chapters

AVICENNA: PROVIDENCE AND GOD'S KNOWLEDGE OF PATRICULARS

Although my main topic in this paper is Providence, or *al-ᶜināyah*, it turns out to be necessary along the way to shed light on two other topics, namely, God's knowledge of particulars on the one hand, and Avicenna's theory of reference to particulars on the other. Of these three topics the last, that is, Avicenna's theory of reference, will seem perhaps out of context. Therefore, I shall first say a few words about it before I set out to explain how the three main issues are related.

What I mean by "reference to particulars" here is simply the means used to pick out, or to refer, to that particular object about which something is being said or stated. Obviously, knowledge *about* particulars presupposes reference *to* particulars: if I claim to know something about someone, then given the assumption that my claim is rational I must be able to demonstrate that that person constitutes an object of knowledge for me in the first place- an exercise which I can do only if I can point at that person (ostention, meaning a sensory manner of identifying him/her), or I can use his or her name intelligibly as a way of referring to him/her, either directly (proper name), or by extension (demonstrative pronoun); or I can use some description or the other by which I can properly show that he/she is the object of my discourse. In terms of the statement or sentence which contains my claim of knowledge, or which is itself my claim of knowledge, the subject-term in the sentence (a singular term –typically, a proper name or a demonstrative pronoun) will fulfill a function which is quite different from

that which the predicate (a general term) fulfills. The subject-term indicates which object is being talked about (it picks it out or refers to it), while the predicate-term indicates what is being said about it.

Analogously to the way that knowledge about particulars presupposes reference to particulars, a theory about knowledge of particulars must also presuppose a theory about reference to particulars. This means that one cannot hope to explain adequately a theory of knowledge of particulars without presenting a theory of reference alongside it. In this respect Avicenna, on whom work has been done in the field of God's knowledge of particulars, and, more recently, in the field of the reference of singular terms, is still in need of research and explanation[1].

I should now like to address the full range of the problem, or to show how Providence, knowledge and reference are connected: one can introduce Avicenna's Providence initially and tentatively by saying that it is a mechanism (a theory) by which he sets out to explain, and defend the claim that God, *from a perspective lying outside time and space*, causes as well as knows the minutest particular or detail in the universe, in parts and in sum, as an order in the best of possible worlds. Clearly, if *this* is how Avicenna views Providence, the connection with the themes of knowledge and reference becomes obvious: in order to answer the question, presupposed by the Providence claim, "How can God know anything *about* someone?" Avicenna presents his theory of (God's) knowledge. And in order to answer the question, presupposed by the knowledge claim, "How can God know *of* someone – and hence focus on him (or have him as) an object of knowledge?" Avicenna presents his theory of reference. Hence, I suggest

that Avicenna's theory concerning God's knowledge, and his other theory concerning reference, are in fact integral parts of the more general theory of Providence, or *al-ᶜināyah,* which is a comprehensive theory about (a) the causal relationship between God and the universe; (b) the epistemic relationship (i.e., how God can be said to know particulars in this universe); and (c), the deontic relationship (whether what God causes to come into being is *good*).

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A distinctive mark of Avicenna's theory concerning God's knowledge of particulars is that God, according to this theory, has such knowledge [(2)]. Even so, Avicenna claims that God's *knowledge* of particulars is universal - and is not therefore (like the particulars themselves) subject to change. The preparation of the groundwork for the support of this dual claim is first encountered, I think, in Avicenna's logical works, where he addresses himself to Aristotle's distinction between necessary and possible truths [(3)]. To Aristotle, the distinction is fairly straight-forward: some statements are only possibly true, in the sense that they do not possess constant truth-values, while others are necessarily true, in the sense that they possess truth-values which neither change nor are such that they can change. Statements about particulars are paradigms of possible statements, because such statements will change in truth-value in accordance with the changes that occur to the particulars. Statements about universals, on the other hand, are

paradigms of necessary statements, because universals, unlike particulars, do not change.

