

Al-Ghazālī on Possibility and the Critique of Causality

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One of the most striking features of speculative theology (*kalām*) as it developed within the Ash'arite tradition of Islam is its denial of causal power to creatures. Much like Malebranche in the seventeenth century, the Ash'arites saw this denial as a natural extension of monotheism and were led as a result to embrace an occasionalist account of causality. According to their analysis, causal power is identical with creative power, and since God is the sole and sovereign creator, God is the only causal agent. To assert anything else is to compromise monotheism. This position, of course, was in direct opposition to the prevailing accounts of causality within the philosophical tradition of Islam at the time. The philosophers (*falāsifa*) had by and large taken over accounts of causality from Aristotle and the Neoplatonists and adapted them in accordance with their own set of concerns. In such accounts, while God stands as the first cause, secondary causation—the causative action of agents other than God—is unambiguously affirmed, even if variously understood. Thus, as they offered a sophisticated account of causal action in direct opposition to the occasionalist thesis, the *falāsifa* posed something of a challenge to the theologians.

Nowhere was this challenge met more effectively than in the writings of the great Ash'arite theologian, al-Ghazālī.¹ In his monumental work, the

1. The reader should be alerted that in the last two decades there has been a vigorous challenge to the standard interpretation of Ghazālī as an Ash'arite, particularly with respect to his views on causality. Perhaps the most detailed and subtle exposition of the revisionist view has been put forth by Richard Frank, who argues that Ghazālī employs the theological language of the Ash'arites in a way that leads the unwary reader to interpret him as being in essential agreement with them. Closer inspection of that language, Frank insists, reveals significant departures from standard Ash'arite doctrine, particularly in texts such as the *al-Maḥṣad al-Asnā*, where Ghazālī abandons the Ash'arite textbook format and (allegedly) speaks more clearly in his own voice. On the issue of causality, Frank argues that Ghazālī is not committed to Ash'arite occasionalism, but sees created agents endowed with genuine causal power, though they are not able to act autonomously. In fact, Frank argues that Ghazālī actually takes over significant features of Avicenna's causal scheme, including the whole panoply of hierarchically ordered intermediaries through which God's influence is made present in the sublunary world. While the

Tahāfut al-falāsifa, Ghazālī set out to counter the *falāsifa*'s teachings and expose them as being not only dangerous to the faith, but insufficiently supported by argument as well. In the seventeenth discussion of that work, after having examined a range of metaphysical issues concerning God and creation, he turned to the question of causality and launched a blistering attack on the notion of efficient causality as it was formulated by his philosophical predecessors, particularly Avicenna. Because Avicenna had argued that the connection between cause and effect is one of necessity, Ghazālī charged that his account left no possibility for miracles. Given the limitations that this would place upon the divine sovereignty, as well as the long-standing belief in Islam that miracles are what authenticate the message of a prophet, this was a serious charge indeed. The unmistakable implication was that, if correct, Avicenna's views would undermine Islam itself. In view of this potential threat, Ghazālī focused his attention on the claim of necessary connection and sought both to undermine it through logical and empirical analysis and offer an alternative occasionalist account of causality in accordance with the facts of our experience and the orthodoxy of Islam.

As Ghazālī's attacks on the notion of necessary causal connection anticipated the arguments of Nicholas of Autrecourt in the fourteenth century and Malebranche and Hume in the seventeenth and eighteenth centuries, they have been widely discussed, even by scholars who are not specialists in medieval and/or Islamic thought. In this article, I intend to analyze one aspect of his argument that has not received due attention in the literature, viz., its reliance upon his reduction of ontological or real possibility to logical possibility. In arguing that "it is right to reduce possibility . . . to intellectual judgments," such that possibility is merely a function of the conceptual coherence, Ghazālī set himself apart from any view that would take possibility as an attribute of the real, and as such, requiring a substratum. This, I will argue, is the basis upon which Ghazālī's attack on causality must be understood, since it is this which grounds both his notion of the range of God's power and his claim that the connection between a

work of Frank and the other revisionists deserves detailed response, that task is well beyond the scope of this article. My intention, rather, is to pursue a fairly traditional reading of Ghazālī's critique of causality and argue for connections between that critique and his analysis of possibility as it is developed in the *Tahāfut*. Many of my reasons for taking the traditional interpretation to be correct will become clear as my argument proceeds. For revisionist readings of Ghazālī, see: Richard Frank, *Creation and the Cosmic System: Al-Ghazālī and Avicenna* (Heidelberg: Carl Winter Universitätsverlag, 1992) and *Al-Ghazālī and the Ash'arite School* (Durham: Duke University Press, 1994); Lenn Goodman, "Did al-Ghazālī Deny Causality?" *Studia Islamica* 47 (1978): 83–120; and B. Abrahamov, "Al-Ghazālī's Theory of Causality," *Studia Islamica* 67 (1988): 75–98. For explicit criticisms of the revisionist view, see: Michael Marmura, "Ghazālīan Causes and Intermediaries," *Journal of the American Oriental Society* 115 (1995): 89–100; and Oliver Leaman, "Ghazālī and the Ash'arites," *Asian Philosophy* 6 (1996): 17–27.

putative cause and its effect is not necessary. If this analysis is successful, it will accomplish three results. First, it will locate the foundations of Ghazālī's critique in a more fundamental doctrine of modality. Second, it will clarify the nature of his disagreement with the *falāsifa*. And finally, insofar as Ghazālī developed his account of possibility in the context of refuting the proofs for the eternity of the world put forth by those same *falāsifa*, it will serve to connect his critique of causality to his refutation of their doctrine of the eternity of the world.

I. POSSIBILITY AND THE REFUTATION OF THE ETERNITY OF THE WORLD

One of the most serious points of contention between the *falāsifa* and the Ash'arite theologians was the question of whether the world is eternal or created in time a finite number of years in the past. The *falāsifa*, taking their cue from Aristotle, argued for its eternity and sought ways of making this doctrine acceptable within the theological framework of Islam. The theologians, on the other hand, saw no such accommodation as possible and vigorously defended the doctrine of creation in time. Not surprisingly, Ghazālī sided with the theologians and viewed belief in the eternity of the world as irreligion, confirming his view that the *falāsifa* were not, despite their protestations, true believers.² We find Ghazālī's most sustained treatment of this issue in Discussion One of the *Tahāfut* where he reviews four arguments for the eternity of the world that had been put forth by the *falāsifa*. After setting them forth, he develops a series of objections to show that none of these arguments constitute genuine demonstration. With characteristic thoroughness, he then examines detailed responses that the *falāsifa* might make to his own objections and dispenses with them one by one. As we are most concerned here with Ghazālī's treatment of the notion of possibility (*imkān*), and since this receives its most detailed treatment in the fourth proof, that will be our focus.

The fourth proof, based on an argument that Aristotle gives in *Physics* I.9, aims to establish the eternity of the world by establishing the eternity of matter.³ This is done primarily by showing that it is not possible for matter to be generated. The following passage contains the essence of the argument as Ghazālī reconstructs it:

2. For a general discussion of this debate, including the views of Avicenna, Ghazālī, Averroes, and Maimonides, see Oliver Leaman, *An Introduction to Medieval Islamic Philosophy* (Cambridge: Cambridge University Press, 1985), pp. 25–86.

