

# The Theologian's Doubts: Natural Philosophy and the Skeptical Games of Ghazālī

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In the history of skeptical thought, which normally leaps from the Pyrrhonists to the rediscovery of Sextus Empiricus in the sixteenth century, Abū Ḥāmid Muḥammad al-Ghazālī (1058-1111) figures as a medieval curiosity. Skeptical enough to merit passing acknowledgment, he has proven too baffling to be treated fully alongside pagan, atheist, or materialist philosophers. As a theologian defending certain Muslim dogmas, Ghazālī has not met what historians consider the mark of the true skeptic, a mind doubting the possibility of all systems of knowledge. But what is fascinating about him is that he brought into practical operation the tools of what I call “functional skepticism.”<sup>1</sup>

He denied the claims to truth of Aristotelian physics—whose basis he showed to rest on groundless belief—then turned and argued for the possibility of the Resurrection tooth and nail. The scholarly debate on *The Incoherence of the Philosophers* (*Tahāfut al-falāsifa*) has concentrated on the extent to which Ghazālī qua Ashʿarite theologian was seduced into Aristotelian philosophy despite himself.<sup>2</sup> In my view this debate has been misguided in the attempt to distill the

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<sup>1</sup> This form of skepticism is different from the fideist anti-dogmatic skepticism of the Reformation Catholics, on which see Richard H. Popkin, *The History of Scepticism from Erasmus to Descartes* (New York, 1964); also Christopher Hookway, *Skepticism* (London, 1999); Miles Burnyeat (ed.), *The Skeptical Tradition* (Berkeley, 1983); Michael Williams (ed.), *Skepticism* (Aldershot, 1993).

<sup>2</sup> AlGazel, *Tahāfut al-Falāsifat*, ed. M. Bouyges (Beirut, 1927), henceforth abbreviated as TF. I give references first by discussion or chapter in Roman numerals, then by page and line in Arabic numerals. Translation in Averroës, *Tahafut al-Tahafut (The Incoherence of the Incoherence)*, tr. S. Van Den Bergh (London, 1978<sup>2</sup>), I; also Al-Ghazālī, *Tahafut al-Falāsifah*, tr. S. A. Kamali (Lahore, 1958), and Al-Ghazālī, *The Incoherence of the Philosophers*, ed. and tr. Michael

essence of Ghazālī from the book's eclectic theology; I will argue for a different view of Ghazālī on the basis of a close reading of key passages. In the unusual sections where Ghazālī applies Aristotelian language to a world not following the ordinary laws of physics, some have found Ghazālī slipping, unconsciously perhaps, into an Aristotelian frame of mind. I will show that, as a skeptical theologian with a dialogic imagination, he was rather deconstructing Aristotelian discourse while playing a Wittgensteinian sort of language game.

### Natural Philosopher or Speculative Theologian?

The disagreement about the extent to which philosophy infected Ghazālī is ancient. Ghazālī might have studied philosophy only in order to refute it. He himself defended his philosophizing with the claim that one cannot deconstruct a system of thought until one has understood it so deeply as to elaborate upon its fundamental principles.<sup>3</sup> His *Maqāṣid al-falāsifa* was in fact received, especially in trans-Pyrenean Europe, as a philosopher's genuine summary of the object of philosophy.<sup>4</sup> The book strikes me as suspiciously creative in its representation of philosophical discourse, but it appears in any case as an expert and surprisingly unbiased treatment.<sup>5</sup> Arabic readers knew that Ghazālī had also written a polemical treatise against philosophy, *Tahāfut al-falāsifa*, but they still wondered about his engagement with the ideas he challenged. Abū Bakr Ibn al-ʿArabī, for example, commented that Ghazālī had been unable to extricate himself from philosophy.<sup>6</sup> Other philosophers pondered whether or not he had been a closeted member of their charmed circle and sought in his writings traces of esoteric philosophy.<sup>7</sup>

Averroës's own sober sense of distance between philosophy and theology was partially a reaction to what he perceived as Ghazālī's dangerous and care-free mixture of the two sciences.<sup>8</sup> He attacked Ghazālī's book in *The Incoher-*

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Marmura (Provo, Utah, 1997). I refer to the standard edition (TF) and, for long passages, to Marmura's translation; but all translations here are mine.

<sup>3</sup> Ghazālī, *al-Munqidh min al-Ḍalāl*, ed. J. Saliba and K. ʿAyyād (Beirut, 1973), 94-95.

<sup>4</sup> See *Algazel's Metaphysics: A Medieval Translation*, ed. J. T. Muckle (Toronto, 1933); and see D. Salman, "Algazel et les Latins," *Archives d'histoire doctrinale et littéraire du Moyen Age*, 10/11 (1935-36), 103-27; and Marie-Thérèse d'Alverny, "Algazel dans l'Occident latin," in *La transmission des textes philosophiques et scientifiques au Moyen Age*, ed. Ch. Burnett (Norfolk, 1994), 3-24.

<sup>5</sup> See *Maqāṣid al-Falāsifa*, 189-92; 118, 119.

<sup>6</sup> Ibn Taymiyya, *Majmūʿ fatāwā shaykh al-Islām*, ed. ʿAbd al-Raḥmān b. Muḥammad b. Qāsim al-ʿĀsimī al-Najdī (Riyād, 1381-3 A.H.), IV, 66; X, 551-52. Elsewhere Ibn al-ʿArabī characterizes him positively.

<sup>7</sup> Ibn Ṭufayl, *Ḥayy ibn Yaqzān*, ed. Zawāwī Baghūra (Algiers, 1989), 16-19; also H. Lazarus-Yafeh, *Studies in al-Ghazālī* (Jerusalem, 1975), ch. 5.

