ERRATUM

On p. 515 of *The Monist*, vol. 78, no. 4 (Oct., 1995) in the article "Externalism and First-Person Authority" by Hans-Johann Glock & John M. Preston, the first sentence of the second paragraph of the text should read: As the introductory quotes show, both Wittgenstein and externalism reject internalism.

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**AL-GHAZALI ON NECESSARY CAUSALITY**
**IN THE INCOHERENCE OF THE PHILOSOPHERS**

Many scholars of modern philosophy are unaware that some of the most momentous philosophical issues to be dealt with in the modern period had already been discussed long before. One such issue concerns the necessary nature of causality, which most contemporary philosophers link with David Hume. Yet, long before Hume, the issue of necessary causality had been taken up by the Medieval Arabic philosopher Al-Ghazali (A.D. 1058–1111). The purpose of this paper will be to examine Al-Ghazali’s views concerning the necessary nature of causality in his work *The Incoherence of the Philosophers,* with particular reference to the issue of whether there is a complete rejection of causality, and whether Al-Ghazali’s rejection of necessary causality entails that he holds to some sort of occasionalism. After this, a brief comparison of Ghazali’s and Hume’s skepticism concerning the supposed necessary nature of causality will be made, noting both similarities and dissimilarities of the two views.

Ghazali’s views concerning the necessary nature of causality in *The Incoherence of the Philosophers* are part of a discussion of the natural sciences in which there is dissent from the philosophers in all these sciences in regard to four points only. . . . The first point is their assertion that this connection observed between causes and effects is of logical necessity, and that the existence of the cause without the effect or the effect without the cause is not within the realm of the contingent and possible. ²

Al-Ghazali feels he must contest this assertion by the philosophers concerning the necessary nature of the link of cause and effect “in order to be able to assert the existence of miracles and for still another reason, namely to give effective support to the doctrine on which the Muslims base their belief that God can do anything.”⁴ Thus, Al-Ghazali asserts that the philosophers, by holding to the necessary nature of causality, deny the

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omnipotence of God, particularly in denying God the ability to perform miracles, which suspend the natural, and seemingly necessary, order of causality.

After these preliminary remarks, in discussing this first point concerning the necessary nature of causality, Ghazali states that "According to us the connexion between what is usually believed to be a cause and what is believed to be an effect is not a necessary connexion," but before going on to show how this is so, Ghazali reveals where he thinks the connexion of cause and effect ultimately lies when he says "the connexion in these things is based on a prior power of God to create them in a successive order, though not because this connexion is necessary in itself and cannot be disjoined." Thus, in the end, Ghazali's cain will be that the connexion of cause and effect is not something which is indelibly etched in the natural order, since this natural order is subject to the Creator who made it, who can suspend that order at any time.

Ghazali must move on from here to show why there is no necessary connexion of cause and effect. Iai Alon identifies four different approaches to which Ghazali will respond: two philosophical, one extreme and one moderate position; and two religious responses, once again one extreme and one moderate. The first philosophical position, which Alon names extreme, reiterates "that the agent of the burning is the fire exclusively," and that this assertion is based on "no other proof than the observation of the occurrence of the burning," to which Ghazali responds, to the first point that "the agent of the burning is God... either through the intermediation of angels or without intermediation," and to the second that "observation proves only a simultaneity, not a causation." What is interesting concerning Ghazali's response to the first point is that while he emphasizes that God is the sole cause of all natural effects, he allows that this causality can be mediated through the intermediation of angels.

More will be said on this shortly, yet what is of more interest philosophically is Ghazali's second claim that the succession of natural events does not prove causation. To provide more proof for this claim, Ghazali gives the example of a "man blind from birth, whose eyes are veiled by a membrane" who, when the membrane is removed, thinks "that the actual perception in his eyes... is caused by the opening of the eyelids" when, in fact, "it was the light of the sun which impressed the visible forms on his sight." Thus, since the cause of sight in this case is not something that is immediately observable as the direct cause, there is no airtight reason to infer from sensory observations of a number of events which occur in succession a necessary causal connection between them.

To strengthen this conclusion, Ghazali notes that even his "opponents believe that in the principles of existence there are causes and influences from which the events which coincide with them proceed." What Ghazali means by the principles of existence here, as Van den Bergh notes, are the celestial bodies, and it is clear that the opponent philosophers he is referring to here are his Neo-Platonic Aristotelian predecessors such as Avicenna, who believed that the planets that were known to him exerted causal influence over natural events in this world. Thus, if the philosophers like Avicenna are themselves allowing that there can be causes which impact the world in a remote way, there is again no need to insist that all effects follow of necessity from temporally proximate causes.