This distinction assumes the guise of a dilemma when one comes to consider the concept of an omniscient Being: if God is attributed with knowledge of as well as about particulars (or with knowledge of statements whose truth is subject to change), then surely God must be assumed as possessing knowledge (or an epistemic state) which changes. For example, God would have to be supposed as knowing, first, that a statement is false, and then as knowing, at a later stage, that it is now true. This implies a change in God's epistemic state. He can once be described as not yet knowing something, and He can then be described as now knowing it. Regardless of the potency of this, or any other analogous argument, it inevitably raises the question whether it is worthwhile to pay such an exorbitant price (the inconstancy of God's knowledge) for the "dubious" honor of attributing to Him knowledge of particulars. But while such a doubt can be entertained by a totally Aristotelian, or neo-Platonist philosopher, it is much harder for it to be entertained by a Moslem who believes, sincerely, the Qur'anic assertions that not even the minutest dust-particle escapes from the province of God's knowledge.

In his logical works, Avicenna (with his eyes on two major Aristotelian schools of commentators) works out a plan to interpret all statements as necessary statements (therefore with eternal, or unchanging truth values), whether these are about particulars or about universals [4]. According to the plan, a distinction is made between statements that are unconditionally necessarily true (like, for example, the statement that God exists), and

statements that are conditionally, and therefore (i.e., insofar as that is the case) necessarily true (like, for example, the statement that Aristotle exists). Avicenna does not invoke here his metaphysical distinctions to show that the latter statement's necessity, unlike the first's, is causal rather than essential. He concentrates, rather, on making full use of the circumstances by virtue of which true statements are true. We may see his argument as consisting of several steps. *All* statements about particulars are included in the category of conditionally true statements. These are possibly (i.e. sometime) or necessarily (i.e. always) true if viewed in the context of the conditions by virtue of which they are held to be true. To abstract such statements from the circumstances or conditions by virtue of which they are held to be true is indeed to observe them either as being false, or even as being without truth-values whatsoever. However, to consider these statements "in-context" is to consider them as possessing such values, "conferred" upon them by virtue of those conditions or contexts, and determining therefore the temporal continuity of the value in question. Thus, a statement-form like "The moon is at an eclipse", considered abstractedly, is indeterminate- i.e., could be true or false depending on the circumstances (time, space, etc.) in which it is uttered, or to which it refers. However, if these circumstances are expressed in the statement in question, or are viewed as an integral part of it (see below), then this statement will perforce have to be viewed as a necessary statement- i.e. as a statement which is *always* true *qua* those circumstances. The statement, "The moon is at an eclipse at time T and position P" is, if true at all, then true always: before, during, and after the eclipse. One manner of understanding Avicenna's move here is to see him as separating between how lasting a predicate is said to be true of a subject (*de re*), and how lasting the value of truth is as this is attributed to the statement in

question (*de dicto*), and then as claiming that, viewed in the latter manner, the statement's value is eternal. .

Observe that the circumstance or condition by virtue of which this statement is viewed as being necessarily (i.e., always) true is, in this respect, a spatio-temporal condition, or a circumstance having to do with a position in space at a specific time. But not all conditions are of this type, nor do all conditions render statements indifferently as necessary statements. Avicenna distinguishes between *three* main types of conditions on the basis of which all so-called possible statements can be viewed as being true. One can call these "existential", "conceptual" and "spatio-temporal" (4). All statements (except for "God exists"), Avicenna argues, require what one might call an "existential qualifier" for them to be accepted as being true in the first place. For example, the statement that Zayd writes requires that Zayd be in existence for it to be true at all, and therefore the implicit qualifier here would be "so long as he exists". However, such a qualifier will simply reveal or reflect the circumstance or condition by virtue of which the statement in question can be entertained as being true in the first place. But Zayd may stop writing, and the statement can therefore come to be false, even as Zayd continues to exist. To "pin" an eternal truth value to it requires, as in the case of the eclipse, to invoke its spatio-temporal circumstance. Similarly, a leaf may reflect light, but only for as long as the leaf has color, for example the color white. But the very leaf comes in time to lose its brilliance, and to cease reflecting light. Thus it continues to exist as a leaf, but no longer reflects light. Avicenna argues such a statement thus comes to be false only if viewed in abstraction of that other circumstance by virtue of which it was made true in the first place, namely, the affixation of color to the organism

in question. This affixation may be called "conceptual" (to distinguish it from the existential and spatio-temporal conditions or qualifiers). Incorporate this conceptual qualifier into the statement, and we come up with an eternal truth-value (the leaf reflects light so long as it is white).