<sup>8</sup> See George Hourani, *On the Harmony of Religion and Philosophy (Kitāb faṣl al-maqāl)* (London, 1961), 26-27, 34-35, 40; and Majid Fakhry, *Islamic Occasionalism* (London, 1958), 16, 103-26.

ence of the Incoherence to restore philosophy's sense of purity, an aim he sought to accomplish by separating religious concerns from the philosopher's field of inquiry.<sup>9</sup> Ironically, such a separation is precisely what Ghazālī might have wished to provoke by crisscrossing and blurring the line between religion and philosophy.

The modern debate on chapter 17 of *Tahāfut al-falāsifa* has concentrated on defining Ghazālī as either a natural philosopher or an occasionalist theologian. In his defense of the possibility of miracles Ghazālī presented two theories of causation, one denying the logical basis of Aristotelian notions of natural causality, and the other more or less adopting these notions. Jointly, the two theories have seemed incompatible, and for this reason scholars have attempted to sort Ghazālī out of the apparent confusion. In 1978 L. E. Goodman argued persuasively that Ghazālī exploited rather than denied the philosophers' ideas of causality. In two articles Michael Marmura challenged Goodman, contending instead that Ghazālī was a square Ash'arite occasionalist.<sup>10</sup> Why did this debate split along these lines?

Since Descartes's disciple, Malebranche—if not since Maimonides and William of Ockham—occasionalist metaphysics has appeared in sharpest contrast to Aristotelian physics, and even outrightly incompatible with it.<sup>11</sup> Whereas natural philosophy relies on the notion of natural necessity operating between events linked logically, occasionalism relies on the notion of direct, divine agency operating on events linked contingently. Thus, for instance, an extreme occasionalist such as Ṣāliḥ “Qubba” thought, according to Ash'arī, that God could maintain a

<sup>9</sup> E.g., Averroës, *Tahāfut al-tahāfut*, ed. M. Bouyges, in *Bibliotheca Arabica Scholasticorum*, III (Beirut, 1930), 527-528.

<sup>10</sup> L. E. Goodman, “Did Al-Ghazālī deny causality?,” *Studia Islamica*, 47 (1978), 83-120, especially 88, 97, 103-4, 108, 110, 118. Michael E. Marmura, “Al-Ghazālī's Second Causal Theory in the 17th Discussion of his *Tahāfut*,” in *Islamic Philosophy and Mysticism*, ed. Parviz Morewedge (New York, 1981), 85-112, and especially 74 (n. 55), 50, 59-65. Marmura, “Al-Ghazālī on Bodily Resurrection and Causality in *Tahāfut* and the *Iqtisad*,” *Aligarh Journal of Islamic Thought*, 1 (1989), 46-75, and especially 86, 91-92, 97-103. See also Simon Van Den Bergh, *Averroës' Tahāfut al-Tahāfut (The Incoherence of the Incoherence): Notes* (London, 1978<sup>2</sup>), II, 184, note on I.329.5. Majid Fakhry, *Islamic Occasionalism* (London, 1958), 24, 33, 46-47, 58, 67, 69, 71; William J. Courtenay, “The Critique on Natural Causality in the *Mutakallimūn* and Nominalism,” *Harvard Theological Review*, 66 (1973), 77-94; for a more cautious treatment, see Fray Luciano Rubio, *El “Ocasionalismo” de los Teólogos Especulativos del Islam: Su posible influencia en Guillermo de Ockham y en los “ocasionalistas” de la Edad Moderna* (Salamanca, 1987), 505-24. B. Abrahamov, “Al-Ghazālī's Theory of Causality,” *Studia Islamica*, 67 (1988), 75-89; Eric L. Ormsby, *Theodicy in Islamic Thought: The Dispute over al-Ghazālī's “Best of All Possible Worlds”* (Princeton, 1984), 182-216; and George F. Hourani, “The Dialogue between al-Ghazālī and the Philosophers on the Origin of the World,” *The Muslim World*, 48 (1958), 183-91, 308-14.

<sup>11</sup> N. Malebranche, *Recherche de la vérité* (Paris, 1991), VI.3, 790-802. Maimonides, *Dalālat al-ḥā'irīn (The Guide of the Perplexed)*, ed. H. Atay (Cairo, n.d.), I.71, 179-86, and I.72.3, 228. For Ockham, see Courtenay, 89ff.

heavy rock suspended in thin air for a millennium;<sup>12</sup> on the other hand a natural philosopher believed, as Ghazālī illustrates, that a stone roof would fall on account of its weight as soon as the pillars supporting it were removed.<sup>13</sup>

The Aristotelian speaks of change in the world in terms of causes and effects, but such language implies continuity, an abiding substrate to changing matter.<sup>14</sup> Events and causes have no meaning to the extreme occasionalist because in his view there is no diachrony. The world at any point in time has no past and no future. It makes sense only as a series of snapshots, a set of synchronic slices. Movement from one to another state of the world is orchestrated by God, who recreates the world anew in every instant. Any event thereby appears entirely disjointed from temporal causes.

With such an opposition between occasionalist theology and natural philosophy in mind, Marmura has argued that in *The Incoherence of the Philosophers* there are two “mutually exclusive” causal theories: one Aristotelian, the other Ash‘arite occasionalist. Finding no evidence within the text to privilege one over the other as the one in which the author believed, he turned elsewhere, to *al-Iqtisād fi l-‘itiqād*, where Ghazālī allegedly expostulated the “true doctrine” veiled by *Tahāfut al-falāsifa*. On the basis of a partial translation from this external source, Marmura argued that Ghazālī could not have believed in the Aristotelian theory.<sup>15</sup> If Goodman maintained otherwise, Marmura contended, it was because he had “profoundly misunderstood” Ghazālī due to a certain mis-translation.<sup>16</sup>

But in seeing Ash‘arism and Aristotelianism as incompatible by necessity, Marmura overlooked Goodman’s point about the divergence of Ash‘arite occasionalism from the speculative occasionalism of the Mu‘tazilites.<sup>17</sup> The heresiographical comment about Ṣāliḥ “Qubba” referred to above hints at a certain distance between Ash‘arī and the extreme occasionalist who would explain any imaginary phenomenon with facetious reference to divine agency. Ash‘arī saw God’s action as moving the world with measured regularity in a habitual way interrupted only occasionally by miracles. To be sure, this position does not make Ash‘arī a follower of Aristotle, but it does show him disengaged from that wildly speculative theology whose proponents vigorously effaced the mildest

<sup>12</sup> Al-Ash‘arī, *Maqālāt al-Islāmiyyīn*, ed. Hellmut Ritter in *Bibliotheca Islamica* (Wiesbaden, 1980), I, 406-7; and Josef Van Ess, *Theologie und Gesellschaft im 2. und 3. Jahrhundert Hidschra* (Berlin, 1993), III, 422-28.

