

‘ĒṢ ḤAYYĪM
[THE TREE OF LIFE]

BY

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*O nobles, behold this book, incline your ears,
For it is unto the wise a light for their eyes.
The clarity of its words unto all peoples
Array with the sound of tabret and cymbal.*

*Its exposition is worthier than all that have preceded,
Shall Gihon boast by the waters of Eglaim!
Its wisdom being well arranged
Open your eyes, man of understanding, gird your loins.*

*Men of intelligence and understanding who believe
In the existence of God and comprehend His unity,
And that He is neither corporeal nor a power residing within a
body*

*You know the glory of Him Who dwells in heaven.
His essential attributes through scientific reasoning, not by
mere tradition*

*You have comprehended by means of authentic proofs.
They are: Omnipotent, Omniscient, Living and Existent
From His essence these are inseparable, nor do they reside in
Him.*

*And with the band of His kindness He girds
Every created being with the goodness which He has laid up.
His Law through the words of the prophets
To comprehend the inner secret beyond the concealing clouds
He has bestowed with lovingkindness from the holy heavens
Upon the seed of Ya'aqov, keeper of the faith,
And also reward and punishment to make righteous
His ways that they may be proper.*

*Behold this book, perfect in beauty, and search
Through its pages you wise and men of understanding
Which contain the principles of our faith.*

*In knowledge it is more precious than pearls.
Then you will be found worthy of beholding the pleasantness
of the LORD*

*In Eden the divine garden which awaits you.
The Tree of Life, that quickens the soul,
I have called it in honor of the Guardian of the faithful.*

INTRODUCTION

Rejoice the soul of Your servant, for unto You, O LORD, do I lift up my soul (Tehillim 86.4).

Said Aharon, the son of Eliyahu: Since man's intelligence finds great delight in discovering truth, this delight will be enhanced in proportion to the quality of the object in his search for truth. We know that the existence of this world, which we shall presently investigate and examine, has come into being *ex nihilo* as regards both its quality and its quantity; that it is not capable of maintaining itself, but requires a force external to itself that has brought it into being *ex nihilo* and has endowed it with existence, perfecting its form and sustaining its being. Consequently, it is incumbent upon us to know that Being, to believe in His existence and His perfection, to negate from Him any defect by authentic proofs and to affirm the truths pertaining to Him; to adorn Him with every manner of perfection since he is perfect in the highest degree of perfection as is proved by authentic investigation. That Being is God alone, and there is no Rock besides Him, Who has brought about existence in orderly arrangement, creating in the beginning the upper, middle and lower worlds¹⁷³ and in His great wisdom beginning with the largest and ending with the smallest and giving to each the portion which is its due. Exalted and praised be He Who has placed man's spirit within him and knowledge and understanding in his heart. In truth God is the first Existent and man the last created being. Man is the tabernacle of God in the sublunar world. Around Him are darkness, clouds and thick darkness, and the place where He abides is in the intelligence of man, with which he alone is endowed of all living creatures beneath the heavens. Man beholds the vision of the Almighty and is obliged to know its what and its wherefore. Consummate matter was united with a soul that ascends on high elevating the lowly and bringing down the sublime, marvelous in counsel, great in wisdom. Then man became a living soul so that he could rise intellectually to remove the mask from his thoughts, in order to understand the inner secret of the clouds, to draw nigh unto the thick darkness amidst which God is to be found, for there God appeared to him; to behold the

pleasantness of the LORD to shine in the light of life, that the knowledge of God might be upon the earth and the presence of God in the land of the living. Then he will believe and know, know that there is a God and that the LORD is God. This is the law of the elevated man. Yet man, despite his excellence, with his foolish soul, did not understand, so the LORD drove him out from the garden of 'Eden to till the soil whence he was taken; for he was similar to the animal. Then there arose the father and head of believers, Avraham, our father, may he rest in peace. He comprehended the existence of God by intellectual investigation¹⁷⁴ and proclaimed the name of the LORD, the eternal God. This faith was transmitted to his children after him, as it is said, "For I have known him, to the end that he may command his children and his household after him, that they may keep the way of the LORD" (Gen. 18.19). Then there came the father and head of the prophets, Mosheh, our teacher, may he rest in peace, who strengthened this faith by giving of the authentic Law. He confined them (i.e., the sons of Avraham) within the limits of this faith through reward and punishment, which constitute the end of all men, and designated their recompense for good or evil by means of proof. For Israel is the purpose of the sublunar world and has been created for His Glory, as it is written, "Every one that is called by My name, and whom I have created for My glory" (Isa. 43.7), and the Israelites are those who have been called by His name, as Scripture states "And all the peoples of the earth shall see that the name of the LORD is called upon you; and they shall be afraid of you" (Deut. 28.10). It is also said, "I have called upon your name, you are Mine, Israel, in whom I will be glorified" (Isa. 49.3). They are His treasured possession and His people and therefore He is destined to redeem them with an everlasting redemption in honor of His name. God explained this purpose when Israel departed from the path of righteousness by saying "And that which comes into your mind shall not be at all; in that you say: We will be as the nations as the families of the countries" (Ezek. 20.32). For Israel has been privileged with this excellence owing to the merits of Avraham, our father, may he rest in peace, the first of believers. Consequently, it is incumbent upon us to emulate his faith,¹⁷⁵ to investigate and know the soul which comprehends the existence of God by means of the reflection of the intellect. Indeed, all this depends solely upon the comprehension of the intellect and with this knowledge man may consider himself praiseworthy, as the prophet has stated, "But, let him that glories, glory in this, that he understands and knows Me" (Jer. 9.23). Mosheh, too, has said, "Know this day and lay it to

your heart” (Deut. 4.39). And David said to Solomon, his son, “Know you the God of your father” (I Chron. 28.9).

The goal of our knowledge of Him is that we should conceive Him as without beginning or end, a necessary existent *per se*, Who is removed from corporeality and from the accidents of corporeality; that He is One and necessary by virtue of the attributes of the soul by which His existence is ascertained. The latter constitute one Being that is simple without any composition whatsoever. And everything depends upon his power by the thread of His kindness that is stretched forth from the gate of His goodness between celestial and terrestrial beings; the fulfillment of Providence, the authenticity of prophecy and the secret of the giving of the Law. There is no doubt that our truth is glorified by these opinions for they are the end of wisdom which is the advantage of man; for through it man approaches the divine. This concept is alluded to in the verse, “surely a wise and understanding people” (Deut. 4.6).

However, when Israel strayed from the belief in God, Scripture states regarding them, “And the wisdom of their wise men has perished,”¹⁷⁶ which is their advantage, “and the prudence of their prudent men has been hid” (Isa. 29.14). That prophet himself awakened them to the direction which their thoughts should take¹⁷⁷ by saying, “Lift up your eyes on high and see; who has created these? “ (Isa. 40.26). For that generation was the generation of Yishayahu in which they believed in the existence of God, but their belief was not the result of investigation. But, when there came the generation of Yerumiahu and they denied the existence of God and did not believe in the existence of God as it is written “They have belied the LORD, and said: It is not He” (Jer. 5.12), he awakened them to seek proofs, saying “Stand you in the ways and see, and ask for the old paths” (Jer. 6.16). Now, if this condition existed during the time of the kingdom when there were among Israel prophets and the great Sanhedrin, how much more so is it true of us who have gone into exile because of that transgression and have remained empty and void of all wisdom after afflictions have been increased upon us among the nations and the vision of prophecy has been sealed, as it is written “Her prophets find no vision from the LORD” (Lam. 2.9); it is also written “My people are destroyed for lack of knowledge” (Hos. 4.6). There has been fulfilled upon us the statement, “Now, for long seasons Israel is without the true

God” (II Chron. 15.3). Yet, after all this He has promised us that we shall again know Him, as is alluded to in the verse “And I will scatter you among the nations, and disperse you through the countries; and I will consume your filthiness out of you. And you shall be profaned in yourself in the sight of the nations; and you shall know that I am the LORD” (Ezek. 22.15, 16). After all these misfortunes He has promised us that we shall know him by saying, “And you shall know the LORD” (Hos. 2.22). Ayou gn good He. Aht w (uponsed,nes He ha thomisam the) Tj 0 -11.

