily entrance³. On the other side, Ibn Rochd objected, as mentioned in the doctrine of resurrection, to the view that the soul is only an accident and man will take the same body when resurrected. Ibn Rochd does agree with Aristotle that the corroded body can never be identical with itself⁴.

7.1.2 The Fate of the Soul:

The fate of the soul is so sophisticated and controversial and paves the way for discussing not just its immortality, but also the nature of such immortality .The soul's destiny can only be highlighted through its relationship with the body. We all do agree that soul and body live along through the life of the human being. When the latter dies, his soul may continue to live Independently, in some way or another, in our world or in another one, which is utterly

¹ Herbert Alan Davidson, Alfarabi, Avicenna and Averroes On the Intellect, p.157.

¹ Ibid.

² Ibid., p.158

³ Philoponus, On Aristotle On the Intellect, tran. William, Charlton p.353.

⁴ Ernest Renan , Averroes et L'Averroism, p.458.

unknown to us. If we do admit that such a soul keeps on living without our decomposed body, this means that we are not wholly destroyed after death and we still exist, but in different form and manner. As we know the destiny of our body, which is death, we do aim to know the destiny of our soul, which may has not the same destiny as our body. *The protrepticus* contains the Platonic view that the union of the soul with the body is a sort of punishment for evil done in an earlier life¹. From this Hellenistic point of view, we deduce that they were making a clear distinction between what is physical and what is mental or psychological. The physical pain may be a response to a mental or a psychological one .As the body stands for what is physical and soul for what is psychological, we can understand that relationship between soul and body. Besides, we do understand how the body can respond to the suffering of the soul.

7.2. The Individuality and the Transmigration of Souls (Metempsychosis):

Pythagoras was among the first philosophers who believed in the possibility of survival after death, but he did not agree with those who claim that at death, the soul enters a different and shadowy world. On the contrary, he did believe that it comes back to the world where we all lived in and it did so as the soul of a different body¹. Here, and all over again, we would be pushed to highlight the Pythagorean tenet based on the immortality of human soul. As Pythagoras regarded the spirit or (the breath) of human beings as a divine air, he had only to claim that it is naturally immortal. Its existence naturally outlives the relatively temporary functions of the human body. That is why, the Pythagoreans do believe in the transmigration of souls into other bodies at death with either animals or plants taking part along with human beings in a grand cycle of reincarnation. Pythagoras himself claimed that he had inherited his soul from a distinguished line of spiritual ancestors and he remembered fighting some centuries earlier, as a hero at the siege of Troy. Therefore, souls could transmigrate this way, according to Pythagoras, not only between one human being and another, but also across all species. He claimed also that once he stopped a man whipping a puppy because he recognized in its whimper the voice of a dead friend² Proclus rejected Plotinus 'possibility that the soul leads a double life lapsing from eternity into time and changeability on her

¹ Anthony Kenny , Ancient Philosophy, vol. I, p.67.

¹Ibid.

² Ibid.,p.229

worthy elements, but her noble activities remain in the spiritual world 'unfallen'¹. If we do admit that the soul existed before the body, the question that imposes itself insistently here is that whether the soul keeps its individuality after leaving its body or it is multiplied. Therefore, if the soul did not exist before the body, it must be existed along with it. In the light of these assumptions, the doctrine of the transmigration of souls that was prevailing in ancient India and ancient Greece becomes refutable. This doctrine that was depicted in the 'Bhagavad-Gita'' (Hindu Scripture) came from the Hindus belief in the reincarnation. As the soul resides in a new body after the living being's death, makes her possess the forms of the unchangeability and eternalism. It is worthwhile to mention that this view was also supported by some of the Hellenes and especially Plato and Plotinus. The successive eternity of the world depends on the still eternity of the intelligible world as described by Plato in the Timaeus, " An everlasting image moving according to number, an image of the eternity, which stays still in unity²."

This image has to move in a circular movement to be the closet image of eternity, as it has no beginning and no end. Hence, not only the transmigrating souls endlessly revolve, but the successive ages of history repeat themselves in an endless cycle as well. In the middle of this successive eternity, things have a beginning and end, but in the meantime, it is not a condition that the created world in general and the human souls in particular should have either a beginning or an end. If this scenario did occur, then, the circle would be broken, could not be repeated and consequently, the successive duration would not be of course a true copy of the ideal, still eternity³. Hence, we do understand what Plato was aiming at, when he went on to say that it is not easy for a thing to be immortal if composed of many elements, in that, the soul's indivisibility is a suasion of its likelihood to be different in kind from destructible physical objects⁴. We have to bear in mind that Plato's tripartition of the

¹ A.E. Taylor, The Philosophy of Proclus, p.604

¹ It is called also Gitopanisad and it is commonly referred as The Gita. An episode recorded in the great Sanskrit poem of the Hindus, the *Mahabharata*. It occupies chapters 23 to 40 of book 6 of the *Mahabharata* and is composed in the form of a dialogue between Prince Arjuna and Krishna, an incarnation or avatar of the god Vishnu. Composed perhaps in the 1st or 2nd century CE, it is commonly known as the *Gita*(<u>www.britannica.com/topic/63871/bhagavadgita.Access Date:04</u>, Jun,07) ² Plato , *Timaeus*, 37D, Cornford, Francis Macdonlad ,*Plato's Cosmology*, pp.102ff.

³ D.P. Walker *Eternity and the Afterlife*, p.243.

⁴T..M.Robinson, ,Soul and Immortality in Republic X, p.149.

soul is associated with the body and not when the soul is in its discarnate state¹. Pythagoras did not give irrefutable proofs about the transmigration of souls; he only claimed that it works in his own case through the identification of his belongings to a previous incarnation². Alemaeon of Croton (mid fifth century BC),one of his contemporaries, seems to be the first who tried to prove the immortality of soul by philosophical argument. He claimed that the soul has to be eternal, as it is in a perpetual motion like the other divine bodies of the heavens¹. Empedocles elaborated version of the Pythagorean transmigration of soul doctrine as a part of his cyclical conception of history:

"As a result of a primeval fall, sinners such as murderers and perjurers survive as wandering spirits for thrice ten thousand years, incarnate in many different forms, exchanging one hard life for another. Since the bodies of animals are thus the dwelling places of punished souls²."

Therefore, the slaughtering of an animal is regarded by Empedocles as an attack against one's mother or son. That is why, he advised his followers to abstain from eating living beings. These Pythagorean philosophers did not stop at this point, they went further by considering the transmigration of souls possible not only into animals, but into plants as well. Hence, even the vegetarians have to be careful what they consume and they have to avoid especially beans and Iaurels (DK 31 B115). After emitting your last breath, if you became an animal, it is better to be a lion and if a plant, it is better to be a laurel. Empedocles, like Pythagoras, claimed that he lived such experience of the transmigration not only as a human but also as a plant and an animal³:

I was once in the past a boy, once a girl, once a tree, Once too a bird, and a silent fish in the sea. (DK 31 B117)

We have to bear in mind that all the earliest thinkers have a materialistic view of the soul: Anaximenes and Anaximander thought that the soul consisted in air, while Parmenides and Heraclitus argued that it consisted in fire. Later on, many questions were raised like how does a material element, which is fine and fluid, perform the soul's characteristic functions of feeling and thought?⁴.

¹T...M.Robinson, Soul and Immortality in Republic X, p.150

² Anthony Kenny, Ancient Philosophy, vol.II, p.231.

¹Aristotle, DA.1.2.405a29-1b

² Anthony Kenny , Ancient Philosophy, vol.II, p.231.

³ Ibid.

⁴ Ibid., p.232.

<u>7.3. Plotinus' Theory of Emanation:</u>

As we all know the Neo-Platonic emanation theory is one of the three chief theories of existence. It states that all beings issue from the divine substance or essence. Even if this theory has been propounded in many forms, its focus is the relationship between God and the creatures, the one and the many and the universal and the particular. However, for Plotinus, this theory is more specific than that, for he regarded the physical world as derivative from the ultimate source one. This derivation is achieved through the intermediary stages of the intellect and the soul. Such a derivation is of a crucial significance because it emphasizes that the intellect and the soul in particular are responsible for the existence of our material, physical world. Hence, Plotinus followed the path of Plato and Aristotle in regarding the world as a pure derivative of the Divine and, as the latter is eternal, the former has to be eternal as well. In this regard, Plotinus considers the matter as a co-eternal principle with the Divine, but in the same time, it is not co-absolute with it. Simply because the Divine can exist without the matter, but the latter cannot have any form of existence without the former. As mentioned above, God is the source of emanation through which everything descends, so the world derives from it. However, the soul is the direct cause of the world in the same way as the divine intellect is the cause of the soul. Therefore, the relationship that exists between the world and the soul is similar to that one existing between the divine intellect and the soul. The creator or the maker is the good, which transcends the intellect. The latter generated the soul that gave birth to the whole cosmos. This process of generation is present in almost all Hellenistic philosophies.

We have to bear in mind that, as the relationship between God and wisdom as explained at EE 1249b13 refers to the *theoretikon* (to a part of the soul), the referred God here has to be an immanent one¹: "If this God were exterior and transcendent, wisdom would be the supreme mental faculty, and wisdom is not appropriate for the contemplation of God²." Therefore, the superior and the inferior mentioned at EE- 1249b13 are respectively nous and phronesis . It is true that Aristotle calls the human mind 'divine', but he never calls it 'God' because God is superior to the human understanding(1248a29) on the one hand and God is always in a state of actuality, but the human understanding needs a principle to set it in motion(1248a17-21) on the other hand³.

¹ Anthony Kenny, Aristotle On the Perfect Life, p.96.

² Ibid.

³ Ibid., p.97.

7.4. The Hierarchy of Soul:

Soul in Islam is among the big divine secrets that are exposed to none of his creatures regardless of their rank and closeness to the Divine:

"And they ask you (Talking to Mohammed) concerning the Rûh (the Spirit); Say: "The Rûh (the Spirit): it is one of the things, the knowledge of which is only with my Lord. And of knowledge, you (mankind) have been given only a little¹."

Al-Ghazali describes it ,in his *Ma'rij al-Quds*, as a mild vapour proceeding from the heart to, ascent to the brain and then to the whole body through the blood vessels. This vapour, which is the vehicle of life, works as a lamp and life that proceeds from it as a light. Its influence on the body is like the enlightenment of the lantern to the whole parts of the house. It is the source of knowledge, revelation and intuition and it is from the genus of angels different from the corporeal world¹. Muslim scholars do think that the human soul is governed by hierarchy, in the sense that, there are types of souls classified according to age and intellectuality. There are the infant soul, the young soul and the mature one. Muslim scholars do consider the latter the only one, which can achieve immortality because of its full intellectual development and its psychological characteristics. These qualities enable this kind of souls to overcome death, and consequently, it can achieve its complete existence in the absence of the body. This point is well- highlighted by Ibn Rochd who emphasized that the soul could act and live independent of its body:

"The sight of the elderly is weak, not because the visual faculty has been weekend, but because the eye, that he uses as an instrument, has been weakened . If the elderly had the eyes of the young man, he would have been able to see like the young man. Besides; sleep provides us with a clear evidence of the substratum of the soul permanence²."

This standpoint about the immortality of the soul is not absolute because there are some other scholars who regard the soul as immortal by nature regardless of its intellectual level, age or the body it is living in or with. Either we do adopt the first view or the second one; there are many unanswered questions about this immortality. Are some souls immortal and

¹The Holy Qur'an, Al-Isra' (Night travel.17), Verse.85

¹ Al-Ghazali, Ma'rij al Quds, (The Ascent to the Divine), p. 12.

²Ernest Renan , Averroes et l'Averroisme, p.154.

others mortal? If all the souls achieve immortality in a particular stage of the body life, does this mean that they used to be mortal in the past? If they are mortal, what is their destiny? And, as there is a sort of hierarchy concerning the types of soul, is there the same hierarchy regarding the level of knowledge that each soul requires? Undoubtedly, this hierarchical classification is asking more questions than answering them. As mentioned before, human beings are not the only ensouled creatures, animals and plants do share this quality with him, as they pass through nourishment, growth and decay. These are the characteristics of any ensouled creature. In this regard, the souls are divided into three categories: the human soul (al-'Aql: The Intellect), the vegetative soul and the animal one. Hence, there is a sort of overlap between the rational soul and the irrational one. Therefore, the way in which medicine rules over the patient corresponds exactly to the manner in which the rational part of the soul rules over the irrational part of it¹. It is not like other philosophers who do think that the rational part of the soul consists of superior and inferior or Aristotle who did classify human being to superior and inferior, which are just the rational and the irrational parts of the soul. However, the rational part of the soul is itself twofold²:

"The rational soul in man abounds in marvels, both of knowledge and power. By means of it he masters arts and sciences, can pass in a flash from earth to heaven and back again, can map out the skies and measures the distances between the stars. By it also he can draw the fish from the sea and the birds from air, and can subdue to his service animals like the elephant, the camel and the horse. His five senses are like five doors opening on external world; but, more wonderful than this; his heart has a window which opens on the unseen world of spirits³."

We do deduce some points of a paramount importance from this passage: the soul here is only another synonym of brain and heart together. In that, it is the centre of intellectuality and the reservoir of emotions and feelings. This is obvious in the state of sleep, as all the gates of senses are closed; the individual conceives all the impressions from the invisible world. Furthermore, he can sometimes go further by receiving or conceiving some foreshadowings of the future⁴. Al-Ghazali in his book *Ma'rij al -Quds* (Ascent to the Divine) gives a detailed explanation of the classification of souls by putting the soul of

Anthony Kenny . Aristotle On the Perfect Life, p.94

² Ibid., p.97

³Al-Ghazali ,*Kimya* '*As-Saada* ,(The Alchemy of Happiness) ,trans. Claud Field, p.22. ⁴Ibid.

plants in the third category, as it is the first perfection of a natural mechanistic body that is subject to nourishment, growth and generation. The second category is that of the soul of animals, as it is the second perfection of a natural mechanistic body that perceive the particularities and move by will. The first category is that of human soul, as it is the first perfection of a natural mechanistic body that acts through rational choice and deductive thinking¹. Al-Ghazali went further in his classification by including the souls of angels to all these categories. He argued that, unlike human beings, the souls of angels and their bodies are similar and you cannot find two angelic souls in the same category, every angel is a category himself and he is that entire category¹. This does not mean that all souls are similar in these conceptions because every single soul has its own qualities and characteristics. Consequently, each one is responsible for specific daily activities of life. These activities are defined by Aristotle as growth and reproduction for the vegetative soul, sensation for the animal soul and rationality for the human one. As sensation is the quality that distinguishes animals from plants, rationality is the one, which distinguishes human beings from animals.

We have to bear in mind that despite the difference in qualities and functions between these kinds of soul, the nature of the soul remains the same. Hence, it is essential to make a clear distinction ,especially in Arabic, between soul as (*Ruh*) and soul as (*Nafs*) or as it is called in Christianity *Nephesh*. Such a distinction enables us to understand the relationship between soul (*Ruh*) and body on the one hand and between soul (*Nafs*) and body on the other one. In the monotheistic beliefs, as a whole, soul (*Nafs*) has always negative connotations, while soul (*Ruh*) is always associated with what is good, docile and obedient. In many occasions, such a distinction is made on the basis of life and death. When the human being passes away, for instance, the soul (*Ruh*) is taken away from his body, so it is here responsible for life. In other psychological or mental daily activities like sleeping, the soul (*Nafs*) is taken away from the body for a limited period of time. Hence, this sort of soul stands for the distinction between what is real and tangible and what is fictitious and absurd. Many scholars Muslim and non –Muslim alike built such a distinction between the two souls upon this ground. Therefore, they make breathing the difference; it keeps on existing with the sleeper and stops with the dead². It is worthwhile to point out that, not only reasoning that differentiates

¹ Al-Ghazali , Ma'rij al-Quds, (Ascent to the Divine), pp.16-17.

¹ Ibid., p.92.

² Jane Smith , The Understanding of Nafs and Ruh in Contemporary Muslim Considerations of the Nature of Sleep and Death, pp. 151-162.

human soul from other created things, but also the reason of power, in the sense that, the soul rules the entire members of the body. The souls that have a special degree of power, master their own body and the bodies of others as well. For instance, if these souls wish a sick man to recover, he recovers or a healthy person to fall ill, they do it and if they want the presence of an absent person, he comes to them. The effects produced by these powerful souls -regardless of their nature good or bad- are termed miracles or sorceries¹. From this perspective, these souls of special qualities are different from other souls in three important points: firstly, what others may see in dreams, they see it in daylight, secondly, while the will of others only affect their own bodies, these souls have the power to move bodies extraneous to themselves. Thirdly, the knowledge acquired by others through laborious learning, comes to these souls by the vehicle of intuition¹.We can say that from this particular difference, revelation, prophecy and all future foreshadowings come to exist.

In Greek philosophy, the only term used for soul is *Psyche*, and it is used in all aspects, whereas, in Islam, scholars are always making distinction between these two kinds of soul. They used them in different contexts with different meaning and connotations. Whenever soul (*Nafs*) is mentioned in the Holy Qur'an, it is mentioned as a bad, disobedient and with inclinations to evil, "*The soul is indeed prone to evil*².", "*At length his soul(the son of Adam) made it easy for him to kill his brother, so he killed him; so he became one of the losers*³." On the contrary, the soul (*Ruh*) is described as holy divine and with inclinations to good:

"And Mary, the daughter of Amran, who guarded her chastity, so We breathed into him of Our Soul and she accepted the truth of the words of her Lord and His Books, and she was of the obedient ones⁴."

From this perspective, soul (*Nafs*) is only a soul (*Ruh*), but it is deviated from its proper moral values and psychological virtues, went astray and became corrupted. According to this reasoning, *Ruh* is more sublime than *Nafs*, but the latter existed before *Ruh*. This view is similar to that of many philosophers who advocated the Aristotelian eternity based on the notion of necessity. These philosophers preferred to use the term sempiternal, rather than, survival of the human mind. In this way, they corroborated the pre-existence and the postexistence of human mind. They claimed that even if we do not remember that we have

¹ Al-Ghazali, Kimva'a al-Saada, (The Alchemy of Happiness) trans. Claud Field, p.24.

¹ Ibid.

² The Holy Qu'ran, chapter Yusuf (Joseph. 12), Verse.53.

³ Ibid., Chapter, Al-Ma'edah (the Food: 5) Verse.30.

⁴ Ibid., Chapter, at-Tahrim (The Prohibition. 66), Verse.12.

existed before the body, we do feel our mind to be eternal¹. Regarding the doctrine of the transmigration of the souls, Muslim philosophers in general and Ibn Rochd in particular do oppose such a doctrine, for its irrationality and ambiguity. Likewise, Ibn Rochd does not corroborate the view stating that the soul can be divided as it is the case with Socrates and Plato². In the meanwhile, he agreed with Aristotle's entelechies doctrine asserting that the soul is a recipient of only one body. Hence, both soul and body do live in harmony as one single entity. This concept is compatible with the *Rochdian* view regarding the soul as emanated from the divine realm. This proves why our thoughts in our sleep are so dull unclear to the point that they dull the mirror of heart, but after death, these unclear thoughts vanish and things are exposed as a naked reality. The Holy Qur'an is supporting such analysis: "We have Stripped the veil from off thee and thy sight today is keen¹."

7.5 Shortcomings of Plotinus' Emanation Theory:

7.5.1 The Existence of Evil Dilemma:

In spite of that, most Hellenistic philosophers do hold the emanation theory; they do not look at it from the same angle. That is why, the Islamic principles would be in opposition with the Peripatetic and the *Proclean* concept of the emanation theory. In the meanwhile, most Muslim philosophers and theologians do agree with the *Plotinian* one. If Plotinus calls the one as the ultimate being, Ibn Sina's, for instance, calls it *Wajib al –Wujud* (Necessary Existent).

If we do say that Muslim philosophers do support the emanation theory, this does not mean that their philosophies about the emanation are compatible with the Plotinus one in every single respect. It is not only the case of Islam, but also that of the other Abrahamic religions: Christianity and Judaism. As discussed in chapter five, all these religions do agree, to some extent, that the world and its divergent aspects derive from the perfect and the absolute divine essence. However, how this can be possible when we do look at the existence of evil, which is in sheer opposition with the good nature of the divine? Shall we then consider the evil as emanating from the divine essence? If we do so, it would be a sort of contradiction in this theory, and if we exclude it, the situation would be even more sophisticated, for this theory would be incapable of proving the origins and the roots of evil as explained in chapter 5.

¹M. Kneale , *Eternity and Sempiternity*, p.236.

² Ernest Renan , Averroes et L'Averroisme, p.455.

¹The Holy Qur'an. chapter *Qaf*,50.Verse.22.

Whatever the case, the emanation¹ theory remains unique, strong and reliable, to some extent, in understanding some of the origins of the universe. It is worthwhile to point out here that, this theory is different from the cosmogonic theory of Christianity and Judaism. The latter sees the human existence as a result of a single creative act of moral agent, in that, God is in a very close personal relationship with His creatures, while the emanation theory is denying personality of the Divine and the creatures alike.

7.5.2 Ibn Sina's Scale of Emanations:

If we do admit that *Wajib al- Wujud* (The Necessary Existent) is one, and consequently, is the ultimate being, the question that insistently imposes itself here is how the universe, which is a plural, can derive from one? Ibn Sina tried to solve this dilemma by considering Wajib al- Wujud (The Necessary Existent) as the one that emanated only one entity through an act of pure reflection on itself. The Necessary Existent can only generate one, because if it emanates more that one, it would violate the divine unicity. This unique entity is called Al -Agl al-Awwal(The first Intelligence), Al-Ma'lul al-Awwal (The first Cause). The first thing that God created is Al-Aql. He said to it 'come forward' and it went forward. Then, He said 'go back' and it went back¹. 'Come forward' means that you are perfected by Me and 'go back' means the whole world is perfected by you. God says: "By My might and majesty I have certainly not created a creature dearer to Me more excellent that you. By means of you I take, and by means of you I give²." On the contrary of the Necessary Existent, the first intelligence produces many such as the second intelligence and heavenly bodies, for the plurality lying in its essence. As the first intelligence is immaterial, it is considered to be of a pure nature, and accordingly, a pure intelligence. Therefore, what is the relationship between the first intellect and the first cause? According to Ibn Sina, the first intellect reflects upon itself to give birth to the first cause. Thus, the first intellect has two qualities of a paramount importance: the possibility and the necessity, for it relates to itself and to the Divine alike. In this regard, the first intelligence possesses the quality of oneness and plurality. From this perspective, the soul is emanating from it. Therefore, Ibn Sina's view is for the emanation of

¹ We have to mention here that there is a sort of superficial similarity between the emanation theory and the evolution one. The latter considers the scale of existence as a process starting from the indeterminate lower towards the indeterminate higher, but the former regards it as from the highest to the lower.

¹This prophetic tradition is classified as weak one (Not found in or not supported by the authentic Islamic sources).

² Al-Ghazali, *Ma'rij al-Quds*, (The Ascent to the Divine), p.13.
material bodies from immaterial substances like in the case of the active intellect. This view is against the Aristotelian reasoning claiming that substances with the same form caused the generation of all beings of the universe. As the first intelligence is the first cause, it has the power to generate three divergent things: the form of the first intelligence (the soul), the matter of the first intelligence (the body) and the second intelligence. The latter is responsible for generating three things as well: the third intelligence, which is the sphere of the sphere of the fixed stars and the body of the second sphere. Ibn Sina explained this process¹ of emanation by going to claim that this process goes on in succession until the ninth heaven and the tenth intellect is generated (Isharat, III, 1960, 214). Ibn Sina calls the last heavenly intellect 'the active intellect' that is responsible for the generation of our souls (an-Najat, 256)².

We have to mention here that the active intellect is considered as the last incorporeal intellect in these series of emanations. Accordingly, it cannot emanate any heavenly body, but it can emanate the substratum -matter and forms of the sublunary world. Ibn Sina went even further by suggesting that the active intellect emanated the prime matter or what he calls the substratum-matter with four forms of simple bodies (fire, air, water and earth). The prime matter is subjugated to many movements of the heavenly bodies before emanating from the active Intellect. As a result of these movements, these four forms (Fire, water, earth and fire) are attributed to the prime matter. Al-Ghazali in his Mi'yar al-Ilm (The Criterion of Knowledge), suggested, like Ibn Sina, a solution to the problem of the plurality emanating from the one. He argued that the one among the Mutakallimin(Muslim Theologians) is not divisible neither through a power nor through an action and it is a one in number. It is like the gathering of the scent and the taste of the apple, for instance, in one subject. In this case, we do see all these things as one but in the subject and not in the number. Then, the union in quality is called Mushabahah (likeness), in quantity Musawat (equality), in genre Mujanasah (homogeneous), in kind Mushakalah (accumulation) and in parts Mutabakah (stratification). They are one in genre, one in kind, one in number and one in equality³.

¹ Avicenna's four forms of simple bodies (fire, water, air rand earth) are analogous to Aristotle's four fundamental material elements. But unlike Aristotle, Avicenna holds that these simple bodies which are imprinted on *huyula* (the prime matter) while they emanate from above are caused by the active intellect. Moreover, for Ibn Sina, the materials for all these four simple bodies are common, but they differ from each other with respect to their form. Hence, one body, for example, earth, differs from another, for example, water not through its matter, but through its form (Compendium, 27).

² Morewedge, Parviz 'The Metaphysica of Avicenna(Ibn sina)'p.143

³ Al-Ghazali, Mi'yar al-Ilm, (The Criterion of Knowledge), p.343.

7.5.3 Ibn Sina's Numerical Plurality of Souls:

Al- Ghazali went on to say that, all philosophers have two evidences to prove the immortality of the soul. The first one is covering the assumption of the mortality of the soul, if this did happen, it can only be in one of three ways: the soul perishes either simultaneously with the body or through an opposite, which is found in it or through the power of God. We do deduce from this analysis that the soul cannot perish through the corruption of the body because it is separated from it .Likewise, it cannot have an opposite, for a separate substance has no opposite. Besides, it is completely untrue that the power of God can attach itself to non-being ¹.Al- Ghazali is objecting to the concept of these philosophers by stating that:

"We, the theologians, do not admit that the soul is external to the body; besides, it is the special theory of Avicenna that the souls are numerically differentiated through the differentiation of the bodies, for that there should be one single soul in every respect and in all people brings about many impossibilities, for instance that when Zaid knows something, Amr should know it too, and when Amr does not know something Zaid should not know it either; and many other impossibilities follow from this assumption²."

From this statement, we do deduce that Al –Ghazali is against Ibn Sina's argument that the souls are numerically differentiated through the differentiation of the bodies, which means that they are attached to the bodies and must necessarily perish with their decay³.Most philosophers are advocating Al-Ghazali's view, which is against Ibn Sina's theory. They claimed that wherever there is a relation of attachment and love between two things, for instance, the relation between the lover and the beloved or the relation between iron and the magnet, the destruction of one, does not necessarily cause the destruction of the other⁴. Al-Ghazali concluded that the soul does not perish with the body, and at the same time, it does not live forever⁵. Al-Ghazili supports his view through some Qur'anic Verses:

"Do not reckon those killed for the sake of God to be dead, but alive with their Lord, provided for, and delighting in what God gave them of His bounty⁶.", "Do not say about those who are killed for the sake of God dead, rather they are alive⁷." This notion of immortality is also mentioned in the prophetic tradition stating that the souls of martyrs are

¹ Averroes , *Tahafut al-Tahafut*, (The Incoherence of the Incoherence), vol.1, trans. Simon Den Bergh, pp. 356-357.

² Ibid p.357

³ Ibid.

⁴ Ibid.

⁵Al-Ghazali, *Ma'rij al Quds*, (Ascent to the Divine), p.95.

⁶The Holy Qu'ran, chapter, Al_Imran: The Family of Imran: 3) Verse. 160.

⁷lbid., chapter, Al-Baqarah(The Cow. 2), Verse.154

are in the crops of green birds going about feeding in the gardens of heaven and lodge in suspended lanterns under the throne¹. Al-Ghazali concluded that the soul has neither a quantity nor a measure. It is not apprehended by means of the sense nor can a body apprehend it². If we go back to Ibn Sina's theory, we would find that many philosophers opposed it because they were asking what would happen to the individuation and numerical plurality of souls when they are separated from their matters, because the numerical plurality of individuals arises only through matter¹:

"He who claims the survival and the numerical plurality of souls should say that they are in a subtle matter, namely the animal warmth which emanates from the heavenly bodies, and this is a warmth which is not fire and in which there is not a principle of fire; in this warmth there are the souls which create the sublunary bodies and those which inhere in these bodies²."

Ibn Sina sees that creatures, or rather, entities that have no fixed order in space or nature, for instance, the angels and devils may constitute a simultaneous numerical infinity. This is not the case with the souls, as they cannot be pre-existed because before their entrance into bodies they would have to be either one or many. They could not be many because of the immaterial essence of the soul and we do know that in the immaterial essence there is no principium individuationis for a plurality. They cannot also be one because the one soul would have to be subject to division between bodies and the immaterial essence cannot be divided. Despite all these immaterial qualities, the souls can exist when they are separated from their bodies. This is quite possible, as they are distinct through the bodies in which they have been dwelling, through the times in which they were created, and through the distinctions of their forms, according to the different conditions of the bodies, they have been residing³. We have to mention here that none of the philosophers is against the theory stating that in the elements, there is heavenly warmth and it is the substratum for the potencies. which produce animals and plants. However, philosophers are in a disagreement about the name of this heavenly warmth. Some philosophers call it 'natural heavenly potency', others chose the name of 'the forming power' or 'the Demiurge' who is 'the wise maker' of the living beings and he is the one who has created it⁴.

¹ Mohammed Ali as-Saboni , Mukhtasar Tafseer Ibn katheer(The Concise Interpretation of Ibn Katheer), p. 143.

² Al-Ghazali .Ma'rij al- Quds,(Ascent to the Divine),p.21

Averroes , Tahafut al-Tahafut, (The Incoherence of the Incoherence), vol.I, trans. Simon Den Bergh, p.357.

²Ibid.

³ Averroes, *Tahafut al-Tahafut*, (The Incoherence of the Incoherence), vol. II, trans. Simon Den Bergh, pp.13-14. ⁴ Ibid.

7.5.4 Aristotle's Theory of Hylomorphism and The Functionalist View of the Soul

The earlier philosophers held different opinions about the nature and the role of the soul. The Platonists thought that the universals existed as forms and Ideas, which are responsible for all knowledge .The natural philosophers went on to say that no universal substances existed in the real world and the only real things are the individuals¹ .Whatever the case, they all made from the soul a source of movement and knowledge. They regarded the soul or the souls of the stars as the primary cause of their motion. The rationale behind the consideration of the soul as a source of movement is that, what was itself in motion could move other things. Consequently, as the soul moves other things, it is thought that its only and primarily function is movement². We have to mention here that the soul is not entirely ignored as a cause of motion, what it is denied is only associating it with movement.

It is worth noting that the universe -as a homogenous entity comprising all beings- has a soul. Such a soul is moving itself, which means it is a fount and a source of movement. Therefore, if we do admit that the soul of the universe is everlasting, the universe must always be being moved by it. Thus, the soul of the universe is a source of movement, and in the meantime, unable to be that source of movement because it is a self-moved and a source of movement. Then, if we presume that the soul of the universe is not a source of movement, the universe itself should previously or subsequently not exist. Therefore, as the soul possesses these qualities, it is ungenerated, and imperishable. Accordingly, the heavens must be eternal, as they are ungenerated 3 .