<sup>13</sup> Ghazālī, *Maqāṣid al-Falāsifa*, 192.

<sup>14</sup> Aristotle, *Physics*, tr. W. Charlton (Oxford, 1970), II.7: 198a-b; *Physics*, tr. R. Waterfield (Oxford, 1996), VIII.8; *Posterior Analytics*, tr. J. Barnes (Oxford, 1975), II, 95a22-b12.

<sup>15</sup> Ghazālī, *al-Iqtisād fi l-‘itiqād*, ed. I. A. Çubukçu and H. Atay (Ankara, 1962), 215, lines 1-4.

<sup>16</sup> Marmura “Al-Ghazālī on Bodily Resurrection and Causality,” 46-48, 59-60, 65, 63; Marmura, “Al-Ghazālī’s Second Causal Theory,” 97; and *The Incoherence of the Philosophers*, tr. Marmura, 175. Goodman, 105-7; see also 88, 97, 103-4.

<sup>17</sup> Goodman, 100-105.

blush of naturalism.<sup>18</sup> Marmura not only projected Ashʿarism onto Ghazālī, he did so without defining it. Whatever Ashʿarī's convictions were, Ashʿarites espoused a spectrum of beliefs. As for Ghazālī, the manner in which he was an Ashʿarite is itself a much debated question,<sup>19</sup> and frankly irresolvable even for *al-Iqtīṣād fī l-ʿtiqād*, if indeed its writing precipitated or coincided with Ghazālī's personal and spiritual crisis.<sup>20</sup>

In any case the scholarly debate on *whether* or not Ghazālī was an Ashʿarite is, in my view, irrelevant when applied to *Tahāfut al-falāsifa*, which is not a declaration of personal belief and orthodox doctrine but a skeptical and eclectic work of theology. I prefer to examine *how* the text is shaped by the interaction of natural philosophy and theology. In response to the philosophers Ghazālī developed and refined his ideas about natural and divine causation. His arguments were neither Ashʿarite nor Aristotelian but a curious mixture of the two. We will see below why Ghazālī brought divine agency to bear upon the world of natural philosophy and how strangely he applied a naturalistic epistemology to the world of speculative theology.

Usually, I will refer to the voice in first person plural as the theologian's, not as Ghazālī's, to prevent the impression that Ghazālī represented his intentions through this voice in any simple or direct manner. The idea is not at all that Ghazālī was withdrawing his authorial presence from the text as a whole, nor so much that he was masking his thoughts behind the characters of a dialogue, as Hume did charmingly with Cleanthes and Philo.<sup>21</sup> But Ghazālī was certainly distancing his beliefs from the theologian's. Indeed, he said as much in the third preface to *Tahāfut al-falāsifa*, where he declared that he would refute the philosophers with a mixed bag of theological tools, some not his own. "For we," he exhorted all theologians, Ashʿarite and otherwise, "differ only in details, while those [philosophers] oppose the principles of religion. So let us unite against them, and may our resentments, at this time of hardship, slip away."<sup>22</sup>

### The Miraculous World of Natural Philosophy

The theologian opens the dialogue with the natural philosopher by declaring: "The connection (*iqtirān*) between what is customarily believed to be the cause (*sabab*) and what is believed to be the effect (*musabbab*) is not necessary

<sup>18</sup> Cf. Daniel Gimaret, *La doctrine d'al-Ashʿarī* (Paris, 1990), 404-9; also Richard M. Frank, "The Structure of Created Causality according to al-Ashʿarī," *Studia Islamica*, 25 (1966), 25-26, 34-53, 73-75.

<sup>19</sup> See, e.g., R. M. Frank, *Al-Ghazālī and the Ashʿarite School* (Durham, 1994); George Makdisi, "Al-Ghazālī, disciple de Shāfiʿī en droit et en théologie," in *Ghazālī, la raison et le miracle* (Paris, 1987), 45-55.

<sup>20</sup> A. J. Wensick, *La Pensée de Ghazzālī* (Paris, 1940), 107-8; Maurice Bouyges, *Essai de chronologie des oeuvres de al-Ghazālī* (Beirut, 1959), 337.

<sup>21</sup> David Hume, *Dialogues Concerning Natural Religion* (London, 1991).

<sup>22</sup> TF *muqaddima* (III).13.9-14.3.

(*ḍarūrī*) in our view.” The presence of a cause or its absence does not entail a predetermined result. Decapitation, for instance, is regarded as necessarily the cause of inevitable death, but it need not be. For death may occur without the severance of the head, and life may continue after the beheading. Fire will not necessarily burn cotton, for cotton may remain unburnt despite the fire, or it may burn without any fire.<sup>23</sup>

At first sight the theologian’s examples may seem mundane or ridiculous. Why must wet cotton burn? What a surprise that one may die with one’s head on! Yet the theologian was reacting to the deterministic world view of natural philosophers. Aristotle cannot of course be held responsible for the excesses of those who, from Ghazālī’s and subsequently from Averroës’s perspective, were groundless believers in Aristotle. For the most part he qualified causal principles with carefully considered escape clauses, derived often from empirical research. Indeed, G. E. R. Lloyd’s view of Aristotle’s anti-Platonic interest in biological research is illuminating in this regard.<sup>24</sup> Yet given Aristotle’s illustration of natural effects with geometrical definitions, his suggestion that causes function syllogistically, and his attempt at explaining even the monsters of nature (man-headed calves) as coming to be, should there be no impediment, due to defective seed rather than bad luck,<sup>25</sup> it is not difficult to imagine why Aristotelian Muslims, inspired no less by neo-Platonism than by any sublunary taxonomy, might have struck Ghazālī as rashly deterministic.