3. Aristotle, *Physics* I.9 192a26–34. For the more immediate provenance of this argument, see Avicenna, *Shifā': Ilāhiyāt*, IV, chap. 2.

The possibility of existence obtains for [that which becomes] before its existence. But the possibility of existence is a relative characterization that is not self-subsistent. It must, hence, need a receptacle to relate to, and there is no receptacle except matter. [This is just] as when we say, “This matter is receptive of heat and cold, blackness and whiteness, or motion and rest,” meaning that it is possible for it to have these qualities originate in it and these changes occur to it. Possibility thus becomes a description of matter. But matter does not have matter [receptive of it], and hence it is impossible for it to originate in time. For if it were to originate in time, then the possibility of its existence would precede its existence and the possibility then would be self-subsistent, not related to anything, when it is [in fact] a relative description, incomprehensible as self-subsisting.⁴

The basic intuition of the proof is simple. Matter, as a principle of potentiality, is the condition of the possibility of anything that comes to be. As such, it is the receptacle or substratum of possibility itself and must precede anything that comes to be. If, then, matter itself were to come to be, insofar as it would have to be possible prior to its coming to be, possibility would have to exist without a receptacle or substratum. But since possibility cannot exist without a substratum—it being incomprehensible as self-subsisting—matter cannot come to be. And if matter cannot come to be, given the fact that it presently exists, it must have always existed. From here, the *falāsifa* concluded, it is just a short step to the eternity of the world.

Now it is clear that the crucial claim of the argument is that possibility, at least the possibility of anything that comes to be, requires a substratum. We are told that such possibility does not exist *per se*, as does a substance, but as a kind of attribute having “no subsistence in itself.” It must inhere in something, and this something is nothing other than matter. Here the Aristotelian basis of the argument is clear, for it is fundamental to Aristotle that whatever comes to be, whether a substance or accident, must come to be out of that which is in potentiality to it. Where there is no potentiality for a thing, there is no possibility of its becoming. And since the principle of potentiality is matter, the possibility of a thing that comes to be necessarily resides in matter and has no existence apart from it.⁵

Like so much that the *falāsifa* derived from Aristotle, Ghazālī found this

4. Al-Ghazālī, *Tahāfut al-Falāsifa*, trans. Michael Marmura (Utah: Brigham Young University Press, 1997), p. 41. Hereafter cited as TF.

5. On this Aristotle writes: “All things produced either by nature or by art have matter; for each of them is capable both of being and of not being, and this capacity is the matter in each” (Aristotle, *Metaphysics*, VII, chap. 7 1032a20). Avicenna makes much the same point in his *Metaphysics Shifā’*. After stating categorically that “everything that comes to be has a material principle,” and explaining why this must be the case, he concludes: “We call the possibility of being the potency of being, and we call what bears the potency of being, in which the potency of the being of a thing exists, subject, *hyle*, matter, and the like, according to diverse considerations” (Avicenna, *Shifā’: Ilāhiyāt [The Healing, Metaphysics]*, IV, chap. 2. [my translation]).

view less than compelling and elaborated a number of objections to it. His basic complaint is that it misidentifies the locus of possibility. Possibility, he argues, is not a feature of things, but is merely a judgment of the intellect. As such, it is purely conceptual and stands in no need of a material substratum. He writes:

The objection [to this] is to say: The possibility which they have mentioned reverts to a judgment of the mind. Anything whose existence the mind supposes, [nothing] preventing its supposing it, we call "possible," and if prevented we call "impossible"; and if it is unable to suppose its nonexistence, we name it "necessary." For these are rational propositions that do not require an existent so as to be rendered a description thereof.⁶

The import of this passage is obvious. Insofar as possibility is merely a judgment of the intellect and not a feature of things, it requires no material substratum. And since it requires no material substratum, there is no problem in affirming that matter comes to be. Hence, the fourth proof has failed to demonstrate the eternity of the world.

It now appears that Ghazālī's objection to the fourth proof rests squarely on his claim that possibility is a judgment of the intellect. But what does he mean by this? We have just seen him assert that "anything whose existence the mind supposes, [nothing] preventing its supposing it, we call possible." Since the most natural reading of this is to take contradiction as what would prevent the supposition of a thing's existence, it would seem that what Ghazālī has in mind is that we may judge something to be possible insofar as its supposition does not involve a contradiction. If this is correct, it would appear that Ghazālī takes possibility as being strictly logical—a function of conceptual coherence alone. Thus, in direct opposition to any view that takes the possibility of a thing to reside in that matter which is in potentiality to it, Ghazālī takes it as being purely conceptual, residing in the intellect and in no need of a material substratum.

Ghazālī hammers this home in an illuminating analysis of the possibility of an accidental quality. Take, for example, the color black. Because we can consider the concept of this quality in complete isolation from the concept of a black thing, Ghazālī argues that we can make the judgment that this color is possible without referring that possibility to the potentiality of any body to become black. We judge it to be possible just insofar as the concept of black is conceptually coherent, and its possibility is completely unaffected by its relation to any other thing. Generalizing from this example, Ghazālī argues that from the fact that we can consider a thing to be possible, even when abstracting from the receptivity of any particular matter relative to it, we can see that its possibility is in no way a function of the

6. TF, p. 42.

receptivity of matter. And this, he points out, would not be the case if possibility required a material substratum in which to inhere.

What Ghazālī has done here is extremely important. As he has made possibility purely a function of conceptual coherence, there is no extramental condition, whether it be the potentiality of matter or anything else one might name, for it. In his words, all of this “shows that the mind, in judging possibility, does not need to posit [something] having existence to which it would relate possibility.”⁷ But here another question immediately arises. If we need not admit an existing thing to which possibility can be related, in what does possibility reside? Ghazālī’s answer is that it resides in the intellect. Indeed, this seems to be the only answer open to him given his reduction of possibility to logical possibility. But this response is not without its difficulties. Ghazālī imagines that the *falāsifa* might object that when we judge something to be possible, if that possibility does not exist *in re*, and hence require some ontological foundation, then that judgment is empty. In other words, if possibility is not rooted in the real, then our judgments about it cannot count as knowledge.

Ghazālī’s response to this objection is creative, though not entirely unproblematic. Again, it will be useful to quote him at length. He writes:

To refer possibility, necessity, and impossibility back to rational judgments is correct. [In reference] to what has been mentioned . . . we say: “[Modality as a judgment of the mind] has an object of knowledge in the same way that being a color, animality, and the rest of the universal propositions are, according to them, fixed in the mind, these being cognitions that are not said to have no objects of knowledge.” Yet the objects of their knowledge have no existence in the concrete—so [much so] that the philosophers have declared that universals exist in the mind, not in the concrete: what exist in the concrete are only individual particulars that are perceived by the senses, not conceived, but are the cause for the mind’s snatching from them an intellectual proposition, abstracted from matter. . . . If this is not impossible, then what we have mentioned is not impossible.⁸

Ghazālī’s reasoning here is a bit obscure, but certain points are fairly clear. Appealing to Aristotle’s view that the sciences are of what is necessary and universal,⁹ Ghazālī states that they are constituted by certain universal concepts that reside in the mind.¹⁰ But since everything in the external

7. TF, p. 42.

8. TF, pp. 44.

9. See Aristotle, *Metaphysics* VII, chap. 15, 1039b27–1040a2.

10. One might object that in this passage, Ghazālī merely compares possibility to a universal and does not equate them. The equation, however, is made in the third discussion in which Ghazālī treats possibility as a genus that is subsumed under the genus of existence. He writes: “Existence is a general thing that divides into the necessary and the contingent. If, then, the differentia in one of the two divisions is

world is particular, strictly speaking, there are no objects outside of the mind that correspond to such concepts, at least not with respect to their universality.¹¹ And since the *falāsifa* do not take scientific concepts to be empty, by parity of reasoning they cannot take the concept of possibility to be empty just because it does not have a corresponding extra-mental reality or foundation.

