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CAUSALITY BETWEEN AL-GHAZALI

AND

AVERROES

BY

Mundhir Mudarres

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Abstract to the Thesis

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Mundhir Mudarres

The purpose of this thesis is to give a critical analysis of the problem of causality as discussed by al-Ghazali and Averroes. To do this, it is necessary to expound the views of Mutazilites and Asharites, who were the first to raise this problem in the history of Muslim philosophical thought. The thesis is, therefore, divided into four chapters dealing, first, with the Mutazilite and Asharite views; second, with the Ghazalian view; third, with the Averroest view; and, fourth, with the concluding view. I shall give a resumé of each of these views separately.

The problem of causality according to these Muslim thinkers is essentially a problem of the relation between God and the physical world, and the nature of each. It is thought that the view which a Muslim takes of the world is determined to a large extent by the kind of concept he entertains about God. If he believes God to be absolute in all aspects, restricted by nothing at all - whether from within or from without - his view of the natural world would be unlike the view of a person who rules out the absolutism of God. In accordance with these two distinctions, we can roughly say that the Mutazilites and Averroes - in spite of the difference of their perspectives - form one group in asserting causality, the Asharites and al-Ghazali from another group in denying causality. The former asserted the necessity of a nature or "natures" active in physical objects. The latter denied the existence of any such natures.

The Mutazilites' view is derived from their theory of nonbeing, substances, and bodies. Nonbeing to them is not equal to nothingness; it necessarily refers to something. This thing, or essence, is an aggregate of qualities which make up the status of an object even before the object exists. In other words, the essence of an object precedes its existence. Existence is a concrete state actualised by God, and this is all that God does with respect to the physical world. Thus physical objects have an eternal essence or nature which acts on other objects and produces them. Bodies, for instance, which are compounds of indivisible substances, (some Mutazilites maintain), create their own accidents. This means that there is a natural order operative in the world independently of God.

Averroes posited also a natural order active according to necessary natures or forces in physical objects. But he differed from the Mutazilites, first, in his method of approach and, second, in his attempt to reconcile the natural order with the concept of God as an omnipotent, wise, and all-willing Being. For him the activity and productivity of nature do not conflict with the activity of God and His uniqueness. Instead, they do more to exalt His wisdom and intelligence. An active natural world, according to Averroes, in which occurrences are not fortuitous, but necessarily determined by effective causes, is a great token of the existence of God. To deny causal connexion, therefore, is to deny order and organisation (wisdom) and this detracts from the perfection of God, if not negates his existence. The whole of Averroes' view is subsumed under the Aristotelian doctrine of potentiality and actuality.

The Asharites deny the reality of causes as natures active in the physical world. Their purpose in this denial is to emphasise the sole capacity or power of God. To do this, they had to put forth their theory of atomism, which classifies things according to bodies or accidents. Bodies are components of indivisible atoms, which exist inseparably from accidents. Accidents are qualities in atoms which do not endure more than one instant. They are continuously created and recreated by God. Since atoms exist only with their accidents, by creating the accidents God creates the atoms. Hence God is continuously creating the world and everything in it. As such, He is the sole cause of everything that comes to be.

Al-Ghazali elaborates more emphatically on this Asharite thesis. But his attack on causality is more radical and precise, and it is perhaps this reason which brings to the surface the Asharite contradiction in denying natural and asserting Divine causality. Al-Ghazali denied active causes for two main reasons: (1) to safeguard the omnipotence, unity and uniqueness of God; (2) to allow for the possibility of miracles. His denial is based on the empirical argument that we cannot actually perceive the act of causation; all we perceive is conjunction of phenomena, but never connexion; and conjunction does not prove the productivity of causes. Furthermore, action for al-Ghazali, can issue only from a living, knowing and willing person who can know and will the action done. As such, it cannot be predicated of inanimate objects.

In my concluding view, I discuss four possible connotations of causality. First, the physical, productive or effectual connotation,

which is maintained by Averroes and which is the subject matter of the dispute between him and al-Ghazali. Second, the concept of causality as a uniformity of sequence, which considers causes to be no more than events preceding other events in succession. This view, I conclude, is not a connotation but a statement of fact about causal phenomena. Third, the functional theory of causality, which represents the physicists' view. It disposes of the terms cause and effect and utilises instead mathematical symbols (numbers), which do not refer to any truth or reality but to relation. This view, to me, constitutes a denial rather than an interpretation of causality. Fourth, the concept of causality as a category of the mind, which is the view that I adopt. Causality is considered an a priori concept which is a condition for the possibility of phenomenal events in general. As such, it is an order in the mind which synthesises and organises the confused perceptions of appearances. The irreversibility of the order of those perceptions prove the necessity of the concept as a universal rule for the experience of phenomena - i.e., the rule which posits a necessary event preceding another event in time to account for its existence.

MUDARRIS

C A U S A L I T Y

P R E F A C E

In the present essay, I shall try to achieve two main objectives. First, analyse critically the concept of cause and effect as discussed by al-Ghazali and Averroes. Secondly, expound some important connotations that are given to the term causality, and show why I tend to prefer a Kantian interpretation to any other.

To achieve the first objective, I will trace the history of the concept of causality from the Mutazilites down to Averroes. This historical survey will be necessary for the understanding of both al-Ghazali's view, which represents the attack on causality, and Averroes' view, which represents a vindication and defence thereof. We cannot understand the position of al-Ghazali with respect to the causal problem unless we understand the position of his predecessors, the Asharites. His doctrine is an elaborate form of their old theological views of God and His relation to the created physical world.

The Asharites conceive God as an absolute Being who manipulates the world, and its phenomena, according to His sheer will, unrestricted by any conditions. Everything that exists lies within His power, and nothing becomes, from the smallest to the greatest event, unless He wills its becoming. God's creatures, animate or inanimate, are entirely passive in themselves - i.e. they have no intrinsic, self-sufficient capacity or, in the case of physical things, nature by which they act and produce. Any apparent activity, human or natural, is in reality God's activity. To attribute action to creatures, the Asharites believed, contradicts the omnipotence of God, who is the sole Agent in

the world. For this reason, they had to theorise on the nature of the physical world, so they might vindicate philosophically what they believed religiously. Their physical theories were means rather than ends, means for the defence of what they thought a noble motive: namely the assertion of the absolute power of God.

Al-Ghazali adopted this important Asharite outlook, which is a basic aspect of Islam, and tried to justify it by a similar, but more astringent, means. His approach consisted in an outright attack on the causal theory which posited a necessary connexion between causes and effects. The attack was launched on purely skeptical grounds. Causal connexion between physical objects, or phenomena in general, al-Ghazali argued, is untenable for the following simple reason: it cannot be perceived. What we see when two events occur together uniformly is conjunction, not connexion, and conjunction can never warrant the necessity of their occurrence together in the future. Thus al-Ghazali tries to establish the invisible causality of God, by the denial of the visible causality of nature.

There is no historical influence of the Mutazilites on Averroes. However, if we remember that the Mutazilite idea of privation was similar to the Aristotelian concept of potentiality, and if we keep in mind the influence of Aristotle on Averroes, we may naturally expect a certain resemblance between their two views of causal necessity. According to the Mutazilites, the physical world has an essence which precedes its existence. Its essence, in the state of non-being or privation, is a potential state which has its peculiar characteristics.

These characteristics inhere in the world eternally, but they are actualised by God, who brings them forth from the potential to the actual state. Moreover, these characteristics, which exist in the physical world actually, constitute the nature of this world - i.e. the uniformity of phenomena which it exhibits. In physical objects, therefore, there is a nature, a force, or a power which determines their action in a certain necessary manner.

Averroes displays a clearer view of natural causality, since his thinking was influenced far more by Aristotle. As Aristotle, Averroes viewed nature as a principle of motion from potentiality to actuality. But motion presupposes a mover and a movable, or a cause and an effect. The only function of the mover is to actualise the movable, and this is done in two different ways: either freely or necessarily. The mover can be a free agent who knows and wills what he actualises, or an inanimate agent which acts of necessity. Physical objects are, therefore, as active as human beings, but their action is of a different kind. This activity of the physical world is in perfect accord with the omnipotence of God, because the physical world itself, as well as its activity, are dependent upon God for their existence.

As regards the second objective, I shall discuss four possible connotations of the term causality which I believe to be the most significant. These are: (1) Causality as a force or power inhering in natural objects; (2) causality as a uniformity of sequence; (3) causality as a functional relation between measurable quantities; (4) causality as a category of the mind. After analysing the weak-

nesses of the first three, I shall adopt the fourth connotation, and show, on Kantian grounds, that it is possible to prove both the a priority and the necessity of the causal concept. The other interpretations of causality, I shall maintain, are either no interpretations at all, or attacks on causality as a concept. The former are merely statements of facts about what occurs, i.e. about what we perceive of uniformity. The latter simply deny the causal concept altogether, and a denial cannot be considered as an interpretation. In both cases, therefore, no theory of causality is given. One interpretation that may be considered a theory is that which defines causality as a force or power inherent in things. But this is so little evidenced by fact that it is too difficult to maintain. The only genuine interpretation, it seems to me, is that which regards causality as an essential concept or form of the human mind without which no objective knowledge of the external world is possible.

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CHAPTER I
HISTORICAL BACKGROUND

SECTION I

THE MUTAZILITE VIEW ON CAUSALITY

The importance of the problem of causality in the history of Muslim philosophical thought is closely bound up with the peculiar conception of God and His relation to the physical world which the scholastic theologians of Islam (Mutakallimin) generally adhered to. As I will try to show later, the dispute that arose between al-Ghazali and Averroes over the question of causality was in reality a dispute over the nature of God and the nature of the world, and the relation between them. The Muslim theologians and philosophers did not discuss causality as a corollary of their theory of knowledge as, for instance, David Hume did. Except perhaps in the case of Averroes, who put some emphasis on knowledge and understanding, epistemology played a very minor role in their thinking. In denying causality, what mattered to al-Ghazali was not its origin as an idea arising from habit and expectation. It was the assertion of the sole power of God in the world, which was implied in the denial of causality, that interested al-Ghazali most. Likewise, when Averroes asserted the necessity of causal connexion between physical objects and natural phenomena, he was seeking to show that the concept of an orderly scheme of things in nature was a corollary of any genuine concept of God. Such theological interest should not surprise us. The thinking of all Mutakallimin and philosophers was dominated by a distinct theological motive, not with respect to the causal problem only, but with respect to most philosophical problems.

It is important, therefore, to keep clearly in mind the concept of God to which the Mutakallimin subscribed. For such a concept determined, to a large extent, their view of the natural world. Without a clear concept of the nature of God (according to those Mutakallimin), we cannot speak about the world at all.¹ Is God absolute or limited in His essence? Are His actions, His will, His knowledge, and His power limited or unlimited?² If we say God is absolute, and no limitation of any kind can be imposed on Him, our position would be akin to that of the Asharites. On the other hand, we would tend to be Averroacists if we rule out the absolutism of God and establish two compatible, active orders: the causal order of nature, and the providential order of God, the former having some dependence on the latter. In other words, this view claims that there is a harmony between the activity of nature and the activity of God. The activity of nature in no way conflicts with the activity of God. The former complements the latter and adds to its perfection. To conceive of God as an absolute Being who is the sole Agent in the world, is to detract from His wisdom and perfection rather than to exalt them. The Asharites, together with al-Ghazali, on the contrary, believe that an active, causal order in the world would run counter to the omnipotence of God, since it would imply a power distinct from the divine power necessarily operative in nature.

In order to understand the Mutazilite view of the causal question, we must distinguish between moral causality and natural causality. Moral causality is man's determination of his own actions, i.e. his freedom to

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1. Throughout this whole thesis, the existence of God is taken for granted.
 2. The Mutakallimin called the power of God "Kudra".

choose and do what he desires. Man creates, or causes, his own actions by willing them freely. God only gives him the capacity to execute the action he wills, but God does not perform the action. Natural causality is the activity of natural objects and natural events on one another. When we say fire burns wood, we mean the event fire produces the event burning in wood. Similarly, when we say ball A moves ball B, we mean ball A acts on ball B and produces its motion. The physical world is conceived as containing a power or force which operates and produces natural phenomena. Thus the action of God is ruled out from both moral and natural causality. In the former case, man is the cause; in the latter, nature is the cause.³ Natural causality, according to the Mutazilites, is based on their physical theories of nonbeing (or privation) ('Adam), bodies (Ajsam), substances or atoms (Jawaher), and accidents ('Arad). Moral causality is based on the idea of divine justice and man's responsibility. The Mutazilites believed that God is essentially just and good. He cannot cause or determine the actions of man for two reasons: first, man's actions may be good or bad. If God is their author, then God may be the author of something bad, which is impossible. Secondly, since man is held responsible for his actions, it is he who should be their cause. If he is not, then God would be unjust in holding him responsible for something he has not done, and this is likewise impossible. Responsibility entails freedom, and freedom implies that man is the author of his actions.

Although moral causality is as emphasised by the Mutazilites as natural causality, it is the latter which interests us more in discussing

3. De Boer J. J., Tarikh al-Falsafa Fil Islam, Trans. Abu Rideh, M.A., (Cairo 1948), p. 70.

the views of al-Ghazali and Averroes. In his Tahafut, al-Ghazali attacks natural, not moral, causality; and in his Tahafut of Tahafut, Averroes speaks about the physical world only. It is more relevant, therefore, if we pay greater attention to natural, without discarding altogether moral, causality.

The idea of privation for the Mutazilites is not equivalent to nothingness. Privation can mean non-existence, but non-existence does not imply privation, i.e. a thing can cease to exist without ceasing to be, but it cannot cease to be without ceasing to exist. Privation is a wider concept than, and includes, non-existence. It is slightly different in the case of privation and thingness, which are implied in each other. Both being and privation imply thingness. This may seem somewhat paradoxical. But the paradox vanishes when we refrain from considering privation as the contrary of being. Privation is not the opposite of being; it is the potential state of a thing prior to its coming-into-being. Privation, therefore, refers to some "thing", though this thing may not be existing. For a thing to exist it needs not only to be, but also to possess a special determination - or form, as Aristotle would say - which is proper to real existence. Discussing this idea of privation, al-Shahrastani (d. 1153 A.D.) refers to the view of al-Shahham and the majority of Mutazilites. He says: "al-Shahham introduced the idea of privation as a thing, and he predicated of it the characteristics of existence which are attributed to substances and accidents. The rest of Mutazilites mostly followed his view in asserting the thingness of privation (except Abul-Hudhail al-Allaf (d. 841 A.D.) and Hasan al-Basri), but not in predicating of it the characteristics of existence".⁴

4. Al-Shahrastani A.B., Kitab Nihayat al-Ikdam Fi Ilm al-Kalam, Guillaume A., ed. (Oxford University Press, 1931) p. 151.