Farabi and Avicenna, against whom Ghazālī was reacting, had placed in turn a linguistic and an ontological emphasis on Aristotelian notions of natural causality. The paradigm of logical necessity operating between cause and effect was so standard that even Averroës, coming as he did after Ghazālī, could not shake it off. “Logic,” in his view, “implies the existence of causes and effects.”<sup>26</sup> Averroës defines the fire that would not burn the cotton as that which burns. In this pre-modern world view matter acts according to its essence, not according to physical laws. Given such causal explanations, it is unfortunate that Averroës dismissed Ghazālī’s attack as mere sophistry. For the theologian had scored an important point about the groundlessness of philosophical belief.

Unable to prove that the mental relation of cause to effect may be imported to events in the real world, the philosopher charges that knowledge of the bond’s necessity is derived from sense perception. Repeated observation (*mushāhada*) has established that fire is the “agent” (*fā’il*) of burning. But observation, the theologian retorts, has only established that the burning of the cotton normally occurs simultaneously with the fire’s presence (*indahu*). It has not established that the burning occurs by the fire (*bihi*).

<sup>23</sup> TF xvii.277.1-278.8.

<sup>24</sup> See his *Aristotle: The Growth and Structure of His Thought* (Cambridge, 1968), ch. 4.

<sup>25</sup> *Physics* I.5:188b, I.7:191a, II.3:195a, II.9:200a, II.8: 199b; *Posterior Analytics*, II.11.

<sup>26</sup> Averroës, *Tahāfut al-tahāfut*, 521.4-11, 522.9.

In *Maqāṣid al-falāsifa* Ghazālī describes causes and events in terms borrowed from Farabi and the Arabic translators of Aristotle. Two causes, the material and the formal, function within the matter to be changed; another two, the efficient and the telic, function outside this matter.<sup>27</sup> The production of burnt cotton could be explained with the first three causes as follows: cotton is composed of matter which can burn; it contains the form of burnt cotton as one of its potential states; and fire will burn cotton when brought into contact with it. The telic or final cause can be thought of as the reason for which the first three causes come together.

With this background in mind we would expect the natural philosopher in *Tahāfut al-falāsifa* to argue that fire is the efficient cause (*‘illa fā‘iliyya*) behind the transformation of cotton, as substrate or matter (*mādda, hayūlā*), into ashes. Instead, we find him arguing for fire as an agent without calling it the efficient cause and without indeed making any explicit reference to the four causes. The reason for this is that the discussion between the philosopher and the theologian is not so much about efficient causation as it is about sufficient agency. The driving question is not about the manners in which natural causation works but about whether or not it works. In this respect the discussion relates more to the section of *Maqāṣid al-falāsifa* which addresses the question of human agency. A woman deliberating whether or not to walk somewhere can decide one way or the other. Nature, which gave her a pair of legs, helps her walk if she so wishes, but she will not walk unless she wills it.<sup>28</sup>

If the philosopher in the debate seems perplexed, it is because the theologian forces him to address fire as if it were a pair of legs. In other words, instead of debating how fire acts, the philosopher must debate whether it acts, a question he is accustomed to discussing in another context, that of human action. He proposes that fire acts by nature (*ṭab‘*) and not by choice (*ikhtiyār*), and that it is “incapable of refraining from doing what is its nature upon encountering an object receptive to it.” The theologian mocks him, saying that fire is but “inanimate matter” (*jamād*), “possessing no action.” And in any case “is there any proof that fire is an agent?”

There was no proof, as we have seen, other than the observation that fire tends to be present at the moment of the cotton’s burning. But our senses, the theologian declares, cannot be trusted to observe truthfully. Think of the blind man whose eyesight is first restored, by daylight, and who concludes that color exists because of his eyes. At night, when color is absent, he comes to think that the cause of it is sunlight. Still, his knowledge would be limited by his senses, for he cannot know with certainty that color would cease, by day, if the sun were to disappear. Thus compelling the philosopher to admit doubt in knowledge based on observable causes, the theologian stirs the discussion toward unobservable causes, divine agency, and the possibility of miracles.

<sup>27</sup> *Maqāṣid al-Falāsifa*, 189-90.

<sup>28</sup> Cf. *Maqāṣid al-Falāsifa*, 190-92.

God, according to the theologian, is the sufficient and efficient cause behind every change in the observable world. If a cause and its effect seem inextricably paired, it is because the connection was “pre-determined” (*subiqā min taqdīr*) by God, who created it in harmony (*tasāwuq*) but not as “necessary in itself.” Within God’s power (*maqdūr*) is to prevent an effect despite the presence of the natural cause and to bring about an effect without its natural cause. To be sure, a natural cause is normally observed to operate alongside a certain effect, but the effect in fact derives from “the First” (*al-awwal*), “whether with or without the mediation of angels entrusted with temporal commands.” God, moreover, is not constrained to conform his actions to the natural course of events. He rather acts by “choice” (*ikhtiyār*) and “free will” (*irāda*).<sup>29</sup>

Pushed to discuss non-observable causes, the philosopher lapses into neo-Platonic language.<sup>30</sup> From the “Giver of Forms” (*wāhib al-ṣuwar*) or from the “Principles of Events” (*mabādi’ al-ḥawādith*), which are not unlike the theologian’s angels, flow or emanate the events and their forms. They emanate, however, by “necessity” (*luḏūm*) and by “nature” (*ṭabʿ*). Again, as in the case of the fire’s causal powers, we find the theologian and the philosopher in deep disagreement about the very meaning of agency. Whereas one sees agency as a function of God’s unpredictable and unrestrainable power, the other sees it as a function of nature’s orderly and ever-recurrent ways.