This theory states that the relationship between soul and body is exactly the same relationship between matter and form. Aristotle's concept of the soul is biological: *psuche* is that in virtue of which a body is a living body: "Soul is the substance, in the sense of form, of natural body potentially having life⁴." As we have seen previously, by 'substance' (ousia), Aristotle does not mean a Cartesian substance, which means an independently existing thing. According to Aristotle, *psuche* is not a thing because he calls it a substance 'in the sense of form'. From this perspective, human soul is a form of considerable complexity for it

¹ Thomas Aquinas, Kenelm Foster and Silvester Humphries, Commentary on Aristotle's De Anima, p.5.

² Ibid.,p.16

³Aristole On the Heavens, 270a, 12-22

⁴Aristotle, DA 2, 1,412a20.

comprises all the capacities to think, to be nourished and to take in sensory information about our surroundings. Thanks to these actions, we do manage to explain the teleological human activities and the systems of our bodily parts¹. In other words, our explanations are based on the aims of our actions and not the mechanical functions of our bodily parts. Aristotle also uses the distinction between matter and form to explain the passions and the actions of the soul. If we do take, for example, the feeling of anger, a scientist would define it as the boiling of blood in the vicinity of the heart, but a philosopher would define it as a desire for retaliation¹. We do deduce from the two definitions that one focuses on the matter and the other on the form.

The reason why we are introducing functionalism here, is that many critics do think that the Peripatetic standpoint about the soul is compatible with many modern theories. The latter state that the design of objects is determined by their functions, rather than, aesthetic considerations. Regarding the human *psuche*, the functionalist interpretation holds that it is the form of a living body in the sense of a functional organization of bodily components².

It is worthwhile to mention here that Aristotle's homonymy principle states that an organ, which is not alive, is no longer bearing that property. For example, we cannot call a body a body when it is no longer alive and we cannot consider an eye as an eye, if it loses the faculty of sight. Thus, the physiological difference between organs determines their physical difference. Aristotle put this principle as follows:

"There is no such thing as face or flesh without soul in it; it is only homonymously that they will be called face or flesh if the life has gone out of them, just as if they had been made of stone or wood³."

The existence of ensouled organic bodies is beyond question for Aristotle; this means that these organic bodies are incapable of exercising their functions in the absence of souls. Consequently, they have no real existence. "...Each is in reality the thing capable of performing its function, such as an eye when it sees, while the one not capable of performing its functions homonymously (that thing), such as one dead or one made of stone⁴."

¹ Martha C. Nussbaum and Amelie Oksenberg Rorty , Essays on Aristotle's De Anima, p.58.

¹ Ibid.

² Ibid.

³ Aristotle, (GA734b24)

⁴ Ibid., (Mete. 390a10-1).

7.6. Drawbacks of Aristotle's Homonymy Principle:

7. 6.1 Matter of Living Organism:

Peripatetic philosophers faced many systematic problems when they tried to specify the matter component of a living body. These philosophers argued that the form of the matter component body is its soul. This means that the matter of any component must have that form, and at the same time, it must not have it necessarily. The matter of an animal, for example, is its body, but this is not compatible with the homonymy principle, as it is not possible to pick out the matter without the form, for if what we pick out is not alive, then, what we pick out is not a body. Hence, the homonymy principle is not in good tune with the fulfilment of the contingent specification requirement¹ as John Ackrill (1921-2007) says: *"The body we are told to pick out as the material 'constituent' of the animal depends for its very identity on its being alive, in-formed by psuche²."*

If we go back, all over again, to the four basic inanimate elements earth, air, fire and water, of which living things are composed, we would realise that these elements do satisfy the contingent specification requirement, as they are existing independent of composing a living body. However, they are too far to be the matter of a living hylomorphic compound, for they are not even endowed with a potential life, "Until there is a living thing... there is no 'body potential alive'; and once there is, its body is necessarily actually alive³."

7. 6. 2 Functional and Compositional Matter:

Undoubtedly, the homonymy principle focuses on the paramount importance of function in the definition of a living being and its organic systems, but this leads us to wonder whether there was a time before the beginning of life at which a non-living body was potentially alive. Likewise, can we pick out something, especially of a living animal that is functioning in certain characteristic ways although it will finally cease to be so and which continues to exist? If this happens even if for a short period of time, can we consider what we have picked out as a body? ^{$\frac{4}{2}$}. Furthermore, Aristotle provides us with the example of the eye at

⁴ Ibid.

¹ Martha C. Nussbaum and Amelie Oksenberg Rorty *Essays on Aristotle's De Anima*, p.68.

² Ibid.

³Ibid., p.69.

(DA 412 21-3) and that of the finger at (Met.1035b24)to make us to treat the whole body as we have treated its organs, simply because Aristotle sees the natural bodies as the organs of the soul(DA 415b18-19). As Aristotle is committed to the homonymy principle and its application to living organisms, it is controversial to argue that Aristotle takes each living organism to have some matter, which is only accidentally ensouled. The last problem with Aristotle's homonymy principle lies in the Aristotelian treatment of all the parts of animals – including homoiomerous parts such as flesh and blood-as defined by their functions. This is the fact that makes them in need of a soul to perform these functions. From this perspective, if the anhomoiomerous parts, then, organic bodies cannot be made up by any matter, which is only accidentally ensouled. For this reason, many commentators do not believe that any of the animal's matter can survive the loss of soul¹. As the living body is composed of flesh and blood, cannot share any of its matter with its corpse. This is so clear in this Aristotle's statement:

"If the eye were an animal, sight would be its soul. For this is the being (ousia) of an eye according to its account (logos). But the eye is the matter of sight, which (sight) taking leave it is no longer an eye, except homonymously, like the one made of stone or painted. And it is necessary to take what is said of the part- to apply to whole living body, for as part is to part so perception as a whole is to the whole perceptive body as such. But it is not that-body-having lost its soul(to aprobeblekos ten psuchen) which is potentially such as to live, but the one having –soul-; and the seed and the fruit are potentially such a body- the seed and the fruit are potentially bodies potentially such as to live-²."

In other words, Aristotle tries to draw a distinction between the homoiomerous and the anhomoiomerous parts of animals. The former do not perish in the same time with the animal itself, but they decompose separately, or at least they survive for a while, but the latter perish simultaneously with the body. Aristotle's account is well –depicted when he states that: "The function of it –flesh- is less clear than that of the tongue. Similarly also with fire, butits function is probably even less clear naturally than the function of flesh. And similarly also

¹Martha C. Nussbaum and Amelie Oksenberg Rorty , Essays on Aristotle's De Anima, p.79.

²(DA 412b18-27)

with plants and inanimate things such as bronze and silver. For all these are – they are-what they are-by some potentiality to act or to be affected, just like flesh and sinew. But the accounts (logoi) of these are not precise. So it is not easy to discern when they exist (huparchei) and when they do not, unless a thing is very far gone and the shapes alone remain, as when the bodies of very old corpses suddenly turn to ashes in their coffins¹."

Aristotle's commitment to the distinction between functional and compositional flesh is also supported through the generation and corruption processes. He claimed that flesh, bone and each of the parts like these are twofold *(ditton)* "... For both the matter and the form are called flesh or bone²." In this context, Aristotle is talking about two things: the form and the matter and each of which is called 'flesh' and not only about one thing capable of being considered in two different ways. This is well- highlighted when Aristotle ascribes different properties-and implicitly different criteria of identity- to the form and the matter³ and from his claim that this phenomenon is clearer when we draw a distinction between the anhomoiomerous parts and the homoiomerous ones. In the case of the anhomoiomerous parts, the matter is different from the form⁴.

7.7 Conclusion:

There is no room for doubt that the notion of the soul is the most controversial topic ever, as it implies all what we have discussed before about the eternity of the world. By unravelling the secrets of the soul's nature, we can achieve a comprehensive understanding of the architecture of the whole universe. That is why, it is of a paramount importance to prove either the eternity or the creationism of the soul, as without finding the underlying cause of the soul's nature, it is extremely difficult to prove the nature of the entire universe. Soul and universe are correlatives, in the sense that, there is not just a sort of mutual relationship between the two, but also an overlap, as what can be applied to the soul is applied to the universe and vice- versa. Definition of immortality itself is another dilemma we are facing when discussing the immortality of the soul. Some philosophers do mean by

¹ (Mete. 390a14-24)

² (GC 321b22-32)

³Martha C. Nussbaum and Amelie Oksenberg Rorty , Essays on Aristotle's De Anima, p.81.

immortality of the soul, the survival of the soul after the separation from its body, others its coming back to a new corporeal life in the form of a re-birth or even to as a matter or what is called in Hinduism the *avatar*. A third party sees such immortality as a complete eternity that is achieved after the discarnation of the soul. If we do contemplate all these doctrines and theories, we would notice the size of this fierce dispute. Theologians and philosophers alike tried their best to build a very coherent and homogeneous set of arguments to persuade their adversaries, but at the end, everyone sticks firmly to his standpoint without amendments or abridgments even though many of these philosophers and theologians were contemporaries to each other. This explains why history kept all these records, sometimes in depth details, of philosophical and theological works about the nature of the universe, simply because it is, as it was, extremely difficult to refute some theories or falsify certain doctrines. All what a philosopher or a theologian can do, is to support a theory against another one. Therefore, all what it is about is the degree of support or refutation.

If we do look at Plato' theory stating that there is only one eternal soul that is divided in bodies and goes back to its original unity after its separation from these bodies, we would notice that it is considered as absurd, if we face it with the necessity of thought criteria¹. As soul has no quantity, it cannot be subject to division and distribution. The same applies to eternal will and temporal creation, the emanation theory and the existence of evil, the functionalist and the compositional matter. Definitely, Plato's view of the nature and the destiny of the soul based on separation and division and the supposed return to the origin is compatible, to some extent, with what we do believe in terms of the separation and the return. Regarding the division of the soul, as it is mentioned by Al-Ghazali, is not rational, as the soul does not possess a quantity. Besides, the return of the soul to the origin as stated by Plato is unclear, as we do believe that the soul has not a specific origin. Plato was thinking this way, as he does believe in the existence of one eternal soul. The assertion that there is one eternal soul open widely the gates to many interpretations and divergent explanations such as is that eternal soul only the soul of the Creator Himself (Demiurge as called by Plato)? Is it separated from Him? Or is it co-eternal with Him? The most rational explanation is that there is only one Eternal Principle Who is the Almighty God .Hence, we cannot talk

¹Averroes, *Tahafut al-Tahafut*, (The Incoherence of the Incoherence), vol.I, p.15.

about something else eternal beside His eternity whatsoever it is, soul or primary matter. The existence of two eternities is self- contradictory, as we can only consider an eternal power as eternal, if it is the only power characterized by such quality. The existence of two eternal powers is a sheer breach of the main criterion of eternity. To conclude this discussion, we have to mention that the soul, regardless of its kind, nature and destiny is considered among God's creatures. It is not only the second part of every individual's life, but the third one beside the body and 'Nafs'. As its place is on Earth in the time of human being's life and heaven -where it should be- after his death, it can only be created either in the time when God created human race or before it. The separation of the soul from the body it dwelled in its lifetime and the return to its origin does not mean necessarily that it is eternal. If we do believe that there is something eternal, it would be 'Nafs' other than Soul (Ruh), as the former is prior to both the latter and the body, and if we want to put them in a chronological order, Nafs will come first, followed by Ruh, then, body. The distinction between Nafs and Ruh came from their functions, as the former possesses the faculties of intelligence and distinction and the latter is responsible for breath and movement. This explains the mysterious activity of sleep in which Nafs is seized and not Ruh. It is worthwhile to point out here that this triangular combination between Nafs, Soul, and body does exist only in Islamic conceptions. Such triangular combination does stand for the moral conflict existing in the inner self of every human being to achieve the worldly rest and the hereafter happiness. The human being comes out from this supernatural war either a triumphant or defeated: "And the soul and its perfection! So He reveals to it its way of evil and its way of good; He is indeed successful who causes it to grow, and he indeed fails who buries it¹."

The human being, since a foetus in the womb of his mother, is imprisoned in the placenta of spirit in three obscurities: the obscurity of *Nafs* (soul), the obscurity of *Tab'* (custom), and the obscurity of *Hawa* (passion)². Ibn Hazm in his work *al-Akhlaq wa al -Siyyar* (Mannerism and Behaviours), describes these obscurities of the soul and its inclinations. The human self has a priority over the inanimate and the animals' souls regarding the faculty of

¹ The Holy Qur'an, chapter as-Shams : the Sun.91, Verses.7-10

² Ibn Kayyim al- Jawziyah, Tarik al- Hijratayn Wa Bab As-Saadatayn (The Path of two Migrations and the Gate of two Happinesses), p.24.

virtue, which he (the man) shares with the angels. When the man for instance, does not put his bravery in its right position, the lion or the tiger can be more brave than he can and if he is proud of carrying weights, the donkey is powerful than him. If he is boasting that he is so fast, the hare is faster than he is and if he is satisfied with his melodious voice, the birds are better than he is. There is no superiority in this case, as man is surpassed by animals, but whose distinction is strong, his knowledge broad and his deeds benevolent, is the one who can be surpassed only by angels and the virtuous men¹.

The supporters of the eternity of the soul built their stance upon the fact that the soul does not perish with the body. Is it immaterial? Is it without quantity? Is it a generator? It is wellknown, through human experience that everything, which is not subject to practical observation and scientific experience, is beyond human reason. This widely open the gates to divergent interpretations, which are, in the most of time, very difficult to refute even if they are built upon fragile grounds, as we have not the adequate knowledge to elaborate strong theories or falsify old ones. This inadequacy makes the influence of religious revelation operates efficiently. This does not mean that we are turning our back to science or any other rational explanation for two main reasons: first, religion and science are two faces of the same coin, in the sense that, they are just vehicles of knowledge. Secondly, we did not resort to religious revelations until we have lost faith in scientific explanations. Furthermore, there is no collision of whatsoever between religious revelation and scientific truths. The irrefutable evidence proving the exactitude of our words, is the scientific brand-new theories about all the astonishing wonders of our cosmos that are in tune, in most cases, with the ancient religious revelation. Not to mention that religious revelation itself is teeming with scientific facts to give the full credibility to the credo on the one hand and fortify the belief of its adherents on the other hand.

¹ Ibn Hazm al-Andalusi , Al-Akhalq wa al-Siyyar, (Mannerism and Behaviours), p.4.

CHAPTER 8:

ON PHILOPONUS AGAINST PROCLUS

AND ARISTOTLE ON THE ETERNITY OF THE WORLD:

8.1. Philoponus against Proclus:

8.1.1 The World between Religionism and Paganism:

Before shedding more light on Philoponus' works, we have to mention that this grammarian¹ was known to medieval Arabic-speaking world better than he is known to the occident. Many of Philoponus' works were known to the occident as only fragments, while medieval Arabic –speaking scholars had access to the integral text². Philoponus' works, and until the sixteenth century, heavily influenced the medieval writers through Arab intermediaries³. Philoponus' reputation has been gained from his commentaries on Aristotle's works and the rejection of many of his fundamental doctrines⁴. Philoponus did not attack only Aristotle, but Proclus as well before him, but many critics and scholars do find the contra Aristotelem less interesting than the earlier contra Proclum. However, for Simplicius the contra Aristotelem is the most important work to the point that he informs us that he had not read the contra *Proclum*. Whatever the case; both his works were directed towards the pagan belief in the eternity of the world, but the contra Aristotelem does focus on the outmoded belief in a geocentric universe⁵. Philoponous tried hard to convince his adversaries that Christianity is right in its belief that the universe had a beginning by turning the arguments of the pagans against them. Philoponus argued that if the world is eternal and had no beginning, then it would have passed through a finite number of years, and even if this assumption is quite impossible, it is accepted by Aristotle and adopted by the pagan Neo-Platonists. Accordingly, Philoponus refuted such an assumption by claiming that:

"If the past years up to the present were infinite, their number would soon be greater than infinity, and if some planets had revolved infinitely often, the revolutions of others would be many times $infinity^6$."

The Islamic thought represented by school of Baghdad, which will be known to the Christian philosophical school in the tenth and the eleventh centuries, and its prominent pioneers Ibn Sina and Al- Farabi has many works regarding this controversial issue. If we do take, for instance, Al- Farabi, he attacked Philoponus' concept of the eternity and the creation of the

¹ The Grammarian is the pseudo of Philoponus in all Arabic sources.

²Joel L. Kraemer, A lost passage from Philoponus' Contra Aristotelem in Arabic translation, p.318.

³Richard Sorabji , Philoponus and the Rejection of Aristotelian Science, p.1052.

⁴ Jhon Philoponus, On Aristotle's "On Coming-to-Be and Perishing", Carl Pearson, p.303.

⁵ Jhon Philoponus ,*Philoponus against Aristotle on the Eternity of the World*, trans. Christian Wilberg, p.20.

⁶ Ibid.

world in a four major works. Al Farabi does think that Philoponus is completely wrong to attribute the eternity of the physical world to Aristotle. Al- Farabi reached this judgement about Philoponus' works as his interpretation of Aristotle is derived from the spurious '*Theology of Aristotle*'. This is an Arabic distorted version of texts by Alexander, Plotinus and Proclus to present God as the Creator out of nothing; this means that He had given the universe a beginning¹.

8.1.2 The Ungeneration and Imperishability of the World:

This is the most controversial point that has been raised by every single philosopher from the pre-Socratic philosophers; passing through the Neo- Platonists, the medievalists to modern ones. Socrates says on the eve of *Timaeus*' discourse "*Everything that has come to be there is a passing out of existence*²." He claimed that he was not speaking for himself, but the Muses that were speaking. If this doctrine of the Muses is true, anything for which there is no passing out of existence is generated. Hence, as there is no passing out of existence for the world, it is generated, which means that it is uncreated and then everlasting.

Many Hellenistic philosophers do agree somehow with this Socratic view that the universe is indissoluble and everlasting. They put every single effort to cogently prove that through a plenty of theories and principles. Among these philosophers Proclus, who supported the Platonic and the Peripatetic standpoint about the eternalism of our world. He went on to say, "If the creator alone bound the world together, he alone may unbind it...it is in every way indissoluble except for the one who bound it together." Therefore, the creator would not unbind the world because it is himself who says, "It is the act of an evil being to wish to unbind what has been put together and is in good state³." Hence, we are before two probabilities, either the creator did not put the world together well. This means that he is not an excellent creator or he put it together well and will not unbind it, unless he becomes an evildoer. This is not possible because of the good nature of the divine essence⁴. If we do believe that the universe is imperishable; we unconsciously believe that it is ungenerated. Plato was accused by the Hellenes of using 'ambiguous' and 'unusual 'terms in describing the world. He considered the world as generated and in the meantime, he assigned that it is ageless and imperishable. Such a beginning is in relation to one of the six beginnings, which are matter, form, instrument, efficient cause, paradigmatic cause and final cause. In all these,

⁴Ibid.

¹John Philoponus ,*Philoponus against Aristotle on the Eternity of the World*, trans. Christian Wilberg, p.20.

² Ibid., p.13

³Ibid.

he meant a temporal beginning .Porphyry(ca.234-305 AD) states that the world is described as generated by Plato because it is notionally 'composite' even though it was not put together with respect to time¹. Proclus went on to say the world is thought to be generated by Plato because it has its being in coming to be and because it is generated with respect to causation².Plato claimed that the world is 'dissoluble' and 'mortal by nature. In the meantime the world is ageless and free of disease, albeit it is not so by nature. Furthermore, there is nothing outside the world that could destroy it. However, it is perishable because of the finite nature of its own power. We have to depict that Proclus was entirely for this standpoint .Likewise, there are many Hellenes and non-Hellenes alike who exploited the sophisticated nature of Plato's wording to explain his theories about the eternity of the world in the way they see it compatible with their own beliefs. We have to bear in mind that not only Plato's wording, which was open to divergent interpretations, but that of many of the Hellenes such as Lucretius whose wording never gave a thought to the doctrine of creation through a divine norm when he established his fundamental principle 'nothing ever comes from nothing by divine power'³. Likewise, Democritus held to the eternity of atoms, but not to the eternity of the present order of things and the Epicureans despite the indestructibility of their atoms, believed that the Earth is mortal. Not to mention the Stoics who denied the eternity of the world, as the present world is only one showing, as it were, of a reel of motion pictures, that reel may be shown many times, it can be even an endless reel, but this present showing has an end 4.

8.1.3 The Universe and the Law of Contraries:

Proclus assumes that everything that perishes, it is perishable as a result of an external factor attacking it from the outside world. If it perishes, it has to be perishing to something else. This means that if there is no such perishing power outside our universe, the latter must be imperishable and ungenerated. Everything that is generated must be coming from something else. In this case, we are talking about the existence of something else other than the universe⁵. What is striking about the *Proclean* universe is that when we assume that there is

¹ John Philoponus , Philoponus against Proclus on the Eternity of the World 6-8, p.14

² Ibid., p.15.

³ Lucretius, On the Nature of Things. (De rerum natura), p. 150.

⁴ Gordon H. Clark , Plotinus on the Eternity of the World, p.132.

⁵ John Philoponus ,*Philoponus against Proclus on the Eternity of the World* 6-8, p.116.

an outsider (power) that is superior, mighty and may has the ability to destroy our universe, we are admitting the existence of something, which is beyond our knowledge of the existence. In other words, it would be something-different from our universe in every single aspect- that we cannot apply the laws of existence to it. This means that such a thing would be made of other dimensions and submitted to different norms from the ones we are familiar with in our intriguing universe we know-to some extent-that they are existing. Proclus carries on his arguments by stating that, if there is another world other than our universe, definitely, it would be utterly different from ours as he said:

"Contraries derive from one another , and change into one another... and if on the other hand, these are contraries, governed by the law of contraries , then the universe too changes into the contrary form which it come to be¹."

Aristotle states, "All things that come to be come to be out of, and all things that pass away pass into their contraries or (xac) Intermediates (between their contraries). And the intermediates (arise) from the contraries. For example, the colours come out of white and black .And so all of the things, which come to be by nature, are contraries or things, which come to be out of contraries²."

Definitely, Aristotle is not thinking of contraries in a linguistic vision, but rather, a metaphysical one, in that, the relation between colours black and white and not a relation between the linguistic predicates' black and white'³. When we do discuss generation and corruption, we are discussing alteration, locomotion⁴ and changes that occur not only in quality, but also in locomotion and quantity as well⁵. Therefore, these contraries change from privation to possession and much more from possession to privation. The change from privation to possessions. As the world, is imperishable, it does not change into a contrary and it has not come to be⁶. Thus, when they are two contraries, it is impossible that there is a path from the first to the second. On the contrary, there is one from the second to the first. Therefore, regardless of the nature of the disorderly and the ordered, either the disorderly is the privation of the ordered or they are contraries, the arguments supporting the ungeneration

¹ John Philoponus ,*Philoponus against Proclus on the Eternity of the World* 6-8, p.117.

² Aristotle, Physics, 15, 188b21-26.cp Metaphysics 1 1055b16-17. De Caelol 3, 270a14ff, Generation and Corruption 7, 323b28-324a9

³ Aristotle , De Interpretatione, 717b20

⁴ Bogen James, Change and Contrariety in Aristotle, p.1.

⁵ Aristotle , Physics V, 226a25ff.

⁶ John Philoponus ,Philoponus against Proclus on the Eternity of the World 6-8,p.117.

of the world are stronger than those backing its imperishability¹. The dictum stating that everything that perishes faces this destiny, as an outcome of something else attacking it from outside is refutable, as the world is susceptible to the perishability by nature even if it is the only existent and there is nothing outside of it. If we do go by this dictum, we will be asserting that everything that comes into existence does so upon the debris of another thing. Besides, we are affirming that nothing exists outside the world, which means that nothing contributed or interfered in its existence. From this perspective, we do deduce that not everything that comes into existence depends on its existence on a contrary. By the law of analogy, this applies to the whole universe, as one entity made of things, if it does come to be, it is not a necessity that it has to come from a contrary. Proclus tried hard to solve these difficulties, as it is possible for possession to return to privation by claiming that:

"If the world has indeed, as Plato holds, come to be out of the disorderly, it will inevitably follow, both in the natural course of events and by the will of God, that it changes back into the disorderly, that is to say, into its own privation, from which it has come to be¹."

Proclus tried to defend Plato's hypothesis stating that everything that is perceptible has two qualities, it does come to be and it is perishable against Aristotle's one that says although the heaven and the entire world are perceptible, they do not have Plato's perception qualities manifested in coming into being and the perishability². However, we have to bear in mind that this argument can only be useful if we do admit that the whole world, and all celestial bodies, do come to be. Proclus attacked the Aristotelian claim that no finite body has infinite power because if the world is finite, it does not have infinite power. Accordingly, the world that has no infinite power does not have external existence, which means that the world has not an everlasting existence. Aristotle himself states that the everlasting existence is a property of eternity³."

We have to bear in mid that this argument can only be useful if we do admit that the whole world and all celestial bodies do come to be. Proclus attacked the Aristotelian claim that no finite body has infinite power because if the world were finite, it would not have infinite power. Accordingly, the world that has no infinite power does not have external existence,

¹ John Philoponus , Philoponus against Proclus on the Eternity of the World 6-8, p.117.

¹Ibid., p.118.

²Ibid.

³Ibid., p.119.

which means that the world has not an everlasting existence. Aristotle himself states that the everlasting existence is a property of eternity¹. The Peripatetic stances themselves prove that the world does not belong to eternal things; even if Aristotle argues that the world is eternal. We can call this a self- contradiction or theories that were still in an embryonic stage at that time. Whatever the case, and ironically, Aristotle who is supposed to be supporting the eternity of the world, he is providing us with many useful arguments supporting its demise and its perishability. Proclus concluded that the world does not exist from its own nature, but rather, from a source, which is outside of it:

"Nor is what is true of that which always is also true of that which is always coming to be (it is not the case that) infinite power belongs to the latter on account of its always coming to be as it does to the former on account of its always being. But it does (belong) to its maker, and on that account it too is always coming to be, forever gaining (the property of) being thanks to (dia) that which always is by the terms of its own existence, and not having the 'always' in its own right. And so the definition of that which comes to be would also fit the world¹."

We do deduce from the *Proclean* analysis that everything that comes to be, has to perish, but this does not apply completely to our universe:

"This whole (universe) remains in (a state of) becoming (and) comes to be (but) does not perish because of the being it has drawn off from that which is. Therefore, because in its own right that which comes to be qualifies for the definition, he also refers to it as perishing, since by its own it is such²."

We do come to know with Proclus that as the universe is infinite, it does not possess infinite power. Consequently, what initiates infinite movement, does so by infinite power. That is why, the motionless cause of infinite movement for the universe has to have infinite power itself. This would be obvious if we do separate the universe from that cause, then, it would not keep moving ad infinitum, but rather, it would cease its movement and vice versa.

¹ John Philoponus, Philoponus against Proclus on the Eternity of the World 6-8, p.119.

¹ Ibid.

² Ibid.

The *Proclean* world will remain imperishable as long as there is nothing outside of it to destroy it. Likewise, Proclus assumes that if the world comes into existence, as a whole made out of wholes, a perfect thing made out of perfect things, and it is combining all these things within itself, it would not perish because there is nothing outside that can attack it. By combining all these things, the world has not left any causes of its destruction outside of it. Therefore, nothing can destroy the world, and at the same time, the world cannot perish by itself. Accordingly, what cannot perish, as there is nothing able to destroy it, is imperishable by nature. The second *Proclean* supposition is that if the world, as a body, is of naturally finite power, and if finite power were perishable, all over again, the world would be imperishable by nature¹.

Proclus put his entire system about the destiny of the world including all his arguments in the following passage:

"One and the same thing will be both naturally perishable because it is of finite power and naturally imperishable because it has nothing else outside of itself to attack and destroy it. So if it is impossible for both sides of a contradiction to be true at the same time, and if it is true that the world is of finite power, then it will be naturally perishable. But it is naturally perishable; it will be false that it is naturally imperishable .But it would be naturally imperishable if everything that perishes perished as a result of something else attacking it from outside. If, then it is not naturally imperishable, and if there is nothing apart from it that could destroy it, since it contains everything within itself, then, although perishable, it will not be destroyed by something else attacking it from outside²."

In the same respect, Proclus does not agree with Plato about the fact that everything ordered emerged from the disorderly and the latter is the privation of the ordered. This is the fact that makes the ordered, which is the world, imperishable even if it has come into existence. However, Plato does not deny that, in the natural order of things, the ordered can change to the disorderly. The Platonic logic turns around the fact that since you come into existence, you are not indissoluble. Likewise, the world is imperishable, as it acquires the qualities of indissolubility and immortality through God' will even if it is dissoluble by nature.

¹John Philoponus ,*Philoponus against Proclus' on the Eternity of the World 6-8*, p.121. ² Ibid.

From this perspective, Plato does not only assert that the world is imperishable, but he affirms that it has to be imperishable as well: "*He does not claim that it is the unlimited power of the world's nature that is the cause of its imperishability*, but that is the will of the creator¹." Proclus denies the emergence of the ordered from the disorderly and even if such an emergence did happen, it is thanks to God' will, while Plato denies the interference of God' will in the emergence of the ordered from the disorderly².

There is no room for doubt that this *Proclean* analysis of the destiny of the world helps us to come out with many conclusions: everything that is perishable is so because of a defect within itself and nothing does possess a power within itself that can threat its existence. The Platonic view about the destiny of the world that it has come to be is in support of the religious standpoint concerning the creation of the world. However, it is not in support of its perishability, as Plato does believe in its immortality. For the same reason, we have the *Proclean* support when he states that the emergence of the orderly from the disorderly is done by both the course of events and the will of God. Therefore, we have more arguments supporting the perishability of the world from those who do support its imperishability such as Proclus and Plato. In the same time, we have their support about its coming into being and the assertion that there is something called the will of God that interferes in the natural course of events in some way or another. Plato asserts that the world is imperishable and he argues, in the meantime, that such imperishability is not the cause of a natural course of events, but rather, it is the will of God:

"If it were that absolutely necessary for something corporeal to last forever, it could not be imperishable unless the power of the creator provided it with everlasting continuance, since, as far as the law or nature goes, no body has everlasting existence (to aei einai)³."

Finally, we have to add that the disorderly and the ordered are not contraries by Plato's testimony itself when he says that the ordered is nothing but the world and we do know that the world is a substance. As the latter does not have its genesis from a contrary, definitely, the ordered and the disorderly are not opposed as contraries, but rather, as form and privation.⁴

⁴ Ibid.

¹ John Philoponus ,*Philoponus against Proclus on the Eternity of the World 6-8*, p.127.

² Ibid.,pp.126-127

³ Ibid., p.127.

8.2 Philopouns against Aristotle:

8.2.1 Philoponus against the Aristotelian Theory of the Aether:

There is no room for doubt that the *contra Aristotelem* was so famous to the point that it is a good resource for reference and debates in Islamic world and heavily influenced almost all Muslim scholars especially Ibn Rochd, Al -Farabi , Ibn Sina and Al- Kindi. Likewise, it had influenced the Latin West outstanding scholars such as Bonaventure (1221-1274) and Thomas Aquinas (ca.1225-1274). In the same way, it had left its traces in the works of Jewish thinkers like Gersonides¹ *Milhamot Adonai*(wars of God) and Hasdai Cresca's *Hashem*² (*ayruw nwa*). The Lord). Philoponus was not the first one who fiercely attacked Aristotle's fifth element. According to Simplicius, some early Peripatetics like Xenarchus(1st century BC) devoted a whole work to show his complete disagreement with the Aristotelian theory of the Aether in a debate about natural movement and place³.