This position is certainly open to any number of objections. Averroes, for example, in defending the view that possibility requires a substratum in matter, dismissed the argument as an “ugly and crude sophism.” The basic problem, he contends, is that while Ghazālī correctly saw that universals exist in the mind alone in a state of actuality, he did not see that they exist outside of the mind in a state of potentiality. Because of this, Ghazālī failed to see that science is not constituted primarily by knowledge of the universal concept, but by knowledge of individuals “in a universal way.” This is to say that the mind indeed knows the individual, but knows it by abstracting the common nature which exists in that individual as a universal in a state of potentiality. And just as universals existing in the mind have their foundation in universals existing in things, so too possibility as a concept must have its foundation in things outside of the mind. Otherwise, Averroes concludes, “the judgment of the mind that things are possible or impossible would be of as much value as no judgment at all, and there would be no difference between reason and illusion.”¹²

Whether we agree or disagree with Averroes is of no concern here. The point is that, in looking at this bit of controversy, we are presented with two radically different views about possibility.¹³ Not only are we confronted with a disagreement about whether possibility requires a material substratum, we are faced with the question of whether our judgments about possibility must take into consideration the way the world actually is. Insofar as Averroes and the *falāsifa* take our concepts of possibility to have their foundation in the

additional to the general [meaning], the same applies to the second differentia. There is no difference [between the two]” (TF, p. 70).

11. Ghazālī argues rather curiously that the objects of the concepts of the sciences do not exist in reality. But he does not dismiss them as being completely nonexistent. The implication is that these objects have some sort of mental existence, somewhat like what the scholastics called *esse objectivum*. Unfortunately, Ghazālī never elaborated this point. This would have thrown considerable light on his doctrine of possibility.

12. Averroes, *Tahāfut al-Tahāfut*, trans. Simon van den Bergh (Cambridge: E.J.W. Gibb Memorial Trust, 1954), p. 67.

13. For the most sophisticated and thorough analysis of the divergent views of possibility in Averroes and al-Ghazālī, see Taneli Kukkonen, “Possible worlds in the *Tahāfut al-Tahāfut*: Averroes on Plenitude and Possibility,” *Journal of the History of Philosophy* 38:3 (2000) 329–348 and Taneli Kukkonen, “Possible worlds in the *Tahāfut al-falāsifa*: Al-Ghazālī on Creation and Contingency,” *Journal of the History of Philosophy* 38:4 (2000) 479–502. The latter article also contains a helpful analysis of Ghazālī’s adoption and modification of Avicennian modal concepts.

real, particularly the potentialities of matter, they would answer affirmatively. Judgments about what is or is not possible must reflect the real potentialities of things. Ghazālī, however, in taking great pains to divorce the notion of possibility from any foundation in things would seem to answer negatively. On his view, one could simply remove oneself to the purely conceptual level without thinking at all about the way the world actually is. This, at least, seems to be the implication of his analysis of the possibility of the color black. One can make the judgment that black is possible merely through an analysis of the concept of black while ignoring the real potentiality of any body or piece of matter to be black. Possibility is completely conceptual in nature.

This view of possibility had repercussions throughout Ghazālī's thought, and, as I will show, underwrites the most famous of his positions among western scholars, viz., his denial of the necessary connection between cause and effect. In the next three sections I will examine both Ghazālī's arguments in support of this denial and a brief objection to those arguments, and then, in the section that follows, turn to the relation between these two doctrines.

II. THE DENIAL OF NECESSARY CAUSAL CONNECTION

Ghazālī's most famous treatment of causality occurs in Discussion Seventeen of the *Tahāfut*. It is there that he attacks the position, attributed to the *falāsifa*, that the connection between a cause (*sabab*) and its effect (*musabbab*) is one of necessity, such that the existence of the cause without the effect or the effect without the cause is not possible.¹⁴ He states his motivation for doing so right up front: "The contention over the first [theory] is necessary, inasmuch as [on its refutation] rests the affirmation of miracles that disrupt [the] habitual [course of nature]."¹⁵ The *falāsifa*'s position on causality, Ghazālī contends, does not allow for the existence of miracles in the sense of a departure from the natural course of events, and thus, unacceptably limits God's power over creation. To see why he thought this to be the case, let us begin by examining what necessary causal connection means in this context.

As with most of the arguments in the *Tahāfut*, Ghazālī's main target here is Avicenna. Central to Avicenna's metaphysics is the idea that every

14. Ghazālī states this position as follows:

The first is their judgment that this connection between causes and effects that one observes in existence is a connection of necessary concomitance, so that it is within neither [the realm of] power nor within [that of possibility] to bring about the cause without the effect or the effect without the cause. (TF, p. 166)

15. TF, p. 166.

contingent (i.e., caused) being has a twofold modal status corresponding to the twofold way in which it can be conceived. When considered in itself and apart from every other being, it must be considered as possible. This is because the essence of a contingent being is indifferent to existing or not existing and does not determine that being to either. Hence, that determination must be made by something outside of itself, that is, by a cause. Avicenna adds, however, that a contingent being can be considered not only in itself, but in relation to its cause as well. When this is done, it must be considered as necessary, for a cause not only determines its effect to be, but does so necessarily. Avicenna's reasoning for this is straightforward. If an effect were not rendered necessary through its cause, it would remain possible, both in itself and in relation to that cause. Thus, it would remain undetermined by its cause with respect to existence or nonexistence. This, he contends, is unacceptable because it leads to the positing of an infinite regress of causes. He explains:

[If the effect were not rendered necessary by its cause] it would still be [merely] possible, and it would be admissible that it would both exist and not exist, without being determined by one of the two states. And [even] while the cause existed it would need all over again the existence of a third thing by which existence would be determined for it rather than non-existence . . . so that thing would be another cause, and the argument would go on to infinity. But [even] if it went on to infinity, in spite of that its existence would never have been determined for it, so an existence would never have happened to it. And this is impossible.¹⁶

The upshot is that unless an effect is rendered necessary through its cause, insofar as it would remain undetermined by that cause, it would require another cause for its determination. But if that cause does not render it necessary, yet another cause would have to be posited, and the process would continue to infinity. As even this would not determine the effect to be, we must conclude that while a contingent being is possible considered in itself, it is rendered necessary through its cause.