Unable to contain himself any longer, the philosopher erupts:

But this would lead to the perpetration of hideous absurdities [*muḥālāt shanīʿa*]! Indeed, if one must deny the necessity of effects deriving from their causes, attributing them to the will of their Inventor [*mukhtariʿ*], a will further possessing no clear, limited course, but fickle and multifarious ways, then we might as well be persuaded that before our eyes there are voracious beasts, a burning holocaust, lofty mountains, enemies loaded with weapons, which we do not see because God, may he be exalted, has not created for us the sight with which to see them.<sup>31</sup>

The philosopher’s attack centers upon the extreme implications of the theologian’s worldview. If our eyes lie to us when we observe causes changing matter and if causes in fact function in higgledy-piggledy fashion, then what is to stop us from believing that we live in a world very different from the natural world?

Perhaps we expect the theologian to continue his own line of attack, undermining the nexus between knowledge and observation. Relying on the parable of

<sup>29</sup> TF xvii.278.1-278.5; xvii.279.9-280.2; xvii.283.4-5.

<sup>30</sup> See H. Davidson, *Alfarabi, Avicenna, and Averroës on Intellect* (Oxford, 1992), 131-37.

<sup>31</sup> TF xvii.283.9-284.3. See also *The Incoherence of the Philosophers*, tr. Marmura, 173-74.



the blind man, should he not claim that hungry if invisible monsters may indeed be standing before our imperfect eyes? Instead he responds, mildly:

If there cannot be created for man the knowledge that the possible is non-existent, then these absurdities would necessarily follow, and we would not doubt the images you have described. However, God created for us the knowledge that he has not effected these possibilities, and we have not claimed that these things are necessary. But they are possible in that they may or may not happen. The repetition of [events] time after time establishes firmly in our minds the course [of events] according to past custom [*‘āda*].... Yet if God violates custom by causing [an extraordinary event] to occur at the time of the breaching of customs, these cognitions [*‘ulūm*] would steal away from our hearts, and God would not create them.<sup>32</sup>

If the “time of the breaching of customs” is apocalyptic, as Goodman has argued, then the possibility of sighting lofty mountains (dancing as rams?) would be confined to the end of times.<sup>33</sup> Until then, natural philosophers would seem rather justified in holding that worldly effects, insofar as one can know, follow from causes. The theologian would still be free to regard God as the sufficient cause behind every event, but he would be constrained to acknowledge that God invariably acts when the so-called “efficient cause” is present. From now until the end of this world, God would choose to burn the cotton whenever the fire encounters it.

This interpretation of Ghazālī is rather plausible. We have heard the theologian argue that natural causes are observed alongside effects and that God created the connection between cause and effect in harmony. Under this system, God’s awesome power would not be relegated to a topsy-turvy time. For God would be that wondrous efficient cause behind every worldly effect. What the natural philosophers call the “efficient cause” would, in fact, be an unnecessary or superfluous cause, but one which would nonetheless graciously help philosophers predict the result of God’s orderly action.

Yet there is a problem in confining the possibility of sighting voracious beasts to the end of the world. Were the time in question apocalyptic, would the theologian be addressing the relationship between knowledge and past custom? The theologian’s discourse is not in fact about the logical possibility of an apocalyptic world but about the true pattern of causes determining change in a possible world, that is, in a world possibly but not necessarily our own. In this manner the theologian defends both the currency of divine agency, and the possibility of

<sup>32</sup> TF xvii.285.7-12 & 286.6-8.

<sup>33</sup> Goodman 104-5, 108, 112-13.

miracles, past and present. In this sense miracles are defined not only as disruptions of the natural order but as potentially unknowable disruptions. Were God to violate the normal course of events, we might not know it, for knowledge derives from repeated observation.

Ghazālī, under this interpretation, denies the causal scheme of natural philosophers, while acknowledging the feasible existence of the natural order underlying their explanations. This world view is far from that of extremely speculative theologians such as Ṣāliḥ “Qubba” who would have argued that monsters may stand before our blind eyes. If reminded of the parable of the blind man, Ghazālī would perhaps contend that it shows not so much that man observes falsely, as it shows that he observes partially or imperfectly. Further, he would say, extreme theologizing risks not only setting up theology for ridicule, but worse, it encourages philosophical doubt in religion.

Let us at this point remember what Ghazālī proposes in the second preface to *Tahāfut al-falāsifa*. In order to uphold the faith, it is not necessary to dispute against philosophical doctrines that do not clash with religious principles. Take, for instance, the philosophers’ theory of a solar eclipse, which they say occurs when the moon interposes itself between the earth and the sun.

We are not engrossed in the refutation of this branch [*fann*], since it would serve no purpose. Whoever supposes that the altercation is to deny on religious grounds [literally, *min al-dīn*] would be committing an outrage against religion, and weakening its basis. For these things have been established by geometrical and arithmetical proofs, which leave no doubt.... If [the philosopher] is told that these things are contrary to the Revelation [*al-sharʿ*], he would come to entertain doubts, not about [his field of knowledge], but about the Revelation.<sup>34</sup>

To uphold God’s power and his agency, there would be no need to deny that fire regularly appears to burn cotton, nor to claim that our world, like the superstring theorists’ universe, contains seven imperceptible dimensions in whose folds live holed-up monsters.

From Ghazālī’s perspective the neutered causal theory, granting natural causes but a semblance of agency, did not clash with religious belief. According to Ghazālī, religious and philosophical belief came into violent conflict on three issues: the world’s creation, God’s attributes, and the resurrection of bodies.<sup>35</sup> We will soon turn to the third of these issues, which is part of the discussion on natural causality. As a whole system of thought, however, natural causality is

<sup>34</sup> TF *muqaddima* (II).11.6-11.

<sup>35</sup> TF *muqaddima* (II).13.4-7.

not portrayed as incompatible with religious belief.<sup>36</sup> Ghazālī in fact accepts an Aristotelian world-order cloaked in theological epistemology—a world, that is, where cause and effect appear normally if unnecessarily joined for reasons unknown, where the sufficient cause is believed to be unobserved, unnatural, divine.