Philoponus used many of the theories, elaborated by his predecessors, to defend his Christian belief based on the denial of the eternity of the world .That is why, he was accused by Simplicius of stealing many arguments from Xenarchus. Whatever the case, among the theories Philoponus used to refute the Aristotelian theory of the Aether, is the theory of epicycles elaborated by both Hipparchus (ca. 190 120BC) and Ptolemy. Philoponus claimed that, as this theory made the celestial motions both eccentric and complex and as the fifth elements' rotation is simple, the Aristotelian theory is already facing serious difficulties. Simplicius was somewhere between the Platonic and the Peripatetic views, as he is with Plato who mentioned in the *Timaeus*, that there are only four elements and with Aristotle, with some reservations, that there exists a fifth element, but it is only made of the purest parts of the four known elements⁴.

It is worthwhile to point out that although Plato's *Timaeus* mentions that the heavens have a beginning, the other Neo-Platonists, except Philoponus, have their own speculations even if they are not too far from their master. We have to understand that Philoponus' theories,

³Siorvanes Lucas , Philoponus on Aristotle, p.109

¹ Gersonides is the Latinised name of Levi ben Gershon (1288-1344 AD)

² There are plenty of names given to God in Jewish tradition: *Adonai* (the Lord), *Elohim* (the lawmaker),*Shaddai* (the Guardian of the doors of Israel), *Yahweh* (היה : term used in Hebrew bible), *Jehovah* (היה), *tetragrammaton* (τετραγράμματον) which is a Greek term used in Hebrew bible.

⁴ John Philoponus , Philoponus against Aristotle on the Eternity of the World, Book I. trans.by Christian Wilberg, p.22.

objections and refutations were always within the scope of religion in general and Christianity in particular. As he was always trying to establish a sort of compatibility between the religious messages and the Platonic –Peripatetic conceptions, he was accused of misunderstanding them and of his failure to establish such reconciliation. Undoubtedly; Philoponus was fascinated by the debates and the arguments of both his contemporaries and his predecessors, but at the same time, as a philosopher holding a monotheistic Christian belief, he considered the Platonic-Peripatetic views as an explicit denial of the divinity of the heavens, and consequently, atheistical speculations of the universe as a whole.

Philoponus started his fierce attacks against Aristotle by criticizing his concept of the relation between the nature and the movement in elementary bodies. Philoponus does agree with Aristotle that cosmological movements are caused by nature, which is a principle of motion. In the meantime, he went on to say that it is not necessary to suppose the existence of a fifth element that is added to the other four basic primary bodies. Furthermore, the circular motion is not prior to rectilinear motion as Aristotle claimed, but it is considered as one of the natural motions of fire and air. Accordingly, the postulation of a fifth celestial element 'the Aether' is not out of necessity¹.

Philoponus objected to Aristotle's thesis that in case of simple physical bodies, which are the elementary bodies: earth, water, air, fire and Aether, nature is a principle of a single motion². If different natures do generate different movements, the same movements have to be generated by the same movements. This is not always true if we do take water and earth, for instance, they move with the same movement, and in the meantime, their natures are completely different. Moreover, if the case of bodies that are different in nature such as water and earth, can move with the same movement is true, then, the same rule can be applied to the bodies that move with different movements can be of the same nature by means of contraposition³.

What is striking about Philoponus second arguments is that the heavens and the sublunary bodies are of the same nature. However, they move with a different movement. This example

¹ John Philoponus , Philoponus against Aristotle on the Eternity of the World, Book I, trans. Christian Wilberg, p.23

²Aristotle ,*De Caelo* 1.2, 268b14-16

³ John Philoponus ,Philoponus against Aristotle on the Eternity of the World, Book I, trans. Christian Wilberg, p.23

invalidates, to some extent, his second argument¹.Aristotle established a sort of correlation between simple bodies manifested in both the elements and simple motions and composite bodies and composite motions. He also drew a distinction between upward and downward motions², but he fails, according to Philoponus, to draw such a distinction between the eastward and the westward motions. Aristotle also did not give any importance to the differences in speed of the divergent celestial bodies. Furthermore, Aristotle's assumption that the movement of the celestial bodies is circular is not compatible with the astronomical theories of eccentrics and epicycles.

Philoponus summarized his objections to the Peripatetic concept of the movement of the celestial bodies by stating that the circular and the rectilinear cosmological motion cannot be compared, as the former does speak about the movement of a whole and the latter does speak about the movement of the parts³.

Aristotle, like Proclus, and unlike Plato, relies on the law of contraries to assert that the heavens have to be only eternal, which means ungenerated and imperishable, as all things are generated out of a contrary and perish into a contrary. This is not, according to Aristotle, the destiny of the heavens, for they have no contrary, as there is no contrary to circular motion. Philoponus accused Aristotle of form and privation opposites *(antikeimena)* and in some cases contraries *(enantia)*, without making a differentiation between cases in which the cold body becomes hot and vice versa or how a shapeless body can be turned into a piece of art⁴. Philoponus moves to talk about the process of generation itself, as Aristotle and Proclus focused all the time on this point to prove that the world is eternal, as it is ungenerated.

¹ John Philoponus, Philoponus against Aristotle on the Eternity of the World, Book I, trans. Christian Wilberg, p.23

² The Greek astronomical theories attempted to explain the phenomenon of the complex movements of the planets by a theory, both mathematical and physical, that heaven consisted of a set of transparent spheres (the heavens) which carried the heavenly bodies around on distinct courses. So far Aristotle agreed .But it was later added that the spheres revolved at a different speeds around points which did not coincide with the centre of the universe(hence eccentrics).The stars and planets were much smaller rotating sphere (the epicycle), if apparent irregularity of a Planet's motion required this(de Caelo 1.2,268b26-269a2).

³John Philoponus, *Philoponus against Aristotle on the Eternity of the World*, p.45. ⁴Ibid., Book IV, p.79,

At least it was not like the Platonic¹ view stating that even though the world is generated, it is eternal. The Philoponus' process of generation is quite different, in the sense that, not all things, which are generated, do require a pre-existing substrate, as the creation *ex nihilo* means that the necessary condition for the generation of anything is generated as well. That is why, the form is created together with the substrate². In the whole discussion, Aristotle was accused by Philoponus, and many others, of sophistry. Aristotle, and in his attempts to prove that the world is ungenerated and imperishable, he focused on the heavens. Once he proved that the heavens are ungenerated and imperishable, he applied that to the whole world. Aristotle had in his mind that the heavens are the only part of the world that move with a circular movement:

"How, then, did he permit himself to speak of the entire world in place of this part of the world (for what is made evident about certain parts of the world, whether a state or anything else, need not necessarily be rue of the entire world), and not distinguish between the two, and this either unintentionally, or intentionally as someone who employs sophistry? For, to shift one's ground from the particular to the universal and from one particular to another is one of the topics of sophistry³."

For the same reason, Aristotle tried to prove the eternity of the heavens by proving their unchangeability. This logic is not always true because in the sublunary world, we can find many things that have the property of changeability, but they are not eternal. Heavens, as they are the most important part of our universe, they will remain unchangeable for as long as the universe itself does exist. However, as the celestial spheres do form a limited body, they can be only destructible⁴.

¹ In Neo-Platonic metaphysics, the universe is arranged hierarchically, with supreme deity, the One, at the top, and then the Divine intellect, the world soul, the material world, and at the bottom prime matter. Each lower level 'proceeds' from the one, because it owes its beginningless existence ultimately to the One. What Philoponus is said to overlook is that things can be differentiated by having distinct differentiating characteristics (*differentiae*). They can be differentiated instead by being more or less subordinate(*kata huphesin*) in the order in which they proceed from the One. Matter differentiated in the second way will not be turned into a composite of matter plus *differentiae*. (Philoponus *"Philoponus against Aristotle on the Eternity of the World*, Book IV. Trans. Christian wilberg, p.86).

²John Philoponus ,*Philoponus against Aristotle on the Eternity of the World*, Book IV,trans. Christian wilberg, p.87.

³ Ibid., p.88.

⁴ Ibid.,pp.88-89.

No one would deny that the uncreatedness of the world is related especially to the nature of heavens and the essence of God. As-Sijistani says:

"If all men allot the highest place to the divine cause, and therefore raise their hands to heaven when they pray on the assumption that the abode of God is in that place, still this is not proof that all men believe the heavens to be imperishable and ungenerated. For we find the ancients and the people of our time who clearly assert that they believe the entire world to be generated raise their eyes to heaven when they pray no less than those(others)¹."

8.2.2 Philoponus against Aristotle's Eternal Time and Motion:

For Aristotle, time is a reckoning of movement with regard to antecedent and subsequent eternity². Philoponus, in his sixth book, attacked this argument by criticising Aristotle's definition of motion to conclude that both time and motion have to have a beginning and they will cease to exist in the future. We have to point out that many of the Hellenes associated eternity with the notion of time, and among them Plato and Plotinus, who considered both time and eternity as kinds of life³. Regarding movement, Aristotle defines motion as the actualisation *(energeia)* of the movable qua^4 , and infers from this definition that the potentially moved object pre -exists the motion in time⁵ and then, motion is the actualization of what potentially is⁶.

Ibn Sina in his *Mubahathat (*Discussions), combined time and motion in many of his definitions. He argued that there is a big difference between defining time as the numeration of movements and defining it as related to every movement. Likewise, there is a distinction between claiming that the essence of time is related to movement and claiming that the essence of movement is related to time. This is the doubt raised by philoponus who tried to dispel it through many of his works⁷.

¹ Abu Sulayman As-Sijistani , Muntakhab Siwan al Hikma, trans. D.M.Dunlop, p.237.

² Aristotle , *Physics219b2*

³ Ibid.

⁴Aristotle , Physics, .8.1, 251a9f

⁵ Ibid., 251a10-23

⁶L.A. Kosman, Aristotle's Definition of Motion, p.40

⁷Ibn Sina, Mubahathat,(Discussions), p.170

The objection of Philoponus to this Peripatetic definition is that it cannot be applied to all kinds of movements. For instance, in the case of eternal motion, "No potentially moved object pre-exists the motion¹." As motion is analysed in the light of two relatives, which are the mover and the moved object, Aristotle claims that if the two have not always been in motion. Then, there must have been a prior motion that caused one of them or both of them to establish that relationship between the mover and the moved object to make the motion process possible. The same rule applies to the prior motion and the chain is continuing infinitely. That is why, it is extremely impossible to suppose that there is first movement². The standpoint of Philoponus is quite different from the Peripatetic one, as he denied that relationship between these two relatives because once they come into being nothing is related to something else. Besides, the things related do not necessarily pre-exist the relation. It seems that Aristotle was contradicting himself when he went on to say that everything comes to be by virtue of motion and he added that it is impossible to assume a first motion. Philoponus replied to this Peripatetic analysis by asserting that God's creation-including motion itself- was out of nothing³. The Grammarian kept on attacking Aristotle by arguing that there are some generated things that do not pre-exist their natural movement in time⁴. Regarding the Peripatetic assumption that the relationship acquires that one or both relatives (mover and the moved object) have to be in motion, the Grammarian explained that

"Aristotle took for granted, that the relatives must exist first and then acquire the relationship between them, so that it is not possible for something no sooner to be than to be in a relationship, and concluded in this way that in all cases either both or one of the things must be moved in order to acquire the relationship between them⁵."

The Grammarian faced the Neo-Platonists with three alternatives, which are unacceptable: the first one-as mentioned above-is that this definition does apply to all kind of movements. The second one is that even if we do assume that this definition does apply, the supposed eternal motion would not be eternal, as some potentially moved object pre-exists that motion.

¹ John Philoponus *Philoponus against Aristotle on the Eternity of the World*, Book VI, trans. Christian Wilberg, p.122. ²Aristotle *Physics*, 8.1, 251b5-10

³John Philoponus , *Philoponus against Aristotle on the Eternity of the World*, Book VI, trans. Christian Wilberg, p.131. ⁴Ibid.

⁵ Ibid.

The third one is that if this eternal motion does exist, the prior existence of the potentially moved object does not come from the definition of motion, as Aristotle tried to prove. Philoponus tried hard to prove that the third hypothesis is the correct one by means of falsifying Aristotle's arguments of the eternity of motion. In order to achieve that, Philoponus re-define the notion of Aristotle of' potentiality' (*dunamis*) as 'internal force. Such re-definition helped Philoponus to suppose that motion can only occur in the presence of a *dunamis*, which immediately results in motion if it was not prevented from doing so by an external force (*bia*). Such analysis assisted the Grammarian to demonstrate that the notion of *dunamis* is applied to cases of simultaneous generation and motion of elementary bodies. Accordingly, it is not true that the potentially moved pre-exists the motion in time. If we do admit that this is true, then, any motion would be natural for any body. Hence, Aristotle' definition of motion does not help him to prove the eternity of motion¹.

Philoponus opposed Aristotle's arguments that comprised the complete exegesis of Alexander of Aphrodisias and he also added Themistuis' paraphrase in order to terrify, according to Philoponus, any ignoramus by this voluminous work ².Philoponus expressed his own objections to Aristotle's arguments of the eternity of motion and time by saying that:

"When Aristotle defined motion as the actuality of the movable qua, he covered by this definition (horismos) all motion in general, yet he assumes that some motions are eternal whereas others possess a beginning and an end. Now what are his grounds for assuming as a consequence of the definition of the motion that the things that are going to be moved necessarily pre-exist in time the non-eternal motion, which possesses only the capacity (Dunamis) of motion without the actualisation (energeia)³?"

The Grammarian argued that the only basis on which we can prove that motion is eternal, is that the principle' nothing comes to be from nothing' to be true, but according to Philoponus, this principle is not true. In order to prove the falsification of this principle, he started by conceding that this might be true in the case of nature, but it is far away from any sort of credibility whenever we do discuss the notion of God. This law cannot be applied to God, as

¹John Philoponus *Philoponus against Aristotle on the Eternity of the World*, Book VI, trans.by Christian Wilberg, p.123. ² Ibid.

³Ibid.

He is not nature; He is opposed to it, as He is the Creator from nothing. The clear evidence of such creation from nothing is that He created both matter and form at the same time without process in time¹. We have to add here that even if nature can produce things out of what already exists, as it has its own reality and actualisation (energeia) in a substrate. Moreover, nature cannot be or act without a substrate². Therefore, it is quite irrational to apply the creation out of existing things to God, as He does possess the property of separating His reality and actualisation from all the other beings:

"And yet God not only produces the form (eide) of the things directly generated by him, but is believed to originate and to create even matter itself. For only what is primarily is ungenerated and without a cause. So if God gives existence (huphistesin), even to matter, and if matter does not need any other matter for existence (for it is the primary substrate of all natural beings), then it is not true that everything which is generated is generated of what it exists³."

Here our main concern is not whether God created matter continuously or in a single act, but whether this matter does need any other matter, as it is the first substrate *(to proton hupokeimenon)* of bodies. What we can deduce from this axiom is that if things generated by nature out of other existing things, it does not necessarily means that things which are directly generated by God, are generated out of existing things. The only obvious reason behind this is that nature needs both time and a process (of generation) to perform the act of creation. Besides, nature produces the physical objects that God gives existence *(huphistesin)* to the things generated directly by Him without any need to that time and that process of generation. God's production is achieved without the gradual forming and shaping of objects, as His will is sufficient to substance and to things *(eis ten ton pragmaton ousiosin)*⁴. This would lead us to talk about Aristotle's dualistic conception of nature:the necessary and the teleological element in nature. Aristotle introduces the immanent teleology conception. This means that nature itself strives towards an end, in *De Caelo A4*, and de *GC* Aristotle identifies nature as God, the fact that destroys the opposition of immanence and transcendence. Nature, and in order to create needs materials, and not any materials, but

⁴Ibid.

¹John Philoponus *Philoponus against Aristotle on the Eternity of the World*, Book VI, trans.by Christian Wilberg, p.128. ² Ibid., p.129.

³ Ibid.

oia.

those with specific qualities and inherent necessities¹, in the sense that, nature does need all the available materials, but they are used according to its necessity exactly like someone who wants to build a house needs bricks and the one who wants to make a knife, needs iron:

"This conception would imply that certain materials having their own laws are presupposed by nature, and so are not nature itself; nowhere, however, does Aristotle indicate what these materials are, and indeed this whole conception is in opposition to his fundamental thesis that matter in itself, without having as yet received any form-and end are fundamentally identical for Aristotle-is absolutely undetermined²."

In the same discussion, Aristotle went on to say that time has to be eternal ³ and Plato established an obvious link between time and eternity⁴ through the indication that the temporal world is likeness or image of the eternal. Plato held that a description of this likeness can itself be likely and he did not treat the physical world and time as akin to the timeless model.⁵ Here the Aristotelian concept of infinity that is under attack, as Aristotle argued that time was infinite, and at the same time, denied infinity to place, ⁶ all over again, Philoponus, as a creationist, was faced by many proofs that have to be refuted. Time must always be there as long as there are' before' and 'after' in every single event⁷. Philoponus replied to this argument by demonstrating that the locutions 'before' and 'after' do not necessarily imply the presence of time. For instance, the intellects of angles and the spirits think discursively, in the sense that, there are the terms 'before' and 'after' in their thoughts. However, these terms are not related to time if we do think that time is the number of motion of bodies. In the same context, God exists above time, but at the same time, He has knowledge of 'the before' and 'the after' of events. This explains the temporal reasoning of man because of the limitations of his intellect, in the sense that, the human intellect cannot think about atemporal things without reference to time, while God contemplates temporal things atemporally¹.

¹ Averroes , *Tahafut al-Tahafut*, (The Incoherence of the Incoherence), trans. Simon Van Den Bergh, p.24. ²lbid.

³Aristotle , Physics, 8.1, 251b10-28

⁴ J.B. Skemp , The Theory of Motion in Plato's Later Dialogues, p.67, G.Vlastos , The Disorderly Motion in the Timaeus, p.73

⁵ W. Von Leyden, *Time*. *Number and Eternity in Plato and Aristotle*, p.36.

⁶ Jhon Dillon, Philoponus on Aristotle Physics 3, p.201.

⁷ Aristotle , *Physics*, 251b10f

¹ John Philoponus , Philoponus against Aristotle on the Eternity of the World, Book V1.p.133.

Regarding movement, Philoponus argued against Aristotle that place has to be threedimensional. Philoponus' corollary on void is an attempt to prove against Aristotle that motion is possible even if there is a void and that motion needs void. This is the reason, according to Philoponus, why the speed of bodies has to be determined by both external resistance and internal impetus¹. Accordingly, we cannot separate either the eternity of time from that of motion or the eternity of motion from that of time, as they are correlatives. This sort of overlap between time and motion is well –explained by the Grammarian:

"Whoever says that motion is generated does not say anything else than that it did not exist before, but does exist after. And whoever says that it is destroyed does not say anything else than that it did exist before, but does not exist after. Therefore; if 'the before and 'the after' are parts of time, there will be time both before and after the motion .But whenever there is a time, there always is a motion as well²."

The Grammarian continues the explanation of the arguments supporting his stance by claiming that even before the supposedly first motion (or movement), there was always a motion, and after the supposedly last motion, there will be again a motion. That is why, motion has only to be eternal. He argued also that the notion of time is of a paramount importance, as it does possess the third reality-he said the fourth reality later on- after the other third realities, which are the body as the first reality, according to him, the physical kinetic potentials as the second one and the motion as the third one³.

The point of crucial significance that we do deduce from this discussion, is that not everything that we do think about as after or before holds a reference to time. If we do go by what Plato said about time that it came to be with the heavens, and if all the physical bodies are destroyed, time would be also destroyed, it would be still impossible to destroy the intellect. This would mean that: "If the actualisation of the intellect is progressive, and time did not exist, it is still necessary that the intellect thinks one thought first and the other one second⁴." This would lead us to assume that if God had created the heavens, He will be also responsible for their movement. If we want to achieve a comprehensive understanding of the Divine 'before' and 'after', at least from the Aristotelian point of view, we have to contemplate the movements of the celestial spheres.

⁴Ibid.,p.135.

¹A. Ide Harry ,*Place, Void and Eternity*, p.90 ² John Philoponus ,*Philoponus against Aristotle on the Eternity of the World*, Book VI, p.4.

³ Ibid.

If we do imagine that the celestial bodies are in conjunction in the same division of the zodiac, then, each of them will go back to the same point they started from, but in different time. For instance, the moon, and in order to turn in its orbit and completing its turn, arrives at the same point in which all the other planets had been before. God the Arranger and the Organiser of this celestial system knows and knew that the moon has completed its rotation before and the other celestial bodies have not. Accordingly, God knew and knows that one of the celestial bodies completed its rotation and the other will after. This is clear evidence that term before and after do exist in the Divine thoughts as well .Consequently, time also exist in His thought even if He is regarded as superior to time. Furthermore, God' knowledge of movements of the planets goes to the point of His will, in that, when the moon reached the same point from which it started, and the other celestial bodies still not, God wanted that to be with the moon at that particular time and not with the other celestial bodies at the same particular time. From this perspective, the claim that God does not know things of which He is the immediate Creator is not rational because the terms after and before are not only parts of his thoughts, but also do exist in the acts of His will¹.

Definitely, many of these examples represented by Aristotle are not compatible with modern physics especially when Aristotle argues that God wanted the Sun to be still, but He did not want to do so with the other celestial bodies². However, these examples illustrated what Aristotle wanted to mean by the presence of 'the before' and 'the after' in Divine thoughts and acts of will. The acts of divine will themselves be classified according to numeration such as this event would be classified first, that one second and the other one third and so on, according to their importance priority or just as a sequence of events. In all these cases, we do also mean time. Philoponus did also refute the Aristotelian claim that time is eternal supported by the majority of physicists³. Ibn Sina stated in his book *Mubahathat* (Discussions), that they are some philosophers who claim that time has an existence as time as a whole is a set of times. Every time is created from the other, which is a delirium of the *Mutakallimin* (Muslim theologians) according to Ibn Sina¹.

¹John Philoponus *Philoponus against Aristotle on the Eternity of the World*. Book VI, trans.by Christian Wilberg, p.136. ² Ibid.

³Aristotle , *Physics*, 8.1, 251b14-19

¹ Ibn Sina , Mubahathat, (Discussions), p. 168.

By arguing that the truth can never be found by democratic means, and if we do suppose that it is the case; Aristotle's theory of the Aether and the eternity of the world would be rejected¹. All over again, the Grammarian rejected this Aristotelian argument and by showing his fascination by Plato's logic:

"Although the physicists, except Plato-perhaps five or ten men –agree with each other in saying that time is ungenerated, it is inappropriate to prefer these men to Plato simply because of this. For the truth must not be judged by the number of men having made assertions; for this way, at any rate, Aristotle, who alone introduces the fifth substance of body, will receive the inferior vote because all or; at least most physicists say that the four elements, either all, or some of them are the principles of the world²."

We do notice here that Aristotle is contradicting himself, to some extent, as he asserted that the world is ungenerated, while most of the other physicists were of the view that the world was generated. Therefore, if we do apply his argument based on the unanimity of the physicists, he has to be with them in the generation of the world. The Grammarian went further in his refutation of the Aristotelian argument and the complete support of the Platonic system by arguing that if we do trust those who are consistent with themselves, rather than, those who are not, we have to take Plato as example, as he is very consistent in his entire analysis. Plato says the time came into existence with the heavens at the same time, while the others say that the world is generated, and in the meanwhile, time is ungenerated, even if both time and the world have the same reality and they cannot be separable. Hence, the consistency is in favour of Plato, as other philosophers and physicists have shown an obvious inconsistency³.

The Grammarian concluded this discussion by wondering how Aristotle can claim that a large number of physicists went astray regarding their theories about many treaties, but at the same time, he praised their testimonies about the ungeneration of time. Moreover, there are many ancient physicists whose testimonies were trustworthy about many treaties, have raised many objections about time being ungenerated ¹.

lbid.

¹ John Philoponus , Philoponus against Aristotle on the Eternity of the World, Book VI, trans. by Christian Wilberg, p.137.

² Ibid., p.138.

³Ibid.

Aristotle's third argument focused on the term 'Now', or in other words, the present, in the sense that, time cannot be conceived without that point between the past and the future. The present is very important in the understanding of the notion of time, as it is always time at its sides. As long as this present exists, there will be always time before and after it. That is why, time has to be eternal¹. Aristotle, in many passages, expressed his doubts about what is called time. According to him, the past no longer exists, the future is not yet and the present is only an intermediary between the two².

Philoponus accused Aristotle of petitio principii which means that the assumption stating that the 'now' is a mean of time. Aristotle went on to say that if 'the now' is a mean of time possessing the beginning of the future and the end of the past, time must have existed always.Consequently, if this rule is applied to time, it can be applied to motion as well because of the correlative relationship that does exist between the two³.

The Grammarian directed his fierce attack to Aristotle by demonstrating that the now argument does add nothing to the discussion of the eternity of time and motion:

"Astonishment comes over me at the philosopher not realising that he had proved nothing but had begged the question. For the question was whether time was one of the things which existed always ; in order to prove this proposition he used the axiom that 'the now' is a mean of time. However, this is the same as to assume that time is eternal, just as for someone who asked whether a line stretched to the maximum distance as that its limits are not visible was limited or unlimited, were to assume that every point on the line in question was a mean of that line¹."

This passage shows us an example of what Aristotle wanted to demonstrate. It is a premise of syllogism, in the sense that the assumption that there is a line on either side of every point on the line in question would mean nothing just that the line is unlimited. It is exactly as the proposition that time is eternal as it exists on either side of' the now'. Thus; the one who put

¹ Aristotle, *Physics*, 8.1, 251b19-28.

². Ibid., 10.217b32

³ John Philoponus, Philoponus against Aristotle on the Eternity of the World, Book VI, trans.by Christian Wilberg, p.139 ¹Ibid.

this assumption has to assume the question itself that time possess neither a beginning nor an end ¹. After the refutation of the Peripatetic claims that time and motion are eternal, Philoponus established that both time and motion can only be generated. In order to finish his debate with Aristotle and his supporters, Philoponus formulate his hypothesis based upon three main points: the first point states that everything that is subject to generation must have something out of which it was generated. The second point talks about the impossibility of traversing or increasing the infinite by demonstrating that, as the universe is a corporeal object, contains only finite power. That is why, it is generated and could not have existed from all eternity². The third one suggests that the generation of anything would be impossible if an infinite number of things were needed before the process of generation.

As we do believe in the process of generation, then, the past process of successive generation has to be finite. This undoubtedly means that the movement of the heavens, as it is the cause of the generation and the destruction processes, is impossible to be eternal. Philoponus demonstrated the impossibility of the infiniteness of the planets' revolutions, as this would imply the multiplication of the infinite³.

Philoponus assumes three axioms to refute the ungeneration of the motion: the first axiom, as we have mentioned previously, states that in order to achieve the generation process, each of the generating things needs something that pre-exists. He illustrated his point by presenting some example such as the example of' the ship' that it has to be pre-existed by 'wood'. The second one proves the impossibility of the existence of an infinite number in actuality *(energeiai)* or traversing *(diexelthein)* the infinite¹. This means that it is quite impossible that something can be greater than the infinite, and in the meantime, the infinite cannot be increased. The third one turns around the proposition that if the generation of a thing implies the pre-existence of an infinite set of things, then, the generation of that thing would be quite impossible. Aristotle himself asserted that if the elements are generated one

¹ John Philoponus ,Philoponus against Aristotle on the Eternity of the World, Book VI, Trans. by Christian Wilberg, p.139

² Herbert A. Davidson "Jhon Philoponus as a source of Medieval Islamic and Jewish Proofs of Creation, p.358

³John, Philoponus *Philoponus against Aristotle on the Eternity of the World*, Book VI, trans.by Christian Wilberg, p.143.

¹ Ibid.,p.144.

out of the other, it is impossible that they will be infinite in number¹. We have to mention here that those who support the creation and the demise of the world, they do not believe in the end of the world as a negative destruction. They do consider the destruction of the world as a change occurring at its structure. This destruction is not a change to nothingness, but rather, it is a sort of transition from one world to another one more sublime ruled and controlled by divine norms. In Al –Farabi's lost treatise Al –Mawjudat al-Mutaghayyira (On Changeable Beings), Al Farabi defended Aristotle against Philoponus and attributed to Philoponus an explanation of creation ex nihilo. According to this explanation, the generation of the world did not lie in a pre-existent matter, the fact that is regarded by many scholars, as contradicting the doctrine of the creation ex nihilo². The reason behind such a contradiction, according to them, is that when we advocate the creation process, we are asserting that such process has to be achieved from something. When we do believe in the creation, which was done from nothing, it is like a breach of the property of the creation process based on a starting point that was done from something.

8.3 conclusion:

After the analysis of all the points raised by Proclus and Aristotle from one side and Plato and Philoponus from the other side, we do conclude that even if Plato does agree with the generation of the world, he is with its eternity. While, Proclus and Aristotle were with the ungeneration and the imperihability of the world, and Philoponus of course-as he stands for a monotheistic Credo- is for its creation and its perishability. Whatever the case; we have to bear in mind that there are many arguments formulated by Aristotle and Proclus in order to prove the eternity of the world, but they can be used to prove the opposite. If we do admit that all things that do exist in this world, they come into existence by means of transformation. Likewise; if we do assert that all things that were generated, if we do believe of course in the generation process, were generated by two main means:

¹ John Philoponus , Philoponus against Aristotle on the Eternity of the World, Book VI, trans. Christian Wilberg, p.144.

² Herbert A. Davidson , Jhon Philoponus as a source of Medieval Islamic and Jewish Proofs of Creation, p.360.

The substrate and the opposites, we have to admit that there is something called 'destruction', 'chaos' or a complete or casual state of 'disorder' .In this case, what is the definition of the term destruction? Is it the process from which we do move from the chaos to the order or is it simply the generation of other things? In such a case, we are moving from a state of non –existence to a state of existence. If we do believe that the destruction is a complete collapse of an existing order, we are believing that the substance perishes as well, as it is one of the constituents of all things. However, if we do believe like Aristotle that no substance perishes,¹ we are making up set of eternal things such as the substance, the substrate and the opposites that are sharing the properties of divinity and eternity with God.

The generation and destruction processes are a real dilemma that cannot be solved by the *Proclean* conceptions, the Peripatetic logic or the Platonic system, as they are simpler than their sophisticated arguments. This does not mean that we are all the way with the Philoponus' concept of the destiny of the world, but at least, he is more convincing than the others. We do not say that because we do hold the same religious instructions and we do believe in the same norms and laws, but because Philoponus managed, to some extent, to refute the other theories and falsify their assumptions by means of logic, rationality and coherent cogency.

It is obvious that if we do want to decode the enigmas of the destiny of our world, we have to find the underlying cause of these correlative relationships between God and nature, time and motion, heavens and soul and so on. The way of natural productions is quite different from God' one in that nature does produce from what already exists, which means that the natural generation is achieved through other generating things. While God's generation is from nothing, as He does not need primary matter or generating things to perform the process of generation. The Grammarian showed such correlative relationship between God and nature by saying that:

¹ John Philoponus , Philoponus against Aristotle on the Eternity of the World, Book VI, trans by Christian Wilberg, p.143.