Suffice it concerning these distinctions in this context to say that, according to Avicenna, if certain of these qualifiers are included, implicitly or explicitly, in the statement by virtue of which the statement is held to be true in the first place, then such statements can be regarded as necessary statements, or as statements that do not ever change in truth-value. While Avicenna does not address himself to God's knowledge in this context, leaving the matter to be dealt with in his metaphysical works, even so the implication is clear, and the ground-work is already prepared: such statements with eternal truth-values can, after all, be held to be within the province of God's eternal knowledge.

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However, these "maneuvers" do not yet present the whole picture: it is one thing to re-formulate sentences about particulars in such a way as to endow them with eternal truth-values, and quite another to try to understand how they can be entertained by God as epistemic statements, or as statements which can be attributed to Him as a subject of knowledge. We here have two obstacles to overcome: the first obstacle has to do with whether God, like us, is bound in space-time with regard to His knowledge. The other requirement,

we should remember, has to do with how we could conceive a particular as an object of knowledge for the universal Mind of God in the first place.

So let us now turn our attention more specifically to an example which Avicenna mentions in his metaphysical works [5], where he obviously utilizes a distinction which he discusses at great length in his logical works, and which is a natural extension of his discussion of the above-mentioned qualifiers, or conditions.

Let us assume that we are talking about the moon's eclipse, and can present the precise spatial and temporal coordinates pertaining at a particular eclipse, expressed by the formula "*T*P". According to our previous discussion this formula "*T*P" is the qualifier or condition describing the circumstances by virtue of which our statement is held to be true, and if it is expressed in the relevant statement, then the statement will have to be regarded as a necessary one. Our previous example, re-written, can be presented as:

"The moon is at an Eclipse at *T*P"

However, while it is one thing to claim that this statement now has only one unchanging truth-value, it is quite another to consider how it can be entertained by an agent as an object of knowledge. Briefly, one can stipulate the existence of two possibilities: either the agent, *at* point T in time, or *from the viewpoint of* *T*P in time-space, knows that the moon is at an eclipse; or, one can say that the agent knows that the moon is at an eclipse at *T*P. These two separate understandings can be expressed by the following statements:

S1: God, at *T*P, knows "the moon is at an eclipse"

S2: God knows "the moon is at an eclipse at *T*P"

The difference between S1 and S2 can be expressed in terms of the context in which to consider the qualifier ("at *T*P") as occurring: Avicenna's explanation is that S1 presents it as occurring in the context of the subject-term, while S2 presents it as occurring in the context of the predicate term. Explaining it to ourselves in different terms, we may say S1 presents it as a modality qualifying the object of knowledge (*de re*), whereas S2 presents it as being part of that object of knowledge (*de dicto*).

In his logical works, and before even any reference to God is made at all, Avicenna discusses these two interpretations (of the qualifiers) as applying to any unspecified agent of knowledge, and argues that qualifications such as these should not be thought of as being part of the subject; rather, they should be incorporated into the predicate-context. (6)

In his Metaphysics, Avicenna clearly draws on this distinction, drawing on his preferred interpretation to describe how God can be said to know of a particular event, such as an eclipse. Of course the two sentences, or interpretations, allow for unchanging truth-values. However, S2, unlike S1, does not require God to be posited as lying within a spatio-temporal context. It posits Him as lying outside the scope, but as knowing an event in-context-one which is described by a necessary, or eternal sentence.

It is a moot question whether Avicenna's logical discussions are a conscious prelude to his discussion on God's Knowledge. But they objectively constitute the foundations for this discussion.

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I have tried to show that Avicenna's theory concerning God's knowledge of particulars is at its roots a theory about predicates, or more precisely about the logical form of predicates.

In contrast, Avicenna's theory of reference can be regarded as a theory about subject-terms. In a sense, the first theory poses some such question as this: assuming to begin with that God can be claimed to posit a particular object in the universe as an object of thought, then in what sense can any truth about this object be necessary, i.e., not subject to change? This question was answered by claiming that these truths were conditioned on certain circumstances which, if included in the predicate part of the statements expressing them, would render those statements eternal. But now the more basic question can be asked: How can God be assumed or claimed to posit a particular object in the universe as an object of thought in the first place? How can God be claimed to know that a particular predicate such as, e.g. "drinks hemlock at *T*P", is true of Socrates in particular- given, that is, that to posit God as knowing Socrates in the same manner by which we know him (i.e. by sense and the use of a proper name) is to posit a changing epistemic state which God possesses, analogous to the state of knowledge we possess? Once again, it seems to me that Avicenna develops a clever theory (which I call his "theory of reference") to address and solve this

particular problem. In my view, this theory anticipates, in substance, two related theories advanced by Bertrand Russell at the beginning of the (last) century. Russell's first theory is his distinction between knowledge-by-acquaintance and knowledge-by-description (a knowledge theory). His second theory is his famous "Theory of Descriptions" (a reference theory).