### The Natural World of Speculative Theology

The first part of the philosopher’s challenge, quoted above, parodied theological skepticism about the relationship between knowledge and observation. Could we possibly live in a world, the philosopher continues, where change derives from an unobserved, willful, all-powerful cause? “So whoever leaves a book in his house, let him find it, upon his return home, metamorphosed into a beardless slave-boy, smart and resourceful.” Or let him find the slave-boy transformed into a dog, ashes into musk, stone into gold, fruit from the market into a stranger. “If asked about any of these things, a man would have to reply: ‘I don’t know what the house currently stores, for all I know is I left behind a book, which may now be a horse that has already splattered my library with piss and shit.’ ” For indeed, he concludes, “God is powerful over all possible things, and these are possible.”<sup>37</sup>

Thus the discussion shifts subtly to another domain, the miraculous transformation of matter in a possible world. The theologian’s stance is that his view of matter and its ability to change is not incompatible with the philosopher’s view. Both had agreed earlier in the discussion that a cause can function differently upon an object, depending on the object’s receptive disposition (*istīdād*). Wet cotton or cotton covered with asbestos would not normally burn when tossed into the fire. A variation in the quality (*ṣifa*) of the object could prevent the expected transformation.<sup>38</sup>

Conversely, the theologian now argues, an accidental quality in an object can facilitate its transformation from one to another state of existence. A rod, for instance, may receive a special quality allowing its metamorphosis into a serpentine state. For “matter can receive every” accident.

Within the powers of God are marvels and wonders [*gharā’ib*, *‘ajā’ib*], not all of which we have observed. How, then, could it be necessary to deny their possibility, and assert their impossibility? Similarly, the Resurrection of the dead, and the transformation of the rod into a serpent, are in this manner possible, for indeed matter [*mādda*] can receive every thing [*shay’*].<sup>39</sup>

<sup>36</sup> TF xvi.270.11-12.

<sup>37</sup> TF xvii.284.3-285.6.

<sup>38</sup> TF xvii.282.1; TF xvii.287.9-288.1.

<sup>39</sup> TF xvii.288.1-4. *The Incoherence of the Philosophers*, tr. Marmura, 176.

By couching miraculous change in the language of natural philosophy, the theologian is able not only to place all manner of change on a slippery slope, making it difficult for the philosopher to distinguish natural from unnatural change. He is, moreover, able to embrace the absurd, asserting the possibility of improbable change: the book's metamorphosis into a slave-boy, the transformation of iron into a cloth turban, the resurrection of the human body, even the ability to write of a dead man's hand.<sup>40</sup>

Never mind, for now, that the philosopher would protest the possibility of such miracles. According to the theologian there is no solid ground for disagreement. Granting that God has not the power to effect impossible, that is illogical, transformations,<sup>41</sup> the theologian sees only one minor point of contention: how long a time would extensive metamorphoses require? Both agree, he reminds the natural philosopher, that extreme transformations are possible so long as matter passes through the successive stages of existence leading to its final state. The metamorphosis of an apple into a stranger may appear impossible, at first glance. But in accord with the natural cycle of life, an apple could be eaten by an animal, the animal digested into the human flesh, which becomes the sperm that fertilizes the womb that makes the stranger.

A miracle, according to the theologian, may simply be no more than a divinely induced acceleration of the normal span of time normally needed for natural transformations. God does not simply switch the apple into a stranger, as if by a trick of magic; he rather compresses time. The gradual evolution of matter thus occurs not in an aeon but in the second it takes to say "*kun*." This is where the philosopher differs.<sup>42</sup> But "why should the adversary refuse to admit that it is in God's power to rotate matter [*mādda*] through this cycle in a shorter time than normal?"<sup>43</sup> A researcher of nature, attuned as he must be to the wonders of God's world, ought to recognize that bodies may receive "preparations for their transformation [*istihāla*] through the cycles in the shortest time, thus giving rise to a miracle [*mu'jiza*]."<sup>44</sup>

Given the theologian's naturalistic explanation of miracles, it may seem that Ghazālī's approach is apologetic or conciliatory. After all, has the theologian not succeeded in justifying miraculous causation with the very logic of Aristotelian science? Earlier in the dialogue we found him couching an Aristotelian world-order in theological language. Now he seems to be upholding the possible existence of a very different world order, one where physical change occurs at such speed that it is impossible to observe cause and effect as joined. Yet in this possible world unperceived natural causes do in fact produce visible effects. Is this not a theological other-world reigned by the Aristotelian laws of physics?

<sup>40</sup> TF xvii.290.7-9, TF xx.366.9-367.3, TF xx.368.11-369.1.

<sup>41</sup> TF xvii.293.5-7 and 294.5-6.

<sup>42</sup> See TF xx.366.9-368.10.

<sup>43</sup> TF xvii.288.7-8.

<sup>44</sup> TF xvii.291.7-292.1

Yes, but Ghazālī's purpose is hardly to provide an Aristotelian rationalization for belief in miraculous change, even if a plain reading of the theologian's argument could lead one to believe so. Why? For three reasons. Let us remember, first, that Ghazālī's intention in writing *Tahāfut al-falāsifa* was to display the fields on which philosophy and religion clash irreconcilably. On the issue of bodily resurrection, involving the miraculous transformation of matter in a possible world, the clash was seen as violent and irresolvable.<sup>45</sup>

Second, it would be ridiculous to believe a miracle on the authority of Aristotle. Throughout *Tahāfut al-falāsifa* Ghazālī has shown that the clash is not so much between philosophical thinking and religious belief as it is between two forms of belief. Ultimately, he argues, philosophers' ideas rest not on logic (*manṭiq*)<sup>46</sup> but on a kind of belief. His dispute is in particular against philosophers who believe in a Craftsman (*ṣāniʿ*) and revere other philosophers who possess not the truth.<sup>47</sup>

They fancied they would display themselves honorably by eschewing the imitation of truth [*taqlīd al-ḥaqq*] and by adopting the imitation of falsehood [*bāṭil*] ... but to change from mimesis to mimesis is folly and madness. And what state in God's world is more despicable than that of a man who thinks it honorable to renounce the mimetic way of true doctrine by hastening to accept falsehood by judging it true, without receiving it on report and investigation?<sup>48</sup>

We have already seen the theologian point out an example of philosophical belief in the discussion on natural causation. He argued that philosophers hold cause and effect to be logically connected on faith. But observation of the natural world could not establish the truth of this philosophical tenet.