In what Alon identifies as the second philosophical approach which he labels moderate, Ghazali anticipates the response of his opponents whose own arguments he has just used against them, since they would say that "the events proceed from these principles [the celestial bodies] not by deliberation and will, but by necessity and nature... and the substrata differ for their reception only through the differentiations in their dispositions." As Lenn Evan Goodman points out here, "the principle, the Philosophers would argue, is the same but the effect is different, and the difference is explained by the different dispositions in the matter which serves as substrate for the reception of forms." The conclusion here is that "there is no hindrance or incapacity in the emanation of what emanates from the principles of existence; the insufficiency lies only in the receiving substrata." Thus, these opponents would hold that the principles or celestial bodies cause events by the emanation of forms, yet the fact that this emanation terminates in different events is on account of the disposition of the matter into which these forms are received. As Goodman notes, the problem being explained here by the philosophers is how "diverse effects" can flow from a "single simplex and deterministic operating cause." From this, these philosophers can conclude that matter with the same disposition will necessarily react in the same way, and that miracles can only occur by changing the "essence" of the thing.

To this last assertion, Ghazali responds that it is impossible to change the "essence" in this way, since by doing so the thing would cease to be what it is. From here Ghazali goes on to what Alon has labeled the two
religious approaches, which actually are responses to the moderate philosophical approach. The first response, which Aion has labeled as extreme, begins with Ghazali reiterating his rejection of the claim "that the principles do not act in a voluntary way and that God does not act through His will," to which he realizes the philosophers will respond that "if you deny the necessary dependence of effects on their causes . . . then it may happen to any of us" any of a number of possibilities that subvert the natural order at any time.

To this, Ghazali responds that:

> God has created in us the knowledge that He will not do all these possible things, and we only profess that these things are not necessary, but that they are possible and may or may not happen, and in this latter case it is God's free will.22

Thus, Ghazali gives here a reason as to why the human mind assumes the necessity of cause and effect, namely due to a habit the mind forms based on memories of past occurrences. Yet, at this point, he has also conceded to the philosophers that it is true that any of these possibilities, even those that suspend the natural order, could happen.

Yet what is meant by the phrase that God has given the knowledge that certain possibilities will not happen? Ghazali illustrates this point with an example that it is possible that a prophet could be able to predict the future through God's intervention, yet what happens in this case is that "if God interrupts the habitual course by causing this unusual event to happen this knowledge of the habitual is at the time of the interruption removed from their hearts."23 Thus, in this example, God is the cause of the habitual impression in the human knower of the relation of cause and effect, and in the case of the prophet, God interrupts the normal habitual course of human events, in which one is not able to know unusual future events will happen, by removing this habitual impression, thus enabling the prophet to miraculously predict the future. One should note that this example also responds to the philosophers' earlier objection that God's ability to suspend the normal course of events leads to the conclusion that anything could happen at any time. The implication was that God would do so, but by allowing that there is a habitual course of human events, the example here given implies that God's ability to suspend the normal course of events is enacted, in Binyamin Abrahamov's words, "through his wisdom and not capriciously."24

This being said, it is not clear whether Ghazali accepts this example, particularly in regard to whether God causes the habitual impression in the human knower. Alon realizes that this example clearly is accepted by other Muslim theologians, and thinks Ghazali does accept this view, but Goodman contends that Ghazali rejects this view in favor of what Alon has described as the moderate religious approach which follows. The heart of Goodman's interpretation is his translation of a line at the very end of the treatment of what Alon calls the extreme religious approach, which he notes that Van den Bergh mysteriously omits, which Goodman translates as "There is nothing in this entire line of argument but pure absurdity."25 Goodman takes this to refer to Ghazali's prophet example which has just been outlined. Michael Marmura, however, feels that Goodman's translation is flawed and suggests that the correct translation is not "pure absurdity" but "sheer vilification" referring to "what the opponent has come up with," and not Ghazali's response, namely the first more extreme religious approach.26

In any case, this issue is important since it impacts on the question of whether Ghazali, by denying necessary causality in the natural world and placing it instead in the realm of the supernatural in the free choice of God, was an adherent of occasionalism, which, in its extreme form, is the doctrine that God, on the occasion of any natural event, steps in to cause that event. If Ghazali accepts the view that God causes the habitual impression of the link of cause and effect in the natural world, and suspends this habitual impression in the case of the prophet, it leads one to the conclusion that God's direct stepping into the process is pervasive and thus occasionalistic in an extreme sense.