Somewhere else, al-Shahrastani speaks in similar terms about al-Khayat (d. towards the end of the 9th C. A.D.): "... al-Khayat over-emphasised the idea of privation as a thing; a thing is what is spoken of and known; substance is substance even when it ceases to exist and so is accident".⁵ Ibn Hazm (d. 1063 A.D.) confirms al-Shahrastani's account of this view of Mutazilites: "people disagreed on whether privation is a thing or not. The Sunnites ..., like Asharites and others, said it is not a thing. But Hisham al-Fouati (a contemporary of al-Allaf), together with the rest of Mutazilites, asserted the thingness of privation; and al-Khayat went as far as predicating corporeality of it, a corporeality, however, devoid of motion".⁶

Thus we see that the Mutazilites conceived of privation as a real thing rather than as an empty conception, a thing that has its properties and characteristic nature, which share in the properties of existence but do not include all of them. In other words, privation is the "essence" of objects which precedes their existence. It is eternal in itself as a kind of potentiality capable of changing into actuality, and it is God who effects its change. Existence is this very change or transformation from privation to being; it is an actualisation. God's action, therefore, is confined to this task of actualising potential objects only. God gives objects their existence, not their essence.⁷

This Mutazilite concept of privation, or an essence which precedes existence, may be compared to Plato's Idea. An Idea according to Plato

5. Al-Shahrastani A.B., Al-Milal Wal-Nihal, Fahmi M., ed., vol. I, (Cairo 1948) p. 102.

6. Ibn Hazm A., Al-Fisal Fil-Milal Wal-'Ahwa Wal-Nihal, vol. V, (Cairo 1902) p. 42.

7. Nadir A. N., The Philosophy of Mutazilites, vol. I, (Alexandria 1950) p. 137.

is an essence which has a reality of its own, and which precedes the participation of concrete instances in it, i.e. precedes its existence in material objects. But Plato's Idea differs from the Mutazilite essence in that the Idea does not become actual when individual instances partake of it; it is equally actual before as after participation. Objects are actual or real according to the degree of their participation in the Idea. In other words, the Idea is not a potentially existing essence. It is a perfect actuality in itself, whether exemplified in material objects or not. In this respect, therefore, the Mutazilite essence may resemble more the Aristotelian concept of prime matter, which is mere potentiality or potency. But it does not resemble Form which, according to Aristotle, has no separate existence apart from the particular matter it informs. The Mutazilite essence is an awkward combination of Platonic and Aristotelian elements.

I have expounded the Mutazilites' view of privation and existence only by way of prelude to their theory of necessity in nature, which involves an assertion of the law of causality. The important thing is to remember that an object has essential qualities before it exists and that these qualities persist after the object is made to exist by God. These qualities are necessarily inherent in the object independently of God and constitute the essence of the object.

This means that there is a kind of material determinism in the physical world, a determinism that rules out any divine intervention. When an object falls to the ground, it does not fall freely but necessarily in obedience to the law inherent in the object itself and in its surrounding objects - i.e. the law of gravity. Ibrahim al-Nazzam (d. between

835-845 A.D.), in this connexion, takes the example of moving stone and emphasises its active nature: "God has so created a stone that if you push it, it will move; and if the force of the impact ceases, the stone would return to its original place naturally (by the action of its nature)".⁸ Almost the same view is expounded by al-Khayat, though in more emphatic terms. Defending Thumama bin al-Ashras (d. 828 A.D.) against the attack of those who accused him of saying that God created the world out of necessity, not freely, al-Khayat says: "does not Thumama say that only created physical objects act by way of necessity? Physical objects which act necessarily by virtue of their nature act only in one uniform way, e.g. fire only heats or burns, ice only cools ... etc. The object from which many types of action are produced is not determined (i.e. does not act by necessity) but is free".⁹ Thus necessity, and with it causal connexion, is asserted in all the physical universe. If fire can produce only burning, then it is justifiable to say burning is an effect of fire and fire a cause of burning, meaning that there is a certain connexion - a necessary connexion - between fire and burning. Similarly with ice and all other active physical substances.

According to this view, knowledge becomes possible when we determine the fixed qualities of a certain object in relation to some other object. The action of the object, which is dictated by its fixed qualities, we know, will remain unalterable; therefore the relation

8. Al-Shahrastani, Al-Milala Wal-Nihal, op. cit., p. 74.

9. Al-Khayat, Muh., Kitab al-Intissar, Nyberg H.S. ed. (Cairo 1925), p. 22-23.

of the object to other objects also will remain unalterable. Once we know that the action of fire is burning, then we can always say: fire burns. It is true that al-Allaf and Abu Ali al-Juba'i (d. 915 A.D.) said it was possible for the action of a certain object to cease (the fire not to burn and the stone not to fall), yet they did not mean that objects can lose their natures and acquire opposite ones. They simply meant that objects can act and can cease to act: it is not absolutely necessary that they should always act.¹⁰ Fire, e.g. may not act when near cotton, but this does not deprive it of its essential nature, which is burning.

In al-Nazzam's theory of "Kumun" (Latency) we can find another instance of causal necessity. This theory states that everything was created at the beginning once and endowed with distinctive qualities. Nothing is born or created anew. Objects are "latent" in one another and they unfold themselves in time through a natural process. A tree, for instance, is latent in its seed, the seed in a previous tree ... etc. Through the process of growth the seed develops into a tree, i.e. the process of growth actualises the tree and brings it forth from the state of latence to the state of existence. Likewise the boy is latent in the sperm, the act of union unfolds him and the process of growth takes care to make him as he is. This is why al-Nazzam says, "the creation of Adam did not precede the creation of his offspring".¹¹ This process of actualising the latent actions and properties develops according to

10. Al-Ashari, A. H., Makalat al-Islamiyin Wa Iktilaf al-Musallin, Riter H. ed., (Istanbul 1930) vol. II, p. 312; Nadir, op. cit. vol. I, p. 180.

11. Al-Shahrastani, Al-Milal Wal-Nihal, op. cit. p. 76; al-Khayat, op. cit. p. 51-52; Al-Baghdadi Muh., al-Fark Bainal - Firak, Badr Muh., ed. (Cairo 1910), p. 126-127.

a necessary natural law that is essential for the physical world.^{12.} Growth, e.g. is a necessary and essential factor in organic bodies, motion in inorganic bodies. When a body moves, it moves by necessity of its nature, i.e. its tendency to move. Also when a body grows, its growth is essential and necessary. The principle of unfolding latent beings, therefore, is a principle of necessity and determinism, not freedom. We can say, then, that the seed was the cause of the tree, the father of the boy, the hand of the downfall of the stone ... etc.

Let us see now whether the Mutazilite view of substances and accidents contains an element of causal connexion. Some Mutazilites, as we have seen, say that God made physical bodies actual by bringing them forth from privation to being, and that is all that He did as far as this world is concerned. God's only role, therefore, was to act as an Agent of actuality. Once the physical world came into being, it began to function according to the laws inherent in it. This view applies not only to our world but to the universe as a whole. Accidents, e.g. colour, that inhere in a certain body are not created by God, but are produced by the particular body in which they inhere. Indivisible substances are inseparable from the accidents they contain; their essence consist in their integration. Whenever we speak, therefore, of substances we immediately associate accidents with them. Thus it is physical bodies that produce their own accidents. God has nothing to do with this phenomenon. Discussing this problem, Muammar Abbad al-Sulmi (a contemporary of al-Allaf) says: "God has not created anything other than

12. Nadir, op. cit. p. 182.

physical bodies. Accidents are the product of these bodies, either by necessity of their nature (i.e. their essence) like the production of burning by fire, heat by the sun, and colour by the moon; or freely and voluntarily like the animal which produces motion, rest etc."¹³. Abu-Hasan al-Ashari (d. 935 A.D.), reporting the same idea of Muammar's says in his Makalât: "he alleged that what inheres in bodies (accidents), like motion, rest, colour, taste, smell, heat, cold ... etc., is a product of the body's action. The deceased and the living, each produces his own accidents of death and life respectively"¹⁴. Al-Jahiz and some of the Mutazilites took a similar view on this question, but al-Nazzam reduced all accidents to the accident of motion.¹⁵

A more radical view on this question is that of al-Khayat, who reaffirms Muammar's position, "the author of the book (Khayat) agrees with Muammar on the action of bodies; the planets and the cosmos as a whole move not by the action of God", but by virtue of the natural power inherent in them.¹⁶ This clearly implies necessity in the sequence of events in nature, and accordingly causal necessity. Moreover, this view puts a drastic limitation on God's power to act and opposes to His action that of natural agent. Furthermore, the active force of natural agents operates according to a law which God Himself cannot alter. From this it follows, e.g., that a stone cannot turn into a book, a book into a horse; that no object can rise when dropped, since its nature is to fall.

13. Al-Shahrastani, Al-Milal Wal-Nihal, op. cit. p. 89; al-Baghdadi, op. cit. p. 95, 138.

14. Al-Ashari, op. cit. vol. I, p. 89.

15. Al-Shahrastani, Al-Milal Wal-Nihal, op. cit. p. 75.

16. Al-Khayat, op. cit. p. 53-54.

"The Mutazilites were in general agreement that an object cannot turn into its opposite at the moment of its existence; they believed that change of objects into their contraries is impossible".¹⁷ Not all the Mutakallimin, however, concurred in this view, and the controversy between al-Ghazali and Averroes, which we shall consider later, is a classic instance of the conflict which raged in the history of Muslim thought over this decisive issue.

The Mutazilite view of causality is expounded succinctly in a passage in which al-Khayat speaks about al-Allaf: "an object which produces something once can produce it always, unless the object undergoes a change in its essence (i.e. loses its particular capacity to act)".¹⁸ A stone, for instance, once it can break windows, will always break them, unless it loses its quality of hardness. This implies that, as things are, the "same cause produces the same effect under the same circumstances."¹⁹ Some Mutazilites distinguish between three kinds of causes: first, there is a cause which precedes the effect (the will in relation to a certain willed action); second, a cause which is simultaneous with the effect (the motion of a body in relation to its shadow); third, a cause which precedes from, or comes after, the effect (Aristotle called this the final cause, the end for which a thing is done). Other Mutazilites, like Bishr b. al-Mutamir (d. 825 A.D.) and al Iskafi (d. 854-855 A.D.), admit only one kind of cause; a cause, they say, cannot be

17. Al-Ashari, op. cit. vol. I, p. 286.

18. Al-Khayat, op. cit. p. 15.

19. Nadir, op. cit. vol. I, p. 204.

with or after, it must be before, its effect.²⁰ There is a classification of causes, however, which is less Aristotelian and on which all Mutazilites seem to agree. They say there are direct and indirect (generated) causes. To know the difference between these two causes, we must understand the Mutazilite doctrine of "generation" of causes (al-Tawallud). Al-Iskafi (d. 854 A.D.) draws the line between the generated and the direct cause: "any event that occurs without intention and will is a generated event; any event that occurs as a result of a premeditated intention and a determined will is not generated but is a direct event".²¹ If intention and will, therefore, are the conditions of a direct cause, we can say that the farther the event is from the will, the more generated it is. If we imagine human action to be the first of a successive series of events that occur before a final event occurs, then every event is generated, except the first which is the only direct event. For instance, if I throw a stone with the express intention of breaking and the stone breaks a window, and then, after breaking the window, it hits a man who falls upon another man and injures him, the direct cause would be my throwing of the stone. All the subsequent effects are generated, since they were not intended. The nearer the cause is to the willed and intended effect, the more direct it is; and the direct cause is the real cause of that effect. The reason for this is that direct causes are subject to the action of the will, which can stop or continue acting on them. So long as the will acts, the events are what they are. Their being depends on the will.

20. Al-Ashari, op. cit. vol. II, p. 389, 412.

21. Ibid, p. 409.

This is why the will is responsible for the events it wills and this is why it is their real cause.^{22.} But to what extent is man (the direct cause) responsible for the generated events that ensue from his action? The Mutazilites consider the first cause or action of man as a free decision issuing from a will that can foresee the consequences of the intended action; at the same time it is the beginning of the series of generated events which succeeded. The generated events are determined, because they are subject to the necessary laws of nature which are outside the will and capacity of man. Apparently, therefore, it would seem as if man was not their doer; how, then, is he held responsible for them? Man is held responsible for generated events because it was he, as their first cause, who set them in motion. Had he not initiated the process, there would not have been any generation. Had I not thrown the stone, the window would not have been broken, the man behind it would not have been hit ... etc. The former events (i.e. the motion of the stone, the breaking of the window) occurred according to the laws of inertia, which is outside my control. But it was I who set the law in motion by throwing the stone. Man, therefore, is responsible for any generated event so far as this event is generated by an action caused by his will and intention. On this point, al-Allef says: "any event generated from a conscious action on the part of man is his responsibility, e.g. the pain caused by hitting, the falling stone caused by a push ... etc." ^{23.} Thus causality is implicit in one of the Mutazilites' most important doctrine, the doctrine of human freedom and responsibility.

22. Nadir, op. cit. vol. I, p. 207, 211.

23. Al-Ashari, op. cit. vol. II, p. 402-403.

We may turn next to the discussion of causality in the moral sphere, i.e. in human action. So far, I have discussed causality in nature, causality that is a result of physical necessity in the world. It is now time to see what the Mutazilites had to say about causality in human action, i.e. causality which is the result of man's free activity. Man, to the Mutazilites, is the only being who escapes natural determinism. Everything else in the world functions according to an essential and necessary "nature" which determines its being. But man defies this determinism because he belongs to an order apart, an order which is voluntary and free. Man is the only being endowed with reason, and reason sets him apart from other creatures, giving him freedom, responsibility and morality. Reason to the Mutazilites is like a sign-post which God has created in man (only) so that man may choose the life he wants, to live and may be responsible for any course of action he takes in this life. This point has a tremendous bearing on creation. If we rule out reason, man becomes an immaterial object, subject to the natural laws inherent in the physical world; and then the creation of man, as he is, ceases to have any meaning. Man would become part of the determined natural order, and God would be doing injustice to him in holding him responsible for something he has not done himself, or at least had not the choice to do or not to do. Responsibility, therefore, necessitates freedom, freedom necessitates choice and choice implies a rational activity. Since God's action can be neither meaningless nor unjust, man must be free, responsible and rational. The life of man on this earth, then, is his own; man is the creator (cause) of his deeds, and these deeds are attributed to no one but himself.²⁴ However, though man is

24. Al-Shahrastani, Al-Milal Wal-Nihal, op. cit. vol. I, p. 62.

the creator of his deeds, it is God who creates in him the capacity (Kudra) to act.²⁵ This capacity is no more than the activity of reason and will in a body that is free from disease. In other words, man is capable of free action whenever he is, first, physically fit and, second, mentally sane.²⁶ These two conditions are necessary because without them no free action can be done. A sane mind is necessary to determine what type of action should be aimed at, and a healthy body is essential for the execution of the action chosen.²⁷ Other than the creation of this capacity to choose, God does nothing as far as man's action is concerned. Whatever man does in his life is an effect, of which he is the cause; and God cannot change - for better or for worse - the nature of this effect. For instance, if I choose to lead a good virtuous life, thereby placing myself in paradise by desert, God - as al-Nazzam states - cannot reverse the effect I produced freely, by placing me in hell.