Given two competing claims to truth—one based on the Qur'ān, the other on Aristotle's *Physics*—Ghazālī would believe more the one with a sounder claim to true knowledge, the Qur'ānic version, and normally take it with all its literal force undiluted by metaphorical or allegorical interpretation.<sup>49</sup> Natural science, based as it is on doubtful observation and on the questionable authority of philosophers, has a lesser claim to truth than Scripture. In cases where religion and philosophy concur Ghazālī makes it clear that “we know these things on the authority of religion,”<sup>50</sup> not on philosophers' hearsay.

<sup>45</sup> TF *muqaddima* (II).13.4-7.

<sup>46</sup> TF *muqaddima* (IV).15.13.

<sup>47</sup> TF *fātiḥa*.5.1-4; TF xvii.279.12-280.2, TF *muqaddima* (I).8.9.

<sup>48</sup> TF *fātiḥa*.5.11-15. *The Incoherence of the Philosophers*, tr. Marmura, 2.

<sup>49</sup> TF xx.355.9-356.7.

<sup>50</sup> TF xx.354.7; also TF xvii.309.2-4.

Third, by embracing the very religious beliefs the philosopher decries as wholly absurd, and by justifying these beliefs with the very logic of natural philosophy, the theologian in fact makes a joke of Aristotelian epistemology. Tastefully enough, the joke is never made explicit. But it is in my opinion clear. For if Aristotelian aetiology is applicable to any possible world conjured up by the theologian, then it loses its grip on the real world. The natural philosopher is forced to concede that his reliance on human reason and on sense perception as the grounds for knowledge about causes was imperfect and enthusiastic. When Ghazālī has the theologian justifying in Aristotelian language the possible world where dead men are observed writing, he is of course not arguing for the plausible existence of such a world; he is only showing how the Aristotelian laws of physics are absurdly removable from the observable world they purport to explain.<sup>51</sup>

#### Functional vs. Existential Skepticism

Curiously, with a strategy that would have been familiar to Ghazālī, the believer in Wittgenstein's lectures confronts the skeptic. He tells him that he has just seen his dead cousin dancing. The skeptic is unable to respond because such a statement reveals to him the gap in communication between him and the religious man, who stands on a plane of language and meaning so different that its words—and even their antonyms—are incomprehensible to the outsider.<sup>52</sup> In Ghazālī the divide between the philosopher and the believer is no less fundamental. To accept the possibility of a dead man writing would imply, the philosopher argues, that no human agency exists. In matter, inert or otherwise, all change would occur without choice, knowledge, or power.<sup>53</sup> As dust is moved by the wind's breath, so man would be moved by God all-powerful.

Ghazālī has often been compared to David Hume. Skeptical about the grounds on which knowledge rests, both emphasized the limits of reason. Anticipating Hume, Ghazālī argued that habit and observation are the imperfect sources of our knowledge of the external world. But the differences between them are in my view more remarkable than the similarities. When Hume finds the conjunction of cause and effect in the human mind to be but probable, he has discovered a "solid foundation" for moral philosophy.<sup>54</sup> "Our reason must be consider'd as a

<sup>51</sup> Cf. al-Bāqillānī taunting the skeptic, in *K. al-tamhīd*, ed. R. McCarthy (Beirut, 1957), 26.2-9, q. 46.

<sup>52</sup> Ludwig Wittgenstein, "Lectures on Religious Belief," in *Lectures and Conversations on Aesthetics, Psychology and Religious Belief*, ed. Cyril Barrett (Oxford, 1966), 53-56, 60, 65, 70.

<sup>53</sup> TF xx.292.8-293.1.

<sup>54</sup> David Hume, Introduction to "Treatise of Human Nature: Being an Attempt to introduce the Experimental Method of Reasoning into moral Subjects," in *The Philosophical Works*, ed. T. H. Green and T. H. Grose (4 vols.; London, 1992), I, 307-8.

kind of cause, of which truth is the natural effect; but such-a-one as by the irruption of causes, and by the inconstancy of our mental powers, may frequently be prevented. By this means all knowledge degenerates into probability.”<sup>55</sup> Ghazālī does not at all model theology after the principles of the “experimental method.” For him the very idea that philosophical knowledge of the external world rests on imperfect foundations proves that the order of this world may be quite different from what we observe and justifies belief in divine causation. Surely Hume would dismiss this “fanciful belief” and say that “a wise man ... proportions his belief to the evidence.”<sup>56</sup>

The gap between Ghazālī and Hume is most evident in the scope of their skepticism. Hume is a moderate theoretical skeptic in front of all systems of knowledge, not to the exclusion of the one he set forth, and for which he excused himself retrospectively in case he appeared dogmatic.<sup>57</sup> He applies this skepticism to reason and belief indifferently, or at least indiscriminately, as he shows brilliantly in the essay “Of Miracles.” For Hume a miracle could be established only if the testimony in its favor seemed a grander violation of nature’s laws than the miracle itself. On principle, Ghazālī would never apply this manner of probabilistic thinking to questions of dogma. Belief in miracles is justifiable, according to him, because philosophical knowledge derived from sense perception cannot with certainty establish the mechanism behind the laws of nature.