"Even if nature does not make prime matter (ten proten hulen), God makes it no out of matter. In consequence, whenever God wants, he destroys matter into not-being, from which it came to be, just as form does not change into another form but turns back into complete not-being from which it came to be as well¹."

Every single argument that we use, and every single theory that we do elaborate either to prove the generation or the ungeneration of time, has to be applied to motion as well because of their correlative relationship and in order to be consistent in our cogency. We cannot, for instance, prove that time is eternal and motion not or vice versa. Therefore, even if we do not agree with all the Platonic conceptions about time and motion, we do believe that his system is consistent, as he applied to time what he applied to heavens when he went on to say that time came into existence with the heavens. If one of them is destructed, the other one has to be destructed as well.

In brief, we are, like Philoponus, to some extent, in favour of the generation and destruction of time and motion, as they are part of nature. This bolstered the view of the generation of things out of matter that was not made out of matter and which will be turned into no matter by the power and the will of God. This is the only scenario that we do find rational, logical and consistent. Regarding the Aristotelian claim, that it is God 'will that wanted the Sun to be still and the other celestial bodies not is compatible, to some extent, with the Islamic conceptions. We say that such incompatibility is not in the inaccuracy of knowledge-which is not compatible at all- but with the interference of God' will in the rotation of celestial bodies, or at least, God created those physical laws that were, are and will keep controlling them the way they are. However, these Islamic conceptions are against his claims that 'the now' is a mean of time and an implication of 'the before' and 'the after' to make both time and motion eternal. This means that Grammarian's logic is in complete agreement with the Islamic conceptions. It sates that the term 'before' and 'after' do exist in divine thoughts and this is obviously seen in the movements of planets when each one has to terminate its rotation around its orbit before the other one in a very melodious and harmonious way (as it is the case for the whole cosmos as one entity of course). In chapter Yasin, of the Holy Qur'an God the Almighty says:

¹ John Philoponus , *Philoponus against Aristotle on the Eternity of the World*, Book VI, trans. by Christian Wilberg, p.143.
"Glory to God, Who created in pairs all things that the Earth produces, as well as their own (human) kind and (other) things of which they have no knowledge. And a Sign for them is the Night: We withdraw therefrom the Day, and behold they are plunged in darkness; and the sun runs his course for a period determined for him: That is the decree of (Him), the Exalted in Might, the All-Knowing. And the Moon, - We have measured for her mansions (to traverse) till she returns like the old (and withered) lower part of a date-stalk. It is not permitted to the Sun to catch up the Moon, nor can the Night outstrip the Day: Each (just) swims along in (its own) orbit (according to Law)¹."

In the same context, the Aristotelian logic stating that what is asserted by the majority is true is not rational, likewise, his system of applying laws found about the part to the whole that constitutes that part is by no means an acceptable analysis. If this is the case, the world must be perishable, as we all know that the human race is perishable, as it is a part of the whole, which is the entire world. If it is the case, that the assertion of the majority makes from a supposed truth a naked one, then, and all over again, the world has to be destructible, as the followers of the Abrahamic religions who do believe in the destruction of the world are definitely a majority in our world.

Definitely, we cannot deny that we are fascinated by many of the Peripatetic ways of analysis, elaborated theories and well-established doctrines, but this does not mean that we do agree with them all. The evidence of the strength of such theories is that they resisted centuries until the Copernican era and many of them are still in discussion especially those related to ethics and politics.

¹ The Holy Qur'an : chapter Yasin.36, Verses. 36-40

<u>CHAPTER 9:</u>

ON the Impact of Muslim Theology on Western Scholasticism:

9.1 The impact of Hellenic Philosophers on Muslim Theology:

No one would deny that Greek philosophers heavily influenced Islamic thought and its outstanding pioneers. In the discussion of all theological thorny issues, and especially the dilemma of the eternity of the world, Muslim theologians were heavily influenced by Greek philosophy. If we do take, for instance, the famous theological sect the *Ash'rites*, we would find that they were consistently under the impact of ancient wisdom with all its aspects. The *Ash'rites*, with the leadership of Al-Ghazali as mentioned previously, deny the potentiality in nature, or in other words, the denial of no becoming things out of potencies. This means that there is no room for necessity or possibility as things they are or they are not. The *Ash'arites* were also influenced by the Greek Sceptics from whom they took the sceptical theory denying the rational relation between cause and effect¹. The *Ash'arites* have copied this theory and applied it in divergent theological contexts. Regarding the nature and the eternity of the soul.

"One should contemplate the nature of everything in its purity, since what is added is ever an obstacle to its knowledge. Contemplate therefore the soul in its abstraction or rather let him who makes this abstraction contemplate himself in this state and he will know that he is immortal when he will see in himself the purity of the intellect, for he will see his intellect contemplate nothing sensible, nothing mortal, but apprehending the eternal through the eternal¹."

Arabic philosophers combined Platonism and Aristotelianism to formulate their theories about the soul as eternal, ungenerated and incorruptible by adopting some principles and rejecting others. Al-Ghazali, in his continuous attempts to refute the proofs for the substantiality and the spirituality of the soul, he did not emphasize that the soul is material, but many *Ash'arites* adopted the stoic materialism. No wonder, the ten arguments of philosophers about the spirituality of the soul derive from old Greek arguments². In the other side, Ibn Rochd tried all the time to be near to the Aristotelian conception by adopting the

¹ Ibn Rochd, The Introduction of Ibn Rochd's *The Incoherence of the Incoherence*, trans . Simon Van Den Bergh, Vol 1, p.xxix.

¹ Ibid.,p. xxxiii.

²Ibid., p. xxxi.

eschatology of the Late Greek authors. Likewise, he adopted the theory of the Jinn, the equivalent of the Greek Daimones, and he rejected, what most philosophers rejected, the resurrection of the flesh¹. We have to mention that Platonism did not survive in Islam the way Aristotelianism did. The Platonic dialogues were translated into Arabic, at the same time as the Aristotelian corpus, but none of the Platonic translations survived, and all what the Arabs have about the Platonic tradition are resumes, like Gale's paraphrase of the Timaeus, the compendium of the Leges preserved by Al-Farabi. Therefore, the Islamic-Platonic tradition was built thanks to this limited materials, and from the abundant doxographical and gnomological sources available to the Arabs. The Platonic influences appeared at an earlier stage among Muslim philosophers when Al-kindi and Thabit Ibn Qurrah wrote their treaties built on Platonic material. Likewise, Al-Farabi and his student Yahya ben Adi(893-974 AD) busied themselves with Platonica. In 'Ihsa al-Ulum'(Catalogues of Sciences), Al-Farabi struggled with the idea of 'transformation grammar' using evidence from Persian, Soghdian, Greek, Syriac, and Arabic in an effort to discover the multilinguistic structures². Abu Sulayman as-Sijistani (ca.932-1000 AD) made a collection of Platonic Dicta and Ibn Miskawayh who made extensive use of Platonic material.

The irrefutable proof of Muslim philosophers' interest in the Platonic tradition is that it remained alive until the time of Ibn Rochd. Since the time of Al-Farabi, it is the Platonic ethic and political theory that deeply impressed Muslim thinkers and the Metaphysics was overwhelmed by Neo-Platonic emanationism. Abu baker al-Razi was the name most associated with the Platonic physics, this is well- depicted in his physical theory about the five eternal principles: creator, soul, matter, time or eternity (*dahr*) and space, or void (*khala'*). In this theory, there is no mentioning to the Aristotelian aspects¹. This is the *Farabian* physical theory, based on Platonic principles, that makes of time an absolute entity independent of bodies, and consequently, makes the universe not eternal, not like the Aristotelian system supporting the eternity of the universe. Ibn Sina, like Ibn Rochd, was not a mere a commentator, or a reformer of the Aristotelian metaphysics. In *Kitab* as-*Shif'a*, *bab* al-*Ilahiyyat* (Book of Healing, section of Divinities), he proved his metaphysical acumen

¹ Ibn Rochd, The Introduction of Ibn Rochd's , The Incoherence of The Incoherence, Vol 1, p. xxxiv.

² Muhsin Mahdi .Al -Farabi 's Book of letters, (Kitab al-Huruf), ,p.221.

¹F.E. Peters , Aristotle and the Arabs: The Aristotelian Tradition in Islam, pp. 169-170.

and the originality of his works¹. Likewise, in his theory of space and time, Al-Farabi gives the full credit to Plato. He shows his acquaintance with the Greek doxographical material. Al-Farabi in his famous work *Kitab al jam' bayna al –Hakamayn* (the Book Combining the two Sages' Opinion), known in English sources as (The Philosophy of Plato and Aristotle), praised both Plato and Aristotle. He sees them as creativists in philosophy, establishers of its principles and roots, accomplishers of its branches and sources of its simplicity and sophistication². Al-Masudi and Said Al-Andalusi connected the eternal principles with Pythagorean doctrines, while Al -Razi attributed this doctrine to the Pre-Socratics, and particularly to Democritus³.Like Ibn Sina, Abu- Barakat⁴(ca.1080-1165 AD) stands within and without the Aristotelian tradition. In the preface of his encyclopaedic *Kitab al-Mu'tabar*⁵(The Considerable Book), he expressed his intentions to follow the outline of the Aristotelian system⁶.

Concerning the theory of universals claiming that universals, which are not in particular space and have no individuality, cannot be material as everything material is individual and is in space, Al-Ghazali built his arguments against this theory relying on Stoic principles to give birth to his nominalistic theory⁷. Such theory summarizes the whole reasoning held by the *Ash'rites*. The *Mu'tazilites* also integrated some of the physical sciences of the Greeks into their theology, but the borrowed materials were not always compatible with the theological positions they intended to support. *The Isma'ilis¹*, in their turn, took from the Greeks and especially from Aristotle the orderly treatment of the physical sciences, and Plotinus' emanation theory². A parallel to the already published epitome of Aristotle's philosophy attributed to Al-Farabian epitome of Aristotelian ethics maintained in Greek in Stobaeus' Eclogae was also available in the Arab tradition through the ethical compendium of Ibn Miskawayh (932 -1030 AD) *Tahdhib al-Akhlaq* (Cultivation of Morals)³. In Al-Khawarizmi's work entitled *fasl fi al-Mantiq* (Chapter on Logic) a paramount importance

³F.E. Peters , Aristotle and the Arabs: The Aristotelian tradition in Islam, pp.170-171

⁴A Jewish convert to Islam, his Hebrew name was Nathanel.

¹Amos Bertolacci , The Reception of Aristotle's Metaphysics in Avicenna's Kitab al-Shifa: A Milestone of Western Metaphysical Thought, p.104.

²Al-Farabi, Kitab al-Jam' Bayna Rae' al-Hakamayn,(The Book Combining the two Sages' Opinion),p.28.

⁵Many bad and inaccurate translations were given to this book such as "The Book of what has been Established by Personal Reflection", I have put the right Arabic translation above.

⁶ F.E. Peters *Aristotle and the Arabs: The Aristotelian tradition in Islam*, p.172.

⁷Ibn Rochd, The introduction of Ibn Rochd's , *The Incoherence of the Incoherence*, Vol 1, p xxxiii.

¹The second largest part of the Shi'ah community.

² F.E. Peters Aristotle and the Arabs: The Aristotelian tradition in Islam, p.176.

³ Ibid.101.

was given by Arabic logicians to Greek tradition. In such a work, Al- Khawarizmi treats mimesis as a type of knowledge having logical and epistemological interest¹. In the same context, the ninth-century mathematician Ibn Hatim an-Nayrizi(c.875-940 AD) composed in Arabic Euclid's book, and Arabic sources also mention a book of Archimedes' on parallel lines'². There is no room for doubt that Hellenism gave birth to a new era of philosophy in Islam, and this philosophy, in its turn, created Muslim theology. In the middle of this transmission of ancient wisdom to the Muslim world, no one would deny that the heavy impact of such philosophy came from Peripateticism and Peripatetic philosophers. This does not mean that before the transmission of such a philosophy, there were no religious debates and theological disciplines. On the contrary, the Islamic credo is very rich thanks to the revelation manifested in the Holy Qur'an and Hadith (the prophetic tradition), but what happened is that this Greek philosophy rekindled all the old-new debates and issues that were the bone of contention between all the Islamic theological schools. The clear evidence of the existence of a very rich Islamic tradition even before the adoption of Hellenistic doctrines is the emergence of science of Kalam(natural theology) that replaced philosophy that was on the decrease as it was not accepted in many stages of Islamic history. Furthermore, philosophy at those stages was associated with negative connotations such as unbelief, heresy and apostasy.

Many Islamic sects will later on borrow materials from the Greeks either in order to defend their stances or refute the doctrines of their opponents, ranging from *Al- Mu'tazilites*, *Mu'rjia*, *Al-Quadarites*, *Al- Jahmiyyah*, *Al- Ash'rites* to *Al-kharajites* and *Al Batiniyyah*. There are many theses associated with these Islamic groups, and which were borrowed from the Greeks such as the denial of the divine attributes and the eternity of the Qu'ran, but such attributions are not always true. What is beyond doubt is the *Mu'tazilites* unmistakable debt to Greek philosophy in two areas, which are the epistemology, and the metaphysics of atoms and accidents¹. No one can deny the influences of Greek tradition on Islamic scholars, but what we have to draw the attention to is that many doctrines and cultural aspects came to the Arabian Peninsula even before the emergence of Islam especially from the Indian and the Gnostic influences. For instance, the Islamic atomism appeared independent from theology.²

¹ Seymour Fledman, Rescher on Arabic Logic, Journal of Philosophy, p.725.

² A.I. Sabra, Thabit Ibn Qurra on Euclid's parallels Postulate, p.13.

¹ F.E. Peters *Aristotle and the Arabs: The Aristotelian tradition in Islam*, p. 140. ²Ibid., 143.

Undoubtedly, the materials coming from ancient wisdom contributed to the growth of Muslim scholastic theology. In this context, Ibn Rochd was here and there somewhere between the impact of the Hellenes and especially his master Aristotle and all the other Muslim theologians. Platonism is also present in the works of Ibn Rochd by interpreting *the Republic* relying on Aristotle's Nicomachean Ethics, and in the same time against the background of the *Physica*, *De Anima* and *Metaphysica*. We have to mention that for Ibn Rochd, *the Republic* was not just a substitute for Aristotle's *Politics*, but also a manual for the best government¹.

We have to mention that the study of medieval Islamic philosophy is still in an embryonic stage. Many texts remained unread in the Eastern and Western libraries, but they are now gradually being rediscovered and published. This problem rises because there are few critical editions and many of the printed texts are based, like the editiones principes of Greek and Latin classical texts, on one single manuscript. Likewise, the number of commentaries are very limited and the number of reliable translations very small. Till the time being, it is extremely difficult to find a standard work like E.zeller's philosophie der griechen exists, and what proves that is that no reliable attempt worthy of mention has been made to summarise the knowledge of Islamic philosophy since the T.de Boer's History of philosophy in Islam translated into English 50 years ago. Moreover, not all the Islamic philosophers from Al-kindi (9th C) to Ibn Rochd(12th C) had translations of most philosophical texts available to them especially those studied in the Greek Neo-Platonic schools of the 5th, 6th and the 7th centuries AD. We are not talking here only about the works of Aristotle, but also of his Late Greek commentators like Alexander of Aphrodisias, Porphyry, Themistius, Ammonius, Simlicius, and Jhon Philoponus. In the absence of these vital texts, we cannot be sure of the size of the influence of these late philosophers' texts on the Arabic and Islamic theology. Hence, every single new text of Arabic translations of Greek philosophical texts, is of a crucial significance as it help us to understanding both the history of philosophical terminology and the work of Islamic philosophers as there is no dictionary of Arabic philosophical terminology¹. In this regard, the famous works of Najm ad- Din Abu al-Futuh

¹ E.I.J. Rosenthal "Averroes' Commentary on Plato's Republic, p.15.

Richard Walzer, Philosophical surveys, VIII: A survey of Work on Medieval Philosophy, p.175.

Ahmed ibn Mohammed ibn al- Sari known as Ibn as-Salah $(-d.1153-54 \text{ AD})^1$ in mathematics astronomy and physics have survived in manuscripts at Istanbul, Leiden, and Oxford; none of these works has been translated ,edited, or even adequately studied. There is no room for doubt that such works would bridge many intellectual gaps existing in the original works of the Hellenes and the works of medieval philosophers².

*The Jahmiyyah were the followers of Jahm Ibn Safwan al- Samarqandi (d.745-746 AD) and considered pure fatalists (Jabriyya). Jahm express his heretical beliefs in Tirmidh (Uzbekistan) and was executed by the Umayyad governor of Balk and Juzajan. Salm Ibn Ahwaz al-Mazini, in Marw (Turkmenistan). Like the Mu'tazilites, he rejected the eternal divine attributes, but he also held other heretical beliefs. For example, he was one of the first to say the Qur'an was created, having learning this idea from his Damasche teacher Ja'd ibn Dirham (d. 124 AH). Another belief attributed to him is that Paradise and Hell are transient. A number of beliefs are sometimes falsely ascribed to him, according to Imam Al-Kawthari, and people sometimes hurl the name Jahmiyya as an insulting epithet upon any disagreeable opponent. Certain believes held by Jahm Ibn Safwan do take one out of Islam unto unbelief, as do some of those held by the Karramiyya(Online: www.sunniforum.com/forum/archive/index.php.28927.html. Access Date : 05 May 2008.

* As Aristotle's thinking was suited to the Syro-Arab conceptual approach to philosophical thinking, his teachings emerge as a source of reference to them. They were especially interested in his principle: *All what exists, including the soul itself, exists by intelligence.* This formula proved itself to be quite attractive to the Arab mentality which stressed the approach of *knowing things as they really are.* Thus in Aristotle, Muslim found the great guide, to them he became 'the first teacher'. Having accepted this a priori, Muslim philosophy as it evolved in subsequent centuries merely chose to continue in this vein and to enlarge on Aristotle rather to innovate. It chose the course of eclecticism, seeking to assimilate rather than to *generate.* with a conscious striving to adapt the results of Greek thinking. *Quadarites,* for instance, stressed the doctrine of free will, while the *Jabrites* denied it. *Sifatites* argued for the eternal nature of the attributes of God. While the *Mu'tazilites* denied they were eternal. *The Murji 'ities* stressed that human actions must not be subject to human judgment, while their opponents, the Wa'dites, insisted on the condemnation of man in his life before the day of the judgment. *The kharajites* played down the importance of the role of secular leadership, i.e, the caliphate which they considered merely a human institution, while the *Shi'ites* went so far as to consider their imam as divine.(Caesar,E. Farah *.Islam : Beliefs and* Observances, pp.204-207)

* Muslim sects—the Ismailis (Arabic: Ismiliyah), in particular—that interpreted religious texts exclusively on the basis of their hidden, or inner, meanings (Arabic: bațin) rather than their literal meanings (Zahir). This type of interpretation gained currency about the 8th century among certain esoteric Shi_ite sects, especially the Ismailis, a religiously and politically schismatic group. The Ismailis believed that beneath every obvious or literal meaning of a sacred text lay a secret, hidden meaning, which could be arrived at through ta_wil (allegorical interpretations); thus, every statement, person, or object could be scrutinized in this manner to reveal its true intent. They further stated that Muhammad was only the transmitter of the literal word of God, the Qu'ran, but it was the imam (leader) who was empowered to interpret, through ta wil. its true, hidden meaning (Online Encyclopedia Britannica: www. britannica.com./batiniyah. Access Date: 05 May 2008).

Not to be confused with the muhadith (the expert in the science of *Hadith*: The prophetic tradition) Ibn as-Salah as-Shahrazuri (1181-1245 AD).

² A.I. Sabra , A twelfth Century Defense of the Fourth Figure of Syllogism, p.15.

9.2 Muslim Philosophers' Contributions to the Further

Development of Hellenistic philosophy:

9.2.1 Ibn Rochd between Commentary and Originality:

In all our discussions throughout the whole thesis, we talked about the Hellenes, their wisdom and their originality in all disciplines of knowledge, but the real debates and controversies with Muslim philosophers do cover the area of Metaphysics. The latter is the science of the prime principles and the prime causes. The main cause of the unconscious and the involuntary divergence between Ibn Rochd and Aristotle is the Neo-Platonic influences exercised upon philosophers in general and Ibn Rochd in particular. Such divergence was also the outcome of the influences of the apocryphal texts that were authentically Aristotelian¹. These divergences are most obvious in God's essence, His nature and His links with the world and in eschatology. Despite these divergences, we have to mention here the originality of Ibn Rochd in comparison with Aristotle in particular and all the other philosophers in general.

Despite the tremendous respect of Ibn Rochd to Aristotle as a great source of truth, he does not consider him as infallible². Ibn Rochd was not a servile commentator³ as it seems to be, for he opposed his master in a plenty of issues and sometimes he refuted altogether many of Aristotelian basic principles. He stated in many occasions the weakness of Aristotle and his successors' observations. Alternatively, he remediates such weaknesses by presenting his own observations. For instance, those regarding stars, winds climates, earthquakes, grain germination, the characteristics of certain animals, the influence of climatic agents upon tints, hair of divergent human races, and so on¹. These Rochdian outstanding observations contributed to the development of two sciences closely linked to all philosophical topics, which are mathematics and logic, even if mathematics is Ibn Rochd's weakest part, as it is with Aristotle of course. Ibn Rochd did not contribute a lot to the Aristotelian induction. However, he elaborated the system of schematic figures used in logic by other philosophers. Ibn Rochd followed all the other philosophers in their efforts to amend certain Aristotelian weaknesses by opposing very often Al-Farabi and most of the time Ibn Sina and Al - Ghazali.² Ibn Rochd also exposed the works of Plotinus who was confused by the Arabs with

¹ Leon Gauthier , IBN ROCHD (AVERROES) ,p. 257.

²George F. Hourani , Averroes on the Harmony of Religion and Philosophy, p.637.

³Leon Gauthier , IBN ROCHD (AVERROES), p.263.

¹Ibid.

² Ibid.,pp. 258-259.

Plato. The exposition of these works bridged the gaps in many Aristotelian works¹. In order to enrich the Aristotelian notion of 'location of body' defining it as 'the immobile and immediate limit of an enveloping body', Ibn Rochd had to examine a very controversial question: How can we apply such a definition to the celestial spheres? If every sphere has a location of the sphere that it is developing it immediately, the supreme sphere or the physical world as a whole has not got a location. Ibn Rochd resolve this thorny problem by admitting with Ibn Baja that the difference of the location of a sublunary body, the location of a celestial sphere should be heard not as the concave surface of the hollow sphere that envelops it, but as the convex surface of the terrestrial globe ². Such *Rochdian* deep analysis does not surprise us at the time being, but it intrigued many philosophers at those times and until the seventeenth century. The German scholar Gerhard Johann Vossius (1577-1649) said about Ibn Rochd, "*He was called the commentator par excellence, who without knowing anything of Greek, penetrated so felicitously into the mind of Aristotle*³."

In astronomy and cosmography, Ibn Rochd defends certain Aristotelian views by fiercely attacking the Pythagoreans. He dissipated the ambiguities with ingenious proofs and irrefutable arguments. However, his works in this regard were not entirely innovative for he relied on the physical and metaphysical Aristotelian principles and the polemic eccentric and epicycles hypothesis¹. In medicine, and precisely in the therapeutic posology, Al- Kindi is the author of psychophysics theory that we find in all the psychophysical works of Weber and Fetcher. All over again, Ibn Rochd had to go against some of the principles of this theory by stating that we cannot combine in all possible cases a medicine that is exactly measured according to heat, cold, humidity, and dryness². The originality of Ibn Rochd in physics was not that big as he followed the path of his Greek master Aristotle in all physical aspects ranging from light, colours to vision, nerves, and brain, but the big and the pure originality of Ibn Rochd became so familiar, William of Auvergne (1228-1249 AD) hailed him as 'the most noble philosopher' (philosophus nobilissimus) in a time when he was still called by

¹Leon Gauthier , IBN ROCHD (AVERROES), p.260.

² Ibid., .pp.260-261.

³ Harry. A Wolfson, , The Twice-Revealed Averroes, p.384.

Leon Gauthier ,IBN ROCHD (AVERROES), p.261.

² Ibid.,p.262.

³ Ibid., p.263.

many scholars such as Dante Alighieri(ca.1265-1321AD) as 'he who made the grand commentary *(il gran commento)¹*'. The *Rochdian* strong point was in theology, as this divine science requires more rationality in which Ibn Rochd proves to be a big mind. That is why, the task of Ibn Rochd as a commentator became here more and more sophisticated, as he had to find a sort of reconciliation between the stiff intellectualist monotheism of book XII of the authentic Metaphysics of Aristotle and the elaborated trinitarianism of the Neo-Platonic texts². Such reconciliation will prove either that these theological works belong to the same author, or the original texts of Aristotle were distorted. Ibn Rochd was aware of the possibilities and the difficulties of establishing such reconciliation. His predecessors such as Ibn Sina and Ibn Tofayl inclined in their esoteric books to the 'False Aristotle' and the Neo-Platonism, while Ibn Rochd inclined to 'the authentic Aristotle', but he interpreted and completed him by many indications and hints to the false Aristotle³. If Ibn Rochd defended his Greek master Aristotle and corroborated many of his doctrine, Ibn Arabi advocated the philosophy of Plato against the Muslim theologians and philosophers who were ignorant of the word philosophy¹.

9.2.2 The Rochdian Theological Contributions:

If we do take, for instance, the Aristotelian God Who is the substantival Reason, the thought of the thought, ignoring the universe, to be an eternal become with Ibn Rochd compatible with the Holy Quran by means of a rational interpretation of symbols and allegories. A God more living, more acting, efficient cause and at the same time a final cause of movement and the universe; and the universal motor, with the intermediary of the daytime movement. He is the agent; omniscient of a transcending science in terms of the generality and the individuality alike; indefectible providence, eternal producer of an eternal world; giving the existence to all beings, He is eminently all beings, as He is the complete and the integral being. Therefore, *Logos* or, the intellect is the Aristotelian God Who is not -in the eyes of Ibn Rochd- in addition to the negative and relative attributes, a positive attribute qualifying a substance, but the being itself of the Divinity². Concerning the process by which God

¹Harry A. Wolfson , The Twice – Revealed Averroes, p.374.

²Leon Gauthier ,IBN ROCHD (AVERROES), p.263.

³Ibid., p.264.

Stelzer Steffen, Decisive Meetings: Ibn Rochd, Ibn Arabi and the Matter of Knowledge,p.20

² Leon Gauthier ,IBN ROCHD (AVERROES), p.264.

produced all the beings of the universe, Ibn Rochd totally opposed Aristotle in the view stating that God has no transitive activity. Likewise, he was against the philosophers who went on to say that the one could only generate one. That is why, only the first celestial intellect emanates directly from the divine Intellect. Afterwards, all other celestial intellects emanate one from another until the active Intellect emanated from the sphere of the moon. Ibn Rochd expressly disproved with this Neo-Platonic view represented by many philosophers, and of Ibn Sina was one of them¹. According to Ibn Rochd, the one can directly generate an indefinite multitude. The nine separate intellects are caused by each other in a hierarchic order taken from The Divine, not by the efficient cause, but by the definite cause and the final cause. To elucidate more his view about God, Ibn Rochd established a comparison with the Aristotelian esoteric order. The hierarchy of these intellects, and the harmony they are charge with among the beings of the sublunary world under the commandment of the supreme chief is comparable with those of an army, or a city, or a family. These are the differences that distinguished the Rochdian God from the god of the other philosophers on one hand and the Aristotelian god on the other hand¹. It is of a paramount importance to mention here that when we are trying to establish such reconciliation, in order to be objective, we have to look at all the Aristotelian works in all disciplines of knowledge. Sometimes you can come across an idea or a particular concept which is repeated again and again in Aristotle' work, this gives us the impression that the works were written by the same author. Furthermore, at times, you many encounter that the whole concept of a certain doctrine in a certain work is compatible with another one in a totally different work. This is rational evidence that we are here before the same philosophical thought, which is more likely to be of the same author. Ibn Rochd was not the only one who sees that there is no collision between religion and philosophy, al-Farabi in his book Tahsil as-Saada (the Attainment of Happiness) went even further by praising philosophy and considered it as the first of all sciences. Philosophy covers all the areas of the existents with irrefutable evidences to teach both al-Ammah(the masses) and the al-Khassa (the people of knowledge). The former rely on their intuitional and perceptional knowledge, while the latter use their insight and rational investigation² to study thoroughly both philosophical and religious subjects.

¹ Leon Gauthier ,IBN ROCHD (AVERROES) pp.264-265.

¹ Ibid., p.265.

²Al-Farabi, Tahsil as-Saada, (The Attainment of Happiness),pp.83-84.

9.3 The Rochdian Establishment of Compatibility

Between Religion and Philosophy:

9.3.1 Historical and Religious Backgrounds of the Scholastic Problem:

We have to bear in mind that the persecutions exercised against Ibn Rochd towards the end of his life were an isolated fact in the history of Islamic philosophy. There were periods in the Eastern part and the Western part alike of the Islamic empire, relatively in favour of secular sciences and philosophy. These were the ages of peace and prosperity ruled by an enlightened and powerful khalif (leader of the state) who gives protection and support to these kinds of sciences¹. If we do take, for example, the Eastern part of the Islamic empire, in the eight and the ninth centuries of our era, the eight or the nine 'Abbassid khalifs' who , from al-Mansour to al-Mutawakkil² favoured , and during almost one century, the spread of Greek sciences and philosophy in Islamic world. This task was achieved thanks to a tremendous movement of translations done by Nestorian Christians from Greek into Arabic either throughout a Syriac translation, or directly from Greek into Arabic.

The same situation was in the Western part in the twelfth century when Almohad khalifs were accustomed to have long speculative interviews face to face with their favourite doctors and philosophers¹. The decadence of *Khalifat* facilitates the choice of bold thinkers between the small potentates of a benevolent ruler like in the first half of the ninth century, the Emir of Alep Abu al-Hassan Ibn Hamdan(916-967 AD) famous by Seif ad-Dawlah²(The sword of the State). The latter was the protector of Al -Farabi, and the possibility to escape the disfavour of a dissatisfied protector, or the fanatic hostility of his subjects like Ibn Sina. There were very difficult periods where roused fanatism was directed against the dissidents at all levels: Religious inquisition, imprisonments, executions, and tortures. The famous philosophers who were occupying positions as jurists and theologians escaped death and torture except Al- Farabi and Ibn Tofayl who suffered in a particular stage of history disgrace, prison, internment, confiscation of private libraries, the destruction of books of metaphysics, logic and sciences by burning them into pieces on the public places of

¹Leon Gauthier ,IBN ROCHD (AVERROES), p.17.

²The last of the nines, the Khalif al- Motawakkil and because of political motives, he also did not minimize the importance of the study of sciences, of medicine and the works of translations (See G.Sarton ,Introduction to The History of Science,. Baltimore, 1927-1931, 3Vol.I, p.583.)

¹ Leon Gauthier ,IBN ROCHD (AVERROES), p.17.

²Seif ad-Dawlah is also the pseudo of the rulers of the Abbassid dynasty.