CHAPTER 1¹⁷⁸

Since the ultimate goal of our investigation is a single fact, namely, the existence of God, although the methods of proof that demonstrate His existence are different among the wise men of Israel, I have seen fit to inform you of the circumstances which brought about these differences of opinion as regards the methods of proof.

When the people of Israel were exiled into foreign lands because of their iniquities and affliction prevailed over them, there were fulfilled upon them the prophecies of evil, as Scripture asserts “And the wisdom of their wise men shall perish and the understanding of their prudent men shall be hid” (Isa. 29.14); “My people are destroyed for lack of knowledge “ (Hos. 4.6). In accordance with their sins were they smitten. Indeed, it is not to be wondered at how these things (i.e., philosophical investigations) were lost from among us. If disagreement fell into matters which were continually with us and we do not know them with certainty, how much less agreement is there bound to be in matters of the intellect known only to one man in a thousand! But, when the LORD’s kindness prevailed over us by granting us a short respite from our toil as He had promised through the man of purest matter, when He said, “And yet for all that, when they are in the land of their enemies” (Lev. 36.44), He aroused certain men of pure soul whose minds He motivated to seek after truth and perfection. Those – the remnant whom the LORD called – were the eyes of the mind that sought truth. It is significant for you to know that after Avraham, our father, the first believer, had set his mind to learn of the existence of God and understood the methods of proof by which the existence of God can be ascertained, he taught us those methods of proof through which he had acquired knowledge of the existence of God, as it is written, “For I have known him to the end that he may command his children and his household after him that they may keep the way of the LORD” (Gen. 18.19). That sufficed for us until the time of the Torah. And when the Torah came, containing opinions of peerless beauty, the latter were joined to the opinions of our faith and were as one in our hands. You have known that the Gentiles hated and

envied Israel for their superiority in that they were the chosen ones of the LORD, and that they possessed true beliefs. Because of their hateful envy they endeavored to refute the true opinions and to establish opposing beliefs in their stead. These were the ancient Greek philosophers who are called “hateful, enemies and arrogant,” as it is written, “Do I not hate them, O LORD, that hate You?..... I hate them with utmost hatred” (Psalms 139.21); “They gush out, they speak arrogancy” (Psalms 94.4). Such verses and others similar to them are manifold. At the time of the second Temple when the authority of the Greeks ruled the people of Israel, the former, as a result of their contact with the Jews, their religion and its true teachings, upon the advent of Jesus the son of Mary, immediately adopted his false teachings in order not to accept the faith of Israel, thus demonstrating their envy and hatred. You know that everyone who believes the Bible must refute the teachings of these philosophers¹⁷⁹ and believe in those other principles by which the Bible can be verified. Because the Greeks intermingled with the Israelites the former¹⁸⁰ learned their methods of proof.¹⁸¹ Regarding this the prophet exclaims “They have given their pleasant things for food” (Lam. 1.11). Nevertheless they remained ignorant of the true nature of God; they neither knew nor understood, but walked in darkness for their eyes were shut and they could not see; their hearts could not understand. Then, following the principles of the Torah which they received in accordance with the methods of proof which they learned from Israel, the Christians were divided according to the opinions of the philosophers and rejected their former views. Then came the Arabs who also trod the path of the Greek Christians. The Arabs believed in a teaching which had been transmitted to them and they adopted from the Greeks those principles by which their own teaching, could be verified. These are the Mu‘tazila and the Ash‘ariya, although the sect of the Ash‘ariya was divided by alien doctrines as will be explained further. In fine, both peoples held views by which their revealed teachings could be verified, and maintained those proofs which justified their respective faiths which they had borrowed from Israel.

After all this, when the people of Israel had been exiled into lands not their own among those same nations and their minds’ eyes were groping to find the truth, they were divided into two factions, viz., the Karaites¹⁸² and the Rabbanites. The scholars of the Karaites and some of the Rabbanite sages followed the opinions of the Mu‘tazila,

seeing that their views coincided with the principles of the Bible and that they were originally the views of Israel, as we have explained. As regards the propositions of the philosophers, however, since they stand opposed to the fundamental doctrines of the Bible and refute the latter, they turned their faces away and rejected them. This they did, not in accordance with preconceived notions but after intellectual research. Nevertheless some Rabbanite scholars¹⁸³ were inclined to accept the views of the philosophers¹⁸⁴ though believing in the Bible, and took upon themselves the burden of removing every view contained in the opinions of the philosophers that is opposed to the fundamental doctrines of the Torah. This, however, is impossible; for if the Greeks, to whom philosophy was paramount, rejected the views of the philosophers and turned to other opinions which coincided with the tenets of their revealed teachings at the time when the doctrines of Christianity prevailed – how can we, who believe in the law of Mosheh, follow the views of the philosophers which refute the basic principles of the Bible? Now, it would be improper for anyone to misconstrue our statement, when we assert that the fundamental principles of the Bible appear to direct us to one particular view, taking it to imply that what in reality is primary has become secondary;¹⁸⁵ for truth assists others while requiring no assistance for itself. Our reply would be that we have not said this nor has such a thought entered our minds.

It is merely the effect of habit that certain people maintain opinions similar to the views of the philosophers which we have mentioned and consequently are led to heresy. This is hardly because they are in possession of truth, but as it is stated in the Biblical rhetoric, “For the lips of a strange woman drop honey” (Prov. 5.3); “With the blandishments of her lips she entices him away” (Prov. 7.21); “But, her end is bitter as wormwood” (Prov. 5.4); “Her guests are in the depths of the netherworld” (Prov. 9.18).

I have seen that the scholars of these two factions are divided in their opinions, certain among them finding pride in strange views. Regarding them Scripture states “And they please themselves with the doctrines of aliens” (Isa. 2.6).¹⁸⁶ These men murmured and even spoke boldly against our sages,¹⁸⁷ peace be upon them, who were possessed of true beliefs. Therefore, I have come to point out the direction of truth

and to elucidate the heresy which results from those who follow the views of the philosophers.¹⁸⁸ Then wickedness will stop its mouth.

Two motives have induced me to write this book. First, to preserve the results of my studies; for you will know the superior strength of learning by this course which I shall follow. Secondly, some of our own scholars, although not all, are inclined towards views which intelligence cannot bear. Hence, my heart has moved me to approach this task in order to point out the way of truth to the extent that I am able to do so; for the word of the LORD was like a fire within me which I could no longer contain.¹⁸⁹ I shall, therefore, include the doctrines of faith and the doctrines of the Bible so that they may be as one in your hand. Nor shall I be deterred by anyone whose evil desire prevails over his intellect to misconstrue my intentions in the matter; for my intention is dedicated to God's faith, to elucidate matters to the utmost of my ability. May the God of my salvation be with me.

Owing to the extraordinary character of this task and the importunities of the exile which we suffer¹⁹⁰ some matters may be concealed from me. Therefore, let me not be judged guilty by the reader of this book because it was hidden from me, for I trust in my Rock that this error might occur in a corollary, but not in reference to the fundamental principles of our faith. With these words I commence, placing my hope and trust in the LORD.