Avicenna too seems to distinguish between knowledge of an individual which is founded on sight and sense (*bi'l-mushāhadah wal-hiss*), and knowledge of an individual "in a universal sense", by means of a description which is uniquely true of him. Knowledge which God possesses about individuals, though eternal, cannot be claimed to be founded on His knowledge of those individuals as this knowledge is founded on the basis of sight and sense. To begin with, knowledge which is based on such a means of reference can only be supposed to obtain when the object of predication comes to exist in time. But in this case such knowledge will also have to be supposed as coming to exist in time.

Avicenna's distinction can first be traced in his apparently trite distinction between singular and general utterances [7]. There he argues that a general term, however unique it contrives to be, nevertheless remains such that it is capable of being true of more than just the object of which it happens to be true – that, in other words, it is a universal. He contrasts this with a singular term which must be assumed and understood as having a meaning (or sense) which cannot be partaken of except by one individual.

The implication of this classical explanation, of course, is that a description is a universal term. But the question that can now be asked is whether certain

changes can be introduced to this universal term such that it can begin to perform a referring function analogous to that performed by proper names/demonstrative pronouns or direct ostention. If a way can be found such that a description can both remain universal and perform such a referring function, then it will be possible to explain God's knowledge of particulars in accordance with it, rather than in accordance with the method normally associated with such knowledge about particulars, namely, through sight and sense. Thus God's knowledge of particulars, in other words, as well as his knowledge about them, can be assumed to remain universal.

I submit that Avicenna makes the required changes in his Metaphysics by stipulating two separate but inter-related claims: first the claim that there is at least one eclipse, for example, of which a particular description is true. And second the claim that there is at most just one eclipse of which that description is true. Thus Avicenna says that one first knows a particular eclipse by knowing its universal description (such as being the object or event of which such and such specific circumstances are true); and one also knows, in addition and separately (*li-ḥijjatin mā*) that the eclipse cannot but be one, or that it happens to be only one (*dhālika'l-kusūf lā yakūnu illā wāḥidan bi-ᶜaynihi*). Avicenna specifically adds that this second item of knowledge does not negate the description's universality [8]. Avicenna's claim, then, would seem to be that knowing a particular description to be uniquely true of an object is not inconsistent with that description being a universal. This claim, made in the context of God's knowledge of particulars, obviously enables the ascription to God of such knowledge as this is not founded on "sight and sense".

Avicenna's remarkable distinction implies a problem (recall Russell's distinction between two types of knowledge) of which he was well aware. Continuing his discussion of unique reference "in universal way" Avicenna adds that: [8]

> "...in spite of all this, it may not be possible for you to judge, concerning this (thing) now, whether that eclipse exists or not, unless you know the particulars of movement through sense observation..."

This seems to be saying that while you may know of a particular by a description, it does not follow to say that you can identify that particular empirically. Thus, let us say that I refer to Socrates by the definite description "the philosopher who drank hemlock", and I say about him that he was a source of irritation to the Athenian establishment. My statement "the philosopher who drank hemlock was a source of irritation to the Athenian establishment" referring, as it does, to Socrates, is truth-functionally equivalent to the statement "Socrates was a source of irritation to the Athenian establishment". However, it is not epistemically identical with it: while I may know *the first statement* to be true, I may not for that reason be said to know that it is about *this particular person*, who is Socrates, unless I can be ascribed with knowledge of particulars through the means of sight and sense. If God cannot be ascribed with this knowledge through such means, and can only be ascribed with it through the means of universal but definite descriptions, then His knowledge of particulars will be epistemically distinct from a human being's knowledge of those particulars.

In summary, then, Avicenna develops two inter-related theories, one of knowledge of particulars (reference), and one of knowledge about particulars, as part of a more general theory which attempts to explain the nature of God's knowledge of the sublunary world. However the question remains, "How does God come to have any such knowledge in the first place?" This is the question to which *al-ᶜināyah* addresses itself, although it addresses itself to much more.