The causal activity that Avicenna is referring to in all of this is that of the essential efficient cause (*al-sabab al-dhatiyy*).¹⁷ This is the causal activity

16. Ibn Sina, *Shifā': Ilāhiyāt (The Healing: Metaphysics)*, I, chap. 6. This passage has been taken from a collection of translations made by George Hourani appearing in his "Ibn Sina on Necessary and Possible Existence," in *The Philosophical Forum*, 4 (1972): 84. See also the parallel argument in *Shifā': Ilāhiyāt*, IV, chap. 1 of the same work. For a helpful commentary on this material, see G. Verbeke, "Le Statut de la Métaphysique," in *Avicenna Latinus: Liber de Philosophia Prima sive Scientia Divina* I–IV, trans. S. Van Riet (Louvain: E. Peeters, 1977), pp. 42–62.

17. For an overview of Avicenna's general doctrine of causality, see G. Verbeke, "Une Nouvelle Théologie Philosophique," in *Avicenna Latinus: Liber de Philosophia Prima sive Scientia Divina*, V–X, trans. S. Van Riet (Louvain: E. Peeters, 1980), pp.

that an agent exercises in virtue of causal powers rooted in its very nature. Simply put, the doctrine is that when there are no impediments to the cause's activity, given that all other causal conditions obtain, the effect flows forth of necessity. Thus, when the cause is posited, the effect must be posited as well. Now when we look at the examples Avicenna gives to illustrate how something can be rendered necessary by another, it is clear that he understands this flowing forth of the effect from its cause as an emanation from the nature of the cause that is akin to logical or mathematical entailment. He writes,

As examples, [the number] 4 is necessary of existence not by itself but on the supposition of $2 + 2$, and burning is necessary of existence not by itself but on the supposition of contact of a naturally active force with a naturally passive force, I mean of one which burns with one which is burned.¹⁸

Even though burning is a physical process that comes to be by the action of a burning agent exercising its powers upon a suitably receptive patient, its necessity mirrors the necessity of a mathematical entity, the number 4, which comes to be by the operation of adding 2 and 2. Given that this is the case, it is easy to see why Ghazālī targeted this analysis for criticism and rejected it as unacceptable. In his mind, Avicenna's emanative model of causality and his likening of the relation of causality to the logical or mathematical relation of entailment would render the chains of causation in the universe necessary in such a way that God would be unable to intervene so as to alter the course of events in any way. This would not only render miracles impossible, but would place unacceptable limitations upon God's power and providence over creation as well.

Ghazālī's first point of attack is to challenge the notion that what we normally take to be a cause and its effect are in fact conjoined by a necessary connection (*iqṭirān ḍarūrī*). He writes:

The connection between what is habitually believed to be a cause and what is habitually believed to be an effect is not necessary, according to us. But [with] any two things, where "this" is not "that" and "that" is not "this," and where neither the affirmation of the one entails the affirmation of the other nor the negation of the one entails negation of the other, it is not a necessity of the existence of the one that the other should exist, and it is not a necessity of the nonexistence of the one that

19–36. For an analysis of Avicenna on essential efficient causality in particular, see Michael Marmura, "The Metaphysics of Efficient Causality in Avicenna (Ibn Sina)," in *Islamic Theology and Philosophy: Studies in Honor of George F. Hourani*, ed. Michael E. Marmura (Albany: SUNY Press, 1984), pp. 172–87.

18. Avicenna, *Al-Najāt*, bk.I, pt. 2, treatise 1, chap. 1. This passage is cited from Hourani, "Ibn Sina on Necessary and Possible Existence," p. 79.

the other should not exist. . . . Their connection is due to the prior decree of God, who creates them side by side, not to its being necessary in itself, incapable of separation.¹⁹

Ghazālī's point is simple. What is normally taken to be a cause and what is normally taken to be its effect are logically independent such that the affirmation or denial of the existence of either entails neither the affirmation nor denial of the existence of the other. On account of this fact the connection between them is not necessary, but is a function of God creating them "side by side" (*'alā al-tasāwuq*). This is crucial since it renders the connection among events completely subject to the power of God, thus allowing the normal order of events to be overridden miraculously.

After these preliminaries, Ghazālī turns his attention to two ways in which necessary causal connection might be construed. The first is to posit genuine causal power to agents in the sublunary region and assert a necessary connection between their actions and the effects they bring about in the patients upon which they act. The example he gives is the burning of cotton by fire. On Avicenna's model, fire, as an agent of burning, will burn cotton, a suitably disposed patient, when brought into contact with it. This will happen necessarily and without fail unless there is some impediment to the fire's action or some other causal condition is not realized. Ghazālī takes issue with this, saying that "we allow the possibility of the occurrence of the contact without the burning, and we allow as possible the occurrence of the cotton's transformation into burnt ashes without contact with the fire."²⁰ Again, this is because the contact of fire with cotton and the burning of the cotton are logically independent, such that the affirmation or denial of the one is logically compatible with the affirmation or denial of the other.

To this one might object that even if we cannot intuit a logical connection between these two events, we can establish the agency of fire by appeal to the direct perception of its action upon cotton. Ghazālī, however, will not allow even this much. He counters that "observation . . . [only] shows the occurrence [of burning] at [the time of the contact with the fire], but does not show the occurrence [of burning] by [the fire] and that there is no other cause for it."²¹ This is to say that observation can at best establish that one thing occurs *with* another, not that it occurs *by* or *through* another. To put it in Humean terms, conjunction does not equal causation. Thus, one cannot establish necessary connection, or even causal agency, by appeal to the intuition of logical connection or the perception of conjunction. The first account of necessary causal connection is thereby dismissed.

From here Ghazālī turns to a second theory in which genuine causal power is denied of substances in the sublunary region and attributed to a

19. TF, p. 170.

20. TF, pp. 170–71.

21. TF, p. 171.

bestower of forms (*wāhib al-suwar, dator formarum*), either an angel, intellect, or some other celestial being. According to this theory the most that sublunary causes contribute to the bringing about of an effect is to prepare the matter in such a way that it is disposed to receive a particular form. The actual production of the form in that matter is due to the action of the celestial cause. Fire, for example, may act to dispose cotton for the reception of the form of heat, but the form itself is given only by the celestial cause. Fire is not the true agent of burning.

While this account denies genuine agency to terrestrial causes, for all practical purposes it posits the same necessary connection between them and their effects. As the celestial causes exercise their causality necessarily and in an unvarying manner, any difference in the outcome of their action must be attributed to the differing dispositions of the various matters upon which they act and not to a difference in the activity itself. What this entails is that where there is no difference of disposition there can be no difference of outcome. Thus, if the same fire approaches two similar pieces of cotton, since it will dispose them similarly, it is unimaginable that the same result, burning, should not occur. So, even if fire has no genuine causal power, given the unvarying causal activity of the celestial causes and its own capacity to dispose cotton in a certain way, burning is the necessary outcome of its contact with cotton.

As with the first account, Ghazālī is not persuaded that necessary connection can be established in this way. He explains:

We do not concede that the principles do not act by choice and that God does not act voluntarily. . . . If, then, it is established that the Agent creates the burning through His will when the piece of cotton comes into contact with the fire, it becomes rationally possible [for God] not to create the burning with the existence of the contact.²²

As a good Ash'arite, Ghazālī agrees that fire does not have genuine causal agency, but he is unwilling to concede to the proponents of this theory that the true agent of burning—in his view, God—acts by the necessity of its nature.²³ Indeed, it is a leitmotif of the *Tahāfut* that God is a volitional agent

22. TF, p. 173. For Ghazālī's defense of God as a voluntary agent against the necessitarianism of Avicenna's emanationist scheme, see Discussion Three of the *Tahāfut*. For an excellent treatment of this material, as well as Averroes's response to it, see Barry S. Kogan, *Averroes and the Metaphysics of Causation* (Albany: SUNY Press, 1985), chap. 2.