CHAPTER 2¹⁹¹

It is an accepted fact that the function of the intellect is to distinguish truth from falsehood; to befriend truth and to reject falsehood. It is also known that the truth or falsehood of anything is classified by logic into five categories, viz., that which is entirely true or entirely false, that which is mostly true or mostly false, or that which is equally true and false. The two categories, viz., that which is entirely false and that which is mostly false we need not investigate. There remain then three categories which constitute varying degrees of truth. The first degree is that which is entirely true. The second degree is that which is mostly true. And the third degree is that which is equally true and false. Our investigation will be concerned with these three which the intellect acquires from four sources. They are as follows: speculative thought, sense perception, the faculty of judgment and authentic tradition. That which is ascertained by logic or through the senses is included in the first degree of truth, that category which is entirely true. That which is determined by our judgment of values is included in the second degree of truth, that category which is mostly true. That which is accepted by tradition may be classed in the third degree of truth, the category which is equally true and false.

There are axioms such as our notion that the whole is greater than any of its parts. There are also less certain logical inferences, but this is not the place to describe them. An example of sense perception is our knowledge that a certain object is white and another black. An illustration of the faculty of judgment is the conception that stealing is evil and that filial respect is good. Tradition is that which is received from a reliable individual or community stating that a certain fact is true. Now, there is no disagreement in the faculties of speculative thought and sense perception. Hence, they are classed in the first degree of truth. Matters of judgment on the other hand, are subject to differences of opinion; for that which is accepted by one nation may not be considered true by another, for the views of judgment are those constituted by a consensus of opinion regarding the proper establishment of a political order. Consequently, this faculty is classed

in the second degree of truth. Finally, there is greater disagreement in reference to tradition than in matters of judgment, hence the former is of the third degree of truth.

The substance of our knowledge is actually derived from three sources, viz., speculative thought, sense perception and the faculty of judgment, while authentic tradition includes all three of these. Indeed, where tradition is very strong in connection with one of these three categories, it has the same validity as they do. That tradition, however, concerning which there are differences has been designated for the third degree of truth. Certain matters are known solely through tradition, viz., the laws of Mosheh, which cannot be confirmed by the intellect although we are informed by tradition that they are of advantage to the soul.

It is further known that the existence of God cannot be ascertained by sense perception since God is not a thing which can be perceived through the senses. Nor can He be known by the faculty of judgment, for His existence does not depend upon the consensus of opinion in relation to the proper establishment of a political order. How could His existence be founded upon judgment seeing that the latter's province treats of the good and the bad, whereas the existence of God must be sought in the categories of true or false which are the qualities of thought and perception.

We have arrived at the conclusion that the existence of God is determined by speculative thought. It has already been explained that tradition includes thought. Therefore, it is possible that the existence of God which is proved by speculation may be also considered a tradition. We have stated the value of a fact concluded by logical inference as being in the first degree of truth while tradition is in the third degree of truth. Man must be firm in his knowledge of God's existence in order to avoid any errors. Therefore, it is impossible to know the existence of God solely through intellect. Nor can His existence be known through prophetic utterances by tradition alone and even less so¹⁹² than through intellect; for the word of God can be verified only after we know of His existence, since a derived principle cannot be prior to an essential principle.

CHAPTER 3¹⁹³

Scholars are of divided opinion in respect of the methods of proof concerning the knowledge of God, i.e., His necessarily independent existence, and regarding the fact that He is neither a body nor a force residing within a body, and that He is One. Some base their proofs on the assumption of creatio *ex nihilo*, while others have established their knowledge of His existence upon belief in the eternity of the universe. Still others have founded their knowledge of Him upon their conception of the universe and rely to a certain extent upon the idea of creation without entering into a consideration of the eternity or the creation of the world. Now, before we present the proofs which have been established by these three opinions in reference to the existence of God and in so doing decide against the belief in the eternity of the world and sustain the arguments for its creation, we must first consider how the universe is conceived according to each of these theories.

Things which exist in the world about us we perceive as bodies with accidents inherent in them. We have been taught, however, by scientific investigation that there are matters which cannot be apprehended through sense perception and this conclusion has been verified. Only by means of the intellect can such matters be tested. For thought is distinguished from sensation in two respects: first, thought apprehends the species or class while the faculties of sensation perceive only the individual; secondly, the intellect comprehends the internal properties of things whereas the senses behold only externalities.¹⁹⁴

Now, in reference to the forms of existing objects the philosophers, in accordance with their respective beliefs in the creation or eternity of the universe, have affirmed the existence of principles which cannot be discerned through sense perception. Concerning the divergence of their opinions as regards the quality of existents it is important to distinguish whether the nature of things in reality points to the teachings of each of the two differing schools of thought,¹⁹⁵ although each school is divided into sects, or whether a preconceived

belief in creation or eternity has forced them to adopt notions regarding the principles of existence in conformity with this belief. It must further be determined whether the view of the quality of existents resulting from one of these two beliefs is merely possible or actually necessary and whether an opposing view predicated upon the same belief is also possible or not. These considerations require minute and unprejudiced investigation. The difference in view is between the Aristotelians (philosophers) and the Mutakallimûn.

The philosophers assert that all things are composed of matter and form.¹⁹⁶ This can be demonstrated by the changes with which matter is affected by means of accidents, for we observe in matter only the accidents. The form, however, cannot be perceived through the senses. Now, accidents fall into three categories, viz., certain accidents reside in all matter, no matter existing without them, other accidents vary in accordance with the particular object, and a third class of accidents are those found in an object at one time and not at another. Hence, they derived the existence of form which can be demonstrated as follows. There are accidents which are found in certain bodies¹⁹⁷ and not in others, as those affecting animals and those contained in plants. Now, the properties of animals are not evident in plants and there must therefore be an agent, namely, form, as a result of which a particular body is affected with the characteristics of an animal. This agent is its essential form. If this is not true, why are certain accidents found in one body and not in another hen the substratum of matter in both is the same. The same argument applies to plants as compared with minerals. As long as that force exists, i.e., the essential form, the plant possesses its characteristic accidents. Were it not for the essential form one object could not be affected with a form differing from that of another object since the underlying matter is the same. Similarly, respecting the elements which are differentiated by their accidents, if they were not possessed of a natural principle, then heated water, for example, if it did not have a natural principle, i.e., form, which restores it to its original nature, would never return to its original state. Hence, the philosophers have concluded that form assembles and combines separables.

Magnitude is an accident which includes all matter and every magnitude is divisible an infinite number of times. Now, matter is divisible by virtue of its being matter and its composition is a resultant

of its form. For separation and combination are two opposites and how could one subject bear two opposites? It must, therefore, be that separation is predicated upon matter and combination upon form. It follows then that all bodies are composed of matter and form.