But this divine inability to do things as such is not a restriction put on God from without; it is a restriction imposed from within by God's very essence, namely His goodness and justice.²⁸ This firm belief in God's justice is the basic reason for the Mutazilites' postulation of human freedom and responsibility. Since man is apt to commit sin and evil, God cannot be associated with him as the prompter of his actions, because then God would be the author of sin and evil, which is absurd. God is good, just, wise ... etc., and His goodness, justice and wisdom are Himself - i.e. His attributes are identical with His essence.²⁹ It is therefore impossible that God should do or authorise injustice or evil. Thus the Mutazilites rejected the idea of divine interference in human action in order to safeguard the justice of God, and it is on this account that they were called the "people of justice" (Ahl-el-'Adl).

25. Al-Ashari, op. cit. vol. I, p. 274-275.

26. Al-Shahrastani, Al-Milal Wal Nihal, op. cit. vol. I, p. 87.

27. Nadir, op. cit. vol. II, p. 61.

28. Al-Shahrastani, Al-Milal Wal-Nihal, op. cit. vol. I, p. 72.

29. Al-Ashari, op. cit. vol. I, p. 225.

SECTION II

THE ASHARITES' VIEW ON CAUSALITY

I have discussed the Mutazilites' view of causality and examined, first, their physical theories (privation, substances, accidents) and, second, their moral theory (freedom and responsibility). In expounding the Asharite view, I shall follow a parallel line, trying to bring out the contrast between the two views which was destined to form later the basis of a major controversy between the doctors of the two schools, and of which the dispute between al-Ghazali and Averroes was a classic instance. Just as the Mutazilites' concept of God, as a Being whose power is limited by His wisdom and justice, was the basis of their physical and moral theories, so the Asharites' concept of God, as an omnipotent sovereign, determined their own physical and moral theories. The difference between the two theories springs from the difference between these two antithetic conceptions of God.

Unlike the Mutazilites, the Asharites do not distinguish between being and existence, privation and non-existence. All the characteristics of being are predicated of existence and vice versa. If, e.g., a thing has being, it is (it exists). Conversely, if a thing is, it has being. If a thing has privation, it is not (it does not exist), and the contrary is true. Privation, thus, is taken here to be the opposite of being - i.e. it is identical with nothingness. The Mutazilites believed that both being and privation referred to thingness, and that is why the two concepts were not thought to be

opposites. To the Asharites privation is an expression referring to nothing at all, to utter annihilation.³⁰ As such, it has no essential characteristics in itself which it bequeathes to existence and which are eternal independently of God. Existence is not an act of actualising (by God) the potential state of privation. Existence is a total creation - *ex nihilo* - of a certain thing, i.e., its production as a concrete object after it was not. An existing object, therefore, owes the totality of its being (its essence as well as its existence) to the direct will of God which sustains it. Thus the physical world is made absolutely dependent upon God for its existence. This view is diametrically opposed to the view which the Mutazilites hold with regard to the world, for they posit an essence preceding existence which pertains to physical objects prior to their actualisation.³¹ When an object comes into being, its characteristics are determined by its essence which existed as a privation. God's action is confined to the process of actualising these potential characteristics, i.e., to giving them actual existence. To the Asharites, however, there is no inherent essence as such in things prior to their existence. God creates the thing and in the act of creation the thing becomes what it is. But what is this thing? Does it have no characteristics or nature at all? If so, how is it to be distinguished from some other thing? What is, in other words, this created physical world like? Is it a passive, or an active, entity in the hands of God? In their answer to these

30. Ibn Hazm, *op. cit.* vol. I, p. 42; al-Bakillani M., *al-Tamhid*, Abu-Rideh M. ed. (Cairo, 1947), p. 40, 52.

31. The meaning of "essence" here corresponds more to Plato's Idea than to Aristotle's Form.

questions lies the gist of the Asharites' view on causality. But to answer them, I must touch upon the Asharites' theory of substances and accidents, and their doctrine of "continuous recreation and atomic time", as MacDonald puts it.

In his book "Beitrage Zur Islamischen Atomenlehre", Dr. Pines emphasises the dichotomy between God and the world, the "creator and the created".³² He says that God, according to the Asharites, is absolutely Unknowable, even negatively; he also cites their dictum, "Without how", as evidence that God's essence and attributes are incapable of being cognized.³³ This is true only as far as reason is concerned, i.e. in so far as God's essence and attributes are known by unaided reason. Pure reason can know that God is, but it cannot know how and what He is - it can posit His existence, not His essence. To know His essence, reason needs the aid of revelation, and what revelation reveals is to be taken literally without any interpretation. The Holy Book, for instance, states that God is One, almighty, merciful, omniscient, transcendent ... etc. Though these are mere attributes, not denoting the positive essence of God, yet they give an idea of what God is like and we are to take their meaning at its face value. When the Quran says God is just, we take just to mean what it morally and literally means to us, namely that He does not ill-treat or harm any one. Similarly when He is called omniscient, merciful etc. Thus, the Asharites say, though the exact nature of God is not known, the Quran has given us

32. Pines S., Beitrage Zur Islamischen Atomenlehre, Abu Rideh M. Arabic Trans. (Cairo 1946), p. 2.

33. Ibid, p. 2.

sufficient hints to form an idea about Him; and it is in the light of this idea that we can establish a relation between Him and the world. Without this idea, we cannot know what sort of world we live in; our views of the physical universe are radically determined by the kind of view we hold about God, and this view is supplied by the Quran. If God, then cannot be known positively or negatively by reason alone, as Pines says, He certainly can be known negatively by reason and revelation together. Revelation is to the Asharites the torch which lights the way of man to all possible knowledge in this world. The Asharite physical theories are, therefore, deeply rooted in their theology, in their view of the nature of God, His actions, His will, and His power. This view can be summarised in the following: God is an absolute Being; hence, any attribute predicated of Him must be absolute; He is, therefore, absolutely free, absolutely capable, absolutely omniscient.... etc.

The world according to the Asharites is composed of bodies, atoms (or substances) and accidents. Everything which is said to exist, from human actions to human knowledge to physical objects, must belong to one of these three categories of being.³⁴ Substances are at the basis of everything and are indivisible; they make up any existing entity in the universe.³⁵ Bodies are no more than aggregates of those substances, as individual substances in themselves have no magnitude. Every substance, however, possesses a series of accidents or ephemeral qualities. But since bodies are aggregates of substances, the three

34. Al-Bakillani, op. cit. p. 41-42.

35. Maimonides M., Guide of the Perplexed, Proposition I ch. 73; MacDonalD D.B., Continuous Recreation and Atomic Time, The Moslem World, v. XVIII (Jan., 1928), p. 10; al-Baghdadi, Usul-ad-Din, (Istanbul 1928) v. I, p. 33.

categories of being can be reduced to two: substances and accidents. It is important to note that accidents, as I said, are ephemeral qualities pertaining to substances. This implies that they do not endure for any length of time: no sooner they are created than they perish.³⁶ Time, like anything else, is also composed of substances called "nows" which cannot be further subdivided. The indivisibility of substance is fundamental to this theory, as it rules out any possible infinity, whether potential or actual; and this has an important bearing on the Asharite proofs for the existence of a Creator of the world.³⁷ These indivisible substances are separated by a vacuum, which the Asharites were led to introduce to make the existence of bodies possible, since without it substances could not move to combine and form physical entities. Interpenetration of bodies was impossible to the Asharites.

The most important aspect of this theory for us is the non-permanence of accidents, or their existence for one instant only. An accident perishes as soon as it is created, and is recreated anew as long as God wishes the object to endure. It is, then, God who performs the act of continuous creation and recreation of accidents; and since accidents cannot exist without substances, by recreating accidents God also recreates the substances alongside with them. Thus God is engaged in a perpetual, but deliberate, process of maintaining the existence of the world by continuously creating it. Privation or nonexistence, therefore, does not necessitate a positive action on the part of God; all

36. Ibid, Prop. VI, ch. 73; Bakillani, op. cit. p. 42.

37. Ibid, Prop. XI, ch. 73.

He needs to do in order to annihilate the world is to cease to create it; cessation of creation will result in non-existence.³⁸

We can clearly see here the important consequence which springs from this view of the world, namely the contingency of the existence of the universe as a whole. Since accidents are created, destroyed and then recreated by the will of God, they need not be the same every time they are created. Motion in a certain body, e.g., could be created for a number of years, but it ceases as soon as God wills to create rest in its place; the accident motion in a certain body is not a necessary, but a contingent, quality. Thus a body which has been moving ever since its beginning - such as the stars, planets or the universe in its entirety - could very well come to rest at any future time, if God so wills. A certain object which has been hitherto white, like snow, may become black at any moment, at God's behest, and the same holds for every thing in the world. This view is embodied in a doctrine called the doctrine of "contingency of being", which states that every thing is possible for God, since, as the Asharites say, "whatever is imaginable is rationally possible".³⁹ "Every existing object in this world," Maimonides states in reporting this doctrine, "the fact that it is bigger or smaller, similar or dissimilar, from another object is contingent, not necessary. It is possible, for instance, that man be of the size of a mountain or of that of a mosquito. What we see or experience as a permanent, fixed nature which we believe to be characteristic of a certain object is

38. Ibid., Prop. VI, ch. 73.

39. MacDonal, op. cit. p. 16; Maimonides, op. cit. Prop. X, ch. 73.

no more than the habitual uniformity of the succession of accidents of that object. Just as a king's habit is to be found in the public market always on horseback, so an object's habit is to be found usually exhibiting the same features. But as it is quite possible for the king to be found walking in the market, so it is possible for the object to exhibit different features. Fire, e.g. could cool and water could heat, instead of the opposite".⁴⁰ Necessity is ruled out, therefore, not only on the ground of the contingency of objects, but also on account of the denial of the notion of an active nature in things or the denial of a causal connexion between events. The denial of this nature, Maimonides says, was the reason for the Asharites' assertion that an accident exists for one moment only, and that God recreates it in every successive instant of its being. What is called a nature is no more than this continuous recreation of the same accidents in an object by God. Since God performs this recreation voluntarily, this so-called nature of an object can be altered at any time, depending entirely on His will. However, God so willed that natural phenomena should occur according to a certain habit, which is maintained by God's recreating regularly the same accidents in the same object. It is this habit, the Asharites say, which some have mistakingly called nature and have predicated necessity of it, thereby ascribing to it the character of causality. "When we dye a piece of cloth black, or when we move a pen in our hands, it is not we who dye the cloth or move the pen, but God following the habit He willed.

40. Maimonides, op. cit Prop. X, ch. 73.

The hand is not the cause of the motion of the pen, nor the dye the cause of the blackness in the cloth; nothing can cause anything; the only cause of everything is God".^{41.} We see, then, on what basis the Asharites denial of causality in the physical world rests, and we see the important metaphysical assumptions involved in this denial. As the denial of effective natures in things is the basis on which the denial of causality rests, we may consider further arguments which the Asharites advance in their repudiation of these natures.

Al-Bakillani (d. 1012 A.D.), one of the eminent Asharites of the 10th century, states four arguments against the existence of natural qualities (natures) in things.^{42.} The first argument is theological and is directed against those who say the world has resulted from the action of a natural cause inherent in the world itself. This cause, al-Bakillani says, is either created or uncreated. If it is uncreated, its effect - namely the world - must also be uncreated or eternal in consequence, as between the cause and the effect there is no lapse of time; so long as there is a cause, there is an effect. A cause is called effective by virtue of the immediate effect it produces, or it would lose its status as a cause. Burning, for instance, exists inseparably from fire, both in time and place. It is certain, then, that if the natural cause of the world is uncreated, the world is uncreated. But it has been shown that the world could not have been uncreated.^{43.} For if it could, then a building could be built without

41. Ibid, Prop. VI, ch. 73.

42. Al-Bakillani, op. cit. p. 52.

43. Ibid, p. 44; also al-Baghdadi, Usual-ad-Din, op. cit. p. 68.

a mason, a "book written without an author and a portrait made without a painter".⁴⁴ The world, therefore, cannot be the effect of an uncreated natural cause. If, on the other hand, this natural cause were created, it would be created either by another similar cause or not. If it were created by a similar cause, this in turn would have been created by another cause ... and so on ad infinitum, which is impossible. Hence, if the natural cause of the world is not created by another natural cause similar to it, it is possible to assume that the world is not the product of a natural agent.

The second argument is based on the distinction between bodies and accidents. If heating or cooling, al-Bakillani says, is caused by a "nature" in the thing heating or cooling, this nature would be either the thing itself or an accident other than itself.⁴⁵ If the thing itself is the effective nature, then any other thing or body must produce the same effects - heating or cooling - since all bodies are of the same genus. But as this is disproved by experience, it cannot be true. If this nature were an accident, still it would not be effective. Accidents cannot act, because they exist for one moment only, and action needs a relatively long duration. The existence of a nature, therefore, in a thing causing cooling and heating is impossible.

In his third argument, al-Bakillani turns the table against the exponents of causality. Those who believe, he says, in causal connexion require a cause for every effect and an effect for every cause.

44. Ibid, p. 45.

45. Ibid, p. 56.

This implies that causes are directly proportional to effects, i.e. the more there are causes the more there will be effects. This, again, is disproved by experience. If it were true that pain is the effect of beating, satisfaction the effect of eating, the growth of plants the effect of the sun's heat ... etc., then every one of these effects would increase with the increase of its causes. Pain would double if one is beaten twice, we would feel more satisfied if we ate more than we usually do ... and so on. But this cannot be true, as we would feel disgusted with food if we ate more than we can. Likewise, pain would cease if a person is overbeaten.⁴⁶ Causes, therefore, are variable together with their effects and, as such, cannot be necessarily active in things.