Unfortunately, no answer is readily forthcoming as to whether Ghazali was an extreme occasionalist in this sense. On the one hand, Goodman's translation is too leading, but he is quite right in showing that the theologians who accepted this view were indeed extreme occasionalists.27 On the other hand, Marmura's translation is probably more correct, but all his translation explains is what is already known, namely that Ghazali rejects the earlier objections of the opponents. Marmura has to go outside of the text of the Incoherence of the Philosophers to show that Ghazali held the extreme occasionalist view, and by doing so he comes to
the conclusion that the view that follows, in which these occasionalistic tendencies are softened, is added “dialectically, simply for the sake of argument.”

To see that Ghazali indeed does soften the occasionalistic implications of the prophet example, however, one must move on to what Alon has described as the moderate religious approach, in which “is to be found deliverance from these reprehensible consequences,” which, depending on the interpretation, might refer to the prophet example or the philosophers’ objection. Here, Ghazali’s approach “is to agree that in fire there is a created nature which burns two similar pieces of cotton . . . and does not differentiate between them.” Thus, in the normal natural course of events, the reason that fire causes cotton to burn is due to its nature.

However, Ghazali is quick to point out that it is possible for God to suspend this natural course of events, either “through a change in the quality” of the thing, or through a change in form, since “matter can receive any form.” Yet, these changes do not totally change “the form and reality” of the thing, as in the moderate philosophical view. Thus, although in the normal course of events effect follows from cause naturally, this causality is once again not necessary, since God can suspend this natural order, which follows Aristotelian causal principles by, in this case, making the events occur “in a shorter period than usual.” At this point, Ghazali returns to the example of the prophet, and one becomes hopeful that Ghazali will answer the question: Does God cause the habitual impression of the link of cause and effect, and then remove it from the prophet at the time of the miracle, as in the earlier example, or does the habitual impression come from nature, and God only steps in to give knowledge of the miracle to the prophet? Clearly the second alternative is less occasionalistic, but Ghazali does not give an answer here, since he is more concerned with the prophet’s knowledge of the miracle, which is less problematic than where the earlier habitual impression came from.

In continuing his discussion of this second moderate religious approach, Ghazali moves on to a final point in which his opponents the philosophers ask: “what according to you is the limit of the impossible?”

To this Ghazali responds:

The answer to this is to say that the impossible cannot be done by God, and the impossible consists in the simultaneous affirmation and negation of a thing, or the affirmation of the more particular with the negation of the more general, or the affirmation of two things with the negation of one of them, and what does not refer to this is not impossible and what is not impossible can be done.

This answer clearly holds to the Aristotelian law of non-contradiction, and Alon and Goodman are both right to point out that by taking this position that there is this one limitation on the omnipotence of God, this second more moderate religious approach distances itself from other Muslim religious views which held that God could do the logically impossible.

This religious view is that of the occasionalists whom Ghazali seemingly agreed with earlier in using the example of the prophet in whom God causes the habitual impression of the link of cause and effect. This second moderate religious view thus distances itself from this view here by denying that God can do the logically contradictory or impossible. Ghazali concludes this section of the work on necessary causality by saying “when we observe other movements than ours and see many well-ordered movements, we attain knowledge of the power behind them, and God creates in us all these different kinds of knowledge through the habitual course of events.” Thus, in direct response to the example of the prophet earlier, in this second more moderate religious view it is not that God creates in the prophet the habitual impression of the link of cause and effect, but that God creates the habitual impression through the natural working of the world, in which cause and effect are normally linked, although not necessarily.

Thus, the second moderate religious approach is one that is clearly less occasionalistic than the first more extreme view presented by Ghazali. Yet, unfortunately, there is no way of deciding, on the basis of this text from the Incoherence of the Philosophers alone, which of these two views Ghazali actually preferred. Perhaps Marmura is right that in other texts it is clear that Ghazali prefers the first, more occasionalistic view. Yet, it seems curious that Ghazali would devote so much time to explaining this second moderate religious view “simply for the sake of argument,” or merely as a dialectical device. Furthermore, it does not seem, as Alon points out, that these views are contradictory. The second is merely less occasionalistic than the first.

Perhaps the best solution is to grant that Ghazali himself may have preferred the first more occasionalistic view, but also accepted the second view, in which one could retain some of the philosophers’ arguments by allowing that natural causality holds in most cases, while still remaining
religiously orthodox by preserving the omnipotence of God, particularly in reference to the ability to enact miracles.\(^6\) One can also at this point return to the question that forms the title of Goodman’s article, namely does Ghazali deny causality?\(^7\) Of course, it is emphatically clear by now that he did not. The only type of causality Ghazali denies is necessary causality, whereby the omnipotence of God is constrained by the natural order which God Himself created.