Baghdad, Seville and other cities¹. In the middle of these disastrous events, no one can escape the pressure of the clerics either he is knowledgeable, from the masses or even a khalif. In the East; al- Mutawakkil, and under the influence of the terrible reaction of the orthodox, confiscated Al-Kindi's library. In the West, the Almoravid Sultan 'Ali Ben Youssef(1106-1142 AD) accused the famous philosopher Ibn Baja of atheism and imprisoned him. Later on, the Almohad khalif Abu Youssef Ya'qoub Al-Mansour(c.1160-1199AD)constrained hi 'protege'(protected) Ibn Rochd to be under his sway ².Abd-al-Malik Ibn Wahib of Seville, contemporary of Ibn Baja, was forced to reduce his teachings to the first elements, and afterwards, compelled to renounce all his studies and his intellectual activities of a philosophical nature. Later on' Ibn Wahib' was executed for nothing but his philosophical teachings³. The core of the problem lies in the nature of a religion that is based on revelation and that of philosophy built upon reason. If a Muslim philosopher wants to adopt, analyse, or write about any philosophical question even the harmless one such as the categories of Aristotle or his theory of syllogism, he should start his task by establishing, with the help of revealed texts, that the study of philosophical sciences is allowed by the divine law. At the same time, he has to make sure that the human reason and the revelation emanated from God are not contradicted, and religion and philosophy are two different expressions of the same truth. Taking these precautions is the fundamental problem of scholasticism, defined as the agreement between religion and philosophy ¹. Ibn Sina in his 'Isharat wa Tanbihat(Remarks and Admonitions) explained this problem by stating that it is not a defect that philosophy goes wrong or when its students or explainers do some mistakes. Human thought is not infallible, but the defect, all the defect, is to build religious norms on philosophical bases that are not fully interpreted and investigated to be judged as true and reliable². The religion revealed by the prophets has no other target other than teaching people how to submit themselves to their creator and how to obey His commandments. Religious basic teachings urge them to abide by celestial laws and divine norms sometimes by threats and other times by promises. As creatures, we are requested to contemplate the universe and its astonishing wonders to penetrate into the divine attributes, but not everybody can reach this ultimate truth, only truth seekers and those who are knowledgeable, and with special

Leon Gauthier ,IBN ROCHD (AVERROES),pp.17-18.

² Renan *Averroes et L'averroeism*, p.32.

³ Ibid.

¹Leon Gauthier ,IBN ROCHD (AVERROES), p.19.

² Ibn Sina, Isharat Wa Tanbihat,(Remarks and Admonitions),p.40.

mental faculties. However, if you do not belong to that category you have of course the revelation available to you to reach that truth without taking the trouble to look for it, analyse it, or deeply understand it. Otherwise, they have to wait for supernatural proofs or metaphysical evidences like miracles to make them closer to that ultimate truth, which is not easy to find out because of their restricted mental capacities, limited intellectual potentials and innate psychological acceptability. It is worth noting that the full credit goes to our philosopher Ibn Rochd in establishing a melodious harmony between philosophy and religion, this is the most original doctrine of philosophy.

It is for the very first time in the history of human thought that such a doctrine edifies upon a rational base a complete scholastic philosophy in terms of theory and practice¹. Ibn Rochd in Fasl al Magal(The Decisive Treatise) treats the role of philosophic speculation in religion by establishing that the law does not prohibit speculation regarding the nature of the world and its creator, but rather, urges such speculations. Such sophisticated task can only be done through syllogistical reasoning ¹. This Rochdian theory of rationality or the doctrine of double truth (the belief in one truth that can be reached in two different ways) combines both religious and ethical reasoning². According to Ibn Rochd, both the Scripture and the tradition make a teleological study of all truths, so the efficient type of teleological study can be achieved through demonstrative reasoning that requires knowledge of logic. Any truth can be learned through the law by three divergent manners, depending on the capacities of every individual, which are the demonstrative, the dialectical, or the rhetorical reasoning. Ibn Rochd illustrated this point by emphasizing that whenever there is a conflict between the Scripture and demonstrative reasoning, the former has to be interpreted allegorically on condition that this allegorical interpretation must not contradict Muslim Ijma'(consensus)³. Another problem, which is not less serious than the previous ones, faced philosophers embracing ancient wisdom is that of the diversity of religious sects and the political trends. This differs from one place to another and from the Eastern to the Western parts of the Islamic empire as we have mentioned before. In the East, the situation was favourable because of the relative tolerance generated by the diversity of races and sects, the leniency of

Leon Gauthier ,IBN ROCHD (AVERROES), p.266.

N.Gaulb , The Hebrew Translation of Averroes's Fasl al-Magal, p.92.

² Ibrahim Najjar , Ibn Ruchd's Theory of Rationality, p. 191.

³ George F. Hourani Averroes on the Harmony of Religion and Philosophy, p.636.

the first Abbassid khalifs and the multiplicity of protectors. On the contrary, in the West, and under Almohad dynasty, uniformity of belief, the burning fanatism of the popular masses, the narrowness of spirit and the intolerance of Andalusi doctors, urged the Western Muslim philosophers to discuss and resolve the scholastic problem. Ibn Baja could not finish this tiresome task because of a premature death. The task was sketched by Ibn Tofayl and accomplished by Ibn Rochd¹. The agreement between religion and philosophy does form the principal idea and the organizing principle of the philosophical curious novel of Ibn Tofayl 'Hayy ben Yaqdhan' (The Living Son of the Vigilant). The predecessors of this philosopher, Al-Kindi, Al-Farabi, Ibn Sina and Ibn Baja expressed in sparse texts such a harmony existing between religion and philosophy. Ibn Tofayl consecrated an ad hoc work to the scholastic problem to find a suitable solution, but if the question of the agreement between religion and philosophy is the essential subject of his "Hayy ben Yaqdhan", it is not at least the exclusive subject. He treated this question under an exoteric form of a novel in which the author does not present a solution explicitly; rather, he indicates this in between the lines. According to Ibn Tofayl, the concepts incarnate in characters: Hay ben Yaqdhan, the hermit and the good king Salaman flanked by his pious companions representing respectively philosophy, the enlightened faith, mechanical belief and their relations, and their adventures symbolise the natural links between philosophy, theology and the naïve faith¹.

9.3.2 The Rochdian Syllogism, Analogy and the Theory of Demonstration:

Ibn Rochd did not only accomplish the works of Ibn Tofayl and Ibn Baja regarding the theory of the agreement between religion and philosophy, he also proposed solution to another problem that neither his aged contemporary Ibn Tofayl, nor his predecessors have thought or, at least, talked about it. It is a problem of a social nature with the same seriousness and it was the outcome of the fierce war between philosophers and theologians. This is the evil that can strike in every single society and especially in the Islamic one, which all its laws and regulations, moral civil and social legislation, at the time, were based on revealed texts and their interpretations. An exegetic divergence about a revealed text regulating a collective action can ignite insurrections, civil wars between the popular masses,

¹ N.Gaulb , The Hebrew Translation of Averroes' Fasl al-Maqal, p.19.

¹ Leon Gauthier ,IBN ROCHD (AVERROES), pp.19-20.

and generate sects, political factions, massacres, advent and decadence of dynasties. In chapter three of Fasl *a-l Maqal*, Ibn Rochd emphasized that the target of the scripture is to ¹ teach the majority². That is why, dialectical and rhetorical arguments prevail. In such arguments, concepts are introduced either explicitly or through symbols. In case of symbol employment, it is up to the person to understand the inner meaning of that particular symbol, otherwise; he has to remain content with the literal meaning. This is the main reason why philosophical interpretation of the text has not to be given to people incapable of understanding it, as it will weaken their faith in the literal meaning. Ibn Rochd concluded his point by stating that schisms and opposing sects arose in Islam because of these false allegorical interpretations given by the *Mu'tazilites* and the *Ash'rites'*.

Ibn Rochd, with his theory, seeks to establish in Islam the perpetual peace between religion (religion not theology) and philosophy on one hand, and between the political-religious parties, that with the application of this theory would lose in the future, according to him, every opportunity to take shape on the other hand. Ibn Rochd presents and resolves the scholastic problem under his general and theoretical aspects in the first of the three treaties concerning the links between religion and philosophy². In order to define the natural links between religion, philosophy and theology, Ibn Rochd will have to start by defining these three disciplines. The philosophy can be defined as 'the reflected study of the universe and a work of art that helps to know the artist' (Traite Decisive, p.1, 1.13 to 1.15) who is only God. The religion is a set of revelations that are passed to prophets to teach people, under the form of sensible symbols, the right science and the right practice: The right science means the knowledge of God and all things, as they are especially the religious law, the bliss and the agonys of the hereafter³. The right practice means the accomplishment of the actions causing the bliss and the abstention of those causing the agonys (Ibid., p.22, 1.25). Philosophy and religion are not different at all concerning the subject, which is knowing God, the universe and life, but they are different in the way they perceive that subject, which is only the method and the strategy. According to Ibn Rochd, such an agreement between religion and philosophy should not make us believe that the Scripture is unnecessary to all philosophers as the ordinary ones, due to the distractions and temptations of society, need

¹ Leon Gauthier ,IBN ROCHD (AVERROES), p.21.

² Common people, the masses or ordinary people in general are referred to as 'al –Jumhur' to mean those who have a little grasp of knowledge, or those who are not schooled in logic or philosophy.

George F. Hourani , Averroes on the Harmony of Religion and Philosophy, p.637.

² Leon Gauthier ,IBN ROCHD (AVERROES), p.21.

³Ibid., pp.21-22.

the Scripture to assist them until they achieve the main objectives of philosophy¹. At this particular point, we can talk about theology, which is a general speculation like philosophy, but a speculation about the revealed texts, not directly about the beings of the universe, a speculation about the universe as seen throughout the revealed texts². The Islamic religion invites to a deep and rational study³ of the universe (*Traite Decisive*, p.1, 1.23-24), which means the study of philosophy. That is the task; Ibn Rochd was trying to perform by exposing many Qur'anic Verses supporting the study of all sciences of contemplation:

"They not consider the kingdom of the heavens and the earth and what things God has created, and that it may be that their doom has drawn nigh? In what announcement after this will they then believe?¹."

This is an open invitation to contemplate all the wonders of the universe, like in the following verses:

They not see the clouds, how they are created? And the heaven how it is raise high? And the mountains how they are fixed? And the earth how it is spread out? so remind thou art only one to remind, thou art not a warder over them²."

Ibn Rochd quoted many other Qu'ranic verses to show that there are many indications to use philosophy as a tool for reconciliation and for the call to the Almighty God: "*Call to the way of thy lord with wisdom and goodly exhortation, and argue with them in the best manner. Surely, thy lord knows best him who strays from His path, and He knows best those who go aright³." We do deduce from this Qur'anic verse that the call to the Almighty God has to be with <i>Hikma* (Wisdom), which is another synonym of philosophy. Therefore, philosophy, according to Ibn Rochd, is about finding in the revealed book the order to cultivate it. It is not philosophy in general; it is not any philosophy, for instance, a philosophy of Arabic and Islamic origin based on monotheistic inspirations, but a philosophy of Greek and pagan origin such as the Aristotelian philosophy as we understood it mixed with Neo-Platonism, suspect of polytheism and even pantheism. It is a simple way of

George. F. Hourani , Averroes on the Harmony of Religion and Philosophy, p.637.

²Leon Gauthier .IBN ROCHD (AVERROES), p.22

³We have to mention that the Qu'ran is teeming with a plenty of verses that are conveying the same message to men and urging him to contemplate in the kingdom of God by using the tool of reason, science and speculation: "And thus did we show Abraham the kingdom of heavens and the earth and that he might be of those having certainty" (Chapter 6, verse: 75). "Think not that those who exult in what they have done, and love to be praised for what they have not done, think not them to be safe from chastisement, and for them is a painful chastisement" (Chapter, 3 verse. 188)"

¹ The Holy Qu'ran, Chapter 7, verse. 185.

²Ibid., chapter 88, Verses. 15-22.

³ Ibid., chapter 16, Verse.125.

reasoning where all these imported philosophical principles came from especially the syllogistic demonstration that came from the Aristotelian logic, and that it is not suspect of heterodoxy. According to Islamic principles, this reasoning is just an innovation and heresy¹, and the systematic knowledge of the universe that the Qur'an urges people to acquire is the logical theory of demonstration that is an essential instrument to obey the divine orders². We have to deal carefully with this ancient heritage, in the sense that what is compatible with the religious truth would be received with joy and recognition; and what is not would be marked as a personal opinion of this philosopher, or that one and cannot be considered as a reliable source. (Traite Decisive, p.6, 1.10 to 1.13). It is a noble duty that the following researcher continues, relies or develops the works of his precedent one in order to achieve a very comprehensive knowledge of the studied discipline (Traite Decisive, p.3, 1.to p.4, 1.2). Ibn Rochd himself was always using the method of authority and he was ready to judge by the speech of his master Aristotle. He concluded that the study of ancient books is compulsory by the divine law itself as the philosophical objective is the same as the divine law that urges us to reach the speculation leading to the real knowledge of God (Ibid., p.6,1.14 to 1.17). The only difference between philosophy and religion is that philosophy is more scientific and more direct and there is no room for allegorical meaning, whereas the Qur'an is more imaginative, and it is subject to symbolical meaning¹. In the same context, Ibn Rochd went on to say that the theory of the Islamic right and its instrument ,the demonstrative juridical syllogism, did not exist in the earlier times of Islam in which the Greek -Arab philosophy and its instrument, the demonstrative syllogism, was prevailing. That is why, we cannot consider all these juridical innovations as heresies². If we do insist that those who created the Islamic law were good Muslims, then, those who provided us with this logic and this philosophy were unbelievers. Ibn Rochd replied that the instrument that serves for the purification does not make the religious act that is serving valid, provided that this instrument does fill itself the conditions of validity, even if it does not belong to one of our fellow believers. Ibn Rochd's method is based upon taking arguments from juridical syllogism, or reasoning by analogy (Qiyas: syllogism means in the first sense comparison and analogy). This is a sort of reasoning by which we extend to a new particular subject, or to a new kind of subjects, a legal qualification expressly conferred by a revealed text, to another

Leon Gauthier ,IBN ROCHD (AVERROES), p.23.

²Ibid.

George F. Hourani, Averroes on the Harmony of Religion and Philosophy, p.637.

²Leon Gauthier , IBN ROCHD (AVERROES), p.24.

particular subject or to another kind of subjects ¹. This extension is obtained thanks to a previous induction to get rid of the 'illa'(this Arabic word corresponds to the Greek words: cause, principle and sometimes subject). This does not means the motive, which is not accessible to man to whom God pronounced this defence, or this order, but the subject of this order, or of this defence, the exact significance and the precise content of this absolute decree of the divine will. This 'illa' when found, constitutes a general qualification applicable to analogical acts that generate a major universal source of unlimited number of syllogism comparable to the minor one. Such kind of analogy helps us to achieve many truths and establish a plenty of lawful judgements. For example, what qualification should be applied to any drink unknown at the time of the prophet? The Qur'anic Verse (92)¹ declares the wine drink as illegal, but the fresh juice of rapes and the vinegar declared as licit. The wine is then illegal as a fermented and intoxicating drink: Here it is the' illa' source of all new defences successively applicable to other drinks other than the wine such as cognac, whisky, beer, cider, brandy and all the other so- called spirit drinks. This analogy is achieved by means of syllogisms of the following form: the major is that the Qu'ran prohibits the fermented and the intoxicating drinks. The minor is that it is a fact of experience and knowledge that the cider, for instance, is a fermented and intoxicating drink. The conclusion is that the cider is prohibited as well².Al-Ghazali in al- Qistas al-Mustakim(The Just Balance) provides us with some of the example where this Qiyas (analogy) is applied in both the right and the wrong places. If we so say, for instance, that the world has a form, then it is created by using the instrument of analogy of the house or all the other buildings, is wrong. The right analogy is that every thing that has a form is created and the world has a form, then it is created³. Ibn Sina in Isharat wa Tanbihat (Remarks and Admonitions) provided us with all types of analogy some taken from the Aristotelian Logic and other created by Muslim theologians like the following examples: 'Every human being is an animal, and every animal is a body, then every human being is a body'. Every human being is an animal, and every writer is a human being indeed, then some animals are writers indeed.

¹Leon Gauthier , IBN ROCHD (AVERROES), p.2.

¹ "O ye who believe! Intoxicants and gambling (dedication of) stones and (divination by) arrows are an abomination of Satan's handwork: eschew such (abomination), that ye may prosper. Satan's plan is (but) to excite enmity and hatred between you, with intoxicants and gambling, and hinder you from the remembrance of Allah, and from prayer: Will ye not then abstain?" (The Holy Qu'ran, Chapter al-Maeda: The Food)

² Leon Gauthier *IBN ROCHD (AVERROES)*, p.25.

³ Al-Ghazali, Al-Qistas al-Mustakim, (The Just Balance), p.77.

9.4 Muslim Philosophers' Transmission of Greek Wisdom with all its Aspects to Western Scholasticism:

The doctrine of agreement between religion and philosophy inaugurates an area of great commentaries, after Ibn Rochd, Thomas Aquinas and his successors followed the same path. At the time, and for the elite, the scientific encyclopaedia was nourished with science and philosophy of the ancient Greeks with the exception of theology. That is why, Ibn Rochd seems to be destined for being the father or the real instigator of all complete system of Jewish and Christian scholasticism. The question that insistently imposes itself here is how this original ingenious theory skilfully presented by our Arab philosopher remained a stillborn system? This happened because during the last seven hundreds years, we did not encounter any philosopher from the Muslims, the Jews or the Christians who can resume it with his own efforts. Likewise, it did not find a historian to take the trouble to understand it, or even a researcher to mention it¹.

The first time importance started to be given to this *Rochdian* work is that when Christian and pagan thinkers began to discuss the unavoidability of conflict between Neo-Platonism and Christianity². That is why, this theory faded into oblivion to the point that we do not find anything about it until 1859 when M.J. Muller found and published the Arab text. It is worthwhile to mention that in the second third of the thirteenth century Raymond Martin occasionally published a Latin translation in his manuscript of his *Pugio fidei* printed in Leipzig four centuries later in 1687. In the appendix of his work, of four pages, there was a short note, relevant to an abstract of the Decisive Treaty about the knowledge of God of individual multiple and changeable matters, without any direct indication to the fundamental thesis of *Rochdian* scholasticism. The particular theory that he exposed was assimilable to Jewish or Christian scholasticism, and nothing proves that Raymond Martin himself had any knowledge about the other two treaties .Till this date of 1859, there was a complete ignorance of these two first treaties that have given birth to a great philosophers named Ibn Rochd. After that date, a huge number of interpreters entered in a vicious circle of all

¹ Leon Gauthier , IBN ROCHD (AVERROES), p.266.

²Muhsin Mahdi , Alfarabi against Philoponus, p.233.

possible misinterpretations to reach at last the real thought of our prominent Andalusian philosopher¹. Thanks to Ibn Rochd, the reconciliation between philosophy and religion or between faith and reason became a naked truth in the theological scholasticism, while such reconciliation among Jewish and Christian traditions was still impossible. Such reconciliation based on Ibn Rochd's rational thought heavily influenced the European thought, and contributed to the religious reform and Enlightenment in the West,²At that time, you have to be a Muslim if you want to talk about this reconciliation. There was ,and still, a belief that revelation is useless if the one can attain the truths of religions without resorting to revelation, and definitely, he is wrong the one who think that there are a sort of discrepancies between the results of reason and the dogmas of the faith¹. In this regard, Al-Ghazali, in his book Al-Qistas al-Mustakim(The Just Balance), divided people, according to faith and reason to three main categories. Al-Ammah (The masses) who are people of security and the dwellers of heaven, Al-Khawase (the elites) who are people of intelligence and insight and Ahlu al-Jadali wa al- Shaghab (the people of dialectics), the followers of resemblant matters². The reconciliation was impossible among the Jews and the Christian because religion and theology are two different disciplines that are essentially distinguished and even opposed. The religion reaches an exclusive pragmatic end to make the social life of humanity possible and worthy. It does not teach a truth that the reason of philosophy is not capable to find out with its own tools. It is only a system of imaginative symbols³. This task was extremely difficult in an environment that did consider theology as a perversion of religion, and a fearsome contagious disease. That is why, it is the duty of the authorities to protect the masses by keeping the theologians in a secret rigorous isolation. In the middle of this ideology, we cannot be astonished why such a theory did not success in the eyes of medieval scholars. Even if these medieval scholars knew the two Rochdian treaties, they would have never been engaged in their translation into Latin, as they would have treated them as a heap of monstrous impieties and sacrilegious doctrines. Scholars at those times would have seen such doctrines as unintelligible to the Christian mentality because of their ignorance of the structure of Islamic credo, but it is more likely that they have never known them, as the Jewish translators never recommended to Christians any translation of these texts and

¹ Leon Gauthier ,IBN ROCHD (AVERROES), pp.266-267.

² Fauzi M. Najjar, *Ibn Ruchd and the Egyptian Enlightenment Movement*, p.204.

S. Nirenstein, The Phroblem of the Existence of God Between Maimoiniden. Alnus. and Averroes. p.397.

²Religious matters whose meaning is open to divergent interpretations, which may lead to confusion and absurdity. ³Al-Ghazali, *Al-Qistase al Mustakim*,(The Just Balance)p.62.

without any attempt to translate them into Hebrew. If the Christians have known even a little about these texts, the echo of their dignation would have reached us, or at least, we would have read some of their commentaries or an indication to that in their writings¹. Their absolute silence is a clear evidence of their total ignorance. The scholastic theory of philosophers shaped up for the very first time by Ibn Rochd was sunk into oblivion. All what is left from it is may be this contemptuous adage that the unbelievers kept repeating until nowadays without taking the trouble where this adage came from? "There must be a *religion*¹." If there is nothing that we can rely on to confirm that the fundamental idea of the Rochdian scholasticism had exercised a direct influence upon the Christian scholasticism through the track of the Arabic-Latin translations, we have to know that such influence was there indirectly through the Arabic- Jewish translations. Stein Schneider mentioned the existence of a Hebraic translation manuscript of these two treaties. Munk, in 1843, and in the first edition of the philosophical sciences dictionary of Frank, Ibn Rochd's article, had given a brief and dry analysis of this Hebraic translation. Hence, we have to make a thorough research throughout all the Judaic-Latin literature of the middle age to trace such supposed influence. It is almost certain that such influence was exercised since the second third of the seventeenth century upon the great modern philosopher Spinoza through the intermediary of a Dutch-Latin translation of Ibn Tofayl's Havy ben Yaqdhan. The fact is duly established by the works of many learners, W.Meijer, de la Haye, Von Dunin Borkowski and K.O. Meinsma in an article of the semi-monthly Magazine of philosophy Tijdschrift voor Wijsbegeerte, year 1920, entitled Overeenkomst van Spinoza's Wereldsbeschhouwing met de Arabische Wijsbegeerle(Agreement of the System of Spinoza with Arabic Philosophy)². Not to mention that such influence was manifested, five centuries earlier, by Aquinas's concept of God teeming with materials borrowed from Ibn Sina and the Jewish theologian Mousa ben Maimon³.Such Islamic medieval magnum opuses also influenced the works of Thomas Bukowski(13th century scholar) and especially those related to the eternity of the world. If we go back to W. Meijer, we found that he narrated how he came across an exemplary under the same opening following a Latin-Dutch translation of Havy ben Yaqdhan of Ibn Tofayl with les Opera Posthuma of Spinoza⁴. No wonder, as Spinoza came from a Jewish-

¹ Leon Gauthier ,IBN ROCHD (AVERROES), p.267-268.

¹ Ibid., pp.268

² Ibid., pp.268-269.

³ David B. Burrell , Knowing the Unknowable God, p.507.

⁴Leon Gauthier ,IBN ROCHD (AVERROES), p.269.

Portuguese descent, he was born in Amsterdam in Holland, this may helped him to have some access to the works of both Ibn Rochd and Ibn Tofayl, as some of the supposed Arabic texts were translated into Hebrew and Dutch. Spinoza formulated a theory of philosophical scholasticism analogous to -in certain aspects-that of Ibn Tofayl and Ibn Rochd. Regarding the remuneration of scriptures, Spinoza went on to say that they teach with narratives, not with reasons, the existence of God the Creator, the Wise, the Just, the Remunerator, and the Vindictive that man can be happy with His obedience. All those who obey God by practicing the justice and the charity are saved, and those who live under the empire of exquisite delights are lost¹. There are some important divergences between the theories of these two great minds. Spinoza finds in the divine essence itself, a double foundation, not only for the bliss of some spirits of the elite, but also for the eternity of the soul of every individual in the human species.

For Ibn Rochd, only the intellects of the philosophers stripped of personality and individuality can inhale the eternal existence and the eternal bliss not of the divine Intellect, but the active Intellect, universal agent of the sublunary world. It is about an important opposition between the Cartesian spirit of Spinoza and the Aristotelian spirit of Ibn Rochd. However, other divergences between these two theories of philosophical scholasticism came from the difference of religious environments². We have to bear in mind that Ibn Rochd in establishing his theory, he denies, as required by the Islamic credo, the previous Jewish and Christian revelations. Ibn Rochd was directly interested only in the texts of Islamic nature, and ignoring the texts of the bible and the gospel following the prophetic instructions stating that these texts were no longer reliable because of distortions and alterations. These alterations do not only eliminate the announcement of the coming of the prophet Mohammed, but also falsify the law at many levels, we do not know precisely how many and what they are³.Even if, Ibn Rochd views of the compatibility between religion and philosophy were inside the Islamic credo, they heavily influenced the Western scholasticism. The reason behind this influence lies in the Rochdian theological system. He sees that the Islamic teachings urged Muslims to use all the rational tools and all the aspects of wisdom to call for God:

¹ Leon Gauthier ,IBN ROCHD(AVERROES), pp.270.

² Ibid., p.271.

³ Ibid.

"Call to the way of thy Lord with wisdom and goodly exhortation, and argue with them in the best manner. Surely thy Lord knows best him who strays from His path, and He knows best those who go aright¹."

The *Rochdian* system states that the *Shari'a* (Islamic law) calls for the path of truth, and if the evidential thought does not contradict that truth, then the truth does not oppose the truth, but bolsters it and testifies it¹. If we go back to Spinoza, we notice that he was not interested only in the texts and things of his hereditary religion, the Judaism that he fully treated, he frequently cites texts of the gospel or epistles of the apostles². There is another divergence of a paramount importance related to the characteristic of the prophets. The minutely practiced rites are the only subtle conveniences that can, if it is not God, perceive the instant intuition of a prophet. Thanks to the impact of his reason in his imagination, divine gift granted to prophets and refused to philosophers³ because every prophet is a philosopher, but not every philosopher is a prophet⁴.

For Ibn Rochd, the symbolism of the prophets originates from the spontaneous impact in their privileged imagination of their eminent intellect. On the contrary, for Spinoza, as religion has nothing in common with philosophy, the religious revelation, purely imaginative, has nothing to do with the speculative reason. Therefore, Spinoza stresses more, than his Muslim predecessor, on the difference between the speculative reason and the prophetic revelation. With Ibn Rochd, the prophetic symbols kept certain assimilation with the sublime truths and the speculative realities that expressed them. They help the philosophers to formulate rational interpretations. With Spinoza, these imaginative symbols are more social and pragmatic than with Ibn Rochd, seems to have lost all contact with reason. In brief, the speculative reason and revelation have nothing in common⁵.

Regarding the exegesis of the revealed texts, Spinoza and Ibn Rochd declare that the theology as it is was always conceived and practiced, the theology of theologians, ghost of philosophy is illegitimate, as its theories and its arbitrary divergent and fantastic conclusions have not to be thought to people. What is suitable to the religious teaching is the simple and

¹ The Holy Qur'an, *Chapter an-Nahl* (The Bees.16), Verse.125.

Ibn Rochd, Fasl al -Maqal (Decisive Treaty, or Faith and Reason), p.7

² Leon Gauthier ,IBN ROCHD (AVERROES).p.271

³ Ibid., p.38.

⁴Ibn Rochd, Tahafut al-Tahafut. p.583

⁵Leon Gauthier , IBN ROCHD (AVERROES), pp. 272-273.

the pure religion found in the authentically books revealed to prophets with the exclusion of every addition and every rational interpretation¹. From the parallel we have established between the two treatises, we do notice that the new religious system of both Ibn Rochd and Spinoza do coincide in the main lines. This is due to the direct and the indirect influence of both Ibn Tofayl's novel and Ibn Rochd's treaty on Spinoza's works by the intermediary of the Hebraic translation of '*Fasl al- Maqal*' (The Decisive Treaty)¹. In order to establish a very comprehensive study of such influences, we do need a specialist armed with all qualifications, historian of philosophies and Muslim theologies, Jewish Christian, Arabist, Herbaist and Latinist to devote many years to strip all the posterior works at the time of Ibn Tofayl and the previous ones at the time of Spinoza printed or manuscripts².

There is another point here of crucial significance that has to be mentioned is that whether Ibn Rochd who first used the expression 'double truth, the *Rochdians* (the Averroists) or it is only an insinuation forged by their accusers. All the Christian scholars including the *Rochdians* made errors in dealing with the religious attitude of Ibn Rochd. They misinterpreted his theory because they did not know very well the two treaties that exposed it in details because of the feeble texts of' *Tahafut al-Tahafut*'. In the latter, Ibn Rochd alludes to his theory to give to the Jews and the Christians only an unfortunate idea that diverted from the beginning the Jewish-Christian translators to undertake of these two treaties a Latin translation³. Whatever we do think about Ibn Rochd as a commentator, or as an innovative, he presented solutions to the scholastic question and added the ingredients helping us to achieve the agreement between religion and philosophy. On the contrary of his master Aristotle who did not, for example, offer the least sketch to the scholastic question. In this way, Ibn Rochd formulated the first system of philosophical scholasticism in Islam, scarcely glimpsed by his Muslim predecessors, as he declared that the philosophical and the scientific heritage grasped from the ancient Greeks should be accepted only under inventory profit⁴.

¹ Leon Gauthier ,IBN ROCHD (AVERROES), p.273.

¹ Many scholars translated Ibn Rochd's work *Decisive Treaty* as, faith *and reason*, as it is dealing with the agreement between religion and philosophy, and it is used here in many occasions as 'Traite Decisive', which is the French translation of *Decisive Treaty*.

²Leon Gauthier *.IBN ROCHD (AVERROES*), p. 276. ³Ibid., p.278 ⁴Ibid., pp.279-280.

This proves the big mind of our outstanding commentator, author of a triple treatise about the agreement between religion and philosophy, the big instigator of medieval Jewish and Christian Scholasticism and a victim of the legend of the impious Ibn Rochd. This is the real Ibn Rochd, importantly rationalist, but eclectic, understanding religion in his manner, concerned with each class, and the kind of religiosity that is suitable to its nature. For the vulgar, pure and simple religion is necessary for maintaining social order, for philosophers, the only worship of reason and the apodictic speculation, by which they take part in life and the eternity of the active Intellect. Superior to his Muslim predecessors, even if he benefited from their works to be more informed than Al --Kindi, Al-Farabi, and Ibn Baja, and more logical and more balanced than Ibn Sina. He denounced the mystic dreaminess, the doctrinal inconsistencies and the inadequate conceptions of theologians. He knows how to deal with the Aristotelian-Neo-Platonic eclecticism, frequent to all philosophers in the most perfect way¹.No wonder that the *Rochdian* doctrine of the agreement between religion and philosophy is employed to generate religious, intellectual, political, and social reform in Egypt and the Arab world².