The last argument of al-Bakillani against natural causes very much anticipates, as we shall see, al-Ghazali's attack on causality in general. The exponents of natural causes assert that they know the relation between a cause and an effect because they perceive that burning, for instance, is caused by fire. Al-Bakillani emphasises that this is not true. All we perceive is a "change (burning) in the state of a body when it is contiguous to fire";⁴⁷ we do not perceive what or who exactly causes the change or burning. The occurrence of burning when there is fire is no proof that fire is the cause of burning, because we do not actually perceive fire causing burning. The real cause of burning is known by some (like al-Bakillani himself) to be God; others believe it is man who brought fire near the object,

46. Ibid, p. 57.

47. Ibid, p. 58.

burning being an effect "generated" from his action. It is proven, however, that the cause of burning cannot be a nature in fire.

This, in brief, is the Asharite view of causality in the physical world. It is rooted in their belief in atomism and the continuous recreation of accidents. Let us turn next to the moral sphere, the sphere of human activity, and see to what extent the Asharites left room for causality. It is important to note that the Asharite view of causality, as predicated of man, is a direct corollary of their physical theories, particularly the theory of the continuous recreation of accidents.⁴⁸ There-in lies the reason for the denial of both natural and human causality. As the Asharites classify everything in the world either as body (compound of substances) or accidents, let us see to which category human actions belong. It will appear upon reflection that they must belong to accidents, for actions obviously cannot be bodies, first because they are not tangible, second because they come and go - i.e. they do not have a continuous existence. Man's actions, then, are accidents like motion, rest, colour etc. As such, they do not endure for two moments, and are recreated by God continually. Though God need not recreate the same accident always, His actions follow a certain pattern which we may call habit. Thus it is due to habit - not to any causal connexion - that when I move my hand, the pen moves.⁴⁹ The motion of my hand cannot be the cause of the motion of the pen, because both motions are accidents created by God and, consequently, can be attributed neither to my hand nor to

48. Pines, op. cit. p. 33.

49. Maimonides, op. cit. Prop. VI, ch. 73.

me. More specifically, when I move the pen "God creates four accidents, neither of which is a cause of the other, but all of which are in temporal correlation: first, God creates my will to move the pen; secondly, He creates my capacity to move it; thirdly, He creates the motion of my hand; fourthly, He creates the motion of the pen. This will, capacity and motion are all accidents that have no duration. God creates and recreates one motion after another, so long as He wills the motion of the pen to continue. When He wills its rest, He creates the accident of rest in it and the pen stops moving. The belief in this - i.e. God is the real agent of all actions - is a sign of true faith for them (for the Asharites)⁵⁰. Human actions, then, are thoroughly determined by God. They are the sum total of a series of separate accidents, completely independent of one another. If we extend this view to the sphere of knowledge, the soul and the external world, we see that neither knowledge nor the objects of knowledge are fixed. Our minds, our knowledge and the world, as Maimonides says, are continuously recreated from one moment to the other. The universe is in perpetual flux, yet this flux does not necessarily involve transformation of kind.

50. Ibid, Prop. VI, ch. 73.

CHAPTER II

AL-GHAZALI'S VIEW

We have traced the origin of the dispute on causality back to the two chief sects of Kalam, the Mutazilites and the Asharites. We have seen how the majority of the former affirmed natural laws and natural necessity - thereby affirming a natural connexion between causes and effects - and how the latter denied "natures" and ruled out all sorts of effective causes acting in objects. Both views were drawn from respective physical theories that involved conflicting ideas about substances, accidents, bodies and the nature of the physical world in general. But more important than these physical theories is the concept of God's essence, will, knowledge and capacity which each group had. It is this concept which determined to a large extent the views of those Mutakallimin on natural necessity and causal connexion. The reason behind their dispute, in short, was theological or metaphysical.

This same theological motive is noticed in al-Ghazali's attack on causality in nature. There are two aims for this attack which al-Ghazali states explicitly: (1) The affirmation of the possibility of miracles, whatever; (2) the assertion and justification of the omnipotence of God, which is a main Sunna dogma.⁵¹ It must be remembered that al-Ghazali was an ardent Sunnite whose faith in the tradition and the Quran was unshakable and, perhaps, not subject to any "how". But this did not exclude his desire to establish rational bases for the dogma he held, or to vindicate by reason what he believed by faith. On the contrary, he emphasised that this should be done by

51. Al-Ghazali Abu Hamid, Tahafut al-Falasifa, Dunia S. ed. (Cairo 1947), p. 226.

Muslim's, though by a very special class of Muslims who are well-versed in the science of Kalam.⁵² Thus al-Ghazali's denial of natural causality is meant primarily to uphold his own Sunnite faith and to show the philosophers that there is no active power except that of God, and that what seems in this world of ours as an active nature lurking in objects is no more than a fictitious, contingent sequence of events completely independent of one another. Speaking about his objections to some problems of Natural Science (which he enumerates in his *Tahafut*), al-Ghazali stresses the purpose of his criticism: "The basis of all these objections is the recognition that nature is in subjection to God Most High, not acting of itself but serving as an instrument in the hands of its Creator. Sun and moon, stars and elements, are in subjection to His command. There is none of them whose activity is produced by or proceeds from its own essence."⁵³

In this respect, al-Ghazali does no more than restate - more emphatically perhaps - the old Asharite thesis deduced from their theory of atomic time and continuous recreation. If we note that his motive was also the same as theirs, we realise to what degree a thoroughgoing Asharite he was on this problem. We can say, therefore, that al-Ghazali carried forth and elaborated the Asharite view on causality, but with a new and sounder approach. The new approach he initiated was critical, not based on a hypothetical theory. This means he built up and defended his doctrine by way of criticising the opposing doctrines; he did not set a definite philosophic theory, physical or metaphysical, from which

52. Al-Ghazali Abu Hamid, Al-Iktisad Fil-Itikad, (Cairo 1908), p. 6-8.

53. Watt W. M., The Faith and Practice of al-Ghazali, (London 1953), p. 37.

he inferred his own view of the physical world. The Asharite denial of necessity in nature was consequent upon their theory of substances and accidents, while al-Ghazali's denial of it is the result of his attack on the very concept of causality itself; and the attack is inspired by the belief that empirically the idea of a causal connexion is indefensible. This problematic approach becomes clearer with the statement of the main attack.

We should note that al-Ghazali draws a distinction between a "cause" (Sabab) and an "act" (Fi'l), interpreting each in a peculiar sense. The word "cause" is not predicated of animate, living beings; it is predicated only of material, inanimate objects which have no life in them, and is no more than sheer expression of a certain regularity, or concomitance that we observe in nature. When we say that the sun is the cause of light, we mean simply that light is usually observed whenever the sun is observed. Sun and light have no correlation which necessitates their existence always together at the same time. The term "act", however, is a particular kind of cause and is predicated only of a living being who possessed at least three attributes: (1) knowledge of the object acted upon; (2) the will to choose this particular action among other choices; (3) the capacity to accomplish the action chosen.⁵⁴ Thus when we say that the engineer built a house, we presuppose that he knew what he was building - i.e., a house composed of so many floors and so many rooms - and he had the will, beside the capacity, to build it. Action, therefore, cannot be expected except from a knowing, wilful, and capable person. This immediately rules out the concept

54. Al-Ghazali, *Tahafut*, *op. cit.* p. 101, 102.

of "cause" as an active power in the physical world and deprives all material objects of any sense of activity. To quote al-Ghazali on this point, "objects in general, animate or inanimate, together with their accidents, exist by the sole power of God Most High. Objects do not act or cause one another to be; they all are as a result of the act of God".⁵⁵ In order to illustrate the incapacity of material objects to act, al-Ghazali gives a concrete instance. He says, if a certain man X throws another man Y into the fire, we say - quite rightly - that X killed Y. If action could be predicated of fire, we would say: X and the fire killed Y. If by any chance X falls into the fire by himself and we do say: the fire killed X, then the act of killing predicated of fire is merely figurative (Majjaz), not literal.⁵⁶

This distinction that al-Ghazali draws between action and cause does not extricate him from the self-contradiction which he fell into when he denied causality of the visible agent (nature) and affirmed causality of the Invisible Agent (God). Al-Ghazali was attacking the Aristotelian view of causality, which defines a cause as "That out of which a thing comes to be and which persists"⁵⁷; or, in other words, as an event on which another event depends for its being. A cause is a sort of active power latent in a certain being, material or otherwise, always producing some sort of effect. According to this definition of cause, the distinction drawn between it (i.e. cause) and action becomes artificial. Action is a species of cause, not a genus different from

55. Al-Ghazali, Iktisad, op. cit. p. 42.

56. Al-Ghazali, Tahafut, op. cit. p. 104, 109.

57. Aristotle, Physics, McKean R. trans. (N.Y. 1941), 194^b23.

it. If a cause is that on which something depends for its being, so is action. But the modality of cause is different from that of action - the former produces its effect necessarily and naturally, the latter knowingly and freely. If we say, e.g., that fire causes burning and God causes the world, what we are saying in both cases is essentially the same, namely burning depends on fire as much as the world depends on God. In both instances, the effect depends on the cause for its existence. How does fire cause burning and how does God cause the world is a totally different matter.

When al-Ghazali, therefore, asserts in *Iktisad* that God is the cause of the world and everything that is in it,⁵⁸ and denies in *Tahafut* that fire is the cause of burning, he falls into a flat contradiction. Furthermore, in Question I of *Tahafut*, he attacks the philosophers for making God the cause (the natural cause) of the world and deducing, from the simultaneity of cause and effect, the eternity of the world. He thought that the "cause" of the philosophers differed essentially from his own "cause", and that is why he called it "action" and attacked the philosophers cause as a natural agent. Whether secondary (natural) or primary (Divine), causality has the same sense, i.e., the act of producing one object from another object, or the dependence of this latter one on the former for its being.

It is appropriate, at this point, to ask what would al-Ghazali say about generated actions, which have been considered by some Mutazilites to be a series of interacting natural causes started by human action. Generated actions, al-Ghazali would answer, are of two

58. Al-Ghazali, *Iktisad*, op. cit. p. 13.

kinds: That which is a condition and that which is not a condition for the existence of another event. The first necessarily occurs with the event concomitant with it, as for example the movement of the hand and the movement of the ring in it. It is impossible to find the hand moving without the ring (and vice versa), because the movement of the hand is a condition (shart) of the movement of the ring (and vice versa). The other kind, which is not a condition for the event occurring with it, does not necessarily occur; its occurrence is casual or habitual, not necessary. For instance, burning is an event which usually accompanies fire; it need not always start whenever a piece of cotton is brought near the fire. Burning is not a condition of fire; fire can exist without burning and burning without fire. The same applies to snow and the feeling of cold and to all other events which are not conditions of one another. What is generated, therefore, is erroneously taken for an event which of necessity occurs together with another event. Furthermore, one can ask what is meant by "Tawallud" (generation). All it means, al-Ghazali says, is the birth of one thing from another, as a child is "Mutawallad" (born) of his mother, or a plant from the interior of the earth.⁵⁹ But this is impossible to experience in accidental events, for we never actually observe one event being born of another event. The movement of the ring, which is supposed to be generated from the movement of the hand, is never seen in actual generation or "birth".⁶⁰ Empirically, therefore, the doctrine of "Tawallud" is untenable.

59. This is the literal meaning of the word "Tawallud".

60. Al-Ghazali, *Iktisad*, *op. cit.* p. 41-42.

One important question, however, may be addressed to al-Ghazali when he divides events into conditional and unconditional, or necessary and unnecessary. How can we distinguish between a conditional event and an unconditional one? Is there any mark by which we can recognise an event? If there is no, then is your original division not arbitrary? By what rule, for instance, do you say that the movement of the hand is a condition of the movement of the ring, but that burning is not a condition of fire? If he says this rule is logical necessity, then I do not see why this should ordain that movement of the hand is a condition of the movement of the ring, but that burning is not a condition of fire. Both cases seem to me of equal logical possibility.

In Question 17 of *Tahafut al-Ghazali* divides his attack on causality into two parts: one part deals with those contenders who predicate action of natural objects and call them causes; another part deals with those who grant that events emanate or result from a Supernatural Agent but deny that this Supernatural Agent produces those events freely and willingly. Against the believers in active natural causes, al-Ghazali puts forth three main arguments, taking fire and the burning of cotton as an example.⁶¹ First, he says, fire cannot be the agent of burning because fire is a dead material phenomenon, and a being as such is necessarily incapable of action. In order to act, a being must know and will what it is acting on; if it does not, then the effect produced may be disorganised or lacking in its make up. Do we see any object in nature imperfectly constructed? Nature is all order and organisation; even the burning of cotton is perfect from the point of

61. Al-Ghazali, *Tahafut*, *op. cit.* p. 228.

view of beauty and shape. Any effect in nature, therefore, if it is there must be due to the capacity of a Being who has intelligence and will, who is living and knows what He is doing. Second, experience does not prove that burning occurred through (Bi) fire, it only shows that burning occurred alongside ('Inda) of fire. This means that what we see when cotton is brought near fire is two consecutive but independent events. We see, first, the act of bringing near and, second, the act of burning. But we do not - indeed we cannot - see fire itself in the act of causing (or producing) the burning of cotton. Thus the fact that there is a regular concomitance between burning and fire by no means proves that burning is caused by fire. To take another example, "the union of cognitive and spiritual faculties in the sperm of man does not originate in natures such as heat, cold, dryness etc.; neither the father is the cause of his son by simply introducing his sperm into the womb. The life, sight, hearing of the son are qualities which emerge alongside his father (i.e., the sperm of his father), but no one says they are due to the agency of the father. The son and all his characteristics exist by the agency of God alone, either directly or through the intermediacy of angels who are in charge of such created events".^{62.} The third argument is deduced from the first two, and rests on the view that to posit an active cause in nature is to threaten the uniqueness or unity of God. If we grant that there are natural causes, al-Ghazali says, such as some supposed, then have we not posited a second power in the world which is equally mighty with that of God? If we agree that this world is self-sufficient or self-regulating through its so-called natural laws, then

62. Ibid, p. 229-230.

what becomes of the concept of God as Providence, what - indeed - becomes of His general power, His absoluteness, His omnipotence? We would then establish a dualistic theology based, on one hand, on an independent, self-sufficient natural order and, on the other, on a divine order which is removed from the former in all respects. In other words, if we affirm the existence of active natures in the physical world, we are led to threaten the unity and absoluteness of God and this is too radical an attack on the Islamic concept of God to be entertained. The denial of causality, then, implies to al-Ghazali an explicit defence of the fundamental dogma of Islam, notably: The dogma of the omnipotence of God.