23. That Ghazālī denies causal power to creatures is a contested claim that divides those commentators who see him as an Ash'arite occasionalist and those who do not. In support of the claim we might cite the following explanation for the burning of the cotton that Ghazālī himself puts forth:

The one who enacts the burning by creating blackness in the cotton, [causing] separation in its parts, and making it cinder or ashes, is God,

who acts by the free choice of his will. What this means is that differences in the outcome of God's action can be attributed to differences in the divine will, and not to differences in the dispositions of the matter upon which that will operates. Applying this to fire and cotton, it means that God may cause cotton to burn upon its contact with fire in some cases and may not cause it to burn in others, even if the circumstances in all of the cases are identical. Hence, once the volitional nature of divine agency is introduced, there is no basis for positing necessary connection between putative causes and their effects. This second manner of construing necessary connection is thereby dismissed as well.

III. THE ARGUMENT OF THE *IQTİŞĀD*

Before moving on in our analysis of the *Tahāfut*, it will be helpful to supplement the discussion with a brief look at some material on causality that is found in Ghazālī's *Iqtīṣād fī al-I' tiqād*. Composed on the model of an Ash'arite theology manual, this treatise contains a systematic and positive statement of Ghazālī's theology, as well as his most detailed treatment of causality outside of the *Tahāfut*. Its importance for us lies in its explicit articulation and defense of Ash'arite occasionalism against the Determinists (*Mujbira*) and the Mu'tazalites, two groups Ghazālī viewed as holding erroneous views on causality.²⁴

either through the mediation of His angels or without mediation. As for fire, which is inanimate, it has no action. For what proof is there that it is the agent?

In fairness to those who question his Ash'arite commitments we must keep in mind that Ghazālī may just be putting forth this view as a possible alternative to the view he is criticizing. Since this is a common practice in the *Tahāfut*, his intention may not be to argue for its truth. In support of this, we must also keep in mind that he goes on to offer a modified Aristotelian account of causality that he clearly thinks is compatible with the existence of miracles. In this account causal power is granted to creatures, but its exercise is made dependent upon God so that it can be overridden at any time. The question remains, then, as to which of these theories, the Ash'arite or the modified Aristotelian, did Ghazālī advocate? Here I follow Marmura's lead in thinking that the answer cannot be settled by appeal to the *Tahāfut* alone. One need look elsewhere for Ghazālī's definitive view. Following Marmura again, I see that question as being resolved in the *Iqtīṣād fī al-I' tiqād*, the argument of which I take up in the next section. For an extended treatment of this question, see Michael E. Marmura, "AlGhazālī's Second Causal theory in the Seventeenth Discussion of His *Tahāfut*," in *Islamic Philosophy and Mysticism*, ed. Parvizi Morewedge (Delmar: Caravan Books, 1981), pp. 85–112.

24. All citations from this work are from the translation found in Michael Marmura, "Ghazālī's Chapter on Divine Power in the *Iqtīṣād*," *Arabic Sciences and Philosophy*, 4 (1994): 279–315. I will be following the pagination of the Ankara edition of the *Iqtīṣād* edited by I.A. Cubuçu and H. Atay that Marmura inserts in his translation.

Following standard Ash'arite doctrine, Ghazālī thought it necessary to attribute power (*qudra*) to certain created beings in order to account for the difference between voluntary and involuntary actions.²⁵ Any action that is truly voluntary falls under the power of the agent performing it, while involuntary actions fall under no such power. This, he asserts, distinguishes the Ash'arite position from that of the Determinists, who deny power to God's servants and are accordingly unable to differentiate between voluntary and involuntary actions, for example, the willful movement of the hand and a tremor or spasm. Be that as it may, neither the Ash'arites nor Ghazālī took sides with the Mu'tazilites, who understood the power of created agents to be genuinely causal in nature.²⁶ Instead, they argued that the power of a created agent by which an voluntary action can be attributed to it is created simultaneously with that action and is not the cause of that action coming to be. Such causal power belongs exclusively to God.

Ghazālī's argument for this thesis is simple: it is impossible for two powers to be related as cause to a single object of power. This is because if there were two such powers, they would have to be either equal or unequal. However, since causal powers can be neither equal nor unequal with respect to a single object of power, there cannot be two such causal powers.

To illustrate this point Ghazālī asks us to imagine that God and a created agent each have causal power over a single object—say the movement of the agent's hand—and that the created agent wills to continue moving its hand while God wills that movement to cease. He then asks us to consider the case in which these powers are equal. If they are equal, one of two consequences will ensue. Either that which each wills comes to pass and the agent's hand both comes to rest and keeps moving, or that which each wills does not come to pass and the agent's hand neither comes to rest nor keeps moving. Since both of these consequences are clearly absurd, it cannot be the case that these causal powers are equal.

Turning to the alternate case—the case in which these powers are unequal—Ghazālī identifies a problem here as well. He explains:

25. For some background to Ghazālī's views on these matters, particularly the doctrines of determination (*qadar*), power (*qudra*), and acquisition (*kashb*), see al-Ash'ari, *Kitāb al-Lum'a*; chap. 5–6. A translation of this work may be found in Richard J. McCarthy, S.J., *The Theology of Al-Ash'ari* (Beirut, Imprimerie Catholique, 1953), pp. 53–96.

26. Ghazālī's characterizes their position as follows:

The Mu'tazilites . . . have undertaken to deny the connection of the power of God, exalted be, with the act of [His] servants, of animals, of angels, of the jinn, and of devils, claiming that all that proceeds from them is the creation and "invention" (*ikhtirā*) of [His] servants, God having no power over [these acts] either by way of denial or the bringing of them into existence. (*Iqtisād*, p. 87)

The connection of one power with one movement is no better than the connection of the other power with it, since the bestowed [end result] of both [powers] is invention *ex nihilo* (*al-ikhtirā*). [Rather, God's] strength is only with respect of His overpowering another and His overpowering another is not [something] preponderant in the movement under discussion, since the lot of motion [given] by each of the two powers consists in its being [something] invented *ex nihilo* by [the power]. But invention *ex nihilo* is the same. It thus has neither [what is] stronger nor [what is] weaker so as to include [the notion of] preponderance.²⁷

Although a bit obscure, Ghazālī's point is that the power to move the hand or to bring it to rest is really the power to create motion or rest in the hand *ex nihilo*. This is a standard Ash'arite view. Now since the power to create *ex nihilo* does not admit of degrees, if both God and the created agent have causal power with respect to the hand, neither could override what the other wills. In that case, their powers could not be unequal.