Farah Antun (1861-1922) used Ibn Rochd's philosophical teachings to establish a secular state. He thinks that Ibn Rochd's philosophy is a strong endorsement for modern scientific thinking. The *Tanwiriyyun*³ (the Enlighteners) regard Ibn Rochd's philosophy as a weapon to struggle against Islamic fundamentalism and the contemporary Islamist discourse⁴.Dr Murad Wahba professor of philosophy at '*Ain Shams*' (University of Cairo) and the pioneer of the Egyptian enlightenment movement sees the problem of the developing countries in the absence of the tool of reason. He argued that the European Enlightenment liberated reason from all religious authorities. Ibn Rochd's philosophy helped breed the Enlightenment in the West, whereas it failed to do the same thing in the East. Wahba cites the example of the Emperor Frederick II of Hohenstaufen (1215-1250 AD) who ruled both Sicily and Germany; he ordered to translate all Ibn Rochd's works to combat the theocracy of the Catholic Church. Wahba sees in *Rochdism*, the double- edged weapon that would help and reach the

Leon Gauthier ,IBN ROCHD (AVERROES), p.280.

² Fauzi M. Najjar, Ibn Ruchd(Averroes) and the Egyptian Enlightenment Movement, p.203.

³ Also called *Wasatiyyun* (advocates of *Wasatiyah:* Mediation)

⁴Fauzi M. Najjar , Ibn Ruchd(Averroes) and the Egyptian Enlightenment Movement, p.203.

same conclusion in Islam that Europe had reached in Christianity to separate the church from the state and to counteract the increasing Islamic fundamentalism. Unfortunately, Ibn Rochd's works were recognized in the West and his philosophy was given the true value, whereas we, the Muslims failed to grasp this precious heritage¹. That is how, *Rochdism* made a very important contribution towards European scholarly discourse that led to critical view of the revealed religion, the fact that gave birth to the European rationalism and enlightenment¹. Furthermore, *Rochdian* rationality paced the way for the emergence of *Thomism* (theology of Thomas Aquinas) and scholasticism that led to *Cartesianism*(related to Descartes) which is the cornerstone of modern Western philosophy. On the other side, Arab secularists used ,and still use, Ibn Rochd's rationality to combat all forms of revivalism and traditionalism.

Attributing victory to reason by Latin –*Rochdians* or to faith by Arab-*Rochdians*² is against Ibn Rochd' basic principles of the double truth theory that does consider both religion and philosophy as two foster-sisters. The discipline in which Ibn Rochd made the greatest contribution and heavily influenced the West is his doctrines about the nature of the soul. His views were debated by Alexander Achillini(1463-1512)and Nicoletto Veria(1420-1499). Such intellectual impact contaminated Pierre Pomponazzi (1462-1525) who used Ibn Rochd's works to find out whether evidence relying only upon reason could demonstrate the immortality of the individual's soul.

He concluded with Ibn Rochd that only with the help of both faith and revelation that the human mind could reach rational and convincing conclusions about the nature of the soul³. Not to mention the works of Al-Ghazali and especially his magnum opus 'Makasid al – Falasifa (Aims of Philosophers) which had been translated into 70 Hebrew versions. The Rochdist fourteenth- century philosopher Moses Narboni relied on this book in many of his most read works⁴. When you look at all these contributions of Muslim thinkers in all

¹ Fauzi M. Najjar ,, Ibn Ruchd(Averroes) and the Egyptian Enlightenment Movement, p.204.

¹Wild Stefan ,Islamic Enlightenment and the Paradox of Averroes", p.380.

²Ibrahim Najjar, Ibn Rushd's Theory of Rationality, pp.192-193.

³Stoen Harold , Why European stopped Reading Averroes, p.97

⁴Steven Harvey , Why Did Fourteenth-Century Jews Turn to Al-Ghazali's Account of Natural Science, p.359.

disciplines of knowledge, we cannot accept any view denying such glittering intellectual arena even if such a denial is only about one branch of science like the view of Ahmed abdu khayr ad-Dine who praised the contributions of all Muslim thinkers in all disciplines, except in logic. He argued that Muslims did add nothing to the Aristotelian research in Logic ¹.Definitely, logic is a science that is associated with Aristotle, but Muslim logicians as seen throughout the thesis studied it investigated it, developed it and used it as a mental tool to prove the strength of their stances.

We have to bear in mind that we have cited here only the influence of Muslim philosophical and theological works on Western scholasticism, but the influence was bigger than that, as it covered all other disciplines of knowledge. In mathematics for instance, the works of an-Nayziri were translated by Gerard Gremona in the 12th century, and the interest was renewed in the 17th century by the English mathematician John Wallis who used the works of an-Nayziri as a proof to highlight the Euclidean postulate¹. In Sufism (mysticism), the works of al -kibrit al -Ahmar (The Red Sulphur)² Ibn Arabi attracted interests of Western scholars such as Swede H.S(Kleinere Schriften Des Ibn al-Arabi, Miguel Asin (El Islam Cristianizado: studio del Sufismo a traves de las obras de Abenarabi de Murcia), H. Corban (l'immagination creatrice dans le soufisme d'Ibn Arabi) and A. E. Affifi (The Mystical philosophy of Muhyid Din-ibnu Arabi)³. In medicine, the books of Ibin Sina Ibn an- Nafis were translated into Latin and Ibn al- Haytham's works of astronomy and as-Sharif al-Idrissi in geography remained the main sources for Western intellectuals until the 16th century. As mentioned before. Muslim philosophers were not just commentators or transmitters of the ancient wisdom, but real contributors to the richness of human thought. The outstanding Muslim figure Abu Bakr Mohammed Zakariya ar-Razi attacked some of the doctrine of Galen (ca. 129- 216 AD) in his work 'al-Sukuk ala Jalinus'. Ibn Rochd, this time in medicine, opposed in his book 'Kullivat' (Colliget :Generalities) the anatomy of the heart and Ibn an-Nafis presented, for the very first time in history, an adequate explanation of the pulmonary circulation of the blood by rectifying the mistakes of Galen's theory of the

¹ Ahmed Abdu khayr ad-Din . Kalima fi Tarikh al-Mantiq, (A word in the History of Logic), p. 193.

¹ A.I. Sabra, Thabit Ibn Qurra on Euclid's Parallels Postulate, p.14.

² Is the pseudo of Ibn Arabi, we have to mention that the translation of Ibn Arabi's work *Shajarat al-Kawn*, as *The Tree of Cosmos or the Cosmological Tree* is not an accurate translation as the Arabic word *Kawn*, here may have two meanings: The Cosmos and the Being. The latter is the one meant by Ibn Arabi.

³ Arthur Jeffery, Ibn Al-Arabi's Shajarat al -Kawn(The Tree of Being),p.43.

existence of perforations in the diaphragm through the discovery of this pulmonary circulation system. Likewise, Ibn al- Haytham rectified the mistakes of Euclid's stating that is the eye, which projects its light on the visible objects. The discoveries of Arab scientists poured down on Europe as rains to revive the scientific research that was paralysed and asphyxiated since the 9th century because of the theoracy of the church, the expulsion, the ban and the pursuit that exceeded every limit¹. We would not go in details here, as it is not the purpose of the thesis, we wanted just to demonstrate that the contributions were massive and both philosophy and theology were just one side of this intellectual story.

9.5 Conclusion:

Philosophy or *falsafa* was born into the already swelling bosom of an Islam dominated by *Amir al- Mu'minin* (the commander of the faithful), and at the same time supervised by a vigilant and pious rabbinate of lawyers and saints. That is why; the only secular masters to whom Muslim philosophers could resort belong to an entirely different culture. In such an atmosphere, no wonder that there would be a clash between a philosophy coming from that secular Hellenistic tradition and the revealative potentials of a Scriptural Islam². Such a clash was not like that of Christianity, or Judaism against philosophy, as many Muslim theologians adopted the theories of ancient wisdom and tried hard to make them compatible with the pure Islamic teachings. No wonder that the vast majority of Greek doctrines became the basic tenet of Islamic sects such as *Mu'tazilites*, *Ash'rites*, *kharajites*, *Batiniyyah* and the list is so long to be all cited.

All Muslims teachers and disciples alike are familiar with the Greek magnum opuses such as Plato's Republic, Plotinus' emanation, Aristotelian logic, Socrates' transmigration of souls and so on. Such an influence could not be a reality without the establishment of a strong agreement between religion and philosophy, which was successfully done by Ibn Rochd. The task was not that easy as it involves many sophisticated processes that have to be passed to rigid theologians who were principally rejecting any outsider thought. According

¹ Zaghlul an-Najjar, Al-I'jaz al-Imi fi al- Qur'an al- Karim, vol.1 (The Insuperable Scientific Facts in the Holy Qu'ran,) p.17.

²F.E Peters., Aristotle and the Arabs: The Aristotelian Tradition in Islam, p.186.

to them, the religious messages and the revealative materials are enough to achieve a better and comprehensive understanding of all the aspects of life away of any negative, nonreligious stances. That is why, the full credit goes to Ibn Rochd for the establishment of this agreement between these two disciplines .Such an agreement that had heavily influenced the Jewish and Christian Scholasticism and widely opens the gates for the revival of religious sciences.

The Rochdian syllogism, analogy, and the theories of demonstration were present in most Western works and especially the medieval ones. This refute the views claiming that Ibn Rochd in particular and Muslim theologians and philosophers in general were just a mere imitators. On the contrary, they fully contributed to the development of Hellenistic thought by original works that combined both philosophy and religion by giving birth to an independent Islamic thought that remained the basic source for medieval, renaissance and modern Western thinkers for centuries.

Undoubtedly, the big intellectual crisis in the history of Muslim thought is the apparent incompatibility between religion and philosophy. This situation divided Muslims into three main categories: Philosophers who adopted the ancient wisdom as it attained the truth, they argued that there is no incompatibility between it and Islam, and solved the problem by means of interpretations. The second category is the theologians who adopted the Islamic teachings, as the only and the unique face of truth. The third one is *The Mutakallimin* (Muslim theologians) who stood between reason and revelation and rationally understood Islam through the combination of philosophy and religion¹.

¹ Ali abu Mulhim, Al-Falsafa al- Arabiya : Mushkilat Wa Hulul, (The Arabic Philosophy: Problems and Solutions), p.19.

We do notice from all debates that the doctrine of the eternity of the world is a thorny problem that rose throughout history hot controversies for a wide range of reasons. First, there is a sort of overlap between this doctrine and many others such as God's existence, the immortality of the soul, and the eternity of movement and time. Secondly, the polemics were not fierce only between what is secular and what is religious, but also between the religious sects themselves, and between the secular ones as well. Even if when we do discard the eternity of the world, the debates are so thorny to the point that we cannot find two philosophers or theologians of the same view. The creation can be out of nothing (ex nihilo) or out of something (ex materia). Islam does not deny the ex-nihilo creation, but in the same time teaches the creation from a pre-existing matter. If we do start by believing that God created the world out of nothing, we would not find it difficult to believe that He created other existents out of something. Besides, the creation was through a free divine will and not through a necessity, as no supreme wisdom compelled God to create. If creation were through the latter, this would have implied that God's Almighty is determined by need, obligation, choice and decision, which is impossible, as mentioned before, God does not need, choose, will, decide or He is under any obligation of whatsoever, He only does. That is why, He does need creatures, as creation will add or remove nothing from His Majesty and Kingdom, as He is all-perfect without it, in the sense that He was not imperfect before creation, and He would not have been less perfect if He had not created. Regarding creationism, undoubtedly those who deny the ex-nihilo creation, found extreme difficulty to substitute it for another theory of creation, all what they do just making some amendments to the same theory.

It is worth noting that between creation and eternalism stands the theory of emanation that it is a sort of bridge between a Peripatetic philosophy advocating the eternity of the world and the Abrahamic religions corroborating its creationism. Whatever the case, this theory failed to make a clear distinction between God and the world that proceeded from Him, which is exactly like the other face of the distinction between God's essence and God's existence. The belief in eternalism or creation is not a problem in itself, the real problem is the denial of a super cosmic power that is organizing and looking after our universe. The evidence of what we are saying is Ibn Tofayl who supported the eternity of the world and at the same time, he is for God's existence and Ibn Rochd who asserted that the world is eternally emanated from God, but within the scope of creationism. Another problem worth

our attention is that when we discuss the eternity of the world, are we talking, especially from the point of view of the Abrahamic philosophers, only about the world we do know or the afterlife as well, as a restoration of order after chaos? We have to point out that the eternity of the world debates started between theologians and philosophers, but later on, the physicists themselves joined this everlasting intellectual arena. Many scientific theories in divergent disciplines do support either the notion of creation supported by the Abrahamic religions or that of eternalism supported by the majority of the Hellenes. If we do take, for example, the Big Bang theory, we would find that is compatible with the Qur'anic Verse:

"Do not the Unbelievers see that the heavens and the earth were joined together (as one unit of creation), before we clove them asunder? We made from water every living thing. Will they not then believe? ¹"

The Qur'an goes further by explaining not just the first primordial explosion that had given birth to the whole cosmos, but to its continuous expansion: "And We have spread out the (spacious) Earth: How excellently We do spread out!²."Likewise, the Holy Scripture explains its last destiny as stated by the Big Crunch and the Big Freeze:

"The Day that We roll up the heavens like a scroll rolled up for books (completed),- even as We produced the first creation, so shall We produce a new one: a promise We have undertaken: truly shall We fulfil it³."

As mentioned in all chapters, the discussion of the doctrine of the eternity of the world has to pass first by discussing the origin of things that are making the melodious laws of our astonishing universe. This does not mean that the origin of the universe has to be material as it can be created both from something and nothing, from what is material and what is nonmaterial, from the tangible and from the abstract:

"Is not He Who created the heavens and the Earth able to create the like there of?" - Yea, indeed! for He is the Creator Supreme, of skill and knowledge (infinite)! . Verily, when He intends a thing, His Command is, "be", and it is."

Afterwards, the discussion has to be focused on the nature of these things making up the world in the sense that what are the factors that made them elements? In other words, can we

¹ The Holy Qur'an, *Chapter of al-Anbiya*' (The prophets),21. Verse.30.

² Ibid., *Chapter of ad-Dhariyat* (The winnowing winds),51. Verse.48.

³ Ibid., Chapter al-Anbiya, (The prophets), 2. Verse. 104.

withdraw or add other elements at any stage in the future? Are these elements subject to priority over each other? We have discussed all these everlasting questions in the second chapter to come out with the conclusion that all what have been said by the Hellenes is somehow true regarding the nature of the elements if we look at them of course from that ancient perspective. Every single philosopher has its share from that supposed truth, as any fact has to be gradually achieved after the accumulation of hundreds of pieces of reality taken from previous doctrines and theories. Then, it comes the turn of evidences proving the existence of a creator, as this would imply the creationist nature of the whole universe. Accordingly, this would support the refutation of the eternity of the world. Whenever we discuss the notion of creation, we mention either God or nature, and we forget about ourselves (man). If we believe that there is anyone who is able to create, definitely, this creator would be man as he (man) made in two centuries what nature had done in million years regarding the composition, the making and transformation of many natural elements. Therefore, we are the most complicated agent in this universe without giving ourselves such importance. Someone may say we are part of the nature we are talking about, we would give him a positive answer, but we can (the human beings) separate ourselves from nature and in many occasions made it under our sway, and this is only the beginning of this human challenge. Unfortunately, man, as nature, cannot play that role of a creator simply, as he is always trying to create from what is already created. Undoubtedly, the discussion of the postulation of a creator plays a pivotal role in the understanding of all other doctrines.

You can call this creator whatever you like, an Organizer of a previous chaos, a Demiurge, a Prime Principle, an Unmoved Mover, a First Cause, a First Mover, a First Existent, a First Agent, or a Necessary Being, He is certainly the Ultimate Metaphysical Truth and the Final Mystery of life that has to be investigated. This does not mean that the focus point has to be God's omnipotence, or anything else connected with His Majesty ranging from essence, life and attributes, but His creatures and all the signs left by Him in the universe. It is quite irrational to try to know the creator, while we are still unable to unravel many of the secrets of His creatures and cosmic signs. Likewise, it is extremely difficult to study an Immaterial Cosmic Power, while we are completely incapable of decoding the enigmas of many material beings. We have to start by knowing the creatures to end up by knowing God, and not the opposite, starting by knowing God to end up by knowing the creatures, as the last process

would take us nowhere. From this perspective, we do think that the traditional dictum 'think of God's creation and not of His essence' has to be prevailing. By starting our study from the knowledge of God, we are falling in the equation 'ignotum per ignotius'. We have no other option, at least at the time being, other than sticking to the view that God is all-perfect reality beyond the reach of change. This fact means that God bends the changes of time to His will. That is why, we are living in a world that is constantly changing, and a God that is, and He was and will remain always the same. We can only agree, to some extent and with few reservations, with David Burrell's description of God's unique nature through the use of the modern term 'simpleness'. This term implies no soul and no body, and makes no distinction between matter and form, no distinction between actual and potential identity of essence and God' essence, nothing gives existence to God and everything that has existence receives it from Him¹. Ibn Sina, in his Kitab al -Hudud(Book of Limits), expressed the same view in an archaic manner when he says the creator, the mighty and the glorious, has neither a definition, nor a description as He has neither a genus, nor a difference. There is no composition in Himself and not affected with accidents. He is the Necessary Being that His existence cannot be from another; He is not subject to multiplicity by number, quantity, the parts of limit and the parts of supplementation. He does change neither in the essence nor in the accidents of essence². Al-Farabi in his book Ara' Ahl al-Madina al-Fadila (Opinion of the People of the Righteous State) combined both David Burell and Ibn Sina's views of the Divine by stating that God is the First Existent and the First Cause of the existence of all other existents. He is the eternal with His essence and substance without the need to something else sustaining His eternity. He is not a matter or related to it in any form. He has no form, as form can only be combined with matter. If He had a form, His essence would have made of a composition of matter and form, which means that His existence had a cause. No reason or purpose caused Him to exist, but His existence is to accomplish this purpose and that reason. Otherwise, He would not have been the first cause³. When it comes to the process of creation itself, the situation is even more sophisticated, as we do believe that God creates from something and nothing, what can be produced from matter and what is immaterial. He is above time and not bound by space (omnipresent and eternal), He is, as His attributes describe Him, The First before existence, the Last after eternity, beyond the

¹ David B. Burrell ,Knowing the Unknowable God, p.50.

² Ibn Sina ,Kitab al-Hudud,(The Book of Limits),p.11

³Al-Farabi, Rae' Ahl al-Madina al-Fadila. (Opinion of the People of the Righteous State), pp.25-26.

meshes of energy and matter, not subject to divisibility or quantification, and He is the Omniscient Who knows everything the particularities and the universalities alike. Briefly, He is compared to nothing. Therefore, and logically speaking, we cannot know the nature of God's essence, which is omnipresent, omnipotent, and omniscient with our qualities as an ignoramus being prisoner in space –time, with ephemeral wills and limited potentials. Furthermore, the premises taken from intelligent design do not prove only God' existence, but an Almighty God Who created everything with minute calculations without any room for accident , coincidence, chance or what we call a dice-playing God. This refutes the theory of evolution and all other naturalistic views of the nature of the world. In the same context, to avoid any difficulty rising from the law of causality stating that everything has to have a cause, we would say everything must have a cause except God who is self-caused through necessity, as He is the Necessary Being. Regarding His Oneness and Uniqueness, we cannot find better than the cosmological arguments. If we look at the wonders and the amazing signs of our universe, we would notice that they have many things in common which implies that they were made by the same maker regardless of his nature.

There is no room for doubt that the uniqueness of style proves the uniqueness of creator. This is obvious in the microscopic world in the sense that cells are the building block of life and atoms the building block of matter. The cell is made up of proteins that consist of five elements, which are carbon, sulphur, hydrogen, oxygen and nitrogen. In all living beings, the cell breathes, grows, dies and born, and all their bodies have the same anatomical structure made up of veins and arteries. In all living beings, the nervous system is made up of brain, spinal cord and nerves, the digestive system consists of stomach, small and large intestines, the reproductive system comprised the ovary, the womb, the testicles and their canals, and the urinary system is composed of kidneys, bladder and urethra. In the microscopic world, every single cell is made up of one nucleus orbited by one or many electrons. The same system continues in the macroscopic world, as the moons orbit the planets and the planets orbit the stars and the star systems orbit the centre of the galaxy and the galaxy orbits the centre of the galactic cluster etc. All these orbits are anti-clockwise, and the smaller orbits the bigger. Besides, the orbiting bodies are always many and the orbited ones always one, as an emblem of the Oneness and the Uniqueness of the Creator. Similarly, the whole cosmos is made up of opposed dualities such as matter and anti matter, dark matter and visible matter,

the positive and the negative, the male and the female, the light and the darkness, as a manifestation of the uniqueness of God to remain the only One above duality and plurality. The assertion that this intriguing universe as a melodious entity has an immanent, ineffable, transcendent maker is the core of the eternity of the world discussion, and the closest path to prove creationism. We have to shed more light on God's existence on the one hand, His relation with the entire world on the other hand including God-human relationship. Such a relationship is based on the notion of purposiveness, and we do mean by that just the resurrection, the hereafter, the reward -punishment equation, and the existence of evil. The discussion of all kinds of beliefs is also helpful, as monotheistic beliefs represented by the Abrahamic religions possess different concepts of the Divine from that of polytheistic ones. In the same regard, the eternity of time and motion evidences are of a paramount importance in understanding the eternity of the world, as space-time equation is equal to life postulation for none of the creation can exist out of its scope. Moreover, eternity and sempiternity can never be understood without discussing their constituents, which are timelessness, and necessity. That is why, the eternity of time and motion is equal to the eternity of the whole world and their creation means the creation of the entire system of living and existing.

All what have rekindled this everlasting debates about the destiny of the world is that our incapacity to overcome the space-time enigma. From this perspective, we do think that everything that is made out of matter has to perish-includes living and non-living beings- and everything that is incorporeal or immaterial is eternal. What makes us consider, for instance, soul, motion and time as eternal simply because they are abstract, unseen, and not tangible, in the sense that we do not know what are they made of? How do they operate? And how can we do interfere in their functions? This total incapacity leads us to elaborate all these assumptions about their eternity. After the discussion of all these doctrines, it comes the leading role of the immortality of the soul, which is of a crucial significance in the soul was always regarded as eternal since ancient times because of its separation of the body after death. As it is not seen decomposing like the flesh of the body or visible like smoke or breathe, it remained shrouded in mystery. Furthermore, the soul is considered as the main source of movement of all things not just the living beings(humans, animals and plants), but
also heavens and all existents(stars, planets and all celestial spheres). The demise of the soul is a demise of movement, and consequently, a demise of all existents. All these speculations started from the visible relationship between body and soul as it is the only experience and observation that can man rely on to understand this existent so -called 'soul'. Regarding the dilemma of the soul we do not agree at all with the Socratian theory of the transmigration of souls, as this is impugning God's transcendence in the sense that He would be experiencing a crisis of souls' shortage. The human being lives only once to have one chance and every world has its own characteristics and dimensions, the fact that makes the interaction process between these worlds quite impossible. In other words, there is no migration of whatsoever of souls not only between human beings, animals and plants, but also between the human beings themselves. The evidence that the nature of the soul is so sophisticated to be understood through the process of migration is the modern terms used to describe the human inner self such as moral, mental and psychological, which are only other synonyms of the word soul. After death, we can assume that there is a resurrection and the punishment – reward equation only if we do assume that the soul is eternal, and such assumption would lead us to believe that the whole world is eternal.

The idea that jumps into our mind here is that when we do prove that a part of the world is eternal is that mean that the whole world is eternal? Our answer would be, of course, no simply because in many occasions and in different experiences in our life we can prove that a part of something is true, but this does not mean necessarily that the whole is true. As stated before, when it comes to the empirical world, philosophy can be helpful only to grasp the religious revelation, but we cannot rely on its doctrines and theories to achieve clear and convincing results. Since the purpose of any Credo is not to persuade, but just to guide, you can use your reason to achieve that persuasion but on the condition that you are already guided by revelation. The Holy Qur'an goes this direction by urging man to use his mind and his reason to be convinced by the tenets of the Credo through the tools of observation and contemplation:

"Behold! in the creation of the heavens and the earth, and the alternation of night and day,there are indeed Signs for men of understanding. Men who celebrate the praises of God, standing, sitting, and lying down on their sides, and contemplate the (wonders of) creation in

the heavens and the earth, (With the thought): "Our Lord! not for naught Hast Thou created (all) this! Glory to Thee! Give us salvation from the penalty of the Fire¹."

There is no room for doubt that this incapacity is both intellectual and perceptional. This does no mean that there will come a time when we will be able to surmount it, as it has nothing to do with science and technology. Even if we do achieve a colossal intellectual progress, we will remain unable to decode the nature of time, motion and soul for they are made of other dimensions that they are not known to us, and science does not help in this matter. In the past, man was unable to unravel, for instance, the secrets of microscopic world such as bacteria and viruses, and the macroscopic one like galaxies and all the celestial spheres, but thanks to technology man becomes able to do that because of the invention of advanced technological instruments called microscope and telescope. We do come to know, later on, that this is a simple world to see, we could not do that in the past because our vision was so weak to see these tiny monocellular creatures, or remote celestial bodies and we do overcome such optical obstacle with the use of these technological tools.

The situation here is quite different with the trilogy time, motion and soul, as they are immaterial, and as we are material, we are next to two different worlds that they can never ever be interacted. We do belong to different worlds with different dimensions, and made of different matter: "He *created man from sounding clay like unto pottery, and He created Jinns from fire free of smoke*²." If it happens that there is a sort of interaction between the two worlds, it is definitely not through science and technology, but rather through the will and the power of the Creator of these trilogy time, motion and soul. It is the same as our perceptional incapacity to know the nature of angels (as made up of light), Jinn and Satan (as made of a free smoke fire) and all the other unseen creatures. They belong to other worlds more complicated than that of motion, time and soul, and even more sophisticated than that of stars, galaxies, black holes and so on. In short, the story of man seems like someone who is looking for something in the wrong place, or someone who is peeping through the hole of a theatre's door. He can only see the very limited parts, which can be captured by his field of vision, and he cannot see everything not because of a defect, malfunctioning or a weakness in his vision, but because of the way he is looking and because that is all what he is capable

¹ The Holy Qur'an, chapter Al-Imran (The house of Imran), 3 Verses.190-191

² Ibid., chapter ar- Rahman (The Beneficient), 55. Verses. 14-15

to see. That is why, everything we do discover, is relative until further notice as it is a local discovery of something within our reach, and in the scope of our intellectual capacities and perceptional potentials. This complete human incapacity to understand the nature and the function of immaterial things is a fact that no one can refute. However, human intellectual potentials are marvellous, at least from our point of view as humans, and would help human race to go further and achieve the best in the future to be up to the raised challenges at all levels. There are many Qur'anic predictions that man will conquer space to an astonishing levels, and only at that time, he would realise that he is ignoramus, as he will be faced by barriers and obstacles that cannot be solved -as mentioned previously by science and technology-and his fate will be like that of Jinns(spirits, Satans):

"O ye assembly of Jinns and men! If it be ye can pass beyond the zones of the heavens and the Earth, pass ye! not without authority shall ye be able to pass! Then which of the favours of your Lord will ye deny? On you will be sent (O ye evil ones twain!) a flame of fire (to burn) and a smoke (to choke): no defence will ye have: Then which of the favours of your Lord will ye deny?¹"

That is how the difficulties and the obstacles are raised, in brief, we are not qualified and we will not be so because of our nature as human beings to know none of the nature of these things, which are beyond our horizons. We cannot even deeply penetrate into the inner meaning of divine messages conveyed to us either through holy books or prophetic revelations:

"He is the First and the Last, the Evident and the Immanent: and He has full knowledge of all things. He it is Who created the heavens and the Earth in Six Days, and is moreover firmly established on the Throne (of Authority). He knows what enters within the Earth and what comes forth out of it, what comes down from heaven and what mounts up to it. And He is with you wheresoever ye may be. And God sees well all that ye do. To Him belongs the dominion of the heavens and the Earth: and all affairs are referred back to God. He merges Night into Day, and He merges Day into Night; and He has full knowledge of the secrets of (all) hearts²."

¹ The Holy Qur'an chapter ar-Rahman, Verses. 33-36

² Ibid., chapter al-Hadid (The Iron, 57), Verses. 3-6.

From this particular point raises the paramount importance of religious revelations in affirming the truths that can be discovered by philosophical and scientific researches. Religious revelations only interfere when philosophy in particular and science in general fails to provide us with the right and convincing explanation. This can only be achieved if a harmony between philosophy and religion is established. We have seen what can happen if such a harmony is missing when Al- Ghazali accused Muslim philosophers of unbelief, as they supported some of the Hellenistic views especially about eternity of the world, God's ignorance of particulars and the denial of bodily resurrection. There are many relative truths that we - the human beings- thought they are absolute. Such relativism is obscuring our thought and what is worse is that we can do nothing to surmount it. If we do take for example, the life-spam of celestial spheres, which is calculated by billion years, which is even longer billion times than the life of human race on Earth, we regard them as eternal, as we are unconsciously comparing their life-spam to ours. However, if we look at the constituents of these celestial bodies, we would find that they are even older than the celestial spheres themselves, but this does not mean that they are eternal in the sense that they born and die in a vicious circle like the life of human beings. The latter born and die every second, but their births do not mean they are eternal as individuals, but rather, as human race. Likewise, their deaths do not imply their mortality as human race, but as individuals.

The conclusion that we come out with from this reasoning is there is nothing called complete demise or total decay in our universe, we live in a vicious circle of lives and deaths, but does not mean eternity, as all the constituents of our universe taste death to live and live to die. There is another barrier facing us whenever we want to use our fertile imagination is that of modern physics. Since the Hellenistic period passing through the medieval one to the Middle Ages, all thinkers were completely free to investigate all doctrines and theories away from any direct scientific influences, as physics was still in an embryonic stage. Nowadays, it is extremely difficult to discard ourselves from modern physics, as it provides us with the answers of many thorny questions that bewildered us in the past, and it is still and would be able to play this pivotal role in the future.

1. Religious-Philosophical Trends and Cosmological Theories:

Even if the Big Bang theory¹ was not formulated on the basis of philosophical or religious beliefs, there are many similarities between it and these philosophical- religious trends. Many theologians and philosophers alike may regard it as a correct explanation for the origin of the universe. Others consider the theory as the first cause or the first mover as it was the case thousands of years by the Hellenes, and primarily Aristotle. That is why; they can be described as modern mythicists. This does not mean that all theologians and philosophers are of the view that the Big Bang theory is consonant with the Holy Scriptures, but their views vary between those who see it inconsistent with traditional views of the creation such as in Genesis, and those who consider it as a support of the creation ex nihilo. A large number of Christian, Jewish and Muslim scholars accept the Big Bang theory as a possible description of the origin of the universe: "In the beginning, God created the heavens and the Earth²." This truth was also asserted in the Colossians:

"For by Him were all things created, that are in heaven, and that are in earth, visible and invisible, whether they be thrones, or dominions, or principalities, or powers: all things were created by him, and for him: And he is before all things, and by him all things consist (held together or ordered together 3 ."

Some branches of rabbinic Judaism do agree that the theory goes hand in hand with the teaching of creation mentioned in the *Kabbalah*. Some modern Muslim scholar, in their turn, do believe that many verses of the Holy Qur'an are consistent with this theory "*Do not the unbelievers see that the heavens and the Earth were joined together as one unit of creation, before We clove them asunder?⁴"*

¹ A process known as inflation can solve all these problems in one fell swoop (see reviews by Guth & Steinhardt 1984 and Linde 1994), and has therefore emerged as the most popular theory of what happened very early on. Inflation is a rapid stretching of space, diluting away monopoles and other debris, making space at and uniform like the surface of an expanding balloon, and stretching quantum vacuum fluctuations into macroscopically large density fluctuations that can seed galaxy formation. Since its inception, inflation has passed additional tests: CMB observations have found space to be extremely at and have measured the seed fluctuations to have an approximately scale-invariant spectrum without a substantial gravity wave component, all in perfect agreement with inflationary predictions(J.D. Barrow, P.C.W. Davies, & C.L. Harper *eds*, *Science and Ultimate Reality: From Quantum to Cosmos*, p.5).