Al-Ghazali tries to illustrate these three preceding arguments by the instance of a blind man who never knew the difference between night and day, and who suddenly is able to see. At first, he would think that the cause of his sight is the simple act of the opening of his eyelids. It will never occur to him that it is possible for his eyelids to be open without himself being able to see. But when day ends and the sun sets, he will realise that what he thought to be a cause of his sight was in reality not. He will know that the light of the sun is the real cause of his perceptions.⁶³ This is exactly the case of those who affirm the causality of natural objects. How do they know that the events they observe in nature are not caused by supernatural principles which are everpresent but which, were they to disappear, would lead us to realise - as the blind man did - that there are causes beyond what we perceive or experience.⁶⁴ This example shows that even if we

63. Ibid, p. 230; also al-Ghazali, Ihia' 'ulum al-Din, (Cairo 1939), vol. IV, p. 312.

64. al-Ghazali, Ihia', op. cit. p. 313.

did see the act of causation happening, we could not immediately conclude that the observed cause is the real cause of the resultant effect. A quotation from al-Ghazali's auto-biography confirms the view implied in this example: "Do you not see how, when you are asleep, you believe things and imagine circumstances, holding them to be stable and enduring and, so long as you are in that dream-condition, have no doubts about them? And is it not the case that when you awake, you know that all you have imagined and believed is unfounded and ineffectual? Why then are you confident that all your waking beliefs, whether from sense or intellect, are genuine? They are true in respect of your present state; but it is possible that a state will come upon you whose relation to your waking consciousness is analogous to the relation of your consciousness to dreaming. In comparison with this state, your waking consciousness would be like dreaming!"⁶⁵. If our life on this earth is a dream, as al-Ghazali seems to have truly believed,⁶⁶. then automatically certainty is ruled out from our knowledge, as we would not know where we are wrong, where right. We will have to wait till we die to know the reality of things, or experience the Sufi ecstasy which also "uncovers the veil of reality".⁶⁷. All these reasons, al-Ghazali says, have led some philosophers to admit that causes cannot be natural forces in the physical world, but principles above the world of nature.

Having answered the "naturalists", al-Ghazali turns now to discuss the philosophers' contention, which grants that events are caused

65. Watt M., op. cit., p. 24.

66. Ibid, p. 25; al-Ghazali, Kimia' al-Saadah, (Cairo 1934), p. 15, 16.

67. al-Ghazali, Kimia', op. cit. p. 14.

by a Supernatural Agent - directly or indirectly - but asserts that the Supernatural Agent Himself acts necessarily, not freely. When He causes a certain event to take place, He does so just as "the sun causes the diffusion of light", i.e., by necessity of His "nature" or essence which cannot be conceived except as acting.⁶⁸ If we agree, the opponents of al-Ghazali say, that this Supernatural Agent is the cause of natural events in the world, we have to admit that His causality is incessant, producing those events without any choice or whim. This view, and al-Ghazali's reply to it, ties up very well with the question of the eternity of the world to which almost one third of the *Tahafut* is devoted. It is essential, therefore, to invoke this problem in order to know al-Ghazali's exact reply to the philosophers' contention. But we need touch only on that part of it which bears on causality.

The main issue discussed in this problem is God's essence in relation to the created world. The philosophers maintain that God is the cause of the world, and a cause cannot be without an effect; there can be no time interval between the two; both must be simultaneously. The reason for this is that, logically, whenever "all the conditions necessary for the being of an effect are posited, it is impossible for the cause to remain inactive but must act and the effect must be".⁶⁹ For instance, when a man wants to go to a certain place he has in mind and all the conditions for reaching the place are fulfilled (such as finding) a means of transportation, being sure that what he wants to do there is possible, choosing the moment when he is free ... etc.), it is incon-

68. Al-Ghazali, *Tahafut*, *op. cit.* p. 251.

69. *Ibid*, p. 54.

ceivable that the man will be delayed. We put off doing things because we think we are lacking something. But if nothing is lacking, then we proceed immediately without the slightest delay to do what we wanted. No cause, therefore, can exist without its ensuing effect, if all the conditions of the effect are fulfilled. If God is a cause of the world, the conditions for the existence of the world (as His effect) must have been posited eternally with Him. If not, then something must have been lacking Him, which is impossible; or a new reason (Murajeh) has occurred to Him and prompted Him to fulfill the conditions of creation, which is also impossible, as it makes God a changing, capricious Being. Consequently, the world must have been with Him for all eternity. It is implicit in this argument, which is dominated by Aristotelian influence, that the philosophers regard the causal relation of God to the world as similar to natural causation, i.e., God causes the world in the same way fire causes burning. Events follow from Him by necessity of His nature or essence.

This view does not leave God any measure of freedom with regard to what He causes, nor does it allow for will or knowledge or even life in Him. In other words, it makes the idea of God a purely naturalistic concept that is more in keeping with the Aristotelian Unmoved Mover than with the Sunnite God who is living, knowing, capable, willing and above all free to do what He determines to do. It is this restriction of God's freedom, the denial of His attributes that makes al-Ghazali so vehement in his attack on the philosophers. He takes the contrary, Sunnite position and sets out to prove that God is an anthropomorphic, not a naturalistic, concept. God is a living Being who enjoys all the

attributes of man to an infinite degree. He is, first, capable and His capability extends over all events in the world. The reason for His capability is the nature of His effect. The world is a perfectly ordered whole; it is organised in all aspects, full of wonders.

"Every ordered action is caused by a capable agent; the world is an ordered product; the world, therefore, is caused by a capable Agent."⁷⁰.

This syllogism is supposed to prove not only that God is capable but also that He is knowing and living. For, by the same token, if what God has created is so organised and wonderful, is it possible that He did not know the organisation He created? A machine presupposes an intelligent engineer who knew how he constructed it. Action, therefore, implies knowledge of the actor. Similarly, God is living. If He was conscious of Himself and of what He did, He necessarily ought not be a dead being.

As to God's will and freedom, al-Ghazali follows another line of reasoning. He says that to God, before creation, the existence of the world was in the same relative state as was its non-existence, i.e., it was equally the same for God whether the world existed or not. The fact that it did exist implies that God chose and preferred its existence to its non-existence. This choice was exercised by a faculty called will. If it is asked why did He choose the existence of the world and not its non-existence, the question is meaningless. It is of the essence of will to choose, to distinguish, to prefer, just as

70. Al-Ghazali, Iktisad, op. cit. p. 35; also al-Ghazali, Ihia', op. cit. vol. I, p. 114.

it is of the essence of knowledge to have something known. To say why the will chooses, then, is not different from saying why do we know what we know.^{71.}

In this way, al-Ghazali shows that God, the Supernatural Agent from whom events result, is a Being who causes freely not necessarily. If, therefore, it is shown that God chooses to cause burning on contact with fire, "it is conceivable that He does not choose to cause burning even on contact with fire".^{72.} If we grant this, immediately important objections arise. If necessary connexion is ruled out between natural events, and causation is confined to the will of God "without there being a definite course for this will",^{73.} then all sorts of fantastic accidents would become possible. For instance, it would be possible for us to come back home and find the book we left on the table "turned into an animal and, if asked what we left at home, we would justifiably say that we are not quite sure; all we can say is that we left a book, but it might have turned into a horse ...!"^{74.} In other words, doing away with natural causality and substituting instead a divine one based on a fickle will, eliminates all scientific knowledge that rests on the behaviour of natural objects and reduces it to mere unpredictable possibility. This is exactly the same result to which Hume's denial of causal connexion leads. But whereas Hume did not care to give an answer to this incredible result, al-Ghazali

71. Al-Ghazali, Iktisad, op. cit. p. 43-45; also al-Ghazali, Tahafut, op. cit. p. 61-62.

72. Al-Ghazali, Tahafut, op. cit. p. 232.

73. Ibid, p. 232.

74. Ibid, p. 232.

did attempt to escape it by a rather naive answer. He says this result would follow "if we had no precedent knowledge of how things are". The book we left at home may possibly become a horse, had we not the knowledge that it will not be. "God has created in us the knowledge that these absurdities, possible as they are, will not occur. We never claimed that they are necessary. All we said was that they are possible, which implies that they may occur or they may not. And their occurrence many times in the same form confirms in our minds the knowledge of their existence only in that form."⁷⁵ This means that habit, due to our observation of the uniform existence of objects, together with the knowledge which God creates in us, preserve our scientific knowledge of the physical world.

But if this is the case - i.e., if uniformity and the knowledge that God creates in our minds assure us that unusual occurrences will not take place - then how can miracles occur? For miracles are no more than a violation of the habitual uniformity in nature. If God creates in our minds the knowledge that this violation, possible as it is, will not be, how can we explain miracles? Al-Ghazali answers by saying that when God wills to make a miracle and violate the course of events, He creates the knowledge of the actual occurrence of the miracle, withdrawing the knowledge of its non-occurrence. It is possible, therefore, that the uniformity of events be stopped - at a certain time - and God foretell the happening and its occasion. But God does this only for a very good reason, such as His will to demonstrate the genuineness of a prophet's claim. For this reason, to al-Ghazali, it is quite possible

75. Ibid., p. 234.

that a certain prophet be thrown into the fire without burning. This God does by one of the two ways: either He changes the quality of fire, or He changes the quality of the prophet. "He can confine the heat of fire to itself and make it incapable of affecting the prophet; or he can create in the body of the prophet a kind of quality which makes him immune to fire." ⁷⁶. To deny this possibility is to deny that a man "who covers himself with asbestos sits down in a blazing furnace and remains unaffected by it", ⁷⁷. though this is an empirical fact. A person who does not know the effect of asbestos will reject the possibility of a man's sitting in a furnace without being injured. In the same way, if he does not know how God is capable to create a quality which makes the human body immune to burning, he will reject the possibility of a prophet's being unaffectedly thrown into fire. Similarly with all other possible miracles.

This is al-Ghazali's view on causality as a whole. We notice that his main purpose was to deny the idea of an active nature in the physical world, in order to preserve the Sunna belief in a God who is unique in all aspects, a God who is all-powerful, all-knowing, all-willing. It seemed to al-Ghazali that there was no middle way: either the created world had to be inert, inactive and incomplete subjection to the will of God, or God had to be a natural Agent, i.e, a Being who is the logical terminus of the series of causes and effects. In other words, al-Ghazali thought he had to choose between the Uncaused Cause of Aristotle and the almighty God of Islam. He did not hesitate which one to choose.

76. Ibid, p. 235.

77. Ibid, p. 235, translated by Kamali, S.A.

C H A P T E R I I I

AVERROES' VIEW

Averroes, with whom the dispute over causality reaches its climax, challenges the Ghazalian thesis on the ground that it fails to serve the very end for which it was propounded, namely the vindication of the concept of God as a Being who is omnipotent, all-knowing, all-willing ... etc. The point he tries to establish is that al-Ghazali's thesis is not only in conflict with the Islamic concept of God, but - what is more - it leads to the negation of the concept of God altogether. Consequently, according to Averroes, al-Ghazali has done more to defeat than to serve his end. By trying to glorify God, al-Ghazali has belittled Him so much that, with the characteristics he attributes to Him, he has deprived Him of all the wisdom and goodness that make up His essence. Averroes shows that neither reason nor revelation agree with al-Ghazali's attack on causality. Indeed, revelation is at one with reason in disproving the false conclusions at which he has arrived. Let us see how Averroes uses these two points to refute al-Ghazali.

The arguments in favour of causality and the existence of "natures" in objects are numerous. To begin with, let us see how the Shariah (The Quran) supports this view, and how it conforms to a system based on the natural principles of cause and effect. The Quran, Averroes says, has exhorted man to study and understand the world with everything in it, because God Himself made the world in such a fashion as to be a "means of acquaintance" with Him. The more we study this

world, therefore, the more we become acquainted with God; the more we know how and what existing beings are, the more we know God their Creator.⁷⁸ In the Quran itself there are various proofs for the existence of God, all based on reflexion and study of the world. Among these is the following proof: "The world and everything in it is fit for the existence of man. Everything that exists totally to fit with one end is created of necessity. Therefore the world is created and has a Creator."⁷⁹ But, one may ask, how does knowledge of the world lead to knowledge of God? What denominator have the two in common so that when we know one, we know the other? Averroes says the common denominator is, what he calls, "wisdom" (Hikma). The wisdom found in all creatures and which we know by study is the sign which leads us to the Creator. This wisdom is no more than a natural sequence of correlated causes and effects which account for the order and regularity of the world. God is wise because of the order He created, and this order is manifested in nature through the necessary activity of causes. Necessity is as important as order, because without it no order would be. We are wise in proportion to "our knowledge of the causes of things."⁸⁰

To do away with necessary causes, which make things what they are, is to do away with the wisdom of God which He has emphatically asked us to know and reflect upon. This, also, deprives God of any kind of intelligence and goodness, as it makes Him equal with a child

78. Averroes M., Al-Kashf 'An Manahij al-Adilla Fi Aka'id al-Milla (Cairo 1910), p. 82-85; Averroes, Fasl el-Makal Fi Ma Baina al-Hikma Wal-Shariah Min Itisal, (Cairo), p. 2, 7.

79. Ibid, al-Kashf, p. 82.

80. Ibid, p. 42.

who plays at random with his toys. His goodness no more remains - when we rule out wisdom - if we distinguish between three types of causality: (1) There are causes which cannot be dispensed with in relation to the effects, such as nourishment and life; (2) causes which better the effects, though they are not indispensable, such as the eyes in relation to man; (3) causes which are neither indispensable nor for the betterment of the effects, and effects which ensue from such causes are "accidental" (Bil Itifak) without any purpose.⁸¹ This is another way of saying that existent things involve no wisdom, as wisdom is that very purpose - dispensable or indispensable - which inheres in natural objects. The existence of everything in the world must have a purpose, a function, a role to play; and this role must be either an absolute necessity for some other thing or a betterment for it. To say, therefore, objects have no causes is to say they exist for no purpose and this makes their existence a sheer accident. This is tantamount to the view that there is no maker (Sani') of the world and that everything is the result of chance.⁸² The world, says Averroes, is essentially organised and ordered, and its organisation requires a permanent and necessary relation between its parts. This permanence and necessity are the secret of the world's beauty and order, and this beauty and order, together with organisation, are the only evidence for the existence, intelligence, knowledge, will and goodness of the Creator of the world.⁸³ Thus, Averroes concludes, al-Ghazali implicitly

81. Ibid, p. 86.

82. Ibid, p. 86.

83. Ibid, p. 88; also Averroes, Tahafut al-Tahafut, Bouyges M., ed. (Beyrouth 1930), p. 92.

and perhaps unwittingly, denied the existence of the very concept he wanted to affirm - the concept of God. His attack on causal necessity led to consequences which he himself would have condemned. The Shariah itself, then, decrees that the reality of causes and effects in nature and the existence of a necessary relation between them, are not only possible but are a matter of religious belief for man. It is knowledge of this causal order in nature that truly marks piety, which is the essence of religion. This requirement not only puts religion on equal footing with philosophy (as understood by Averroes) but almost makes them identical with respect to their subject matter.⁸⁴

After showing how the Ghazalian thesis is not compatible with the Shariah law and the true spirit of Islam, Averroes adds his rational arguments in support of the doctrine he is asserting. These arguments can be summed up in five main points: First, Averroes says, if we deny the action of causes, we cannot "admit that for everything done there is a doer",⁸⁵. The fact that we say A did a certain action called B implies that A exercised a certain activity on B and made it what it is. Only in this sense can we say that A made or did B. If we remove the activity exercised by A, we can no more say A made B. B, if it could exist now, would be without a maker. Hence, unless we are prepared to say that for every object there need not be an agent to bring it into being, which is impossible according to Averroes, we cannot deny the reality of causes.