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It is now possible to address the general question of *al-ᶜināyah*. To do this I shall start with a quotation from Avicenna which I shall draw on for my discussion in this last part of the paper: (9)

> "It behoves us, now that we have covered this length (in our investigations) to determine what *al-ᶜināyah* means. It has undoubtedly become clear to you from what we have previously explained that lofty causes cannot do what they do for our own sake, or be in general such as to be concerned with something, or feel called upon to do something, or acquire a preference to do something. Yet you cannot deny the strange traces (of such causes) in the formation of the universe, of the parts of the skies, animals and plants –all of which do not come about by accident but require a certain plan.
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> Thus you should know that *al-ᶜināyah* is the being of the First (cause) knowledgeable in Himself of what existence is like in the order of goodness; a cause in Himself of goodness

> and perfection in as far as this is possible; and content with it in the manner mentioned. Thus He intellects the order of goodness in the manner in which this is most possible; and what He intellects emanates from Him as order and as goodness, in the best possible manner in which He intellects it, such emanation being most perfectly directed to order, in so far as this is possible. This is the meaning of *al-ᶜināyah*.

The problem of God's epistemic as well as "mechanical" relationship with the world (what He knows of it, and what He does with it) is perhaps as old as Aristotle, who argues that the Prime Mover cannot think but of Itself (and cannot but think of Itself!), thereby causing motion. (10) Neo-Platonically developed, this statement comes to describe a series of superlunary processes involving cosmic souls, intellects and bodies, ultimately leading to the formation of the sub-lunary world. This process is described in terms of volitional as well as natural motionary bodies. This comprehensive picture, however, still leaves unsolved the basic Aristotelian issue of whether to assume or posit that there exist lofty cosmic agents which intend to bring about the existence of something which is ontically inferior to themselves. Some neo-Platonic theories apparently addressed this issue by ascribing a form of such intentions to these causes. According to one such theory which Avicenna singles out for criticism, it is claimed that while motion in itself is motivated or caused by the desire of the souls/intellects of planetary bodies to emulate that which is ontically superior to themselves, the modalities of such motions are actually motivated or caused by a secondary desire -to manipulate sublunary behavior and processes.

Avicenna rejects this theory [11] partly because he rejects the possibility of an immaterial intellect having particular preferences and desires (whether primary or secondary), and partly because he believes that such a theory would entail the paradox of an ontically superior being fulfilling itself through the agency of an inferior being.

Avicenna's own theory which he presents as a way out, envisages two distinct processes, as well as two kinds of causality. While something A may not intend to cause something else B, even so it may, in the process of intending to cause a third object C bring about B, even necessarily. Thus while God is not motivated by the desire to bring the world into existence, even so the world is necessarily brought into existence through an activity which God is motivated to do, namely, self-contemplation. This activity, because it is directed at Himself, does not therefore denigrate from His value. In this sense, God acts as a First Cause. Being such a Cause, God intellects several -perhaps even an infinite- cause-and-effect series of possible particular events, including one such series which is most in accordance with order and goodness. Thus Avicenna says that God knows what existence is like in the manner of order and goodness. He also says that God knows what is the closest to absolute goodness out of two possible matters. [12]

From the world's point of view, the immediate cause of the movement of planetary bodies is explained, in each one of those bodies, in terms of the soul's attempt to emulate the intellect associated with that body. At one stage Avicenna says: [13]

> "if you consider the condition of natural bodies in their natural desires to be in fact somewhere, you would not be surprised (to learn) that a body desires to be in one rather that in other positions it is possible for it to be in, or desires to be in the most perfect (position) qua being in motion."

The modality of motion is explained in terms of immediate causes, as the physical effect of the souls' attempts to emulate what is better, and, ultimately, to emulate what is best. It is important in this context to emphasize that in thus presenting moral comparisons in connection with the modality of motion different logical possibilities of motion are presupposed. In addition, if this is the case with planetary souls, it is presumably also the case with human souls. More precisely, the human soul is the immediate cause of how a human being acts, although God is the First Cause of the fact that a human being acts. Thus different logical or physical possibilities exist for motions or acts which present different ethical or moral options for the immediate agent, whether a planetary or a human soul. The soul makes a choice of how to act, namely, in accordance with the order of goodness. (14)

To return now to the beginning and to address some basics: existence flows from God as a First Cause. There are logically different manners of existence. Of these logically different manners of existence, one manner of existence is that of order and goodness. The immediate causes of the actual manner of existence are human and planetary souls. In their desire to be better, these souls choose a course of action from amongst other naturally or logically possible courses. Therefore, their choice is consistent with the order of goodness.