Matter does not exist without form. For if an object were divided until it could no longer actually be divided and there remained the smallest particle which retains its form, and which is termed the first movable, that particle is of necessity divisible potentially. The proof for this is that anything which moves has a “before” and an “after” and must, therefore, be divisible.¹⁹⁸ A second proof is as follows: if we say that a body can be composed of parts which are not potentially divisible, let us consider a series of three points set in a row. This is divided through the center and we must assert that the middle point is either divided or not. If we say that the series can be divided into two equal parts, then the middle point is divisible. On the other hand, if we assert that the middle point is not divisible, it follows that the three points cannot be equally divided which is absurd. Thus, it has been demonstrated that since the minutest particle is potentially divisible, it is composed of matter and form. For since it is divisible, it follows that it is affected with combination and combination is a resultant of form. Hence, it has been fully established that all bodies are composed of matter and form. It cannot be maintained, however, that all things are composed of body and form since the parts of a body themselves are a combination of matter and form. And matter does not imply combination, only form does, and the term body implies three dimensions.¹⁹⁹ Similarly, the Philosopher (Aristotle) stated that natural objects are possessed of a first principle (form) which is the essential quality that affects the object with existence. This principle, however, can be discovered only by the intellect and its existence, ascertained by rational proof. Now, since this property is concealed from the organs of perception and there are investigators²⁰⁰ who do not believe in its existence, as will be explained, we must examine the nature of things from the simple element to the most complex combination of elements, i.e., man, ‘for his nature is most complex and the existence of his form which maintains him is more palpable. The proof that man is the highest combination is that all the natural elements found in the sublunar world are contained in him. For the things which exist in the sublunar world are: the four elements; minerals which are composed of the latter and are of the second degree since they contain the four

elements; plants which are of the third degree since they contain the elements and minerals; animals which are of the fourth degree since they are constituted of the elements, minerals and plants; and finally articulate man who is of the fifth degree since he is made up of the elements, minerals, plants, animals and he possesses in addition the power of reason. There is no combination higher than he. Now, the nature of these bodies is comprehended only through the knowledge of the different properties which are manifested by each of them. Nevertheless, the activities of the rational soul in the body of man, the highest in the scale of existence, more clearly demonstrate and establish the nature of that body by virtue of which those properties are made evident so that from its activity the philosophers have been able to determine its character,²⁰¹ viz., that it is an entity which is separated from man at his death and that it exists independently, as will be elucidated in the proper place in Chapter 109. Moreover, since the philosophers understood that the above mentioned characteristics are not accidents residing within the body of man as a first principle, but are brought into existence by a certain entity (the soul) which is the source of these characteristics, they concluded that the same applies to all natural objects, viz., that their essential powers are not accidents superimposed upon these objects but are engendered by an entity (form) which is not an accident, as can be demonstrated from its analogy with the soul of man which is not an accident since it is an independent entity separate from the body, while an accident cannot exist independently dissociated from a body.

The logicians have proposed three distinctions between that which is essential and that which is accidental:

1. It is impossible to comprehend the nature of a subject possessed of an entity essential to it without a previous knowledge of the essential thing itself, just as one cannot understand the essence of man if he has no prior understanding of that faculty by which man is distinguished to the exclusion of all other sublunar beings, i.e., the rational faculty. On the other hand, that which is accidental does not define the nature of its subject so that knowledge concerning the latter must precede.

2. Essential form, a universal concept apprehended through the intellect, is by nature prior to the subject with which it is associated. This is not so as regards accidents. For the concept of living must in our knowledge precede the existence of man. Likewise, the category of quantity is prior to the number four since the first is the essence of the latter. Not so is the characteristic of laughter in relation to man. For it is possible to understand the nature of man and subsequently consider laughter which is an accidental quality and attribute of man. For this reason laughter may be predicated of man and man predicated of laughter.
3. No cause is to be sought for essence. For example, one would not ask why man is a living, articulate creature or why is four a quantity and white a color. As regards accidents, however, a reason can be sought for them, e.g., why is a particular garment white or why is it red? There is also a fourth distinction between form and accident: with the genesis of form a subject is transformed from its natural state, as, e.g., where bread becomes blood. Accidents, however, when they inhere in a subject do not alter its original nature; a white garment which is dyed black still remains a garment.

We know that man was created the last of all beings and that he is constituted of the greatest combination of elements. Between the first creature and the last in the scale of existence there are beings simple and composite in a relative sense. The most simple substances we designate as a combination of prime matter and prime form. These are the foundations (elements), the bases of all genesis in which form does not exist without matter nor matter without form. They constitute the elements of all things that come into being in the sublunar world for everything that exists is composed of them (i.e., of the four elements) and when decomposed returns to them.

The elements exist only potentially in all objects made up of them since they do not retain their actual forms in these bodies. For the

form of an element disappears when that element is transformed into an integral part of a body. Nevertheless, it remains there potentially. This can be established by the fact that when this body disintegrates, its elements revert to their original state or form. This is true only by virtue of the potential existence of the forms of the elements in the bodies which the latter comprise.

Proof for the existence of four elements is derived from the correlative accidents which are inherent in them. These accidents or qualities point to the existence of only four elements and all other qualities can be subsumed under the original four. Since these respective qualities are found in the four elements in their most extreme state as, for example, there is no heat more intense than that of fire, and similarly, for the others, consequently they are termed "elements." Another reason for their being named elements is that all things that come into being are constituted from them and when decomposed revert back to them.

The transformation of one element into another does not constitute a process of composition or decomposition in which one element serves as the basis or foundation of the other as is the case in composite bodies. No element can be considered the first principle of a second in the sense that the latter has come into being and will eventually return to the former since the matter of all four elements is one and the same. Still, matter cannot be found separate from form, nor form from matter. Only in reference to the human species can form be conceived as a substance which exists even after having departed from its body. For the philosophers assert that there is a question of doubt as regards the intellect and knowledge, whether they are separable or not. In a similar vein Aristotle stated concerning the intellect that it is a predominant aspect of the soul and that it is possible for it to exist eternally apart from that which is destroyed. It is impossible that any intelligent person should be ignorant of the existence of that essence conceived as the human intellect. Furthermore, the philosophers have concluded that there exists in the animal also an essence (the animal soul) in addition to its matter by virtue of which the animal possesses the powers of sensation, consciousness and nutrition. These powers are not separable from the body and cease to exist with the dissolution of the body. The animal soul is the perfection of the natural body whence is derived its power of motion by means of which it moves itself. Plants

are also understood to possess an essence in addition to their matter by virtue of which they are endowed with additional powers. Now, these three intelligible souls (the vegetative, animal and human souls) have an existence in addition to the matter in which they reside, for after they cease to exist in a body the matter remains void of them.

All the powers that are found in plants are also to be found in animals, and those found in animals are also possessed by man. This does not mean to imply that man has three distinct souls or that animals have two. Rather man possesses one essence by virtue of which he enjoys the powers of the rational being, the animal being and the vegetative being. Similarly, animals have one essence by means of which they enjoy animal powers and vegetative powers. This can be demonstrated by the fact that when this essence is gone from man, he does not lose the power of reason while his other powers remain. All his powers cease. We can conclude, therefore, that one essence provides all the powers enumerated. When we consider the powers apart from one another, their separation is a mental dissolution, not something else. In addition to the matter of which minerals are composed our reason also concedes that minerals possess forms. The function of this form is to combine and amalgamate the four elements to the end that they become a composite whole. Without this combining form the elements could not coalesce.

It is also known that the changes to which bodies are subject are of four kinds:²⁰²

- a) Change of substance, i.e., genesis and destruction,
- b) Change of quality, i.e., transformation,
- c) Change of quantity, i.e., increase and decrease,
- d) Change of place, i.e., motion.

It is apparent from the words of Aristotle who asserts, that amalgamation is neither genesis, transformation, nor increase that he does not consider it either a substance or an accident. In truth, however, amalgamation is an accident or quality and denotes the fusing of the elements into a composite unit, as will be explained further. In

accordance with how harmonious the blending of the combined elements is, the composite will receive higher or lower form, e.g., the form of man or the form of an inanimate object.