In light of the above, Ghazālī thinks himself justified in denying causal power to created agents, though he does feel a need to attribute power of some sort to them in order to distinguish between voluntary and involuntary actions. The exact nature of this power is left unspecified, but he is emphatic that "the object of power is not through the power of the servant, even though it exists with him."²⁸ Because of this, the titles of 'creator' (*khāliq*) or 'inventor' (*mukhtari*) must be withheld from created agents since these belong properly to "one who brings about the existence of a thing through his own power."²⁹ Even more must these titles be withheld from inanimate beings, for

27. *Iqtisād*, p. 91.

28. *Iqtisād*, p. 92.

29. *Iqtisād*, p. 92. This point is reiterated in Ghazālī's *Ar-Risala al-Qudsiyyah* (*The Jerusalem Tract*), a short systematic treatise of fundamental theology inserted into the second book of his encyclopedic religious work, *Ihyā' 'Ulūm al-Dīn* (*Revival of the Religious Sciences*). He writes:

The first fundamental [of the third pillar of faith]: the knowledge that everything originated in the universe is His work, creation, and invention. None other than Him is creator and originator. He created men and created their actions, and initiated their capacity (*qudrah*) and their movement (*harakah*). Thus all the actions of His servants are created by Him and dependent upon His power (*qudrah*).

He then goes on:

The second fundamental: God is the sole creator of His servants' actions (*ḥarakāt*), but these are also within the capacity (*qudrah*) of the servants through acquisition (*iktisāb*). For God most high created both the capacity and what it can accomplish, the choice and the chosen.

Cited from the translation found in A. L. Tibawi, "al-Ghazālī's Tract on Dogmatic Theology, Edited, Translated, Annotated, and Introduced," *Islamic Quarterly* 9

if . . . we deem it impossible to say that an object of power occurs through a created power [i.e., a power of an animate being], how would we not deem impossible an occurrence through that which is not a power [i.e., an inanimate being]?³⁰

What was implicit in the *Tahāfut* is now explicit in the *Iqtīṣād*. Causal power is assimilated with creative power and both belong solely to God.

IV. THE SPECTER OF SKEPTICISM

Now that we have outlined some of the basic features of Ghazālī's critique of causality, we need to look at his response to an objection he formulates on behalf of the *falāsifa* in order to set up our analysis of the relation of his views on possibility to that critique. In brief, the objection is that the Ash'arite account of causality, denying as it does any intrinsic or necessary relation between observed causes and effects, opens the door to radical skepticism. If the conjunction of any putative cause with its putative effect is due solely to the choice of God to conjoin them in that particular instance, and if God's choice in this matter is both free and unencumbered by external constraints, he could equally well conjoin that putative cause with any other putative effect, or with no effect whatsoever. Thus, in the words of Ghazālī's objector, every person must "allow the possibility of there being in front of him ferocious beasts, raging fires, high mountains, or enemies ready with their weapons [to kill him], but [also the possibility] that he does not see them because God does not create for him [vision of them]."³¹ Extending this line a bit

(1965): 109–10. It is in light of this that we must interpret Ghazālī's statements elsewhere in the *Ihyā'* that both God and creatures are agents. In book 35 of that work, he compares the relation between a human and God to the relation between an executioner and Emir, arguing that as both are agents of the execution, so must humans be considered agents in addition to God. In both cases, however, the sense of agency is analogical. Speaking of humans and God, he writes:

The sense in which God most high is agent is that He is the originator of existing things [*al-mukhtari' al-mawjūd*], while the sense in which a human being is an agent is that he is the locus [*maha*] in which power is created. (*Ihyā'*, bk.35 pt. 1. [Cited from an unpublished translation, forthcoming Fons Vitae Press, 2000 kindly provided to me by David Burrell])

In view on of the above discussion of from the *Iqtīṣād*, however, we should not interpret the power (*qudra*) by which humans are agents as a properly causal power. Thus, the example should not be taken as implying real secondary causal power in the created agent.

30. *Iqtīṣād*, p. 99. The material inside the brackets has been added by me.

31. TF, pp. 173–74.

further, the objector points out that Ghazālī's position also renders it possible for any one kind of thing to change into any other kind of thing whatsoever, no matter how unrelated those two kinds of things may be. For example, a man who left a book at home, upon his return, might find that it had changed into a boy. Or he might find that a boy had changed into a dog, or that ashes had changed into gold. The possibilities are endless. Drawing out the skeptical consequences, Ghazālī writes:

If asked about any of this, he ought to say: "I do not know what is at the house at present. All I know is that I have left a book in the house, which is perhaps now a horse that has defiled the library with its urine and its dung, and that I have left in the house a jar of water, which may well have turned into an apple tree. For God is capable of everything, and it is not necessary for the horse to be created from the sperm nor the tree to be created from the seed—indeed, it is not necessary for either of the two to be created from anything."³²

Since all of these transformations of disparate things into one another fall within God's power, and since there is no necessity in the normal sequence of generation (e.g., a horse from sperm, a tree from seed), we cannot know what will arise from what at any given time.

In light of these consequences, the objector points out the obvious. Given that we must rely on causal inferences for our knowledge of the world and our ability to navigate our way through it, Ghazālī's position entails that we must face the world with no expectations and adopt a position of skeptical uncertainty. Radical skepticism is the fallout of Ghazālī's critique of causality.

Ghazālī's response to all of this is instructive. Standing firmly upon his Ash'arite convictions, he does not deny that any of these conjunctions and transformations could take place. They are all perfectly possible according to his view. Instead, he argues that these possibilities need not lead us into skepticism. To make his case he invokes what he calls the habitual course of nature (*ijrā' al-'ada*). This is simply the sequence of events in nature that God habitually brings about. The idea is that although God is free to bring about whatever he desires in any order at all, the actual sequence of events that he creates in the world is regular. So while God could very well bring a horse to be from a book, he regularly brings it to be from the seed of another horse. This, Ghazālī contends, insures the reliability of the judgment that the book one left at home will not have been transformed into a horse upon one's return. Thus, our causal inferences need not be abandoned and we need not retreat into skepticism, even though there is no necessity in the order of events nor

32. TF, p. 174.

any genuine causal connection among them at all.³³ Furthermore, in case we are troubled about our habitual judgments being falsified by a miracle, Ghazālī assures us that when God does depart from the habitual course of nature, “these cognitions [of the nonoccurrence of such unusual possibilities] slip away from [people’s] hearts, and [God] does not create them.”³⁴ In other words, when God acts miraculously he refrains from creating the habitual judgment in us and substitutes instead a judgment in conformity with his actions. Even miracles need not threaten our epistemic security and skepticism is held at bay.

It should now be clear just how radical a departure Ghazālī has made from the Aristotelianism of the *falāsifa*. While he tries to blunt the skeptical consequences of his position by appeal to God’s habitual co-creation of putative causes and effects, he nevertheless concedes that his views entail that any one thing may come to be out of any other thing, whether this is understood in terms of an effect coming to be from its efficient cause or the generation of one thing out of another. Such a view puts Ghazālī in fundamental opposition to anyone holding significant Aristotelian commitments concerning causality and change. Since the precise nature of this opposition reveals much about the way in which his views on possibility underlie his critique of causality, it is worth exploring a bit further. We shall focus on the case of generation.