As was said at the beginning of this paper, this treatment of necessary causality by Ghazali sounds very similar in some ways to the treatment of the same subject by David Hume. Hume also denied necessary causality, as can be seen when he states in *An Enquiry Concerning Human Understanding* that “we never can, by our utmost scrutiny, discover anything but one event following another; without being able to comprehend any force or power by which the cause operates, or any connexion between it and its supposed effect.”\(^8\) Hume thus agrees with Ghazali also that all one can get from observation is the succession of events, not any necessary connection between the two.

In speaking earlier in the work about cause and effect, Hume also agrees with Ghazali that the reason the human knower tends to make a link of cause and effect between two events is “custom or habit.”\(^9\) Further, Hume would even agree with Ghazali’s second more moderate religious approach that this habitual linking of cause and effect is based in nature, since, in his earlier work, *A Treatise of Human Nature*, Hume describes the principle of the Uniformity of Nature, which states that “instances of which we have had no experience must resemble those of which we have had experience, and that the course of nature continues always uniformly the same.”\(^10\) However, while granting that nature for the most part runs in a uniform way, both Ghazali’s and Hume’s point is the same: causality is not necessary in any way.

Beyond this agreement on the necessary nature of causality, however, the two thinkers’ views that flow from this point differ widely. As has been said, Ghazali’s whole aim in pointing out the inconsistencies in holding to necessary causality was to preserve God’s omnipotence particularly in reference to the ability to perform miracles. Hume’s skepticism about necessary causality, however, can also be seen in his *Dialogues Concerning Natural Religion*, in which skepticism leads one to question whether God exists at all. Further, in the aforementioned *Enquiry Concerning Human Understanding*, Hume moves on shortly after the section on necessary causality to deny that miracles can ever occur:\(^11\) What can be learned by observing these differences between Hume and Ghazali, despite their agreement concerning the denial of necessary causality? In the end, one must state that the denial of necessary causality, while a powerful philosophical argument, is a two-edged sword, that can be used against religion by leading to further skepticism or against philosophy in leaving room for faith in the omnipotence of God.

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NOTES

3. Who Ghazali is referring to here by the term “philosophers” is left open, but it is clear from his criticism that the most famous of his predecessors, Al-Farabi and Avicenna, would be included under this heading.
5. Ibid., p. 316.
7. Ibid., p. 400.
10. Ibid.
19. Ibid.
20. Alon, p. 400, based on Al-Ghazali, The Incoherence of the Philosophers, in Van den Bergh, p. 323 where Ghazali says, "There are two answers to this theory."
22. Ibid., p. 324.
23. Ibid.
27. Goodman, p. 105 and n. 3 therein.
30. Marmura, p. 70.
33. Ibid.
34. Ibid., pp. 326–327.
35. Ibid., p. 326.
36. Ibid., p. 327.
37. Ibid., p. 326.
38. Ibid., p. 329.
41. Goodman, p. 113.
43. Marmura, p. 70.
44. Ibid.
45. Alon, p. 402.
46. I am indebted to Prof. Thérèse-Anne Druart for the suggestion of this last alternative.
47. See Goodman, p. 83.
49. Hume, Section V, Part I, p. 86.
51. Hume, An Enquiry Concerning Human Understanding, Section X.

Causality and Demonstration: 
An Early Scholastic Posterior Analytics Commentary

Broadly speaking, ancient concepts of causality in terms of explanatory priority have been contrasted with modern discussions of causality concerned with agents or events sufficient to produce effects. As Richard Taylor claimed in the 1967 Encyclopedia of Philosophy, of the four causes considered by Aristotle, all but the notion of efficient cause is now archaic. What we will consider here is a notion even less familiar than Aristotelian material, formal, and final causes—that we will call 'demonstrational causality'. Demonstrational causality refers to the dependence of the conclusion on the premises of a demonstration. Here, if ever, we have a case of explanatory priority, since among other things what is required of the premises is that they be better known or more manifest than the conclusion. But, oddly enough, Aristotle and his medieval commentators describe demonstrational causality in the same terms as efficient causality. Aristotle speaks of the conclusion as an "effect" of the premises; his commentators speak of the "sufficiency" of first principles or axioms (dignitates) in producing the conclusion.

This concept of causality has seldom been studied, and little is known about the medieval Posterior Analytics commentators in which it is most fully explicated. The aim of this article is correspondingly modest and introductory. We will first briefly describe the place of Posterior Analytics commentators in the recovery of Aristotle and the development of medieval logic and natural philosophy. In the second place, we will introduce the work presented in this article, Richard Rufus of Cornwall's newly discovered commentary. In the third place, after distinguishing metaphysical (explanatory), epistemological (evidentiary), and logical (validating) concepts of cause, we will describe demonstrational causality in terms of those notions. Finally, we will present a brief conclusion. Appended to the paper will be a short statement of the reasons for the at-