84. Averroes, Fasl el-Makal, op. cit. p. 2, 7, 18.

85. Averroes, Tahafut, op. cit. p. 519.

Secondly, if we deny causality or remove the action of "natures" from the world, we cannot distinguish between one physical object and another. Natural objects would merge into a unity, because the principle of individuation, which makes objects distinct, would cease. Every natural object has certain qualities, certain stigmata, which Averroes calls "intrinsic causes" (As-bab Dhatiah) and which indicate that the object is itself and not something else.⁸⁶ These "intrinsic causes" denote the individuality of the object by their peculiar action which they exercise on other objects. Without this action nothing would be known to be itself. The one would be all and the all would be one. Even the one would, strictly speaking, not be one for, though beings would not be distinguished, the oneness they represent is a combination of units, not a harmonious whole.⁸⁷ Unity presupposes characteristics of its own which make it what it is, and since no such inherent characteristics are recognised, the unity of undistinguished beings is rather a plural plurality.

Thirdly, "the human understanding is no other than the perception of the causes of existing things and this function makes it distinct from other faculties of the soul. To repudiate, therefore, causality is to repudiate the understanding".⁸⁸ When we say, for instance, water expands when it freezes, the first thing that we think of is the link between expansion and freezing. We know that water expands in the freezing state, when we know the cause of expansion,

86. Ibid, p. 520.

87. Ibid, p. 520-521.

88. Ibid, p. 522.

namely freezing. In other words, causal connexion is a condition for our knowledge of the physical world. We can understand natural events only if they are causally related. Averroes, in this particular point, expresses the same idea which Kant held about the conditions of phenomenal experience. Kant, too, made causality a necessary condition of our knowledge, though not the only condition. But Averroes and Kant have less in common on this question of causality than what may appear. In fact, their views are almost diametrically opposed. While Averroes regards (with Aristotle) that causality is a phenomenon in objects which imposes its character on the mind, Kant believes it is a category in the mind which imposes its character on objects, supported by a subjective evidence of the irreversible succession of perceptions. Averroes' view is that of a realist, Kant's that of a subjectivist.

Some Mutakallimin (like Ibn Hazm), Averroes says, have gone so far as to deny the essential principles or laws of thought which the mind functions accordingly.⁸⁹ They said that the mind has been created (Toubi'a) in such a way as to operate in that fashion.⁹⁰ The mind rejects any form of logical contradiction but, to these Mutakallimin, had it been "impressed" or created differently, it would have accepted contradiction as it did with other logical rules. This implies that the way our minds function is contingent, not necessary. Averroes rejects this view as he rejects all the Asharite doctrine of contingency. It is impossible, he says, that our minds be different from what they are and accept contradiction. The reason is that, "existents are

89. Ibid, p. 541.

90. Ibid, p. 541.

divided into opposites and correlates, and if the latter could be separated, the former might be united; but opposites are not united and correlates therefore cannot be separated".^{91.} Our minds, as it will be shown later, like our knowledge are effects, not causes, of the external world.^{92.} In order to be different from what they are, the world has to be so too. But for many reasons, the world to Averroes is necessarily as it is. To posit another possible form for it is not in keeping with Averroes' God whose wisdom he is so anxious to preserve, and is not compatible with the view of Averroes' great teacher who says in the *Analytica Posteriora*: "We suppose ourselves to possess unqualified scientific knowledge of a thing, when we think that we know the cause on which the fact depends, as the cause of that fact and of no other and, further, that the fact could not be other than it is".^{93.} This is an emphasis that we know only through knowledge of causes and that this causal knowledge we have about the world reflects a necessity, not a contingency, in that world.

Fourthly, Averroes states that "cause" is a common name applied to four senses which all - not one - account for the existence of natural objects.^{94.} These senses are the four Aristotelian causes: matter, form, efficient cause (the agent), and the final cause or the end of the object (al-Madda, al-Sura, al-Fa'il, al-Ghaya).^{95.} Matter is "that out of which a thing comes to be and which persists"^{96.} or, as

91. *Ibid*, translated by Van Den Bergh S., p. 333.

92. *Ibid*, p. 215, 216, 226.

93. Aristotle, *Analytica Posteriora*, McKean R., trans. (N.Y. 1941) 71^b8-12; 94^a20-25.

94. Averroes, *Tahafut*, *op. cit.*, p. 266.

95. *Ibid*, p. 521, 211.

96. Aristotle, *Physics*, *op. cit.* 194^b23-25.

Averroes calls it, that "from which" (Min) a thing is. Form is the "archetype or the statement of the essence", that "by which" (Bi) a thing is. The efficient cause is "what makes what is made"; it is that "through which" ('An) an object comes to be. The final cause is "that for the sake of which a thing is done" (Min Ajlihi), the goal or the *raison d'être* which explains the being of the object.⁹⁷ In other words, these four senses which constitute the meaning of "cause" are the conditions necessary for the being of an object, which the *Mutakallimin* themselves affirm, as when they say "life is a condition of knowledge".⁹⁸ The reality of causes, therefore, can be denied only if the existence of things is denied.

The fifth argument in support of Averroes' view of causality is based on the science of logic. Logic postulates the existence of causes and asserts that effects are "not known unless their causes are known; to remove these things (causes) is to remove knowledge". Knowledge that is not based on the necessity of causes and effects is not knowledge but "supposition" (Dhan). Everything we say or pronounce would be mere conjecture, as it would have neither proof (Burhan) nor definition (Hadd). Even al-Ghazali's claim itself would be according to his own doctrine, unnecessary.⁹⁹

With respect to knowledge and its relation to causality, it is important to discuss Averroes' attack on the Asharite - Ghazalian doctrine of contingency. We know that denial of causality entails denial

97. *Ibid*, 194^b25-35; also Averroes, *Tahafut*, *op. cit.*, p. 211.

98. Averroes, *Tahafut*, *op. cit.*, p. 522.

99. *Ibid*, p. 522.

of necessity, because the very expression natural necessity implies a connexion between events. To say, therefore, that there is no cause in nature is to make the existence of events and objects contingent or merely possible. This view, for Averroes, not only contradicts the "wisdom" or order and organisation in the universe, but also leads to the destruction of any sort of science. Science, i.e., necessary science (al-'ilm al-yakini) is the "knowledge of a thing as it is".^{100.} If, as al-Ghazali supposes, the thing is contingent, then our knowledge ipso facto becomes contingent. But this result leads to fantastic absurdities (Shana'at) which al-Ghazali himself was aware of and has enumerated and answered. However, his answer fails to meet the difficulty for the following reason. He says that God creates in our minds the knowledge that these absurdities, though they are possible, will not occur except during the time of a miracle. This, Averroes says, is not true because our knowledge is an effect of the external world^{101.}; it cannot be other than what the objects known are. If they are contingent, our knowledge necessarily is contingent. This reality of physical objects (i.e., that they are as they are) is what Averroes calls their "nature" or "natures".

The case is different with the knowledge of God, which is the contrary of our knowledge. God's knowledge is a cause of objects known and their natures; they reflect the way He knows them from and for eternity.^{102.} Events in the world occur, and causes in nature act, in

100. Ibid, p. 531.

101. Ibid, p. 531; also Averroes, Fasl el-Makal, op. cit. p. 11.

102. Ibid, Tahafut, p. 532; Fasl el-Makal, p. 11.

accordance with God's knowledge, while our knowledge is in accordance with the occurrence of events and the activity of causes. That is why we say God knows the future, for prophecy is simply knowledge of the activity of causes before hand. For the same reason, too, we cannot prophesy; we cannot know all the causes that will act and produce the event we want to prophesy. What prophets call revelation (Wahi) is no more than this type of knowing the future.^{103.}

In an argument against causality, al-Ghazali draws a distinction between action (F'il) and cause (Sabab), emphasising that action can be predicated only of a knowing person who is free to will the action; while cause is a concomitant of a certain event taken erroneously to be its effect. Averroes does not recognise the distinction. Action to him is of two types: natural and voluntary. Natural action is that which is predicated of inanimate objects and is necessary, i.e., its character is never altered.^{104.} For instance, fire always produces heat. Heat, we say, is necessarily an action done by fire - fire can produce only heat, nothing else. Voluntary action is action predicated of animate beings or persons and is free, not necessary. A man may kill, steal and give charity. His freedom accounts for the diverse character of his action. These two types of action are actions so far as they are both the actualisation of what was potential. The author of action (the agent) (Fa'il) is that which "brings something from potentiality to actuality, or from non-being to being; and this bringing-from can be voluntary or natural ...".^{105.} The action of the

103. Ibid, Tahafut, p. 533.

104. Ibid, p. 148.

105. Ibid, p. 150.

agent, whether voluntary or natural, constitutes the meaning of creation (Huduth)¹⁰⁶. Creation is not ex nihilo; it is essentially "motion" from potentiality to actuality. Destruction (adam) is the contrary, i.e., motion or change from actuality to potentiality.¹⁰⁷ But this motion cannot occur by itself, it needs a mover which is at the same time the agent (Fa'il) of the thing actualised. This agent may be a natural being acting in a necessary manner, or it may be a living being who is conscious of his action. In denying action to material objects, therefore, al-Ghazali was mistaken. Only voluntary, free action is denied the material world, not action in the absolute sense.¹⁰⁸ The evidence for this is what we perceive in experience. We perceive, e.g., that "fire changes every dry object to fire like itself and this it does by actualising the object from its potential state".¹⁰⁹

Al-Ghazali drew a distinction between cause and action in order to refute the philosophers' contention that the Maker of the world (God) made it as the sun makes light, or as fire produces heat - as a necessary result of a natural cause. Averroes says he knows none of the respectable philosophers who believed this view. Every being who has knowledge, will and freedom acts freely; God Most High has knowledge, will and freedom; He therefore acts freely.¹¹⁰ But God's action is always directed towards the best, as His goodness ever wills

106. Ibid, p. 68, 131, 133.

107. Ibid, p. 133.

108. Ibid, p. 154.

109. Ibid, p. 154.

110. Ibid, p. 526.

to perfect the thing done or created and this is the purpose of creation. God wills perfection in His creatures not because He lacks something, as we do when we will, but because His creatures lack the perfection He creates. God transcends any kind of imperfection. His will, therefore, like His knowledge is unlike the will of man.

Averroes says that the action of God is not to be subsumed under either kind of activity, natural or voluntary.^{111.} God's action is neither like the action of man nor like the action of nature, as one is imperfect and the other is necessary. But this does not imply that God's action is dissimilar to man's in that God does not play the role of an Agent who actualises potential objects. So far as the definition of action is concerned, the actions of God, man and nature are of one genus, though they are different species. In other words all three actions do the same thing: they actualise. But one actualises necessarily (natural objects); another freely (but due to a lack in its structure, and this is man's action); the third also actualises freely (but the action is not due to a lack in it, it is due to a lack in the thing actualised, and this is God's action).

God brought the world from its potential to its present actual state, and this process of motion is still going on in the world - and will continue to be - with respect to things inexistent yet.^{112.} He is the

Mover towards whom everything else moves, as He is the Agent (Fa'il), Form (Sura) and the End (Ghaya) of all beings.^{113.} Natural objects seek their end in Him necessarily (Bil Taba') and living beings seek

111. Ibid, p. 148.

112. Ibid, p. 171.

113. Ibid, p. 232.

their end in Him freely, but both do so by moving towards Him. It is inconceivable, according to Averroes, that this process should stop, just as it had never begun at any specific time. The meaning of the eternity of the world, therefore, is that motion in it had always been and will always be.

When al-Ghazali calls causal necessity a "habit", it is interesting to ask him, says Averroes, is it a habit in God, or in the object or in us? ^{114.} If it is in God, then there is change in God's essence, since habit is a quality acquired by repetition. If it is in the object causing, then it is nothing but the "nature" of that object which acts. If it is in us, then it "constitutes the nature of our minds by which they became minds". ^{115.}

But if this habit is a "nature" in the material object, as Averroes seems to imply, is it a nature independent, self-sufficient in itself or does it depend on an external principle for its existence? If Averroes had said that nature or "natures" are independent, he would have been a thoroughgoing materialist. But he says that the world of nature, with its causes and effects, is dependent upon God not only for its existence but also for its very activity. If we say that fire burns cotton, the burning as well as fire itself depend on God. "These causes", he says, "though they act on one another, are not self-sufficient. They depend on an external Agent whose action is a condition for their existence and their activity". ^{116.}

114. Ibid, p. 523.

115. Ibid, p. 523.

116. Ibid, p. 524, 529.

What led the Asharites and al-Ghazali to deny causal connexion and the action of "natures" is their belief in the omnipotence of God and the uniqueness of His activity. They denied the existence of a second agent to His sole Agency. For Averroes this is a true belief, but the Asharites were mistaken when they thought that natural causality conflicts with God's Agency. Causality and God's activity are in no way contradictory. Causality is the mechanism through which God operates in the world, it is a tool in the hands of God to effect His eternal plan. But this mechanism is a consistent and orderly one, that is why it operates according to fixed, necessary laws. The Asharites remove the mechanism and with it all laws, leaving only God and His absolute power - a God who acts whimsically and capriciously. This, says Averroes, makes God similar to an absolute monarch who acts without a rule or law.¹¹⁷ But God transcends these trivialities and His plan is perfect from the point of view of organisation.

Furthermore, there are two reasons which explain why natural causality is compatible with the omnipotence of God. First, as has been said, "the fact that causes are active is through God's support to their existence and to their activity".¹¹⁸ Second, existing things are two-fold, substances and accidents. Substances do not occur by natural causes, but by the action of God directly. God alone creates substances. Accidents can be created by natural causes (in the Averroelist sense of creation), but only through the support of God Himself.¹¹⁹ For instance,

117. Ibid, p. 531.

118. Averroes, al-Kashf, op. cit. p. 89.

119. Ibid, p. 111.

the peasant plows the land and sows the seeds; but it is God who produces the crops. "Therefore, on this basis, there is no creator except God, as the real existing things are the substances.... and no one shares with God in the name Creator, whether literally or figuratively. The meaning of Creator is the One who causes substances to come to be." ¹²⁰. Averroes, then, was as concerned about the omnipotence of God as was al-Ghazali. Their ends, we may say, were the same, but their means were different.