V. POSSIBILITY AND THE RELATIVITY OF POTENTIALITY

According to Aristotle, the form of a given type of substance cannot be realized in just any kind of matter. Rather, it must be realized in matter that is in proximate potentiality to it. For example, just as the form of a saw cannot be realized in wood but requires metal, so too the human form cannot be realized in silicon but requires organic matter of a certain type. We can see why this is the case if we consider that Aristotle takes the matter of a composite substance to be composed ultimately of elements—earth, air, fire, and water—mixed together in various proportions.³⁵ Each of these elements has certain active and passive powers—hot or cold, dry or wet—that are derived from their forms. When diverse elements are combined new sets of active and passive powers emerge in the resulting mix-

33. For a detailed treatment of how Ghazālī conceives of deductive science and the theory of demonstration without committing himself to real efficient causality within the created order, see Michael E. Marmura, “Ghazālī and Demonstrative Science,” *Journal of the History of Philosophy* 3 (1965): 183–204.

34. TF, p. 175.

35. For Aristotle’s account of the elements and the primary contraries through which they are differentiated, see *De generatione et corruptione*, II chap. 1–3, 328b26–331a6.

tures. These mixtures, Aristotle insists, are not merely aggregations of elements, but are entirely new substances that possess potentialities not found in the elements from which they are composed.³⁶ This process can continue as these substances combine, whether as mixtures or not, into further combinations to yield yet further sets of potentialities not present at the previous levels. Various kinds of matter at various levels of complexity thus exhibit diverse potentialities that render them fit to stand as the proximate subjects of certain kinds of forms and not others. As a result, the range of forms possible for a given kind of matter is delimited by the particular set of potentialities which that matter possesses.

In light of this analysis it is clear that for Aristotle it is not the case that just anything can be changed into or be generated out of just anything else. That a book be transformed immediately into a horse or a boy would strike him as absurd and impossible. The simple reason is that the matter of the book, due to the particular configuration of active and passive powers it possesses, does not stand in proximate potentiality to the form of a boy or a horse. Both a boy and a horse, as living organisms, have as proximate matter the various organs and organ systems of which they are composed. And though these organs and organ systems stand as matter relative to the organism as a whole, they are the actualization of more a basic matter that is in remote potentiality to that organism—in this case various kinds of organic tissue, and ultimately, the elements themselves. Aristotle spells out these levels of material composition as follows:

Now there are three degrees of composition; and of these the first in order . . . is composition out of what some call the elements, such as earth, air, water, fire. . . . The second degree of composition is that by which the homogeneous parts of animals, such as bone, flesh, and the like, are constituted out of the primary substances. The third and last stage is the composition which forms the heterogeneous parts, such as face, hand, and the rest.³⁷

To think that a complex organism such as a boy or a horse could be generated from a book is to overlook the fact that each level of matter provides the unique potentialities, active and passive, necessary for the realization of a particular form at the next level.

It is here that we arrive at a point of fundamental and irreconcilable opposition between the Aristotelian and Ghazālian views. Recall from our initial discussion that in the course of arguing for the eternity of the world the *falāsifa* took possibility to require a substratum. Following Aristotle, they identified this substratum with matter. It should now be clear that what this

36. For Aristotle's general analysis of mixture, see *De generatione et corruptione*, I, chaps. 9–10, 327a30–328b25.

37. *De partibus animalium*, II, chap. 1, 646a12–24, Trans. William Ogle in Richard McKeon, ed., *The Basic Works of Aristotle* (New York: Random House, 1941).

position entails is that the possible with respect to what can come to be is determined by the actual constitution of matter insofar as the possible is a function of the potentialities inherent in that matter. And as the potentialities inherent in any given matter are always relative to its particular constitution, that constitution limits and defines possibility. It is now clear that Ghazālī's position stands as a direct challenge to this view. In arguing that a boy or a horse may come to be from a book, though they do not do so in the normal course of events, he completely ignores the relativity of potentiality to matter and altogether severs the connection of possibility from both. This should come as no surprise, since in his criticism of the fourth proof for the eternity of the world it is the assumption that possibility requires a substratum that he picks out as his prime target of attack. After subjecting the *falāsifa's* position to severe criticism he counters that possibility is merely conceptual, a function of the coherence of concepts, and proclaims that "to refer possibility, necessity, and impossibility back to rational judgments is correct."³⁸ In maintaining this position he effectively eliminates any link between possibility and potentiality.

None of what has just been said is meant to imply that Ghazālī believes that just anything can be transformed in just anyway whatsoever absolutely and without qualification. The possible, while not a function of the potentialities of matter, is still limited to the conceptually coherent. In some remarks concerning the possibility of God creating knowledge in an inanimate being, Ghazālī makes this clear. He argues that just as God cannot create will in a person in the absence of knowledge, since volition implies the seeking after what is known, so God cannot create knowledge in the absence of life. His reasoning is simple: "we understand by the inanimate that which does not apprehend. If apprehension is created in it, then to call it inanimate in the sense we have understood becomes impossible."³⁹ This is an interesting example because it seems to conform to a broadly Aristotelian account. From an Aristotelian perspective a non-living body is not in proximate potentiality to an apprehensive act, whether that act be sensitive or intellective. Thus, apprehension cannot occur in such a body unless that body is first made to be living and is endowed with certain requisite powers. In this sense, life is a condition of knowledge, and it is impossible that knowledge exist in a body without it. Ghazālī too recognizes this as a relation of conditioned (*masharūf*) to condition (*sharṭ*); he even argues that God cannot create what is conditioned without its condition.⁴⁰ But his

38. TF, p. 44.

39. TF, p. 179.

40. For example, he writes in his *Ihyā' 'Ulūm al-Dīn*:

Certain powers [*maqdurāt*] are ordered to others by way of origination [*ʿil-hadūth*] as the conditioned is ordered to its condition. Thus it is that will only emanates from eternal omnipotence after knowledge, and knowledge after life, and life only after the locus of life. (*Ihyā'* bk.35, pt. 1)

reasoning here does not follow Aristotle. Instead, he argues that the creation of knowledge in the absence of life is impossible because “we understand by the inanimate that which does not apprehend.” This is to say that its impossibility does not lie in the absence of potentiality on the part of nonliving matter for perception, but because it is part of the very concept of an inorganic or nonliving thing that it does not perceive. Thus, while life is a condition of apprehension, it has the nature of a logical condition, as that which is logically required by apprehension.⁴¹ It is precisely in this sense that God cannot create what is conditioned without its condition.