There are four elements: fire, water, air and earth. These are distinguished by their correlative qualities, viz., heat, cold, moistness and dryness. All qualitative change to which matter is subject derives from these elemental qualities and for this reason it has been agreed that there are four elements. These elements are composed of matter and form, although the form can be apprehended only through the intellect. The existence of form as a component of the element is established by the fact that any element which departs from its original nature is returned thereto by an essential principle inherent in that particular element. For example, water which has been heated will return to its natural coldness and air which has been forced down will rise again when the pressure forcing it down is removed: The above mentioned facts demonstrate the existence of an essential principle residing in the elements. We are able to perceive, however, only matter and the accidents of which it is the subject. Furthermore, it is false to affirm that these accidents are their essential forms since we have already pointed out the distinction that exists between the essential and the, accidental. Another distinguishing characteristic of the essential, e.g., life, is that it cannot pass over from one subject to another while the accidental, e.g., heat, does pass over from subject to subject.

Similarly, the Philosopher has asserted that composite things, as can be perceived, are composed of substance and accidents. A specific object is a body by virtue of its being an actuality. Its actuality is not derived from its matter nor from its accidents which came to be after matter although the accidents are present actually in the object. Consequently, it is clear that it is an essence in actuality and that this essence is neither an element nor an elemental quality. The essence of a thing is its form which is neither the matter of which the thing is composed, nor an element nor an accident. Form denotes the essential nature of a thing.

I have seen, however, a statement of Aristotle to the effect that the accidents of the elements are their forms. He asserts in one passage: "The forms of the elements are their qualities, viz., heat, cold, etc." His words are indeed puzzling. For these qualities are accidents. How then

can the existence of an object reside in its accident? The Stagirite states further that the fundamentals of the ten categories are three, viz., matter, form and nonexistence.²⁰³ In substance, for example, the heat of fire is its form, cold is the nonexistence of heat and hylic matter is the substratum of both. In quality, whiteness is a form corresponding to the heat of fire and blackness is its negation corresponding to the cold of fire.

In fire, according to the opinions of both Aristotle and his followers the elements are composed of matter and form and each form is associated with two qualities. Fire, for instance, has the form of fire and with this form are associated two qualities, viz., heat and dryness. Likewise air has the form of air and that form possesses two qualities, viz., moistness and heat. The same applies to the elements of water and earth, that is, each is associated with two qualities.

If any element were divided to a point beyond which it could no longer be divided actually the final particle, known as the prime movable, would move in the same direction as would be taken by the element as a whole. It must consequently possess a principle or force which moves it to return to its natural place. This principle is its essential form. Moreover, since it moves it follows that it is divisible, if not actually then potentially. Now, it is divisible only by virtue of its matter. It cannot, therefore, be also combinable by virtue of its matter since it is impossible for one factor to be the cause of two opposites. Surely then it is divisible by virtue of matter and is subject to combination by virtue of form. It is consequently established that all bodies are composed of matter and form.

All composite beings have their origin in the four elements, into which they resolve again when their existence terminates. No genesis is prior to them; the elements make up the first composite and the first genesis since matter is not found without form nor form without matter. Each of the elements, however, can assume the form of another element thus demonstrating that there is one substance common to all of them.

This substance or matter is potentially disposed and prepared to receive any form. The elements and their respective properties, however, constitute the basis of all composition and they form beings

according to the relative qualities and harmonious amalgamation of their constituent parts. In proportion to the mildness or intensity of the heat or the moistness contained in them the elements assumed the variegated forms of different species. It is not intended here to imply that when the elements are combined in proper proportion this combination will bring into being its own form. For it is impossible that an object should be the agent which brings into existence its own form²⁰⁴ since it cannot be both the agent and the receiver of the form. On the contrary, the forms of transient being are brought to effect through a different agent which itself is form, for only what is similar to itself can a being impart to others.

The motion of the spheres together with light and darkness determine the constitution of composites.²⁰⁵ For there is a direct relationship between this motion and the coming into being of a particular thing. Similarly, with the termination of the motion the thing likewise ceases to exist. Hence, there resulted the belief in astrology.²⁰⁶

The reader might ask at this point concerning the simple matter common to all four elements, as attested by the identity of their rectilinear motion, in which there is no combination: How did this matter come to assume four distinct forms? The Philosopher (Aristotle) offers the following reason: Matter exists within the concavity of the lunar sphere which is the center of the spheres and in relation to its proximity or remoteness to the former matter receives different forms, as elucidated by him.²⁰⁷ A question arises here. Do the proximity and the remoteness of the matter depend upon its inherent quality or are its different positions governed by chance? If the former supposition were correct, how can one element assume the form of another? In either case it is not to be understood that when matter is prepared to receive a form that this disposition effects its form. This is not true, for that which brings form into being is itself a form which is continually active in endowing matter with form save in those instances where the matter is not yet prepared to receive its form. The motion of the celestial spheres accomplishes this disposition of matter. A second question presents itself here. Since the properties of the simple elements are correlated with their respective forms, how do these properties remain in composite bodies after the original form of the element has ceased to exist?²⁰⁸

It is only with difficulty that we can comprehend the existence of form in the elements and in inanimate objects. One who is skilled in the science of alchemy, however, can transmute one metal into another, for the essential form of a think depends upon the relative proportion of its constituent parts as determined by the influence of the spheres. Philosophy does not inform us explicitly that the forms of the four elements and of minerals are derived from the active intellect as are the forms of animate beings, although the Traditionalists have admitted this to be true. There is still a difference of opinion among the philosophers as regards the function of the active intellect. Some assert that it endows only rational beings with form while others maintain that it also provides the animal and vegetative souls, as will be explained later.²⁰⁹ In reference to the four elements and the minerals, however, no philosopher has stated that their forms are derived from the active intellect.

It is known to me that the dispute among the Philosophers in reference to the active intellect, viz., some assert that it acts only on the form of man while others claim that its activity extends to the forms of animals and plants, is based upon a fundamental problem: How can we assume that the universal forms which we conceive are true essences if they are not found to exist outside of the rational intellect? It was this difficulty which constrained Plato to hypostatize individual forms which govern the individual species of living beings. In reality, however, the solution lies in the fact that knowledge which is found, potentially in the rational capacity of man must necessarily exist outside of the human intellect. For every category of which one constituent part (the passive intellect) is, potential must possess a corresponding actuality (the active intellect). Similarly, since the intelligibles are in the beginning potential and are motivated by the active intellect, thereby becoming actual concepts, it follows that these concepts perforce exist in actuality. This is the gist of the solution as proposed by the Philosopher.

Let us return now to the original subject of our discussion, viz., no investigator has required the aid of the active intellect for endowing the forms of the elements and minerals. Now, if one were to claim that the matter of lower bodies is derived from the matter of the celestial sphere, and their form from its form, i.e., the form of the sphere which is inseparable from the sphere, and that the human

intellect proceeds from the Separate Intelligence (active intellect), he would thus imply that the sphere is composed of matter and form. We can refute this proposition by stating that knowledge regarding an unknown cannot be determined from a thing which is more unknown; for the substance of the sphere, i.e., whether it is a composite of matter and form, is a subject of dispute among the philosophers. Furthermore, they point out that it is not axiomatic that bodies are composed of matter and form. It is impossible, therefore, to compare the celestial bodies with terrestrial objects since the changes which occur in the latter demonstrate that they are composed of matter and form, whereas in the former we perceive only change of position from which we can infer simply that the heavenly beings are bodies. But, we are not cognizant of any essential change which takes place in them. By what analogy then can we conclude that the celestial sphere is a combination of matter and form? On the contrary, most scholars, in order to exclude the spheres from the category of the possible, have not stated positively that the sphere is composed of matter and form. In conclusion; speculative philosophy has discovered no agent that brings into being the forms of the elements and minerals.