It remains to point out Averroes' view of miracles which, it appears, he regards as unquestionable. To him miracles are "principles" (Mabadi') of religion or Shariah, and philosophers do not allow discussion of such principles. Hence, according to him, only heretics objected to or doubted the miracle of Abraham. ¹²¹. The reason for Averroes' acceptance of miracles is that he does not deny the cessation of the activity of causes. Causal activity may cease if there is a third factor intervening between the cause and its effect. For instance, it is possible that fire may be in contact with cotton without burning it, if it is dipped in asbestos (Talk). The asbestos prevents the burning because it changes the quality of cotton and makes it immune to the action of fire. However, the cessation of the fire's activity does not mean the destruction (Salb) of that activity, as al-Ghazali thinks. "Fire remains fire so long as it has that name." ¹²². Thus it is possible that Abraham had fallen in fire without getting burned. God might have produced in his body, for some good reason, a chemical similar to asbestos and made it immune to the action of fire.

120. Ibid, p. 111-112.

121. The Quran tells the story of the prophet Abraham, who was thrown into the fire by infidels but was not affected by it.

122. Averroes, Tahafut, op. cit. p. 521.

CHAPTER IV

A CONCLUDING VIEW

In the preceding chapters we expounded the opposition between two theological theses concerning the nature of the physical world and the relation of this world to God. The point of the dispute was whether "natures" or forces existed in physical objects so that they could operate on other objects. In other words, the activity of nature in general, exemplified in the function of causes and effects, was in dispute. Al-Ghazali denied all kinds of activity to natural objects, leaving them utterly passive except when activated by a Divine Will. The passivity of nature was necessary, according to al-Ghazali, in order to safeguard the omnipotence of God. Activity or action can be attributed only to Him, who is the only maker of everything that exists. To posit another maker or other makers (i.e., active causes) is to question the Oneness of God, and this is sheer blasphemy. This was the basic reason for al-Ghazali's denial of causality.

Averroes sought the same end of al-Ghazali, but from a different perspective. To him the activity of nature was not only in harmony with God's omnipotence and oneness, but demanded by them. If God were wise, as He is, He would not have created mere shadows or instruments which he manipulates as He pleases. We have every reason to believe that the creatures He made are not passive creatures as such. The world as a whole exhibits order, organisation and wisdom; it is therefore necessarily active. Its perfection is a token of the perfection of its Maker, and the only token. To make it passive is to decry the Intelligence of its

Creator who does always the best. But the perfect order found in the world is no more than the occurrence of events according to a determined, uniform rule. This rule is the action of causes and the necessary effects that spring from them. It is not true, according to Averroes, that the action performed by these causes contradicts the omnipotence of God, because the action as well as the being of the causes themselves depend on the support of God. Natural objects derive their action, as it were, from Him. God's omnipotence, therefore, guarantees - instead of contradicting - the activity of natural agents.

In the face of these two diverse views, I should like to distinguish two aspects of the problem of causality. First, the existence of causality as a real, effective force in natural objects. Second, the relation of the essence of God to this effective force. These two aspects, I believe, constitute the heart of the question at issue. Let us try to examine each one of the contestants' views in the light of recent philosophical opinions.

The ambiguity of the word causality in the philosophical vocabulary defies all analysis. It has as many meanings as almost the number of systems and schools in the past and current history of philosophy. This ambiguity has led some philosophers who are very particular about precision - like Bertrand Russell - to call for the banishment of causality altogether from the philosophic parlance. But we may be able to overcome this difficulty if we do not go into all the possible connotations of causality and confine our effort only to some that seem to us the most significant. On this basis, we can differentiate between four important implications of causality: First, there is the old view that causality is an operative force hidden in natural objects which acts on

other objects and makes them to be, or simply it is effectuality. This view, as we saw, is maintained by Averroes and Aristotle, who believe that the world of nature is essentially made up of causes that are moving and of effects that are moved, i.e., of "movers" and of "moved". The underlying causal concept here is based on the Aristotelian view of motion as a "fulfilment of what exists potentially", and of nature as a "principle of motion and change".¹²³ If nature is a principle of motion from potentiality to actuality, it presupposes something moving and something moved. The mover effects the change in the moved, thus bringing it into a new state more perfect than its previous one. When we say the sun causes the plant to grow, the link between the sun and the plant is more than accidental or coexistential; it is a link between "action" and "passion", as Aristotle puts it. In other words, the sun makes the plant when it causes its growth. Averroes says almost the same, with one difference. He adds the role of Providence in the process of change and makes God's will a condition in its operation.

Without accepting the Aristotelian and Averroelist metaphysical interpretation of nature, it is difficult for one to believe in such a causal system. There is no evidence, it seems to me, to prove the reality of a force acting in nature and producing - or bringing an object from one state to another. The one disconcerting question that can be asked in this connexion is this: how do we know that causality as such exists in the world? It seems to me that any answer elicited from Aristotle's system tends to be arbitrary, no matter how strong the assumption it is based on. This concept of causality as a force, as V. F.

123. Aristotle, Physics, op. cit. 200^b12, 201^a10.

Lenzen points out, probably was derived from "the experience of the individual when he was aware of exerting a force upon some body ... The process of exerting a force is accompanied by a conscious content which may be called an experience of activity. It is also a primitive experience that the exertion of force produces effects. For example, bodies are set in motion or brought to rest; forces can act in opposite directions and annul each other. Thus the primitive concept of force..., expresses production, creation, generation, efficacy".^{124.}

The criticism levelled at this causal concept by al-Ghazali and, later, by Hume seems to be quite justified, regardless of the motive behind the criticism of each. Al-Ghazali rightly points out that the only empirical evidence this view has is the existence of the effect together with the cause, i.e., the perception that the effect occurs alongside the cause, as burning occurs when fire is in contact with cotton. But this evidence is illusory, for we do not actually perceive the cause producing the effect, we do not observe the process of making. All we perceive is two separate events occurring concomitantly, and this concomitance cannot be a proof that the one event was produced by the other. Hume says exactly the same thing in his Enquiry: "One event follows another; but we never can observe any tie between them. They seem conjoined, but never connected".^{125.}

The second connotation that may be given to causality is uniform sequence or, to use Mill's expression, "invariability of succession". A cause in this sense is considered an event which merely precedes

124. Lenzen V. F., Physical Causality (University of California Publications in Philosophy 1932), vol. 15, p. 70-73.

125. Hume D., An Enquiry Concerning Human Understanding, Published in "The English Philosophers from Bacon to Mill", Burt E. ed. (Modern Library 1949), p. 630.

uniformly another event, and an effect is considered an event which follows uniformly another event.¹²⁶ When we observe that A uniformly precedes B, and B uniformly follows A, we say A is the cause of B and B is the effect of A. There is no causal implication unless there is a uniformity of occurrence between the two events; if they are found to follow each other irregularly, then accident or chance - not causality - is implied. Hume defines a cause as "an object followed by another and whose appearance always conveys the thought to that other".¹²⁷ The thought will not anticipate the effect unless the cause be found always with it. It seems as if there is a certain relation between our thought and the uniformity of events. The former will not call events causal if uniformity does not prove their causality. In the words of M. Schlick, "the word cause... implies nothing but regularity of sequence, because nothing else is used to verify the proposition in which it occurs".¹²⁸ On this concept of causality as a uniform sequence is based induction and, hence, science as a whole.

In identifying causality with uniformity, however, no interpretation of events is given at all. What is said here is simply a record of our observation of how events de facto occur, not of how they occur de jure. In other words, this view is concerned with the "de notative", not the "connotative" part of causality and this, as J. Loewenberg asserts, no one can or does dispute, because no one tries to dispute

126. Mill J. S., System of Logic (Philosophy of Scientific Method, Nagel E. ed., N.Y. 1950), p. 194, 195.

127. Hume, op. cit. p. 631.

128. Schlick M., Causality in Everyday Life and in Recent Science, (University of California Publication in Philosophy, vol. 15, 1932), p. 101.

facts but ideas of facts. For instance, everybody in the world would agree that he observes a ball moving when hit by another ball, or a paper burning when in contact with fire. All of us do observe a uniformity between a certain cause and a certain effect; only the one deficient in his senses would deny this phenomenon. "Writers on causality", says Loewenberg, "though perennially disagreeing about its precise meaning, have no difficulty in choosing suitable instances of it. Human disputes have to do more with the connotation of terms than with their denotation".¹²⁹ Disagreement arises, therefore, on the interpretation of uniformity, not on uniformity itself, and with interpretation we are not - according to this view - interested. Our interest does not lie in "what any observer thinks or says, our investigation of meaning is concerned only with what he does and can show us. Speaking, thinking, believing implies interpretation; we must not discuss interpretations or the results of philosophic analysis...".¹³⁰

But if there is no concern in the interpretation of causality, then this view cannot, strictly speaking, be called a view. How can a view be a view when there is no speaking, or thinking or believing in it? If a view contains no more than a record of facts, then it is a record of facts, an observation, not a view. Hence to say that causality equals uniformity of sequence is not to say anything at all; no sense or connotation is given to the causal phenomenon; it is simply explained in different terms. In the language of logic, the statement

129. Loewenberg J., The Elasticity of the Idea of Causality, (University of California Publications in Philosophy, vol. 15, 1932), p. 7.

130. Schlick M., op. cit., p. 101-102.

"causality is uniformity of sequence" is an analytical proposition, as the predicate is contained in the subject. The term "uniformity" adds nothing to what we understand by the term "causality". Since, therefore, this view is no more than a statement of fact, we need not subject it to dispute.

However, this statement of fact, namely "causality is a uniformity of sequence" can be objected to from a factual point of view. The objection is this: how many times must an event, say A, be uniformly found with another event, say B, before we can call the one cause and the other effect? Two, three, hundred times? Suppose A has been observed to precede B ever since they first appeared, would this be a warrant that they will continue in the future to be found in that manner? All we can say is that there is a high probability that they will be. But we cannot say, of necessity, that A will continue to precede B, because the past behaviour of A and B does not constitute a justification a priori for their future behaviour. It is for this reason that the laws of inductive science, which are based on this principle of probable uniformity, are far from claiming any sort of necessity.

Thirdly, there is the physical or scientific implication of causality, sometimes called functional theory of causality. This is based on the notion that what are considered causes and effects are simply events that succeed one another in a regular manner and that exhibit a kind of correlation or interdependence. "Thus the physical concept of causality", says Lenzen, "expresses a correlation of phenomena: one phenomenon, the cause, is correlated with another pheno-

menon, the effect ... In physical theory, correlation is represented by functional relations between numbers or physical quantities".^{131.} This means that the terms cause and effect are dispensed with, because what is important is the relation between the terms, not the terms themselves. What the terms themselves are in reality is a side-issue in physical science. Cause and effect are replaced by numbers because the latter are more convenient, more precise, more specific tools to deal with. The problem of what a cause and an effect are, therefore, is abandoned; the concept of causality itself is replaced by the concept of relation. Bertrand Russell expresses this bluntly in his essay "On the Notion of Cause": "The law of causality, as usually stated by philosophers, is false and is not employed in science. Scientific laws, instead of stating that one event A is always followed by another event B, they state functional relations between certain events at certain times and other events at earlier or later times or at the same time".^{132.} Schlick says the same thing, "science does not speak of cause and effect, but of functional relations between measurable quantities; it starts with measurement of quantities rather than with description of occurrence".^{133.}

This view is tantamount to the denial of causality as a concept, since it disposes of the notions of cause and effect altogether and denies any possible connexion between observed phenomena. Though based on the inductive principle of probable (not invariable) uniformity,

131. Lenzen, op. cit., p. 72, 80.

132. Russell B., Mysticism and Logic, (Pelican Books, 1953), p. 196.

133. Schlick, op. cit., p. 111.

it does not predict the necessity of the occurrence of phenomena. As in the previous concept of causality, events are taken to follow each other in a regular way and this is calculated mathematically and recorded in a law so it may constitute a general observation of how the same or similar events may occur in the future. Therefore, it seems to me, we would be justified in saying that the scientific account or "measurement" of phenomena is a refined version of the Humean attack on causality. It is well known that Hume explained the fictitiousness of the idea of causal connexion by custom or habit; he said that the frequent happening of an event regularly provokes in us a certain "feeling" that it will continue to happen in that fashion. But in reality we cannot be certain that it will; we can only say that probably it will. Physicists, too, as Russell, explain away necessary connexion. But they explain it by "mathematical functions" instead of custom. As Pepper says, "the only difference between Russell's analysis of the situation (i.e., causal connexion) and Hume's is that Hume accounts for the illusion of connectivity by custom, whereas Russell accounts for it by the equations of physicists. But according to our test determination, Russell is no more offering a theory of causality than Hume. Why physicists write equations ought to appear as irrational to him as why people act by custom appeared to Hume".¹³⁴ Since this view of causality constitutes an attack on it, it is not, as Pepper says, a theory on causality at all. But causality, it seems to me, is indispensable for the life of man from the point of view of the intellectual trend he is disposed to. I shall try to explain this idea in the sequence.

134. Pepper S.C., How to Look for Causality, (University of California Publications in Philosophy, vol. 15, 1932), p. 199.

Lastly, I think causality can be said to imply a "category" of the human mind, a kind of perspective or window through which we cannot help looking at external objects. Its justification, or "deduction", according to its foremost exponent Kant, lies in its being a *conditio sine qua non* for the knowledge of phenomenal objects and, consequently, for the possibility of objective experience of successive events in general. Causality, to speak more strictly in Kant's terms, is a "principle" or "rule" which "regulates" the human understanding, and makes possible objective judgments about the sequence of appearances in time. It is regulative because it imposes the necessity of a condition of occurrence (a cause) for every occurrent (effect) in time, and this is what makes it a necessary rule a priori in the mind. In the "Second Analogy", i.e., "The Principle of the Succession of Time According to the Law of Causality", Kant says, "All changes take place according to the law of connexion between cause and effect ... Experience itself, therefore, that is an empirical knowledge of phenomena, is possible only by our subjecting the succession of phenomena, and with it all change, to the law of causality; and phenomena themselves, as objects of experience, are consequently possible according to the same law only."¹³⁵ The concept of cause, therefore, is part of the intellectual order which the mind imposes on the manifold of experience it receives from outside; it has nothing to do with the reality of the phenomena it is ordering, as this "in itself" is beyond the reach of reason. It is of the essence of the

135. Kant I. *Critique of Pure Reason*, Muller M., Trans. (Macmillan Co., 1953), Supplement XIX, p. 774.

human mind to associate phenomenal events causally. "The causality of a thing", Kant asserts, "in general, is the real which, when once supposed to exist, is always followed by something else. It consists, therefore, in the succession of the manifold, in so far as that succession is subject to a rule".^{136.}

Kant believes that this "principle of order", the category of causality, though justified by experience, does not derive from it. Its a priority is proved by the very reason of its justification, namely that causality is a condition for the possibility of uniform or sequential experience, i.e. experience itself is not possible except through it. If it is the one which makes experience possible, can it logically arise from it? We should be more consistent if we said that causality gives rise to experience, not the contrary. "There is a dignity in the synthesis of cause and effect", Kant says, "which cannot be expressed empirically, for it implies that the effect is not only an accessory to the cause, but given by it and springing from it".^{137.} There is a necessity of occurrence between the cause and the effect which experience cannot supply. Experience, as Hume rightly pointed out, supplies probability but never necessity.