The implications of all of this are enormous. First, it allows Ghazālī to bring a much broader range of phenomena within the domain of the possible and, by extension, greatly expand the range of God’s power over creation. In addition, it allows Ghazālī to subvert Aristotle’s entire account of change. No longer is one bound to consider the potentialities of matter when considering the possibility of one thing, whether substance or accident, changing into or being generated out of another. Such considerations are irrelevant. In fact, one could even go so far as to argue that Ghazālī strips matter of all potentiality whatsoever. As we have seen, for Aristotle, the potentialities of matter are always determinate, that is, they are always potentialities for some kind of form or another and never for just any form whatsoever. This is because matter is itself always of a determinate kind insofar as it always is actually such by form. Thus, potentiality is always a feature of an actual something (an element, a tissue, an organ, etc.) and is determined by the nature of that thing. Furthermore, Aristotle does not treat potentiality as mere passivity. Even passive potentialities are genuine capacities—capacities both to be acted upon by particular kinds of active powers and to be transformed into particular types of actualities. Ghazālī’s account denies both of these features. It reduces all material beings to a state of complete passivity and treats their passivity as being completely indeterminate. Because of this they can be immediately transformed in any

41. Note Ghazālī’s statement in the *Iqtisād* that “the impossible is not enactable by power and the existence of the conditioned without the condition is unintelligible.” (*Iqtisād*, p. 97). He reiterates this in the following passage from the *Ihyā’*: “What follows only follows because it awaits its condition; a conditioned before a condition would be absurd, and absurdity cannot be ascribed to the being of an object of divine omnipotence” (*Ihyā’* bk. 35, pt. 1). In both of these cases, Ghazālī claims that the creation of the conditioned without the condition is impossible, unintelligible or absurd, and that it does not fall within God’s power to do so. But once we juxtapose these claims with the following from the *Tahāfut*, we see that he clearly is conceiving the relation of conditioned to condition as being logical in nature:

The impossible is not within the power [of being enacted]. The impossible consists in affirming a thing conjointly with denying it, affirming the more specific while denying the more general, or affirming two things while negating [one of them]. What does not reduce to this is not impossible, and what is not impossible is within [divine] power. (TF, p. 179)

way or into anything by the direct action of God, with the sole proviso that this does not exceed the limits of the conceptually possible.⁴²

VI. POSSIBILITY AND THE CRITIQUE OF CAUSALITY

Given the conclusions just set forth we are now in a position to see the relation between Ghazālī's views on possibility and his critique of causality. We may begin with the *Iqtīṣād*, recalling that in his argument against treating the power of created agents as causal Ghazālī makes it clear that he interprets causation as creation *ex nihilo*. Thus, when a piece of matter or a substance is transformed by God creating accidents in it, there is no sense in which they are caused to be from potentialities inherent in that matter or substance. Rather, they arise entirely out of nothing. This, of course, makes perfect sense if one strips matter of all potentiality and assimilates real to logical possibility. If one denies that the accidents of a substance come to be out of the potentialities of that substance, it is but a short step to conceiving of them as coming to be *ex nihilo*. After all, Aristotle's own theory of potentiality was motivated in part to answer the Eleatic denial of change on the ground that change would require the absurdity of being coming to be from nonbeing *simpliciter*. If one were to jettison Aristotle's theory while continuing to affirm the reality of change, one might find oneself embracing exactly what the Eleatics (and Aristotle for that matter) found unacceptable. As an Ash'arite, this result did not bother Ghazālī. He reconceived all causal power as creative power, and then, after arguing for the impossibility of two agents being related to a single object of power as cause, he asserted the central thesis of Ash'arite occasionalism, viz., that God is the sole causal agent. What we see in the *Iqtīṣād*, then, is a denial of causal power to created agents that is coupled with an account of created substance entirely devoid of potentiality.

We can see much the same thing in Ghazālī's discussion of necessary causal connection. Recall that the burden of the argument in the *Tahāfut* is to show that there is no necessary connection between putative causes and their effects. Not only is experience insufficient to establish such a connection (it establishes conjunction only), but reason fails as well. Ghazālī's

42. Ghazālī can thus imagine, as he does in the *Tahāfut*, such oddities as a corpse which, while remaining lifeless, God causes to sit up and write a coherent and well ordered manuscript. "[This] in itself is not impossible," he comments, "as long as we turn over [the enactment of] temporal events to the will of a choosing being. It is only disavowed because of the continuous habit of its opposite occurring" (TF, p. 180). While God does not habitually create the accident of coherent writing in a corpse, there is nothing impossible in him doing so, despite the fact that such activity, from an Aristotelian perspective, is not within the potentialities of a corpse.

point here is that the positing of any putative cause, say the contact of fire with cotton, does not entail its putative effect, say the burning of the cotton. It is logically possible that such transformation as normally occurs upon the contact of agent with patient not take place. In fact, from the standpoint of logic alone, we have no more reason to believe that any particular effect will follow from this contact than any other effect or no effect at all. Putative causes and their effects are not related logically as condition and conditioned and can thus be separated from one another.⁴³ What Ghazālī concludes from this is not that necessity should be reconceived as being grounded in the powers and dispositions of agents and patients, but that putative causes and their effects are related only by the relation that God freely establishes between them insofar as he habitually creates them in conjunction with one another.

In saying this Ghazālī is just extending his reduction of real to logical possibility by providing the same analysis for necessity. Recall that the *falāsifa*, in following Aristotle, took causality to be the result of the conjunction of coordinate potentialities in an agent and patient. Barring some impediment, when the active potentialities of an agent are brought into contact with coordinate passive potentialities of a patient, that patient is necessarily subjected to the action of the agent and undergoes some transformation. Necessary connection between a cause and its effect is thus rooted in the coordination of active and passive powers belonging to the agent and patient respectively. Hence, it is a function of the actual constitution of those entities. This, however, is exactly what Ghazālī denies. Just as he refuses to treat possibility as requiring a substratum and denies that it is grounded in the actual constitution of things, so too he refuses to concede an ontological ground for necessity. Logical necessity is the only kind of necessity he recognizes, and it, like logical possibility, is determined at the purely conceptual level. By this standard Ghazālī is easily able to dismiss necessary causal connection as a dangerous fiction in the mind of *falāsifa*. He need only make the point that no entailment relation holds between putative causes and their effects. Any appeal to innate powers and dispositions is rendered ineffectual and the metaphysics of causality put forth by the *falāsifa* collapses.

43. That putative causes and effects are not related as condition to conditioned, but as mere concomitants is made explicit in the *Iqtīṣād*. Ghazālī writes:

As for the concomitants that do not constitute a condition, it is possible for them, according to us, to be disconnected from the connection with that with which [each] was a concomitant. Rather, its concomitance is due to the continuous habit as with the burning of cotton when it is contiguous with fire and the occurrence of coldness in the hand at the touch of snow. For all of this is continuous by virtue of the course of the custom of God, exalted be He. (*Iqtīṣād*, p.97)

VII. CONCLUSION

We may now take a quick inventory of results. Our primary purpose has been to establish the foundations of Ghazālī's critique of causality in his theory of possibility. What we have seen is that insofar as he denies that possibility requires a substratum in matter and reduces it to a judgment of the intellect Ghazālī divorces considerations of possibility from considerations of the actual constitution of a substance with respect to its potentialities. This, I have argued, provides the background for his critique of causality as it is found in both the *Iqtīṣād* and the *Tahāfut*. The case of the *Iqtīṣād* is perhaps clearest since it is there that Ghazālī explicitly identifies causal power with the power to create *ex nihilo*. But even in the *Tahāfut*, where this identification is never made explicit, reliance upon a logicized conception of possibility and necessity is evident throughout. What Ghazālī's critique of causality allows us to see, then, is not just an analysis that anticipates significant features of those given by philosophers such as Autrecourt, Malebranche, and Hume, but the way in which the rejection of an Aristotelian inspired account of causality can be conjoined to and supported by an account of possibility divorced from metaphysical notions of potentiality. In this Ghazālī takes his place as both a sophisticated defender of Ash'arite orthodoxy against the *falāsifa* and an important figure in the theological assessment of the Greek philosophical inheritance that so occupied the medieval world.