The process of the understanding of existence as conceived by the human intellect commences with accidents which reside in bodies. Since these accidents are seen to come into being, are destroyed and reside in certain bodies to the exclusion of others, the Philosophers comprehended that they must have an agent. This immediate agent is the essential form of a body. They realized further that matter which is potentially able to receive any form assumes specific forms by virtue of its disposition. This disposition is governed by the motion of the spheres. It does not endow, matter with form, however, but acts upon matter incidentally. But, form must come into being through an agent. This agent is a Separate Form (active intellect). Philosophic speculation has brought them thus far.

CHAPTER 4²¹⁰

The Mutakallimûn, on the other hand, perceive in material objects only body and its accidents, the latter being elements superadded to the body itself, although physical substance is described by attributes. All of these are elements superimposed upon substance. Some of these attributes are termed “characters,” others are called “accidents,”²¹¹ while still others are in part characters and in part accidents. The distinction between character and accident is that the former cannot be separated from the substance which is “characterized,” rather the substance is coexistent with that character, whereas accidents may disappear while the body remains. By reason of this difference the Mutakallimûn distinguish between characters and accidents. Every attribute which is predicated of a body and which at one time comes into being and subsequently disappears is termed a “superimposed accident” according to their theory. These accidents exist in the human intellect despite their nonexistence in actuality. Characters, however, are not separable elements which can have existence in the human intellect alone.

Accordingly, the Mutakallimûn affirm that there are two classes of attributes, viz., those that are in existence and those that are nonexistent.²¹² The latter are entities which are conceivable. Other entities are not conceivable, namely, those that have no independent being in a state of nonexistence. These are known as “characters.” character is a quality that is inseparable from its substratum while, on the contrary, an accidental attribute may or may not reside in its body. It was concluded therefore, that the cause of the presence and disappearance of accidents is the essence of the accident. For they claim that since body may exist either combined or disjoined²¹³ there must be a cause which effects the union of bodies which were previously separate. This cause they call “union.”

The Mutakallimûn have divided the possible causes for the union of bodies into the following necessary divisions: the essence of body, its existence, its nonexistence, the existence of a property, the

absence of a separate property, and the maker of body.²¹⁴ They rejected the hypothesis that the essence of body is the cause of its union since its essence remains unaltered even when disjoined. Neither is the existence of the body the true cause. For the existence which it possessed when combined is identical with that which it possessed when it was disjoined. Nor can we accept the nonexistence of body as being the cause of its union after it has come into being because the postulate of combination is applicable only where body exists; of a nonexistent body it cannot be postulated. How, then, can that to which a postulate is inapplicable be its cause? Similarly, the absence of a property may not be considered a cause. For what is nonexistent cannot serve as the cause of an existent and is in no manner related to it. They also reject the maker of body as the cause of its union since the maker is engaged with what is made only at the time of its being made. Body, however, remains combined even after the time of its making. The only possible cause for its being combined then can be the existence of a certain property, i.e., "union." Likewise, everything else which is in the category of the contingent – i.e., that may, or may not exist – must be produced by some cause. These facts perforce led them to believe that every body possessed of magnitude is divisible. Furthermore, since it is divisible it must have union. We understand, hence, that union may or may not be present in its substratum and, consequently, is not a character. In any case, union is of such a nature [i.e., an accident superadded to body and separable from it]. It follows, therefore, that substance can exist without union. This is possible only on the assumption that there exists a non-dimensional entity; for only then could it be void of union. This necessarily led them to believe in the existence of the atom which is indivisible and which comes forth from nonexistence. For the Mutakallimûn postulate nonexistence only of the souls of entities which exist by themselves, not in combination since composition is possible only after coming into being has taken place.

The atom's quality of spatiality they term a "character." For no reason can be sought for this quality of the atom. It does not occupy place at one time and not at another so as to be subject to explanation since every atom that exists occupies space. The nature of union, on the other hand, is not of this kind. Union may come into being and disappear while body continues, but we do not find that the attribute of spatiality comes into being and disappears while body continues. Consequently, they call the latter quality a "character." The same type

of quality is found in other attributes as, e.g., the attribute of sensation in animals.²¹⁵ There is no animal that is not sentient. Consequently, sensation is a character of animals. No reason can be sought for the sensation of animals to the end that it would be established that they are sensitive as a result of sensation. For animals do not cease to be sentient, thus enabling them to be sentient at one time and not at another. Granting that there is no physical defect in the animal, no external impediment and the existence of a stimulant, it will always receive the stimulus.

The character of the atom is its occupancy of space, and since it occupies space one atom can combine with another and a body is formed of them. No individual atom has magnitude. But, when one joins another they assume magnitude, i.e., length. Two additional atoms by the side of the first two produce breadth. Four additional atoms above the first give us depth. This then is the true notion of body, viz., that which possesses length, breadth and depth.²¹⁶ What is termed "body" therefore must be constituted of at least eight atoms.

According to their theory the composition of atoms is a juxtaposition, not a fusion. One atom cannot merge with another since that implies the penetration of atoms into each other and their divisibility. But, the Mutakallimûn have laid down the principle that the atom exists independently and is indivisible. This necessarily follows from the fact that one atom occupying a specific place would prevent another from simultaneously being in the same place.

The philosophers (i.e., Aristotelians) do not believe that a line is made up of points, a plane of lines and a body of planes. These figures are divisible, according to the philosophers, only theoretically, but not by actual separation and division.²¹⁷ On the other hand, the Mutakallimûn affirm that body is actually composed of planes; planes are made up of lines; and lines of points. These are the atom which our Sages (i.e., the Karaites) term Particle.²¹⁸ In a similar vein one Sage has stated that we are unable to see the atom, but the Almighty can perceive it for He sees, but not through eyes.²¹⁹ The Mutakallimûn assert further that atoms exist independently and are not subject to division either potential or actual by ourselves or by any being other than ourselves; for in their view it is inconceivable that the atom be divided.²²⁰

It is my own belief that they (the Mutakallimûn) have asserted the existence of the atom not through sense perception but by force of rational speculation. According to them, human reason has fully established the truth of the existence of the atom. They believe further that heaven and earth and all that is contained in them are constituted of identical atoms, which are distinguished only by their accidents. The atom is disposed to receive any accident. When it receives certain accidents and not others, this is due to the intention of an Intender and Designer.

In accordance with the aforementioned principles, there perform follow certain propositions which they are constrained to accept:

1. No accident can serve as the substratum of another accident. Since accidents have no independent existence they cannot conceivably form the substratum for other accidents.
2. An accident cannot pass from one object to another for motion can be predicated only of body.
3. Accidents do not result from the combination of atoms, for the Mutakallimûn deny all causal relationship,²²¹ but each atom is provided with certain accidents except the accident of quantity, for it has no magnitude.
4. Accidents do not continue in existence for two time-units.

Concerning this last proposition, however, these investigators are of divided opinion. Some contend that every accident is destroyed immediately after it has come to be and another is created in its place.²²² Others, however, hold that there are certain accidents which last for a longer period. They assert that atoms are of two kinds, viz., there is one kind of atom which endures for two [or more] time units and a second kind which disappears immediately, e.g., sounds. This will be elucidated further by the arguments for their theory, that the

atom, time and accident are units which are indivisible. These conclusions were reached by the proofs of scientific speculation.

As a general statement I wish to say that the Mutakallimûn do not admit that the existence of accidents in bodies is due to a cause which in turn is due to a second cause, and so on. For this chain of causes would have to continue *ad infinitum*, which is impossible. That one accident should be the cause of another is equally inadmissible for this would imply that one accident forms the substratum of another. This is also impossible for the reason that accidents do not exist independently and consequently cannot form the substratum of other accidents. According to the Mutakallimûn every element which is superadded to the substance is considered an accident. They do not subscribe to the theory of the Aristotelians in accordance with which accidents are caused by essential forms. And with reference to these forms one cannot ask, why are they so? For one cannot ask concerning a human being, Why is he a human being? Actually, forms are endowed through an agent by means of the disposition of matter [to receive a certain form]. This disposition is dependent upon the influences of the spheres.