Given all this, now the main question can be asked: if God is not the immediate cause of what happens, and what happens is one of different logically or naturally possible courses of action, then how can God know what course of action, or what particular order in the universe, will or does in fact obtain? This is the question that *al-ᶜināyah*, I submit, addresses itself to, in the following manner:

The first element is God's knowledge of the various possible courses of action (for example, that Socrates can choose to drink hemlock or not).

The second element is God's knowledge of what course of action is best from amongst the various logical and natural possibilities (for example, that Socrates' drinking hemlock is closer to the order of goodness).

The third element, finally, is God's knowledge that the best course of action will in fact obtain (for example, that Socrates will do what is best).

In conjunction, these three epistemic elements are equivalent to the claim that God knows particulars (that God knows, for example, that Socrates will drink hemlock). (15)

In sum: God must first be credited with the ability to have a particular (such as Socrates) as his object of knowledge. This is facilitated in Avicenna's system by what I called "Avicenna's theory of reference", according to which definite but universal descriptions are used in order to stand in for direct ostension and for referential means that are rooted in such ostension, such as, paradigmatically, proper names. Secondly, God must be credited with having knowledge about such objects. This is facilitated in Avicenna's

system by his theory of knowledge of particulars, according to which (a) statements about particulars are presented in such a way as to be ascribable with eternal (i.e. necessary) truth-values, and (b) spatio-temporal conditions that allow such fixed truth-values are not envisaged as restricting the agent of knowledge, or as in any way enveloping Him. Instead, such conditions are presented as being part of the statement itself as an object of knowledge. Finally God's involvement in the creation and therefore knowledge of particular facts is facilitated by Avicenna's theory of *al-ʿināyah*. This is a system of indirect involvement akin to the system describing God's knowledge of particulars. According to it, order and goodness flow from God's self-contemplation, and God knows what in particular will occur because He knows what order and goodness are, He knows what all the natural and logical possibilities are, and He knows that the best flow of events (i.e. the order of goodness itself) will obtain.

REFERENCES

1. For a discussion of the subject of God's knowledge of particulars, see M. Marmura's "*Some Aspects of Avicenna's Knowledge of Particulars*", **American Journal Of Oriental Studies** Vol. 82, No. 3 (1962), 299-312. For a more recent discussion see the chapter "*Can God Know Particulars*?", in Oliver Leaman's, **An Introduction to Medieval Islamic Philosophy** (Cambridge University Press, Cambridge 1985) 108-120. As the reader will ascertain, my analysis does not totally correspond with that of Leaman's, which may in some part explain why I don not share his skepticism. For a discussion of the subject of reference, see the recent article by Shams Inati "*Ibn Sina On Single Expressions*', in **Islamic Theology and Philosophy** Ed. M. Marmura (State University of New York Press, Albany 1984) 148-159.

2. See Avicenna's discussion in **al-Shifā'/al-Ilāhiyyāt**, Fr. Anawati & S. Zayed, eds. Revised with an introduction by I. Madkour, 2 Vols. (al-Hay'a al -Ammah, Cairo 1960) – henceforth **Metaphysics** 335 ff. He quotes (*ibid* 359, 13-14) a Qur'anic passage (Q 34,3) specifying God's knowledge of the minutest atom in the universe. In this regard, it is interesting to note that in the course of his criticism of the philosophic school in Islam, al-Ghazali totally ignores Avicenna's statements on the subject, and includes him along with al-Fārābī as sharing three doctrinal opinions, including the denial of God's knowledge of particulars, which in conjunction form in this opinion sufficient grounds for calling these philosophers "infidels" – see the English translation of his **Deliverance From Error** in W.M. Watt's **The Faith And Practice of al-Ghazali** (George Allen & Unwin, London, 4th. Imp. 1970) 37.