² Genesis: 1: 1

³Colossians 1:16-17

⁴The Holy Qur'an (chapter al-Anbiya'(The Prophets. 21), Verse.30.

In Islamic sources, this compatibility is not only with the Big Bang theory, but also with the expansion of the universe "*The heaven, we have built it with power. And verily, we are expanding it*¹". Likewise, there is a consistency with the big crunch theory and an oscillating universe:

"On the day when we will roll up the heavens like the rolling up of the scrolls for writings, as We originated the first creation, (so) We shall reproduce it, a promise (binding on us); surely We will bring it about²."

Some theistic branches of Hinduism, such as *Vaishnavism*, conceive of the creation event with many similarities with the Big Bang. For instance; in the third book of *the Bhagavata Purana* (primarily, chapters 10 and 26), describes a primordial state which bursts forth as the Great *Visgnu* glances over it, transforming into the active state of the sum-total of matter *'prakriti'*. The other forms of Hinduism emphasize on a universe without beginning or end. In Buddhism, there is a concept of universes that have no initial creation event, but they go through an infinitely repeated cycles of expansion, stability, destruction and quiescence.

The result we do come out with after consulting the basics of these cosmological theories is that the ultimate fate of our universe can be oscillatory in the sense that it would undergo an infinite series of oscillations. Each one starts with a Big Bang and ends with a Big Crunch. The multiverse theory suggests a set of multiple possible universes, including our universe, comprising a physical reality. We have to mention that this hypothesis was always connected to physics, philosophy and science fiction.

What is striking here is that most of these scientific theories are compatible –to some extent - with the philosophical and religious tenets. If we do take, for example, the big bang theory, we would find that is compatible with the Peripatetic notion of the first mover, or the first cause. Likewise, it is consistent with the rabbinic and Christian teachings. This compatibility reaches its climax with the Islamic revelation as the Holy Qur'an does not only give clear indications to the beginning of the cosmos, but also to its end, which is consonant with the Big Crunch theory. The Big Crunch, the Big Freeze and the Big Rip cosmological hypotheses suggest that the ultimate fate of the cosmos is demise and destruction, which means that the world is not eternal, as it was indicated by many of the Hellenes. However,

¹ The Holy Qur'an (Chapter ad-Dhariyat (Winnowing winds.51) Verse.47.

² Ibid., chapter al-Anbiya'(The Prophets.21) Verse.104.

there are other theories, which are supporting the idea of eternalism when they are suggesting that there is a scenario when the world may be turning in a vicious circle starting by a Big Bang, ending by a Big Crunch, and then going back to another Big Bang and so on. This support of eternalism is also there when these theories are some of them suggest that the world will expand forever denying completely the occurrence of the scenarios claimed by the Big Crunch, the Big Freeze and the Big Rip. We have to mention here that those who support the theory of the Big Bang, for example, and at the same time the co-eternity of matter with God are confusing themselves and others. The Big Bang gave birth to matter, as before the supposed primordial explosion, there was only energy, and matter sprang from that energy to form the universe that we do know. Hence, matter cannot be eternal if we start, of course, from the belief in the beginning of the whole cosmos through a Big Bang. We have to point out here that the Islamic interpretations do support the scenario of the beginning of the world, its expansion and its complete demise denying any possibility of eternalism, which is supported by many of these cosmological theories. The philosophical theories and especially the Peripatetic one is consonant with the scenario of the beginning of the world and its eternity, which is also consistent with other scenarios about the fate of the cosmos suggested by other scientific theories, especially the theories that are suggesting that the shape of the universe is hyperbolic. These divergent interpretations of the creation and eternalism of the cosmos lead us to talk also about the nature of time whether it is eternal or created. If we do admit that the cosmos started by a big bang, we are admitting -to some extent- that time started at that particular point of time. Similarly; if we do assert that the cosmos would end by a big crunch, we are accepting the fact that time will have an end, and if we do not believe in this theory, we would consequently admit that time is eternal.

It is worthwhile to point out that many scholars, scientists and even the masses who take a position between eternalism and creation especially when we do talk about these cosmological theories. Hence, if any one does believe in the big bang as a beginning of the universe and the big crunch as an end of it, he is admitting the notion of the creation of time. Likewise, if he does believe in the big bang as a beginning of the universe, which will expand forever, definitely, he is an advocator of the eternity of time hypothesis.

This assessment is not absolute because the basic of this analysis as a whole is so problematic. If we do only take the big bang and the big crunch theories as an evidence of the creation of time and the everlasting expansion of the universe as a proof of the eternity of time, definitely we are not completely on the right path towards a logical interpretation.

We are analysing things that way because we do know whether there was a time before time or not, and we do not know likewise the time that would be after the end of time. Even if we do come to know something about this in the future, the situation would not be that clear because we cannot talk about two different times. Thus, time that was before time either it is time in its broad meaning, and the time we are talking about it here did not started altogether as it was always there as a continuation of time before time. Furthermore, there are other problems not less enigmatic from the previous one such as the nature of the Big Bang itself .We do not know if the big bang declared the beginning of the universe and time or it was merely the beginning of a period of expansion that came after a period of contraction. In other words, the universe may have undergone an infinite series of oscillations, each beginning started with a Big Bang and ended with a Big Crunch.

2. The Amazing Soul of the Cosmos and the Astonishing Balance of Quantities

When Ibn Rochd was presenting all these arguments about the principle of corruptibility, the size of scientific discoveries was not big and amazing as it is nowadays and especially those related to the great balance wheel. In this respect, The *Rochdian* archaic arguments make us conjure up countless examples reinforcing his principle of corruptibility. We have to understand that the cosmos is not like a dustbin, but it is rather an amazing soul that can only proceed from an Intellect Who is responsible for the creation of the universe, and He is still controlling it. It is quite impossible to believe in the existence of both an order and a soul in a blind material process that occurred accidentally¹.

The universe is homogeneous and melodious to a point that cannot be imagined .Chad Walsh (1914-1991) went on to say that we can ask anyone –either a religious or an atheist-to prove how this amazing balance is in his interest if life on Earth does need many conditions that are impossible to be combined with mathematical equations. However, we do find that these conditions do really exist in our planet, and urges us to believe in the existence of a tremendous rational energy behind this intriguing cosmos, and such energy is the main cause of these conditions². The postulation of these conditions does create this intriguing balance on Earth. As we have mentioned above, Earth is the most important world we do know as it comprises all these impossible conditions that do not exist elsewhere in the huge cosmos-as far as we know till the time being-.despite the bigness of the Earth- as it seems to us- it does not equal an atom from this colossal cosmos. If its size was less or more than what it is now,

¹ Wahid ad-Dine Khan, Al-Islam yatahaddah, (Islam Defies), p.62.

² Ibid.

then life would be impossible on its surface. If the Earth, for instance, was in the size of the Moon, its diameter will be the quarter of its existing one, and its gravitation force will be the sixth of its existing one¹. As a result of this virtual change; the Earth cannot hold water and air around itself as it is the case of the Moon where there is no water and there exist no atmosphere due to the weakness of the gravitation force. The decrease of the gravitation power of the Earth to that of the Moon will cause a big increase of coldness during the night until everything freezes on it, and the increase of heat during the day until everything burns on it. Likewise; the decrease of the size of the Earth to the level of that of the Moon, will makes it unable to hold a big amount of water, and we do know very well that the existence of a huge amount of waters is essential to the continuity of the seasonal equinox. Consequently, the process called the great balance wheel will be achieved. Besides, the atmosphere of the Earth will increase in the space and vanish. Then, the temperature of the Earth will reach its highest degrees to decrease to its lowest levels². If the diameter of the Earth was the double of the existing one, its gravitation force will be doubled, as a result of that the atmosphere that is 500 miles (804Km) away will shrink to less than that. This would make the capacity of a square inch to increase from 15 pounds (6.8Kg) to 30 pounds (13.6Kg) of atmospheric pressure. Such air pressure will negatively influence all the aspects of life in the Earth.

If, for example, the size of the Earth is doubled to be like the size of the Sun, the gravitation force will be 150 times bigger and stronger than the existing one. In this case, the atmosphere will be so close to the point that it will be only 4 miles(6.43Km) away in instead of the existing distance, which is 500 miles (804Km); this will increase the atmospheric pressure to one ton in every square inch³. This scenario will make the existence of living bodies impossible in the sense that, from the theoretical point of view, the weight of an animal that is more that one pound-under the existing air condensation- will be 500 pounds (226Kg), and the size of human beings will decrease to be in the size of a mouse. What is striking here is if the latter scenario occurs, it will be quite impossible that the human being will possess a mind (intellect) as human mind does require many nervous tissues in his body, and this

¹ Wahid ad-Dine Khan, Al –Islam yatahaddah, (Islam Defies), p.62.

² Ibid.

³Ibid., p.63.

system can work only if the size of the human being is at a certain level¹. As we all know, the Earth finishes one lap around its axis every 24 hours and its speed in this rotation is 1000 miles (1609Km) per hour. If we do assume that such speed decrease to 200 miles (321 Km) per hour, the length of our days and our nights will be 10 times longer than the exiting order we have now. Accordingly, the Sun will burn – because of its high temperature- everything on Earth during the day and the remaining will be frozen during the night .Our Sun that is considered as the source of our life, its temperature is 12.000 Fahrenheit(6648 Celsius), and the distance between it and the Earth is 93.000.000(149.662.053 km) miles. This big, continuous distance never changes by either decreasing or increasing.

There is a big wisdom behind this because if this distance decrease and the Sun became closer to the Earth by half the existing distance, for instance, leaves will be burnt on Earth instantly because of its high temperature. Likewise, if the distance between the two celestial spheres is doubled, the coldness resulting from this remoteness will destroy life on Earth. If another star existed instead of the Sun, which temperature is 1000 times bigger than our Sun, the Earth will be turned to a glowering furnace². We all know that these minute calculations and scientific predictions were not possible before the beginning of the twentieth century, but Al -Ghazali in his compendium called Rasa'il al-Imam al -Ghazali (The Epistles of al-Imam Al-Ghazali) and his work Al-Hikma fi Makhlukat Allah(The Wisdom behind God' Creatures) mentioned this startling balance of quantities . Al-Ghazali said God created the Sun for purposes that are not completely exposed to man. He made it for the succession of day and night on Earth. Otherwise, it would be difficult to perform religious rites. If the sunrise were continuous, everything on Earth would be burnt. The sunrise and the sunset are as a lamp used by the dwellers of the house (the Earth) to be lit for a time and darkened for another. The advance and the lateness of the Sun generate seasons and organize the lives of plants and animals³. Likewise, the life of human beings will be organised and balanced between the works and the occupations of the day, the rest and the repose of the night "And made your sleep for rest, And made the night a covering, And made the day for seeking livelihood⁴."

¹ Wahid ad-Dine Khan, Al -Islam yatahaddah, (Islam Defies), p.63.

² Ibid.,p.64.

³ Al-Ghazali, *Majmu'at Rasa'il al- Imam al-Ghazali*,(The Epistles of Imam al-Ghazali),p.7, Al-Hikama fi Makhlukat Allah(the Wisdom behind God's Creatures),p.31

⁴The Holy Qur'an, chapter an-Naba '(The Announcement.78), Verses.10-11

These arguments of Wahid ad-Din khan, and before him Ibn Rochd and Al-Ghazali, about the notion that everything in this cosmos is in the interest of man are bolstered by many Qur'anic Verses:

"Say have ye thought .If God made night perpetual over you to the day of resurrection. Who is the god besides God that could bring you light? Will you not then hear? Say have ye thought if God made the day perpetual over you to the day of resurrection. Who is the god besides God that could bring you night wherein ye rest. Will ye not see?¹"

The same meaning is expressed in chapter Ya Sin:

"And a sign to them is the night: We draw forth from it the day, then lo! they are in darkness; And the Sun moves on to its destination. That is the ordinance of the Mighty, the Knower. And the Moon, We have ordained for it stages till it becomes again as an old dry palm-branch. Neither is it for the Sun to overtake the Moon, nor can the night outstrip the day. And all float on in an orbit²."

If Al-Ghazali had exhibited these balances of quantities in a philosophical way, professor of geology Zaghlul an-Najjar (1933-...), exposed them in a scientific manner. In his work al -Mafhoum al -Ilmi li a-Jibal fi al Qur'an al-Karim (The Scientific Meaning of the Mountains in the Holy Qur'an) expressed this amazing balance of quantities and the notion 'everything in his (the man) interest'. He argued that the cycle of the generation of the mountains rejuvenate the rock crust of the Earth, and achieve the gradual growth of the continents. The mountains provide the erosive factors with the sources of rocks they sculpt and erode for the rejuvenation of the earth's soil and enrich it with metals. We can see here that these sophisticated natural operations are not done in a mechanistic way, but to serve a holy divine purpose, which is the ease and the well-being of man³. We are apparently standing on Earth, but our real position is that we are thrown on our heads, and in order to explain very well this situation we would say: Earth is like a suspended ball lived by man, and the position of people on this ball is different. The people of America will be under the people of India, and the people of India will be under the feet of the people of America. Our Earth is not stable, but it turns, as we mentioned before, at a speed of 1000 miles per hour, this makes our position on it as a grain that is put on the surface of a wheel that turns at high speed, so the

¹The Holy Qur'an, Chapter al-Qasas(The Story or The Stories), Verse.71.

²Ibid, Chapter Ya Sin.36 Verses .38-40

³Zaghlul an-Najjar ,*Al-Mafhoum al-Ilmi li al-Jibal fi al- Qur'an al-Karim*, (The Scientific Meaning of Mountains in the Holy *Qur'an*), *p.97*.

Earth is susceptible to be thrown in space. However, this does not happen as we are firmly standing on it, so how can the Earth hold us as it turns at such high speed?¹ The answer to question is that there is on Earth a gravitation power, in addition to the atmospheric pressure, that is holding everything, and keeps us standing on Earth. So we are held from all sides by these two processes, and the atmospheric pressure that is on every square inch about 15 pounds means that every human being does bear about 228, 40 pounds (103.60 Kg) of atmospheric pressure on his body. The human being does not feel this weight as the air is pressurising him from every side exactly as it happen when we are swimming in water². Isaac Newton , after his long readings and observations reached the truth that the bodies drag each other, but he did not give an explanation to that, and he admitted that he has no explanation to this phenomenon. Isaac thought that he did not find any explanation to his observations about the relation between these bodies. In fact, he has provided us with a very astonishing philosophical truth.

If nature was without soul, it will not be able to explain itself, as it is the case with a dead person, he cannot tell us anything. The entire natural and the logical explanations do not add anything just to expose a target, for the dead cannot be a target holder. Therefore, if this cosmos was not under the sway of an intelligent designer with sublime perception, where did this amazing soul come from? Our Earth is turning in space doing its minute task at the angle of 33 degree, this calculated turning generates the seasons and it is the responsible for the suitability of the most of lands on Earth for agriculture and life. If the Earth was not at that angle, the darkness will overwhelm the poles during the whole year, and the seas vapour becomes in the north and in the south. In this case, all what will remain is the mountains of snow and deserts, which will make life on earth quite impossible ³.Surprisingly, al-Ghazali, and without nowadays scientific tools, expressed the same idea when he argued that the change of the positioning of the Sun in the sky generates summer and winter. When the Sun goes down from the middle of the sky, the atmosphere cools down and winter arrives, and when it is positioned in the middle of the sky, the heat is scorching. Consequently, lives of animals and plants are balanced⁴. It is worthwhile to mention here that if the logic of scientists was correct that matter had organised itself in this thorough and balanced manner, then we would be only surprised at this amazing calculations, and intrigued by such minute

¹Wahid ad-Dine Khan, Al-Islam yatahaddah. (Islam Defies), p.64

²Ibid.

³Ibid.

⁴ Al-Ghazali, Mamu'at Rasa'il al-Imam al-Ghazali, (Compendium of the Epistle of Imam Al-Ghazali), p.7

system! They said Earth was split from the Sun, which mean that its temperature was at the time of the split like the solar temperature which is12.000 Fahrenheit. Then the Earth started to gradually cool down, in that period there was no connection between the oxygen and the hydrogen because of the high temperature. Such a connection between the two gases was achieved only when temperature of the Earth became 4.000 Fahrenheit (2204 Celsius). Only at that stage, water existed, and the operations of the other kinds of existences on earth continued more than one billon year. As a result of that, the gases of the space of the Earth migrated to the space of the cosmos, and the remaining of the gases were turned into water, attracted to the Earth, or remained in the form of atmosphere, but most of them in the form of oxygen and nitrogen¹. This atmosphere in its condensation is one component, 2.000.000 from the components of the Earth, not all the gases were attracted to the Earth, and not all of them were turned into an atmosphere. If this occurred, life on Earth would be impossible. If we do suppose the impossible, and life existed in such circumstances-the square inch bears thousands of pounds of atmospheric pressure-we would not be (human beings) as we are now, and our life would be different from the one we are leading now^2 . We have to add that if the crust of the Earth were thicker by 10 feet than its existing one, the existence of the oxygen would be impossible as the crust will absorb it, and without it, animal life would be impossible. If the seas were deeper few feet more than the existing depth, the carbon dioxide and oxygen will be attracted and absorbed by water. In this case, the existence of plants on earth would be impossible. If the atmosphere was milder than the existing one, meteorites will penetrate every day into the external atmosphere of the Earth, and we can see them lightening during the night, and they would fall in every part of our planet to burn it³.

As these meteorites continue their travel at the speed of 40miles (64.3Km) per second, because of this high speed, they would burn everything on Earth that is penetrable until our planet became a sieve in a period of time that is not that long. Finally, we have to add that the atmosphere can only be penetrable by solar rays of chemical importance, and with reasonable quantities essential for the growth of plants, the formation of vitamins and the destruction of harmful germs. In the same time, this atmosphere prevents the other harmful

¹Wahid ad-Dine Khan, *Al –Islam yatahaddah*, (Islam Defies), p.65. ²Ibid.

³Ibid.

solar rays from reaching us¹.All over again, al-Ghazali in his *Rasa'il*(Epistles) draw our attention to the intriguing balance of quantities regarding rainfall and water reservoirs. He argued that if Earth were stripped of mountains, it would have been extremely difficult to search for water. That is why, the Almighty God created the mountains to be a reservoir for waters to come out as springs and rivers. There are some mountains in which there is no place for water, in this case, snow is kept on its surface until the coming of the hot season when it melts down to take the form of useful rivers till the next rainfall².

Ibn Sina joined this natural-religious arena in his book *Isharat wa Tanbihat (*Remarks and admonition) by stating that the existence of God is clear as that of the Sun. He went on to say that he believed in Him as his belief in himself, and the belief that the matter ,that is stripped of any sort of life and feeling, is the source of the entire cosmos full of life, creatures minuteness, excellence, and harmony is quite ridiculous. It is even more ridiculous than believing that this sucking child is the father of that senile person as the whole is bigger than the part without resorting to any kind of experience, where as proving that the part is bigger than the whole (when the iron stretches by heat for instance) is based upon experience³.

The Islamic Holy Scripture supports in hundreds of Verses such amazing balance of quantities: "And if God were to amplify the provision for His servants, they would rebel in the earth; but He sends (it) down by measure, as He pleases. Surely, He is Aware, Seer of His servants⁴." Likewise, in chapter of 'al-Hijr'(Rock city), The Almighty says:

"And We send the winds fertilizing, then send down water from the clouds, so We give it to you to drink; nor is it you who store it up⁵." The same meaning is in chapter of al-Mu'minoun(The Believers): "And We send down water from the cloud according to a measure, then, We cause it to settle in the earth, and We are indeed able to carry it away⁶." We can see clearly the consequences resulting from any disequilibrium in such quantities such as floods, scorching heat waves, storms and blizzards. Some, if not all, of these consequences are the result of the big quantities of harmful solar rays penetrating into the atmosphere of the Earth. The penetration of such solar rays is causing the phenomenon of global warming or what it is called 'the greenhouse effect' through the damage of the Ozone

¹ Wahid ad-Dine Khan, Al -Islam yatahaddah, (Islam Defies), p.66

² Al-Ghazali, *Majmu'at Rasa'il al-Imam al-Ghazali* (The Compendium of the Epistles of al-Imam Al-Ghazali), p.12.

³ Ibn Sina, Isharat Wa Tanbihat, (Remarks and Admonitions), p.64.

⁴ The Holy Our'an, Chapter Al-Shura(The Counsel.42), Verse.27.

⁵ Ibid., chapter al-Hijr(Rock city -Stoneland.15), Verse.22.

⁶ Ibid., chapter al -Mu'minoun(The Believers.23), Verse.18.

layer. The list of examples supporting what al-Ghazali and Ibn Rochd were saying not only in man's life on Earth, but also in every single aspect of his life from biology to geology, and from cosmology to archaeology is inexhaustible:" *And in yourselves , do you not see*?¹ What is striking here is why all these physical laws are formulated in such a way to be in the interest of man and not the opposite? This explains why whenever there is a dysfunction in these laws; man is among the first sufferers of its consequences? Why is there no other life similar to that on Earth? If we do suppose, of course, that we are (the human beings) the only ones in this spacious infinite cosmos, those who disagree with this logical analysis, the burden is on them to refute such scientific truths, not religious revelations, to find convincing answers to these questions, or to look for alternatives elsewhere.

¹ The Holy Qur'an, chapter *ad-Dhariyat* (The Scatterers.51, Verse.21.

BIBLIOGRAPHY OF WORKS CITED:

*Abd khayr ad-Dine, Ahmed, Kalima fi Tarikh al-Mantiq, (A Word in the History of Logic), al-Matba' ar-Rahmaniyyah, Egypt, 1930.

*Abrahamov, Binyamin, 'Fahr al-Din ar-Razi on the Knowability of God's Essence and Attributes', *Arabica*, T.49, Fasc.2 (Apr., 2002), BRILL.

*Abu Milhim, Ali, *Al-Falsafah al-Arabiyyah : Moshkilat wa Hulul*,(The Arabic Philosophy: Problems and Solutions), Az-Din li Attiba' wa an-Nashr,1994.

*Al-Andalusi, Said Ibn Ahmed, Kitab Tabaqat al-Umam (Categories of Nations), Beirut: al-Matba' al-Katholikiya, 1912.

* Alexander (of Aphrodisias), Scripta Minora. De Anima cum Mantissa, (Commentaria in Aristotelian Graeca, Suppl.2, 1),ed. Bruns, I., Berlin: G. Reimer, 1887.

* Al-Farabi, *Philosophy of Plato and Aristotle*, trans. Mahdi, Muhsin, the free Press of Glencoe, 1962.

*----, Ara' Ahl al-Madina al-Fadila, (Opinions of People of the Righteous State), Dar Maktabat al-Hilal, 1995.

*-----, Kitab Ihsae al-Ulum(Categories of Sciences), Dar wa Maktabat al-Hilal, 1996.

*-----, Tahsil as-Saada, (Attainment of Happiness), Dar Maktabat al-Hilal, 1995.

*-----, *Kitab Al-Jam' Bayna Ra'y al-Hakamayn*,(The Book Combining the two Sages' Opinion),Dar Maktabat al-Hilal,1996.

*AL-Ghazali, *Kimya' as-Saada*,(The Alchemy of Happiness),trans. Claud Field, The Octagon Press, London,1980.

*-----, The Incoherence of Philosophers, (Tahafut al-Falasifah), trans. Marmura, Michael. E., Brigham University Press, Provo, Utah, 1997.

*----, *Tahafut al-Falasifa*,, (The Incoherence of Philosophers), ed. Donya, Solayman Cairo: Dar al-Ma'rif, Egypt, 1961.

*-----,*Mi'yar al-Ilm fi Fan al -Mantiq*,(Criterion of Knowledge in the Art of Logic),ed. Donya, Solayman, Cairo: Dar al-Ma'rif, 1965.

*-----,*Maqasid al-Falasifah*: Fi al-Mantiq wa al-Hikma al-Ilahiyah wa al-Hikma al-Tabi'yah(The Aims of Philosophers: The Introduction to the Incoherence of Philosophers), Cairo: Al-Matba' al-Mahmudiyah at-Tijariyah bi-al-Azhar, Egypt, 1936.

*-----, Al- Munqidh mina ad-Dalal wa al-Musil ila di-al-Izzati wa al-Jalal) (The Rescuer from Misguidance and the Transmitter to the Majesty Almighty), Beirut: Dar al-Andalus, 1967.

*-----,*Majmuat Rasail al-Imam Al-Ghazali*(The Compendium of Imam Al-Ghazali's Epistles),AI-Maktaba al-Tawfikiyah, Cairo,Egypt,(n.d).

*-----Al-Qistase al-Mustakim(The Correct or the Just Balance), Damascus: Al-Matba' al-Ilmiyah, 1993.

*-----, *Ma'rij al-Quds fi Madarij Ma'rifat an-Nafs*,(Ascent to the Divine through the Path of self-Knowledge),Cairo: Matba't al-Istikama,(n.d).

*-----, *Mizan al-Amal*,(The Balance of Deeds), al-Matba' al-Arabiyyah, Egypt,1342 (A.H).

*-----, *Ihya' Ulum ad-Din*, (The Revival of the Religious Sciences),vol.13, Cairo: Matba't lajnat Nachr at-Takafa al-Islamiyyah, 1357 (AH).

*-----, *Al-Hikma fi Makhlukat Allah*, (The Wisdom Behind God's creatures), Beirut: Dar Ihya' al-Ulum, 1978.

*----, Al-Iktisad fi al-I'tikad, (The Economy in Belief), ed. Insaf Ramadan, Dar kotayba, 2003.

-----, Fadaeh al-Batiniyyah, (the Infamies of the Esoterics), (ed.) Badawi Abdul-Rahman, ad-Dar al-kawmiyyah li-Attiba' wa an-Nacher, 1964.

*Al-Jawziyyah, Ibn al-Kayyim, *Tarik al Hijratayn wa Bab as-Saadatayn*,(The Path of the two Migrations and the Gate of the two Happiness(es)),Dawha: Idarat ash-sho'un ad-Diniyyah, 1977.

*Al-Juwayni, Abu al-Ma'li Abdel Malek, *ash-Amil fi Usul ad-Din*(the Comprehensive in the Assets of Faith), Cairo(n.d).

*Anderson, C. Alan, Whitehouse, Deborah G., New thought: A practical American spirituality, "Spirituality" Crossroad publishing company, 1995.

* Andrae, Tor, Mohammed: The Man and His Faith, 1936, trans. Theophil, Menzel, 1960,

*Annas E., Julia, *Epicurus Philosophy of Mind*, (ed.) Everson, Stephen, Cambridge University Press, 1991

*----- 'Aristotle, Number and Time', *the Philosophical Quarterly*, vol.25, No.99 (Apr., 1975), Blackwell Publishing for the Philosophical Quarterly.

*An-Najjar, Zaghlul, *Al I'jaz al-Ilmi fi al-Qur'an al-Karim*, (The Insuperable Scientific Facts in the Holy Qur'an), vol.I, Maktabat ash-orouk ad-Dawliyyah, 2002.

*-----, *Al-Mafhoum al-Ilmi li-al-Jibal fi al-Qur'an al-Karim*,(The Scientific Meaning of Mountains in the Holy Qur'an),vol.I, Maktabat ash-Orouk ad-Dawliyah,2002.

*Aristotle, Metaphysics, trans. Richard Hope. University of Michigan Press, 1960.

*-----, De Anima, (On the soul), trans. Hicks, R.D., Cambridge: Cambridge University Press, 1907.

*-----, On the Heavens, (De Caelo), trans. Guthrie, W.K.C., London: Heinemann; Cambridge, Mass: Harvard University Press, 1939.

*-----, De Generatione et Corruptione, trans. Williams, C.J.F., Oxford : Clarendon Press, 1982a.

*------, Eudemian Ethics, trans. Michael Woods., Oxford: Clarendon Press, 1982b.

*-----, Physics III&IV, trans. Hussey, Edward, Oxford: Clarendon Press, 1983.

*-----, *Meteorologica*, trans. Webster, E.W., Oxford University Press.1931, reprint, 1955).

*-----, Generatione Animalium, trans. Peck, A.L., Loeb Classical library., 1979.

*-----, Eudemian Ethics: books I, II, III&VIII, trans. Michael Woods., Oxford University Press., 1992.

*-----,Nicomachean Ethics, trans. Apostle, H.G., Dordrecht: Reidel, 1975.

*-----, *The Politics*, (ed.) Trevor, J. Saunders, trans. Sinclair, T.A., Penguins Classics, 1962. Revised edition 1981 and reprinted with revised bibliography 1992.

*-----, On Melissus, Xenophanes and Gorgias in the Complete Works of Aristotle, ed.

& trans. Barnes, J., Princeton: Princeton University Press, 1984.

*-----, *De Somno et Vigilia:"On Sleep and Sleeplessness"* in (Parva Naturalia or little Physical Treatises), Ross, David W., Oxford University Press,2001.

*Aquinas, Thomas, Kenelm, Foster, Humphries, Silvester, Commentary on Aristotle's De Anima, trans. Kenelm, Foster and Humphries, Silvester, Continuum International Publishing Group,2003.

*Armstrong, A.H., The Architecture of the Intelligible Universe in the Philosophy of Plotinus, Cambridge: Cambridge University Press, 1940.

* Averroes(Ibn Rochd) The Incoherence of the Incoherence, (Tahafut al-Tahafut), vol.I, trans. Bergh, Simon van Den., Oxford University Press, 1954.

*-----, The Incoherence of the Incoherence, (Tahafut al-Tahafut), vol.II, trans. Bergh, Simon van Den., Oxford University Press ., 1954.

*-----, *Tahafut al-Tahafut*, (The Incoherence of the Incoherence), vol.I&II, Dar al-Ma'rif, 1964.

*-----,Al- Kashf an Manahij al-Adilla fi 'Aqaid al-Milla, (The Exposition of the Methods of Proofs Concerning the Beliefs of the Creed), ed. Mahmud Qasim, Cairo: Al – Maktabah al-Anglo Misriyya,1964.

*-----, The Exposition of The Methods of Proofs Concerning the Beliefs of the Creed, (Al-Kashf an Manahij al-Adilla fi 'Akaid al- Milla), Beirut : Markaze Dirasat al-Wahda al-Arabiyyah, 1998.

*-----, The Decisive Treatise, Determining the Nature of the Connection Between Religion and Philosophy, (Fasl al-Maqal, or Faith and Reason), trans. Bergh, Simon van Den Oxford: Messrs. Luzac & co., 1954.

*-----, Fasl al -Maqal, (Decisive Treaty), Cairo: Dar al-Ma'arif, 1954.

*-----, *Talkhis Kitab al-Jadal*, (Middle Commentary on Aristotle's Topics), vol.VI, al-Hay'a al-Misriyyah al-Ammah li-al-Kitab, 1979.

*-----, *Tafseer ma bae'd at-Tabia'*,(The Great Commentary of Metaphysics),vol.II, Beirut: Al-Matba' al-Katholikiyah,1942.