The Mutakallimûn, on the other hand, have concluded by logical analogy, that all elements which are superimposed upon substance are accidents by virtue of the fact that they are borne by substrates and cannot exist independently, i.e., without a substratum or substance. Hence, it can be asked of all attributes why they are so and these questions would continue without end. Consequently, the Mutakallimûn have put an end to this by asserting that every accident is directly connected with its own subject and is not determined by any other accident. It is created by God without any intermediary cause: They say further that substance is predisposed to receive any accident which God intends to grant it. For all atoms are of one kind and are identical in essence, each atom existing independently with no addition to its essence save the character of spatiality.

I deny that the belief in the atomic theory necessarily depends upon belief in creation since Epicurus²²³ who did not believe in creation nevertheless maintained that body is composed of indivisible atoms and that these atoms are eternal. In reality, belief in the atomic theory is necessitated by the reasons which we stated above. Epicurus believed

that the joining and the composition of atoms is purely a matter of chance. But, the Mutakallimûn attributed these facts to the First Agent without any intermediary causes. This sect is divided into factions.²²⁴

In fine, according to the opinion of the Mutakallimûn the existence of the atom can be apprehended only by the intellect. By the method of division and separation a particle is reached which can no longer be divided and which has come into being *ex nihilo*. It is characterized only by the attribute of position and no other accident is necessarily superadded to it. For the accident of union is one which comes into existence. And since it disappears there must be a substance without union. It is this which comes into being *ex nihilo*. Now, the Mutakallimûn do not believe that a composite body is created *ex nihilo* since such a body requires attributes superadded to itself which might be the causes of its existence. Hence, they declared that it is in the category of the impossible that a composite body be created *ex nihilo*. Only the atom is originated *ex nihilo*. The fact that the atom is either at rest or in motion and is never deprived of both rest and motion leads to the demonstration of its creation.²²⁵ For rest and motion are attributes which alternately originate in time, and since the atom cannot do without accidents originating in time, the atom itself likewise has its origin in time.²²⁶

Rest denotes remaining in one place during two time-units and motion consists of moving from one place to another without pausing in one place for two time-units. At the moment that the atom comes into existence *ex nihilo* and finds its place when it is first originated, it cannot be described as either at rest or in motion. For a body at rest is one which remains in one place during two time-units, but the moment of the atom's origin does not last for two time-units. And a body in motion is one that has previously been at rest, but in our instance the atom had not been at rest previously. Hence, they termed this moment "coming-to-be." As a result of "coming-to-be" the atom is found in one particular place. The above is the opinion of *Hakham* Yefet haLevi, who maintains that what is termed "coming-to-be" is neither a state of rest nor a state of motion. His son, *Hakham* Levi, however, is of the opinion that "coming-to-be" may properly be considered as implying a state of rest whether the atom remains at rest [for two time-units] or whether it is at rest for merely a part of this period. He asserts that rest during its coming into being means its endurance in this state. For rest

denotes either coming into being or remaining. The scholar, *Hakham* Yosef, of blessed memory, is also in accord with the last mentioned view.

At this point it is necessary to investigate the differences of opinion of the Philosophers and of the Mutakallimûn respectively in connection with the continuity of accidents after they have come into being. According to the opinion of the former, certain accidents are associated with matter while others are identified with form. As has been explained previously, all this depends upon the disposition of matter, in terms of the relative proportion of its constituent elements.²²⁷ Now, so long as the disposition of matter remains subject to the forces of the spheres, forms will continue to exist as a result of the active intellect. According to the Kalâm, however, which denies the existence of intermediary causal relationships and claims that things are created directly by the First Agent, a difficulty presents itself, viz., by what cause do accidents subsequently cease to exist after having endured for a certain length of time? To assume that accidents continue to exist by themselves without the aid of God and that after a time God, by His will, brings about their nonexistence, is rejected by the Kalâm as inadmissible. The principle here is that the Agent cannot produce nonexistence. It is also considered as impossible, in conformance with their theory, to deprive a thing of its existence after it has once come into being. The Mutakallimûn accept as fact the creation of things *ex nihilo*, but deny the possibility of bringing about their nonexistence; for nonexistence does not require any agent at all. Consequently, these investigators have split into two sects. The Ash'ariya says that an accident, after being produced, requires an agent throughout every unit of time that it continues in existence. This necessitates the belief that an accident is incapable of enduring for two time-units; however, the Creator successively renews its existence after each atom of time and if He leaves off acting then the accident ceases to exist. The Mu'tazila, on the other hand, assert that after the Creator has produced an accident, it endures by itself for a certain period without requiring any agent to renew its existence. Similarly, our Sages, of blessed memory, have stated that the agent does not continue to act upon that which remains in existence.²²⁸ Accordingly, the Mu'tazila believe that accidents are of two kinds: some accidents do not last for two time-units, but cease to exist during the second atom of time following their creation, e.g., sounds, other accidents do last for a period of time, e.g., blackness and

whiteness, without requiring any agent whatever.²²⁹ In the last instance, what cause deprives these accidents of their existence seeing that nonexistence is not brought about by any agent? They reply that every positive accident has a correlative negative accident that exists without any substratum and when God desires to bring an end to any property of a substance, He creates its opposite property in that substance and thereby the first ceases to exist. For example, the universe which was created by God exists by itself. The negative accident correlative to the existence of the universe would be that of destruction. Now, if it pleased the Almighty to destroy the world, He would create the accident of destruction, free of any substance, and the world would cease to exist. To take another case, He would remove whiteness by means of its opposite property, namely, blackness. Their speculation has led them thus far. From the foregoing they infer that the absence of a property is itself an actual property. However, with reference to an accident which does not remain in existence during two consecutive time-units they were not compelled to believe that its nonexistence is effected by means of an actual negative accident, but the absence of endurance constitutes its nonexistence. The Mu'tazila contend, for example, that ignorance is not the negative of knowledge; rather ignorance is merely the absence of knowledge. Similarly, the absence of a "character" is not a real property but a nonentity. Nevertheless, separation is the negative of combination, and rest is an actual accident, the negative of motion, and they are existing properties.

The Ash'ariya do not believe that an accident can exist without any substratum, and which would supersede an existing property; for every accident requires a substratum and furthermore no agent can produce nonexistence. Hence, they are compelled to deny the proposition that an agent does not act upon that which he has already brought into existence, but they claim that as long as an object remains in existence it is the result of the action of a producer and as soon as the latter leaves off acting the product likewise ceases to exist. This led them to the belief that no atom can last for two time-units without the aid of an agent.

The Mu'tazila argue that if all atoms were similar in the sense that they do not last during two consecutive units of time, it would be impossible for some to remain in existence and for others not to remain. Yet we actually see accidents which do not remain because of a reason,

yet remain because of themselves by necessity without the activity of any agent at all.

According to the opinion which holds that no accident can last for two time units but is successively renewed after each unit of time – in accordance with this view, when a garment has been placed into a red dye it is not the red pigment which has dyed it, but God created the red color in the garment. Nevertheless, God generally acts in such a way that the color is not created in the garment unless it is brought into contact with the red dye. The same applies to the motion of a pen which is apparently moved by a hand. The pen is not set in motion as a result of the moving hand, but God creates the accident of motion in the pen and He has so regulated the nature of things that motion is created in the pen only following a movement of the hand. They have also established another principle, namely, an accident cannot pass beyond the substance in which it is since this would imply that an accident is subject to motion whereas motion can be predicated only of atoms. Now, the accident of motion in the hand is also created anew after each unit of time and the effect which is seemingly produced by means of man's ability is, in actuality, produced by God. There is no power of agency in man's ability, only in God, for the accident of ability is constantly reproduced and does not remain in man. The sole cause is God.