But, it is justifiable to ask, how is this necessity of causal connexion arrived at a priori? How does the mind determine that B must be preceded by A in order to exist? Kant proves this from the experience of what he calls "perception of irreversible succession". When we observe the occurrence of a phenomenon, our perceptions of its

136. Ibid, p. 118.

137. Ibid, p. 76.

succession in time cannot be reversed. For instance, looking at a boat steaming downstream we see it in different places A, B, C... etc. at different times. Our perceptions of these data A, B, C and their respective moments are irreversible, i.e., we cannot go back and observe from C to A. Our observation must necessarily be of the order: A, B, C, never C, B, A. Therefore, "every apprehension of an event is a perception following on another perception", and "as there certainly is something that follows, I must necessarily refer it to something else which precedes and upon which it follows by rule, that is, by necessity".¹³⁸ Preceding events necessarily determine succeeding events - in the sense of causal determination - because "I cannot arrive at the succeeding time except through the preceding".¹³⁹ This necessity in the causal relation of events in time, then, is deduced a priori from the irreversible order of our perceptions; it is not an idea we induce from the experience of the uniformity of sequence. Kant "did not argue that since all events have had causes in the past, all future events will also have causes. What he did want to demonstrate was that we must adopt the regulative principle to the effect that whatever occurrence we consider, there is to be found in that which precedes the occurrence, the condition according to which it always follows".¹⁴⁰ This condition is the manner in which the occurrence takes place, i.e. when something occurs, it always occurs according to an event preceding it.

138. *Ibid*, p. 157, 158.

139. *Ibid*, p. 162.

140. Körner S., *Kant*, Pelican Books, 1955), p. 86.

I am disposed to accept a quasi-Kantian concept of causality, irrespective of whether I accept the whole of Kant's theory of knowledge or not. I feel that our minds are constituted in such a way that they cannot be said to know anything unless they know its causes. If we do away with the concept of causality - in the sense that for something to be, something must precede it to account for its being - how can we say that we know what we know? We know B because of A, and we know C because of B and so on. Unless we postulate a criterion different from causality for knowledge, I cannot see how it is possible for us to deny causal relation at all. Causal relation is the clue which makes us understand the external world; without it experience would be a stream of confused, undistinguished perceptions.

But the equally important question to ask, it seems to me, is whether causality is part of the mind knowing the event or part of the object exhibiting the event; whether it is an order in phenomena which characterises the mind, or an order in the mind which characterises the phenomena. Averroes and Aristotle believed it is an order in objects, and our minds simply copy or reflect this external phenomenon. I tend to believe, with Kant, that causality is an essential part or constituent of our minds, not of the external objects. The reason is this: I cannot know how phenomenal objects are causally connected. When I say "are causally connected", I mean are "in themselves". But is there any way of knowing things in themselves, as they really are? I believe there is not, and for this I say the causal order is not known to be part of objects. All I can know about objects is their phenomenal character - i.e., what experience I can have of them; and the exper-

ience I can have of them is possible only through my perceptions of their appearances. If I observe one ball strike another ball and, as a result, the second ball moves, I can say that the cause of the motion of the second ball was the blow given it by the first ball. But I cannot know what the blow is in itself, or what really made the motion of the second ball. There might be innumerable factors beside the blow which I cannot possibly comprehend. I can only say that the immediate, observable factor, i.e., the blow, was a cause of the motion of the second ball.

Consequently, all I can possibly know is what appears to me of external objects. Their "noumenal character" is in no way accessible to me. But their phenomenal character is, and in a necessary way; it displays an orderly sequence or succession in time which my perception determines a priori and necessarily according to a universal rule - the rule that posits a necessary cause for every event. My perceptions of how phenomena occur, and the fact of the irreversibility of those perceptions, give me reason to believe, first, that the causal order of those phenomena is in my mind and, second, that this order is true and its truth can be justified empirically by observation.

This view presupposes the limitation of human reason and knowledge. I believe that reason has a limited scope where it can function effectively, i.e. produce judgments which have objective validity. The expression "objective validity" assumes the availability of "objects" of perception which the mind can work on to produce the judgments referring to them. The given appearances, "the manifold of intuition", are like raw materials which constitute the matter of the commodities

the mind produces. Without them, judgments would be form without content, empty conjectures. I find at least one of the two Kantian conditions of scientific knowledge acceptable - i.e., the necessity of having an "intuition by which the object is given us as a phenomenon".^{141.} Any reality, therefore, that is not given us as a phenomenon through sensation is not subject to our knowledge. Such are the noumena of objects, the real self, God ... etc.

As an objection against this concept of causality as an a priori form, it is sometimes pointed out that there are instances in experience where no cause at all is involved. We can, in other words, experience some events without having to posit any cause for them. The objection rests on the following supposed principle: "If two events are equally probable, there is no cause for each".^{142.} As an illustration, a coin is thrown in the air. The event of its falling on its head or tail, it is supposed, has no cause. Why does it fall on its head, say, and not on its tail? It is thought that there is no answer to this question.

But if an answer is found, then there is no objection and every event must have a cause. It seems to me that probability is a convenient idea invented to account for our ignorance of the causes of events. Wherever we do not know the causes of any particular phenomenon, we call it probable. Had we known its causes, we would not have called it probable. Probability and causality are two contradictory terms. When we say, therefore, that it was probable the coin would

141. Kant, op. cit. p. 77.

142. This objection was raised by Mr. Dawson, Professor of Logic.

fall on its head, we are simply saying that we do not know why it fell on its head. But, I think, the fact of the coin's falling on its head has innumerable, complex causes. These might be its mass, the force of gravity, the pressure of the atmosphere, a current of wind, the humidity of the air, the force of the finger it threw it ... etc. All these might have worked in a way to make it fall on its head. If a certain apparatus could be devised to throw the coin mechanically with a constant force, and if other interfering factors are excluded, it seems to me that the coin will fall continuously and necessarily on its head. Or, if the force of the apparatus be changed slightly, it will fall on its tail. The cause of the coin's falling on its head, therefore, was the push of the finger plus the other factors that might have intervened.

Another way of refuting this objection can be inferred from Aristotle's view of the notion of cause - that cause is a multiple term comprising necessarily four factors: matter, form, efficient cause, final cause. Any event that lacks one of these factors is fortuitous. The question: Why the coin falls on its head or tail? is not the important question to ask, because the fact of the coin's falling on its head or tail is a resultant of another major event, i.e., the falling of the coin on the ground. The important question, therefore, to ask is whether the coin falls or does not fall, and if it falls why it does fall? And this has a cause, namely the force of gravity. "Only if the coin were assumed to be equally falling or not falling, could we say there was no causation involved". As we cannot assume this, since it is a fact that the coin falls, the objection that the

coin falls on its head or tail has no cause, is not justified. The fact of the coin's falling on its head or tail certainly has a cause, namely the action of gravity.^{143.}

So far, I have discussed the first part of the problem of causality - i.e., I have examined the four possible connotations of a cause, among which was the Averroest connotation, and taken my stand on a quasi - Kantian concept of causality. Let us now consider the other part of the problem, namely the relation of God to the Ghazalian view of a passive nature and the objection of Averroes to it.

The denial of natural causality by al-Ghazali might be justified on the ground that he denied it. In fact, I ought to say, the denial is justified.^{144.} It was said of Hume - whose argument against causal connexion is similar to al-Ghazali's - that "he could refute no one, but neither could any one refute him". Hume, as al-Ghazali, was irrefutable in his causal argument because his argument was based on an empirical fact: it is a factual truth that no one can see two events connected together as they are supposed to be. Hence the assumption that events are causally connected is false. Al-Ghazali reached the same conclusion as Hume. But whereas Hume stopped and was content with the skepticism the conclusion led to, al-Ghazali did not stop; his mystic and religious faith left no room for a skepticism as such. Indeed, al-Ghazali's purpose was not to attack natural causes for the sake of a particular theory of knowledge he had in mind. He attacked causality to replace it by the action of God, the sole Maker of every-

143. The explanation contained in this paragraph is Prof. M. Fakhri's suggestion.

144. But it is justified only on al-Ghazali's and Hume's assumption, namely causal connexion is in objects.

thing that comes to be. This, apart from the contradiction it involves, was al-Ghazali's most fantastic and incredible theory. His mistake lay, as Averroes showed, in his belief that the activity of nature and the activity of God conflicted. Instead of conflicting, the one can serve a tool in the hand of the other - I mean natural causes can be the means whereby God manipulates the world. They may constitute the principle of the order we find in the world, and this causal order is more conducive to the concept of God as a wise and omnipotent Being than a system of a disconnected, contingent world lying static in the hands of an absolute Divine. Averroes' objections to this Ghazalian concept of a passive world are quite justified.

Al-Ghazali destroyed an illusory theory of causality, but the theory he suggested instead was even more illusory. Hume's criticism of the occasionalists can apply to al-Ghazali: "They pretend that those objects which are commonly denominated causes, are in reality nothing but occasions; and that the true and direct principle of every effect is not any power or force in nature, but a volition of the Supreme Being, who wills that such particular objects should forever be conjoined with each other ... Thus, according to these philosophers, everything is full of God. They rub nature, and all created beings, of every power in order to render their dependence on the Deity still more sensible. They consider not that, by this theory, they diminish, instead of magnifying, the grandeur of those attributes which they affect so much to celebrate. It argues surely more power in the Deity to delegate a certain degree of power to inferior creatures, than to

produce everything by his own immediate volition." ¹⁴⁵. This is almost the same objection which Averroes raised against al-Ghazali. But Hume's argument can be used also against Averroes, as he - i.e., Hume - is against any theological idea based on Providence, and Averroes is no less enthusiastic to aggrandise the concept of an omnipotent God than al-Ghazali. As we saw, Averroes makes God the condition of both the action and the existence of natural objects. This to Hume is as fantastic as making the world "full of God". "I cannot perceive any force", he says, "in the argument on which this theory is founded. We are ignorant, it is true, of the manner in which bodies operate on each other (i.e. how natural objects can cause one another); their force or energy is entirely incomprehensible; but are we not equally ignorant of the manner by which a mind, even the supreme mind, operates either on itself or on body?" ¹⁴⁶. Thus Hume's criticism is double-edged; it cuts through al-Ghazali's as well as Averroes' doctrines.

I find that Hume is right in attacking both al-Ghazali and Averroes, as I do believe that the contrivances of God, whether in Himself or in relation to the world, are far more infinite than the finite mind of man can discern. We have to choose between two alternatives: either subject God to our finite, limited reason and carry the process to its final consequences, no matter what sort of beliefs we may arrive at; or put a limit to reason and confine it to what can be known and experienced, declaring to ourselves that there are many realities which we cannot possibly understand no matter how great our

145. Hume, op. cit. p. 627, 628.

146. Ibid, p. 629.

minds are, and that the Idea of God is among these unintelligible realities. Al-Ghazali chose the second alternative, and Averroes chose the first. But neither of them was consistent. Al-Ghazali should have kept his mouth shut, contenting himself with his mystic way. Averroes should have excluded the Idea of Providence from his system, or at least kept his loyalty to the First Teacher more by not trying to fuse Aristotelianism into Islamism.

G L O S S A R Y

- 'Adam: Privation or nonbeing. (p. 3 & 4)
- Ajsam: Bodies. (p. 3)
- 'Arad : Accidents.(p. 3)
- Al-Tawallud: Generation or birth.(p. 12)
- Al-Madda: Matter. (p. 50)
- Al-Sura: Form. (p. 50)
- Al-Fa'il: The efficient cause or the agent. (p. 50)
- Al-Ghaya: The end or final cause. (p. 50)
- 'An: Apreposition meaning "through" (p. 51)
- Al-'ilm al-Yakini: Necessary Knowledge or science. (p. 52)
- Asbab Dhatiah: Intrinsic Causes. (p. 48)
- Being: The Mutazilites believed that this term implies something more than existence. It comprises the essential qualities of an object prior to its existence, plus those it acquires after its existence. (See p. 4)
- Bi: A preposition meaning "by". (p. 35)
- Bil Ittifak: By chance or accident. (p. 46)
- Burhan: Proof. (p. 51)
- F'il: Action.(p. 30)
- Hadd: Definition.(p. 51)
- Hikma: Wisdom. (p. 45)
- Huduth: Creation. (p. 54)
- 'Inda: Alongside. (p. 35)
- Jawaher: Substances or atoms. (p. 3)
- Kalam: Muslim scholasticism. (p. 29)

- Kumun: Latency. (p. 8)
- Kudra: Capacity. (p. 2 & 15)
- Majaz: Figurative speech. (p. 31)
- Mabad'i: Principles. (p. 58)
- Min: A preposition meaning "from". (p. 51)
- Min Ajlihi: For the sake of which. (p. 51)
- Mutakallimin: Muslim scholastics. (p. 1)
- Murajjeh: A determinant, or sufficient reason. (p. 39)
- Nature or Natures: This term corresponds to the four contraries, which were supposed to constitute the first elements of things: cold, hot, dry and moist. (See p. 8, 10, 23)
- Sabab: Cause. (p. 30)
- San'i: Demiurge. (p. 46)
- Salb: Negation or destruction. (p. 58)
- Shana'at: Absurdities. (p. 52)
- Shari'ah: The Muslim code as embodied in the Quran. (p. 44)
- Shart: Condition. (p. 33)
- Sufism: Muslim Mysticism. (p. 37)
- Thingness: This word, as used by Mutazilites, refers to "something" real; it is opposed to utter annihilation. (See p. 4)
- Talk: Asbestos. (p. 58)
- Toubi'a: Created. Literally, to "make nature". (p. 49)
- Zann: Supposition. (p. 51)

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