*-----, On Plato's Republic, trans. Ralph Lerner, Cornell University Press, 1974.

*Ash-Shahrastani, Nihayat al-Akdam fi Ilm al-Kalam, (The End of Steps in the Science of Theology), vol.I, Oxford University Press. 1934.

*As-Saboni, Mohammed, Mukhtasar Tafseer Ibn katheer(The Concise Interpretation of Ibn Katheer), Beirut: Dar al-Qur'an al-Karim, 1981.

* As -Sijistani, Abu Sulayman, Muntakhab Siwan al Hikma, trans. Dunlop, D. M., The Hague, Paris, N.Y., 1979.

*At-Taee, Mohammed Basil, Nakd Ibn Rochd li-Madhab Addariyyah Inda al-Mutakallimin,(The Criticism of Ibn Rochd of Muslim Theologians' Atomism),University of Yarmouk, Irbid: Jordan(n.d).

*Barnes, Jonathan, Schofield, Malcolm & Sorabji Richard, Articles on Aristotle Metaphysics, Gerald Duckworth and Company Limited, 1979.

* Barrow, J.D., Davies, P.C.W., & Harper, C.L., Science and Ultimate Reality: from Ouantum to Cosmos, Cambridge University Press, 2003.

* Berti, Enrico, 'Multiplicity and Unity of Being in Aristotle', *Proceedings of the Aristotelian Society*, New Series, Vol.101(2001) Blackwell Publishing on behalf of the Aristotelian Society.

*Bertolacci, Amos 'The Reception of Aristotle's Metaphysics in Avicenna's Kitab as-Shifa: A Milestone of Western Metaphysical Thought', *Islamic Philosophy, Theology and Science*, Leiden: E.J.Brill, 2006.

* Bett, Richard 'The Sophists and Relativism', Phronesis, Vol.34, No.2(1989), BRILL.

* Block, Irving, 'Aristotle and Physical Object', *Philosophy and Phenomenological Research*, vol.21, No.1 (Sep., 1960) International Phenomenological Society.

* Bogen, James, 'Change and Contrariety in Aristotle', Phronesis, vol.37, No.1 (1992), BRILL.

* Burrell, David B., 'Knowing the Unknowable God', *Nous*, vol.26,No.4(Dec.,1992), Blackwell Publishing.

* Clark, Gordon H., 'Plotinus on the Eternity of the World', *The Philosophical Review*, vol.58, No.2 (Mar., 1949) Duke University Press on behalf of Philosophical Review.

*Dahl, Norman O., On Substance Being the Same as its Essence in Metaphysics Z6: The Pale Man Argument, *Journal of the History of Philosophy*, 1999.

*Davidson, Herbert Alan, Alfarabi, Avicenna, and Averroes on the intellect: Their cosmologies, Theories of active intellect, and Theories of human intellect, Oxford University Press, 1992.

*------ 'John Philoponus as a source of Medieval Islamic and Jewish Proofs of Creation', *Journal of the American Oriental Society*, vol.89, No.2(Apr.-Jun., 1969), American Oriental Society.

* ------, Proofs for Eternity, Creation and the Existence of God in Medieval Islamic and Jewish Philosophy, New York, 1987.

*------ 'Proofs of Eternity, Creation and the Existence of God in Medieval Islamic and Jewish Philosophy', *Philosophy East and West*, vol.41, No.4 (Oct., 1991), University of Hawai Press

* de Lacy, P.H., 'Lucretius and the History of Epicureanism', *Transactions and Proceedings* of the American Philosophical Association, vol.79 (1948), The Johns Hopkins University Press.

* Dewitt, Normal W., 'Epicurus : His Perpendicular Universe', *The Classical Journal*, vol.44, No.1 (Oct, 1948), The Classical Association of the Middle West and South.

* Dilon, John, 'Philoponus on Aristotle Physics 3', *The Classical Review*, New Series, vol.47, No.1 (1997), Cambridge University Press on behalf of The Classical Association.

*Dodd, Tony, The Life and Thought of Siger of Brabant, thirteenth century Parisian Philosopher: An Examination of His Views on the Relationship of Philosophy and Theology, the Edwin Mellen Press, 1998.

* Donald, C.Williams, 'Form and Matter II' *the Philosophical Review*, vol.67,No.4 (Oct., 1958) Duke University Press on behalf of Philosophical Review.

* Duncan, Patrick 'Immortality of the Soul in the Platonic Dialogues and Aristotle', *Philosophy*, vol.17, No.68 (Nov., 1942), Cambridge University Press on behalf of the Royal Institute of Philosophy.

* Dunya, Sulayman, At-tafkeer al-Islami al-Falsafi, (The Islamic Philosophical Thought), Maktabat al-Khanji, Egypt, 1967.

* Elkaisy, Maha, 'Gods and Humans in Islamic Thought: Abd al –Jabbar, Ibn Sina and al-Ghazali', *Journal of Islamic Studies*, vol.19, No.1 (2008), Oxford University Press.

*Epicurus. ,Letter to Herodotus, trans. Bailey ,C., Oxford, 1926.

* Evans, J.D.G., 'Aristotle and Relativism', *The Philosophical Quarterly*, vol.24, No.96 (Jul., 1974) Blackwell Publishing for the Philosophical Quarterly.

*Fakhry, Majid, *,Ibn Ruchd : Faylasufu Qurtuba*,(Ibn Rochd :The philosopher of Gordoba), Beirut : Dar al-Machriq.,1982.

*-----, History of Islamic Philosophy, Columbia University Press: New York-london, 1983.

*Farah, E., Caesar , *Islam: beliefs and Observances*, Seventh Edition, Barron's Educational Series, 2003.

*Fledman, Seymour, 'Rescher on Arabic Logic', *The Journal of Philosophy*, vol.61,No.22(Nov.26,1964), Journal of Philosophy.

* Fowler, Don., *"Lucretius on Atomic Motion: A Commentary on De Rerum Natura, Book Two,* Oxford: Oxford University Press. 2002. Bryn Mawr Classical Review (28/07/2003). Reviewed by Walter Englert.

* Frazee Charles A., 'Ibn al-Arabi and Spanish Mysticism of the Sixteenth Century' Numen, vol.14, Fasc.3 (Nov., 1967) BRILL.

* Gauthier, Leon ,IBN ROCHD (AVERROES), Presses universitaires de France., 1948.

*Ghallab, Mohammed, At -Tanassuk al-Islami, (The Islamic Hermeticism), Al-Majlis al -A'la li ash-Sho'un al Islamiyyah, Egypt, 1970.

* Gibb, Hamilton, A.R., 'Pre-Islamic Monotheism In Arabia', *The Harvard Theological Review*, vol.55,No.4(Oct., 1962) on behalf of the Harvard Divinity School.

* Godfrey, Raymond, 'Democritus and the Impossibility of Collision', *Philosophy*, vol.65, No.252 (Apr., 1990) Cambridge University Press.

*Golb, N., 'The Hebrew Translation of Averroes' Fasl al-Maqal', *Proceedings of the American Academy for Jewish Research*, vol.25 (1956), American academy for Jewish Research.

* Guldentops, Guy, 'Themistius on Evil', Phronesis, Vol.64, No.2(May,2001), BRILL.

* Hamrnesh, Sami, 'Contra Galenu', by Christoph Burgel, Journal of the American Oriental Society, vol.90, No.2 (Apr.-Jun., 1970) American Oriental Society.

.* Harvey, Steven, 'Why did Fourteenth- Century Jews Turn to al- Ghazali's Account of Natural Science?', *The Jewish Quarterly Review*, New series, vol.91, No.3/4 (Jan., Apr.,2001), University of Pennsylvania Press.

* Hawi, Sami S., ' Ibn Tofayl: on the Existence of God and His Attribute', *Journal of the American Oriental Society*, vol.95, No.1 (Jan.-Mar., 1975), American Oriental Society.

* Hazelton, Roger,' Time, Eternity and History', *Journal of Religion*, vol.30, No.1(Jan.,1950), University of Chicago Press.

*Herman, Diels and Kranz Walther *"Die Fragmente der Vorsokratiker*, Zurich: Weidmann, 1985.

* Hermann, Frankel, 'Heraclitus on God and the Phenomenal World', *Transactions and Proceedings of the American Philological Association*, vol.69 (1938), The Johns Hopkins Press.

* Hollister, C. Warren, McGee, J., and Gale Stokes, *The West Transformed: A History of Western Civilization, Fort* Worth: Harcourt College Publishers, 2000.

* Hose, H.F., 'Lucretius', *Greece and Rome*, vol.3, No.9(May., 1934) Cambridge University Press on behalf of the Classical Association.

*Hourani, F. George, 'Averroes on the Harmony of Religion and Philosophy', Harry Blumberg (editor), *Speculum*, vol .38, No.4 (Oct., 1963), Medieval Academy of America.

*------'Averroes on Good and Evil', *Studia Islamica*, No.16, Maisonneuve and Larose, 1962.

*Husik, Isaac, 'Averroes on the Metaphysics of Aristotle', *the Philosophical Review*, vol.18, No.4 (Jul., 1909), Duke University Press on behalf of philosophical Review.

*Ibn Hazm, Al-Akhlaq wa as-Siyyar, (Mannerism and Behaviours), Ta-Ha Publishers, 1990.

.*Ibn Sina , The Metaphysica of Avicenna (Ibn Sina), trans., Parviz, Morewedge, London Routledge and Kegan Paul Ltd., 1973.

*-----, Kitab an-Najat, Cairo: Muhyi ad –Din al-Jurdi Press, 1938.

*-----,Kitab Isharat wa Tanbihat,(Remarks and Admonitions),Dar al-Ma'rif, Egypt, 1960.

*-----,*Fi an-Nafs 'ala Sunnat al-Ihtisar*,(Compendium on the Soul),trans. Dyck, E.A.Van, Verona,1906,with the assistance of Dr. S. Landauer'German translation, as "die Psychologie des Ibn Sina"1875 and Mc Donald's literal English translation, as "The psychology of Ibn Sina",1884.

*-----, *Kitab Al-Hudud*,(Book of limitations), l'Institut Français d'archéologie Orientale du Caire,1963.

*----,Uyun al-Hikma (The Eyes of Wisdom),ed. Abdul-Rahman Badawi, Dar al-Yanabee'(n.d.).

*-----, *Kitab as-Shifa' : Ilahiyyat* (The Book of Healing : Divinities), vol.I, (ed.) Zayid Saeed and Qanawati, Iran :Dar thawi al Qubra, (n.d.).

*-----,Al-Mubahathat,(The Discussions),from <u>Aristu Inda al-Arab</u> (Aristotle among Arabs),(ed.) Abdel-Rahman Badawi, Kuwait:Wakalat al-Matbouat,1978.

* Ide, Harry A., 'Void and Eternity, Philoponus: Corollaries on Place and Void, Simplicius: Against Philoponus on the Eternity of the World', by Philoponus; Simplicius, *The Philosophical Review*, vol.102, No.1(Jan., 1993), Duke University Press on behalf of Philosophical Review.

* Ikhwan as-Safa, Rasa'il Ikhwan as-Safa wa Killan al-Wafa: Risala No.4(Brethren of Purity and Loyal Friends: Epistle No.4), Beirut: Dar Sadir, 1957.

* Jeffery, Arthur, Ibn Al-Arabi's Shajarat al-Kawn(Tree of the Being), Studia Islamica,

No.10, Maisonneuvre and Larose, 1959

*Johnson, Steve, 'Skills, Socrates and the Sophists: learning from History', *British Journal of Educational Studies*, vol.46, No.2 (Jan., 1998), Blackwell Publishing on behalf of the Society of Educational Studies.

*Jones, Barrington, 'Aristotle's Introduction of Matter', *the Philosophical Review*, Vol.83, No.4 (Oct., 1974) Duke University Press on behalf of Philosophical Review.

* Kathleen, Freeman, Ancilla to the Pre-Socratic Philosophers, Cambridge: Harvard University Press, 1983.

*Kenny, Anthony, Aristotle on the Perfect life, Clarendon Press: Oxford, 1992.

*------ 'Philoponus on Aristotle's on the Intellect', by William Charlton, *The Philosophical Quarterly*, vol.43, No.173 Special Issue: Philosophers and Philosophies (Oct., 1993) Blackwell Publishing for The Philosophical Quarterly.

*-----, Ancient Philosophy vol.I, Clarendon Press, Oxford., 2004.

*Kerferd, G. B., 'The First Greek Sophists', *The Classical Review*, vol.64,No.1 (Apr.,1950) Cambridge University Press on behalf of The Classical Association.

*------ 'Philoponus on Aristotle's on the Intellect', by William Charlton, *The Philosophical Quarterly*, vol.43, No.173 Special Issue: Philosophers and Philosophies (Oct., 1993) Blackwell Publishing for The Philosophical Quarterly.

*-----, Ancient Philosophy vol.I, Clarendon Press, Oxford., 2004.

* Khamara, E.J., 'Eternity and Omniscience' *The Philosophical Quarterly*, vol.24, No.96(Jul., 1974), Blackwell publishing for the Philosophical Quarterly.

* Khan, Charles H., Anaximander and the origins of Greek Cosmology, Columbia University Press, New York., 1960.

* Khan, Wahid ad-Din, *Al-Islam Yatahaddah, (*Islam defies), trans. Zafarul Islam, Khan, Dar al-Bohouth Al-Ilmiya,1966,(The book is published in Urdu in 1966 by Academy of Islamic Research and Publications.

.*Kneale.M., 'Eternity and Sempiternity', *Proceedings of the Aristotelian Society*, New series, vol.69, (1968-1969) Blackwell Publishing on behalf of the Aristotelian Society.

* Kogan, Barry S., 'Averroes and the Metaphysics of Causation' *The journal of Religion*, Vol.67, No.3 (Jul., 1987), University of Chicago Press.

* Kosman, L.A., 'Aristotle's Definition of Motion', Phronesis, Vol.14, No.1(1969) BRILL.

* Kraemer, Joel L., 'A lost Passage from Philoponus' Contra Aristotelem in Arabic Translation', *Journal of the American Oriental Society*, vol.85, No.3 (Jul.-Sep., 1965), American Oriental Society.

* Leyden, W. Von, 'Time, Number, and Eternity in Plato and Aristotle', *The Philosophical Quarterly*, vol.14, No.54 (Jan., 1964) Blackwell Publishing for the Philosophical Quarterly.
* Lloyd, B. E. R., *Greek Science after Aristotle*, New York: W. W. Norton, 1973.

* Long, A.A, 'Stoic Studies' *The Philosophical Review*, vol.109, No.3 (Jul., 2000), Duke University Press on behalf of Philosophical Review.

*-----' Soul and Body in Stoicism' Phronesis, vol.27, No.1(1982), BRILL.

*-----' Chance and Natural Law in Epicureanism' Phronesis, vol.22, No.1 (1977), BRILL.

* Lucas, Siorvanes, 'Philoponus on Aristotle', Reviewed work : John Philoponus ' Criticisms of Aristotle's theory of Aether, by Christian Wildberg, The Classical Review, New Series, vol.41, No.1(1991), Cambridge University Press on behalf of The Classical Association.

* Lucretius, On the Nature of the Universe, trans. Latham R.E. Penguin Classics, 1951.

* -----, On the Nature of the Universe, trans. Ronald Melville, Don fowler, Peta fowler, Oxford University Press, 1999.

.*-----, On the Nature of Things, trans. John Mason Good. Harvard University, 1851.

* Luthy, Christoph, 'The fourfold Democritus on the Stage of Early Science', Isis, vol.91,

No.3 (Sep, 200) The University of Chicago on behalf of The History of Science Society.

* Luyten, N., *Matter as Potency*, in E.McMullin (ed), the concept of Matter in Greek and Medieval Philosophy (Noter Dame, 1963).

.*Lvry L., Alfred, 'Epitome de Fisica (Filosofia de la Naturaleza', *The History of Science Society*, vol.83, No.4 (Dec., 1992), The University of Chicago Press on behalf of the History of Science Society.

* Macintyre, Alasdair. , *Pantheism*, In Encyclopedia of Philosophy. Ed. Paul, Edwards. New York: Macmillan and Free Press., 1967.

* Macmillan Encyclopaedia of Philosophy, Cosmological Argument for the Existence of God, (1967), Vol.2,

* Mahdi, Muhsin, 'Al –Farabi's Book of letters', (Kitab al-Huruf) Commentary on Aristotle's metaphysics, *Philosophy East and West*, Vol.21, No.2 (Apr., 1971), trans. Lenn Evan Goodman, University of Hawaii Press.

*_____ Alfarabi against Philoponus', *Journal of Near Eastern studies*, vol.26, No.4 (Oct., 1967), Oriental Institute, University of Chicago.

* Mahmoud, Mostapha, *Hiwar ma Sadiqi al –Molhid*, (A Dialogue with my Atheist Friend), www.scribd.com/doc/8202093.Access Date: 12 Feb, 2009.

* Mansfeld, J., 'Ambiguity in Empedocles B 17, 3-5 : Suggestion', *Phronesis*, vol.17, No.1(1972), BRILL.

* McDiarmid, John Brodie, 'Theophrastus on the Eternity of the World', *Transactions and Proceedings of the American Philosophical Association*, vol.71(1940), The Johns University Press.

* McFarland, Thomas. , *Coleridge and the Pantheist Tradition*, Oxford: Oxford University Press., 1969.

* McLean, George F., and Aspell, Patrick J., Ancient Western Philosophy: The Hellenic Emergence, Meredith Corporation, New York, 1971.

* Montada, Puig Josep, 'Aristotle and Averroes on Coming-to be and Passing away', Oriens, vol.35, (1996), BRILL.

* Najjar, Fauzi M., 'Ibn Ruchd (Averroes) and the Egyptian Enlightenment Movement', British Journal of Middle Eastern Studies, vol.31, No.2 (Nov., 2004), Taylor and Francis, Ltd.

* Najjar, Ibrahim, 'Ibn Rushd's Theory of Rationality', *Alif: Journal of Comparative Poetics*, No.16, Averroes and the Rational Legacy in the East and the West (1996), Department of English and Comparative Literature, American University and American University in Cairo Press.

* Nirenstein, Samuel, 'The Problem of the Existence of God in Maimonides, Alanus and Averroes. A Study in the Religious Philosophy of the Twelfth Century', *The Jewish Quarterly Review*, New Series, vol.14, No.4 (Apr., 1924) University of Pennsylvania Press.

* Norman, Richard, 'Aristotle's Philosopher-God', Phronesis, vol.14, No.1 (1969), BRILL.

*Nussbaum, Martha C., and Oksenberg Rorty, Amelie , *Essays on Aristotle De Anima*, Clarendon Press, 1992.

* O'Brien, Denis, 'Empedocles' Cosmic Cycle', *The CLassical Quarterly*, New Series, vol.17, No.1 (may, 1967) Cambridge University Press on behalf of the Classical Association.

* O' Neill, W., 'Time and Eternity in Proclus', *Phronesis*, vol.7, No.2 (1962), BRILL.
*Opsomer, Jan, 'Proclus against Plotinus on Matter', *Phronesis*, vol.46, No.2(May, 2001), BRILL.

*Online Encyclopaedia Britannica: <u>www.britannica.com/eb/article9044375/kalam</u>. Access Date: 02 of February 2007.

*Online:<u>www.sunniforum.com/forum/archive/index.php.28927.html</u>.Access Date:05 Apr.,2008.

*Online Encyclopedia Britannica: <u>www. britannica.com</u>./batiniyah. Access Date: 05 May., 2008.

*Online Encyclopaedia Britannica: <u>www.britannica.com/topic /373025/Megarian-school</u>. Access Date: 07 Jun. 2007.

*Online Encyclopaedia Britannica: <u>www.britannica.com/topic/182278/ Eleatic- One :</u> Access date: 14 Aug. 2007).

*Online Encyclopaedia Britannica: <u>www.britannica.com/topic/63871/bhagavadgita.</u> Access Date :04 Jun,07

*Online Encyclopaedia Britannica: <u>www.britannica.com/topic/172621/dualism</u>. Access Date: 15 Jan 07

*Online Encyclopaedia Britannica: <u>www.britannica.com/orphism</u>. Access Date: 12 Jan 2006

*Online Encyclopaedia Britannica:<u>www.britannica.com/topic/514 903/sabaea</u>n. Access Date: 23 Apr., 2008.

*Online: www.historyguide.org/ancient/lecture8b.html. Access Date: 09 Jun. 2007.

* Oresme, Nicole., *The Possibility of a Plurality of Worlds*, trans. Albert D. Menut. From A Source Book in Medieval Science, ed. Crant. Harvard, 1975.

* Owen, H. P., Concepts of Deity, London: Macmillan, 1971.

* Pasnau, Robert, 'Form, Substance and Mechanism', *The Philosophical Review*, vol.113, No.1(Jan., 2004) Duke University Press on behalf of Philosophical Review.

* Pearson, Carl, On Aristotle's "On coming to –Be and perishing", 1.1-5, and on Aristotle's "On Coming to –Be and Perishing" 1.6-2.4 by John Philoponus; C.J. F. Williams; Sylvia Berryman, Early Science and Medicine, vol.5, No.3 (2000), BRILL.

*Peters, F.E., Aristotle and the Arabs: The Aristotelian Tradition in Islam, New York University Press, University of London Press, 1968.

* Plato , Timaeus, trans. Donald J. Zeyl, Hackett Publishing Company, 2000.

*-----, *De Phaedo*, translated with an introduction and commentary by Hackforth, R., Cambridge University Press, 1955.

*-----, *The Republic*, translated and introduced by Desmond Lee, Penguin Classics., 1955.

*-----, *Timaeus*, Francis Macdonald, Cornford, "Plato's Cosmology", Kegan Paul, Trench Trubner and Co., 1937.

* Philoponus, John, *Philoponus against Aristotle on the Eternity of the World*, trans. Christian Wilberg, Gerald and Duckworth and Co Ltd, 1987.

* -----, Philoponus against Proclus' on the Eternity of the World 6-8, trans. Share Michael, Cornell University Press, Ithaca, New York, 2005.

*-----, On Aristotle On the Soul, trans. William Charlton, Cornell University Press(1999).

* Plotinus, On the Nature of the Soul, the Medeci society, Ltd, London, Boston, 1924.

* Proclus, The Elements of Theology, , Dodds, E.R., Oxford : Clarendon Press; London, 1933.

* Ree, D.A., 'Greek View of Nature and Mind ', *Philosophy*, vol.29,No.109(Apr.,1954), Cambridge University Press on behalf of Royal Institute of Philosophy.

*Renan, Ernest, Averroès et l'averroïsme, Calmann, Lévy, Editeur, Paris.1882.

* Reynold, A.Nicholson, The Idea of Personality in Sufism, Cambridge, 1923.

*Rice, Cyprian, The Persian Sufis, George Allen & Unwin Ltd, 1964

*Robinson, T.M., 'Soul and Immortality in Republic X', Phronesis, vol.12, No.2, (1967), BRILL

* Rosenthal, E.I.J., Averroes' Commentary on Plato's Republic, Cambridge University Press., 1966.

* Ross, David, , Aristotle, John Ackrill (Introduction), London: Methuen &co., 1968.

* Rouse Ball W.W., '*Pythagoras*', *The Mathematical Gazette*, vol.8, No.115(Jan ., 1915), The Mathematical Association.

* Rowe, Christopher, One and Many in Greek Religion, In Oneness and Variety. Ed. Adolf Portman and Rudolf Ritsema. Leiden: E.J. Brill, 1980.

* Sabra, A.I., 'A Twelfth Century Defence of the Fourth Figure of Syllogism', *Journal of the Warbug and Courtauld Institutes*, vol.28, (1965), the Warbug Institute.

* Santiago, Sia , God in Process Thought, Dordrecht: Martinus Nijhoff Publishers, 1985.

* Schopenahuer, Arthur, *A Few Words on Pantheism*, In *Essays from the Parerga and Paralipomena*. Translated by T. Bailey Saunders. London: George Allen & Unwin, 1951.

* Sharma, Arvind 'The Eternality of the Vedas and the Qur'an: A Comparative Study' *Philosophy East and West*, vol.26, No.3 (Jul., 1976) University of Hawai'i Press.

* Skemp, J.B., The Theory of Motion in Plato's Later Dialogues, University Press.1942.

* Smith, Jane, The Understanding of Nafs and Ruh in Contemporary Muslim Considerations of the Nature of Sleep and Death, Muslim World, 1979.

* Snell ,Bruno, *The Discovery of the Mind*, trans. T.G., Rowen Meyer, Harper and Brothers, New York, 1960.

* Steel, Carlos, 'The Moral Purpose of the Human Body', *Phronesis*, vol.46, No.2 (May, 2001), BRILL.

* Stelzer, Stephen, 'Decisive Meetings: Ibn Rushd, Ibn Arabi and the Matter of Knowledge', *Alif : Journal of Comparative Poetics*, No.16, Averroes and the Rational Legacy in the East and the West/1996, published by Department of English and Comparative literature, American University in Cairo and American University in Cairo Press.

.*Stone, Harold, 'Why Europeans Stopped Reading Averroes : The Case of Pierre bayle', *Alif: Journal of Comparative Poetics*, No.16 Averroes and the rational Legacy in the East and the West (1996), Department of English and Comparative Literature, American University in Cairo Press.

* Sutherland, Stewart R., 'God time, and Eternity', *Proceedings of the Aristotelian Society*, New Series, vol.79 (1978-1979).

* Tailor, A. E., 'The Philosophy of Proclus', *Proceedings of the Aristotelian Society*, New series, vol.18(1917-1918), Blackwell Publishing on behalf of the Aristotelian Society.

* The Holy Qur'an : Chapters : (*Al-Fatihah*, 1 : the Opening), (*Al-Baqarah*,2 : The Cow. (*al-Imran*,3 : The Family of Imran), *An-Nisae*,4 : The Women), (*Al-Maeeda*,5 : The food), (*Al-Ana'm*,6 : The Cattle), (*Younos*,10: Jonah),(*Al-Ra'd*,13: The Thunder) (*Ibrahim*,14: Abraham),(*An-Nahl*,16 : The Bee),(*Al Isra' 17 :* Night Travel),(Al-Anbiya',21: The Prophets), (*Al-Mu'minoun*,23 : The Believers),(*An-Nur*,24: The Light),(Al-Ankabut,29: The Spider),(*Ya Sin*,36), *Ha Mim*,41 ,*Ash –Shura*,42 The Counsel),(*Ar-Rahman*,55 : The Beneficient),(*Al-Wakia'*,56: The Event),(*Al-Hadid*, 57 The Iron), (*Al-kiyyama*,75: The Resurrection),(*Al-Insan* 76 : The man),(An-Nazi'at,97: Those who yearn), (*Al-Ikhlas*,112: The Sincerity).At-Tahrim: The Prohibition).

*The Colossians

* The Holy Bible.

*Tresmontant, Claude, La Métaphysique du Christianisme et la Crise du XIII Siecle, Editions du Seuil, 1964.

*Tricot, J., La Metaphysique, Vol. 1, Librairie Philosophique J.Verin, 1953 Paris.

*-----,La Metaphysique, Vol II, Librairie Philosophique J.Verin, 1966 Paris.

* Urvoy, Dominique, IBN ROCHD (AVERROES), trans by Olivia Stewart, London, New York 1991.

*Vlastos, G., 'The Disorderly Motion in the Timaeus', *Classical Quarterly*. 33, 1939, Cambridge University Press. On behalf of Classical Association.

* Walker, D.P., 'Eternity and the Afterlife', Journal of the Warburg and Courtauld Institutes, vol.27, (1964), Warburg Institute.

*Wallace, William A., 'Philoponus and the Rejection of Aristotelian Science', by Richard Sorabji *.Philoponus: Against Aristotle on the Eternity of the World*, by Philoponus; Christian Wildberg, *Speculum*, vol.65, No.4 (Oct., 1990), Medieval Academy of America.

*Walzer, Richard, 'Philosophical surveys, XIII: A survey of Work on Medieval Philosophy', *Philosophical Quarterly*, vol.3, No.11 (Apr., 1953), Blackwell Publishing for the Philosophical Quarterly.

* Wild, Stefan, 'Islamic Enlightenment and the Paradox of Averroes', Die Welt Des Islam, New Series, vol.36, Issue.3, Islamic Enlightenment in the 18th Century (Nov., 1996) BRILL.

* Wolfson, Harry A., 'The Twice-Revealed Averroes', Speculum: A Journal of Medieval Studies, vol.36, No.3 (Jul., 1961), Medieval Academy of America.

*Woodbridge, Frederick J.E, Aristotle's Vision of Nature, Intro. John Herman, Greenwood Press Reprint, 1983.

*Young, Orne Merrill, 'Did Some Middle Platonists Deny the Immortality of the Soul', *the Havard Theological Review*, vol.68, No.1 (Jan., 1975), Cambridge University Press on behalf of the Harvard Divinity School.

* Zeller, Eduard, 'Aristotle and the Peripatetics', vol.1, trans. B.F.C. Costelloe and J.H. Muirhead, Longmans, Green, and co, New York and Bombay, 1897.

* Zwemer, Samuel M., The Moslem Doctrine of God, 1905.

Further Reading

*Arnaldez, Roger, Averroes: A Rationalist in Islam, trans. Streight, Notre Dame, Indiana (2000).

* Bello, The Medieval Islamic Controversy between Philosophy and Ortodox, Brill, Leiden(1989).

* Bostock, D., Plato's Phaedo, Oxford: Clarendon Press, 1986.

*Brentano, F., The Psychology of Aristotle, California: University of California Press, 1977.

* Darwin, Charles, *The Decent of Man*, New York: D. Appleton and Company., (1871-1896).

* Dawkins, Richard , The Blind Watchmaker, (TBW) New York: W.W Norton, 1986.

*Dieterici, F., The Theology of Aristotle, Leipzig, 1882.

*Fackenheim, E.L., *Treatise on love by Avicenna*, trans from *"Risalah fi'l Ishq*,1945, 7,208-228.

*Fakhry, M., 'Three varieties of Mysticism in Islam', International Journal for Philosophy of Religion, 1971, 2/4,193-207.

* Folger, Tim, 'Einstein Grand Quest for a Unified Theory', *Discover Magazine*, Issue Date : 09-30, 2004.

*Grasse, P., Evolution of Living Organisms, New York: Academic Press, 1977.

*Gutas, D., 'Philoponus and Avicenna on the Separability of the Intellect', in *Greek* Orthodox Theological Review., 1986, 31/1-2,121-129

*Ibn Sina ,Avicenna's De Anima,(The Psychological Part of Kitab al-Shifa), Ed.Rahman,

F.London: Oxford University Press., 1959.

*-----, *Al-Hidayah*, Ed. Muhammed Abduh, Cairo, 1974.

* Kaku, Michio, 'Testing String Theory', Discover Magazine, Issue Date : 08-30-2005.

* Leaman, Oliver, Averroes and His Philosophy, Curzon(1998).

* Lemonick, Michael D., 'Before the Big Bang', *Discover Magazine*, Issue Date: 02-05-2004.

*May, Gerhard , Creatio ex Nihilo, trans. Worrall, T&T. Clark, Edinburgh (1994).

- * Patterson, C., , Evolution, British Museum of Natural History, 1978.
- * Varghese, Roy Abraham, The Wonder of the World: A Journey from Modern Science to the Mind of God,

* Von Baeyer, Hans Christian, 'Vacuum Matter', Discover Magazine, Vol.13 No.03, March 1992.