The Mu'tazila on the other hand admit, in conformance with their views, that man's ability does remain in existence after God creates it and that it possesses a power of agency. Indeed, some of the Ash'ariya concede a certain amount of power to man's created ability when they say that the occurrence of an act is effected by the occurrence of ability. This [special power] is termed "permission" in the language of our sages.²³¹ In the refutation of their views on Providence this subject will be fully elucidated.²³² It was merely intended at this point to explain how certain accidents are combined with certain bodies to the exclusion of others, not the continued existence or disappearance of accidents.

The results of their investigations led the Mutakallimûn to the conclusion that bodies are composed of atoms which are similar in reference to essentiality. And since we find that specific accidents unite with specific bodies their research compelled them to believe that this

is caused by a determining cause which endows certain bodies with particular accidents. This theory leads to the demonstration of the creation of the universe as will be explained.²³³ Now, if this were adequate, it would be considered an authentic proof. But, as you know, the Philosopher has explained the union of specific accidents with bodies by proceeding from one cause to another until the influence of the spheres. Indeed, some investigators have conceded this view.²³⁴ However, they discovered in reference to the spheres themselves and their stars that certain among them are endowed with particular forms to the exclusion of others; that their motions have different velocities, that they are unlike each other as regards relative position, proximity, distance and eccentricity, as a result of which it is necessary to assume either the existence of a vacuum between every two spheres or the presence of some substance, different from that of the spheres, which would fill this space and which would not encompass the world. Now, there must be a cause which is responsible for all these different phenomena. Since no other cause was found it was attributed to the determination of a Designer. This teaches that the world was created.²³⁵ But, this reasoning can be refuted. For it can be maintained that the deficiency of our intellects is responsible for our ignorance, nevertheless there actually is a cause, although hidden from us, which determines all the aforementioned phenomena. Hence, the matter remains in doubt.

After the comprehensive presentation which has preceded, I find it necessary to restate the fundamental propositions of both theories as I understand them. According to the Aristotelians all bodies are composed of matter and form and possess at least three attributes, viz., quantity, quality and position. The Mutakallimūn, on the other hand, assert that body is constituted of indivisible atoms which are free of any addition to their essence save the accident of position. These two conflicting theories can exist because our senses perceive only body and its accidents. The Aristotelians state further that the essential form is the cause which determines the accidents of a body. Indeed, all objects are composed of matter and form since every object is possessed of accidents from which there follows a necessarily existing form which itself is derived from the Active Intellect. The above has been proved in connection with the divisibility of particles. It has also been shown that the souls of plants, animals and humans are in reality their essential forms. Hence, they concluded by analogy that all bodies

are composed of matter and form. The Mutakallimûn deny any intermediary cause for the accidents which are found in an object, but claim that they are brought into existence by the First Agent without any intervening cause. Hence, they were led to believe that bodies are composed of indivisible atoms.

Hakham Yehudah *HaAvel*, however, rejected the theory that bodies are composed of atoms and contended that all things are made up of the four elements, which were created *ex nihilo*.²³⁶ He argued against those who believe in the existence of the atom and its indivisibility, stating that atom is limited [by space] and whatsoever is limited is ipso facto divisible. He contended further that just as the atom is void of any of the four elemental qualities (cold, heat, moistness, dryness) so body should be without any of these properties. Nevertheless we perceive that this is not the case. It is thus demonstrated that even among our own scholars there is a division of opinion; some believe that things are composed of the four elements while others maintain that they are constituted of atoms. According to the latter theory the vegetative, animal and rational souls are termed “accidents.”

According to either view, neither the belief in matter and form nor the theory of atoms is based upon sense perception, nor can either be considered axiomatic. Instead each theory is the logical conclusion of a conception of the nature of things to which the advocates of either opinion subscribe; each faction maintaining that what it believes is a true concept while the others believe it to be a product of the imagination rather than of the intellect.

Now, I see no reason to believe that the proponents of either theory have fashioned their conception of the nature of things in accordance with a preconceived notion of the creation of the world or its eternity. On the contrary, it appears to me that the advocates of both opinions base their respective views upon the existing system of things as each school comprehends it. In fact, both in accordance with the Aristotelian and the Kalâmistic views of the nature of the existent the creation of the world is a necessary corollary of the principle established by the Mutakallimûn which asserts that if an object cannot do without an attribute originating in time, the object itself has its origin in time.²³⁷ For according to either view – whether it be that of the

Aristotelians, who claim that body is a composite of matter and form; that matter cannot be found without form; that form has its origin in matter and that accidents subsequently come into being in matter – or the theory of the Mutakallimûn which contends that body consists of accidents; that body cannot be found without accidents and that accidents have their origin in matter – one common principle demonstrates the creation of matter in either instance. For, just as we conclude that matter is created from the premise that matter cannot do without accidents which originate for it and matter is never found without accidents, so we can derive the conclusion that matter is created because of the forms which originate in time since matter cannot be found without form, as has already been established.

It was to this purpose that our efforts were directed in this presentation, namely, to demonstrate that the principle, in accordance with which proof for the creation of the world is established, applies not only to the Kalâmistic conception of the nature of things, but this same principle is equally applicable to the Aristotelian view of the constitution of the existent. The difference of opinion between the Philosophers and the Mutakallimûn concerns only the acceptance of this principle itself. Maimonides, likewise, has stated:²³⁸ “some of the Mutakallimûn have endeavored to establish their proposition [concerning the accidental infinite] – i.e., to demonstrate its impossibility by means of a method which I shall explain in this work.” Others say that this impossibility is a self-evident axiom and requires no further proof. But, if it were unquestionably false to assume as possible the successive existence of an infinite number of things, although that part of the series which exists at present is finite, the inadmissibility of the eternity of the world would be equally self-evident and would not require any other proposition for its proof. This, however, is not the place for investigating this subject. AlNahawandi is in accord with the theory of the eternity of matter, although he does not concede the eternity of things originating in time.²³⁹ But, his words require examination as will be elucidated in our solution of this problem.

The ideas of *Hakham* Yeshuah, however, as expressed in his commentary on Genesis are well founded. He states there that our proof for creation rests upon two propositions: first, if an object cannot do without an attribute originating in time, the object itself has its origin in

time – this proposition is axiomatic; the second proposition treats of the nature of those characteristics without which matter is never found and as a result of which change occurs in bodies.²⁴⁰ It is concerning the essence of these characteristics that there is a difference of opinion among scholars, since knowledge regarding them is acquired only by means of the intellect. Some say that these attributes are accidents superadded to body and without which body is never found. Combination and separation, for example, are attributes originating in time without which body cannot do. Hence, body itself has its origin in time. Others, however, contend that combination and separation are not two real existent opposites, rather one exists while the other is nonexistent. Consequently, *Hakham* Yeshuah asserts by way of generalization that since we know change to be impossible without the addition of some element to matter, although we do not comprehend the specific nature of this element, the essence of change indicates that this element has originated in time. And since matter or body cannot do without that element, matter itself must have its origin in time. This element the Aristotelians term “form.” Hence, they assert that body is composed of matter and form, although his (i.e., H. Yeshuah’s) conception of form is divergent from that of the Aristotelians.