3. Aristotle discusses the issue of contingency in his **On Interpretation** 18a 35ff. It is legitimate, though perhaps disputable, to say on the basis of this discussion that he believed some events in the universe to be contingent, especially those corresponding to statements whose subjects are singular terms. Also in his **Categories** 4a 10ff. Aristotle talks about singular statements (i.e., therefore, contingent statements) as also having truth-values which change in accordance with changes that occur to the "existing conditions" or "facts of the case", which the statements describe. Aristotle returns to this issue in his **Metaphysics** 1051b 1ff, where he clearly stipulates that regarding contingent facts, the same statements come to be false and true, whereas for necessary facts statements maintain their truth-values. Avicenna related this issue to God's knowledge of particulars in his **al-Shifā'** (**Metaphysics** 359, 3-5). However, already in that work in **al-Qiyās**, ed. S. Zayed, revised and introduced by I. Madkour (Cairo, 1964) – henceforth **On Syllogistics**, 21, 16ff., he begins his discussion on trying to show how all statements, whether singular or general, can be regarded as necessary, and therefore with eternal truth-values.

4. **On Syllogistics** 21, 16ff. A complete analysis can be found in the author's Harvard thesis, **The Foundations of Avicenna's Philosophy**, presented in 1978,

Ch. 2. Avicenna distinguishes between statements about God which are necessarily and unconditionally true, and all the rest of the statements. The latter are regarded by him as necessarily though conditionally true. I call the conditions (*surūt*) involved 'qualifiers' (contra quantifiers, *aswār)*, and I distinguish between three such groups of qualifiers in the Avicennian system, which I call "existential", "conceptual" and "temporal". Avicenna himself refers to them as *wujūdī*, *min haythu huwa kadhā*, and *fī zamān kadhā*.

5. **Metaphysics** 360, 11ff.

6. This is obvious in Avicenna's treatment (**On Syllogistics** 21, 16ff.). He even uses the example of the eclipse in this context (*ibid* 39, 1-7).

7. See Avicenna's **al-Shifā'/al-Madkhal** Fr. Anawati et al, eds. (Cairo, 1952) – henceforth, **Introduction**, 26f. Avicenna uses such general terms as "the sun", "the moon", etc., which only happen to refer to one object. Later (**Introduction** 70) Avicenna introduces his conditions for allowing a universal term to pick out only one object – see below.

8. **Metaphysics** 360-1

9. *Ibid* 414-5

10. See Aristotle's comments in his metaphysical works (1074b) on the Prime Mover's object of knowledge being himself. For a fuller discussion of the relation between movable vs. unmovable substances, see Aristotle 1971bff.

11. For a discussion of these theories, see **Metaphysics** 393ff.

12. There are, besides the above-quoted passage on *al-ᶜināyah*, several other passages in **Metaphysics** where Avicenna states his belief that (a) God knows both what is and what is possible (e.g. 364, 13-14); (b) God knows the order of goodness in existence (e.g. 363, 10 and 403, 4-5); and (c) God knows that what ought to be – i.e. the order of goodness – will follow upon his knowledge of it (363, 12-13 and 402, 17). See also **Metaphysics** 437, 9-12. Avicenna's conception of this "order of goodness" involves, it appears, the intellection of the entirety of the causal relations that obtain between particulars (*ibid* 360, 1-3 and 362, 4-11). Even if an ordinary man were to know all events on heaven and earth, and to know their nature, he also would then understand the manner of all that will happen in the future (440, 2-4) - note in this respect that this intellectual facility is not what Avicenna endows the prophetic imaginative faculty with.

13. **Metaphysics** 390, 5-8

14. *Ibid* 387, 14-17, where he specifically talks about natural as well as volitional motions.

15. A problem may be raised at this point, which is the distinction Avicenna makes between the moon, for example of which there only happens to be one, and Man, of whom there are many; or, in other words, between a species which is "scattered" (*muntašir*) among various individuals, and a species that is confined to one individual. It may be argued that Avicenna does not allow for God's intellection of Socrates, for example though he does allow for God's intellection of an eclipse, or a planet (see **Metaphsics** 359, 7-9). However, I believe that what Avicenna is trying to do in these passages is to distinguish between two kinds of species, and not between a species and an individual. On my interpretation, God's intellection of Socrates would be possible in so far as Socrates is not "scattered' among units which constitute him. On the other hand, a concept or a meaning which cannot be understood except in so far as it related, e.g. predicatively, of various units or individuals, may be argued by Avicenna as being a purely logical, i.e. human construct, and can only be understood in reference to those units or individuals.