Ghazālī’s skepticism is partial or selective, and like Wittgenstein’s, it follows the rules of an altogether different game. If the skepticism of the ancient Greeks and of Hume is existential, in the sense that it envelops one’s outlook and personality, this other form of skepticism is best understood as functional. It is a tool applied or withheld at one’s will, so as to negate a certain perspective in favor of another. It is a skepticism exercised, not with the intent of showing oneself a perfect skeptic, but for reasons external to the tradition of skeptical thought. This distinction between functional and existential skeptics may be obvious but is nonetheless important. The concept of functional skepticism which I have advanced is simple; yet it wields an explanatory power that must not escape the reader. For it liberates us from considering users of skepticism in terms of their skeptical pedigree—as perfect or corrupt by degrees—and thus enables us to focus instead on the reasons and goals underlying their skeptical stances.

Since Wittgenstein has been enthusiastically contrasted with Hume as the more perfect skeptic, my comparison requires some clarification.<sup>58</sup> It is no doubt

<sup>55</sup> Hume, “Treatise of Human Nature,” 4.1 (“Of Scepticism with regard to Reason”), 472.

<sup>56</sup> David Hume, “An Enquiry Concerning Human Understanding,” in *The Philosophical Works*, ed. T. H. Green and T. H. Grose (4 vols.; London, 1992), 4.10 (“Of Miracles”), 89.

<sup>57</sup> Hume, Conclusion to the “Treatise of Human Nature,” 553.

<sup>58</sup> For example, see Saul A. Kripke, *Wittgenstein on Rules and Private Languages* (Oxford, 1982), 60.

true that Wittgenstein exercised the sharpest tools of the skeptic in questioning the possibility of private languages, the communicability of passion, the logical basis of causal inferences, or the sense in G. E. Moore's "I know this is a hand" brand of common sense.<sup>59</sup> Yet Wittgenstein also argued that philosophical doubts have their proper boundaries: "Skepticism is not irrefutable, but obviously nonsensical, when it tries to raise doubts where no questions can be asked."<sup>60</sup> The skeptic has no right to ridicule religious belief, for he cannot truly understand it. Wittgenstein's passionate attack on James Frazer's *The Golden Bough* has its roots in this conviction that there are practices, beliefs, and statements, where no question of error exists. The mystical aspect of Wittgenstein, alongside his defense of important nonsense, has appeared mysterious. It is in fact beyond explanation unless we consider Wittgenstein's skepticism to be of Ghazālī's rather than of Hume's sort.<sup>61</sup>

Needless to say, there are crucial differences between Ghazālī and Wittgenstein, with implications to their skeptical logic. To take but one example, Wittgenstein holds that "The limits of my language mean the limits of my world" — a modern idea, despite the classical echoes, for its emphasis on the individual, his language, and subjectivity.<sup>62</sup> Ghazālī could not have bothered with the anxieties of another time, and it would be downright foolish to forget the historical distance between them. But this is of course unremarkable, or at least entirely expected. What is interesting is that, despite the obvious historical differences, there are structural similarities between them that elucidate the skepticism of one and the other.

Wittgenstein's pronouncements on Darwinian and Newtonian believers bear all the marks of Ghazālī's attacks on Aristotelian believers. Indeed, more generally, his view of philosophy's role vis-à-vis natural science corresponds deeply to Ghazālī's view of theology's role vis-à-vis natural philosophy. However, it might prove more fruitful to provide a sketch of a comparison between Ghazālī's views of natural philosophy and Wittgenstein's on Freudian psychoanalysis.

This as well as previous comparisons must remain suggestive because Wittgenstein, like Ghazālī, neither endorsed nor refuted skepticism with a set of positive theses. This, combined with the fact that his uses of skepticism changed with the stages of his thought and varied according to the object of his thought (religious discourse, for instance, was treated quite differently from mathematical statements), makes it nearly impossible to represent both briefly and fairly this aspect of his philosophy. In this respect Wittgenstein also resembles Ghazālī, for it would likewise be a mistake to assume that the same skeptical tools were

<sup>59</sup> See D. Z. Phillips, *Religion Without Explanation* (Oxford, 1976), ch. 10.

<sup>60</sup> Wittgenstein, *Tractatus Logico-Philosophicus*, tr. D. F. Pears and B. F. McGuinness, with an introduction by B. Russell (London, 1994), 6.51.

<sup>61</sup> Cf. A. J. Ayer, *Wittgenstein* (London, 1985), 87.

<sup>62</sup> *Tractatus Logico-Philosophicus*, 5.551-5.5521.



operative in *The Incoherence of the Philosophers* as in *The Revivification of the Sciences*. Not identifying themselves as skeptics, functional skeptics could simply not be bothered to work out a coherent defense of their brand of skepticism.

Wittgenstein was both fascinated and disturbed by the language of psychoanalysis because its claims upon the reality of dreams, and its casual physiological references, violated the rules of the language-game by blurring the lines between logical facts, natural things, and interpretations of outlying sense. Ghazālī, we have already established, was not opposed to a neutered causal theory upholding the possibility of divine agency. But what drove him mad about natural philosophy was its language, which like psychoanalysis obscured the difference between causation and reasoning.<sup>63</sup> By inferring future situations from a causal nexus established imperfectly by habitual observation and without clearly distinguishing logic from reality, natural philosophy also violated the rules of the language-game.<sup>64</sup>

*Tahāfut al-falāsifa* reverses the Demea-Philo relationship we have come to expect since Hume. Here it is the philosopher who is the duped believer, arguing in terms of necessity and certainty. For his part the theologian only asserts the rational validity of religious dogma. Never asking for a suspension of disbelief, he merely establishes God's miraculous agency in a possible world. Whatever the correspondences between Ghazālī's and Wittgenstein's views of philosophical believers, one can certainly say of Ghazālī's skepticism that, like Wittgenstein's, it follows belief.

Is my reliance on sense-perception and my trust in the soundness of necessary truths of the same kind as the trust I previously had in blind imitation and as the trust most humans have in reflection? ... I therefore proceeded keenly to reflect on sense-perception and on necessary truths, to see whether I could doubt them. The result of this long effort to induce doubt was that I could no longer trust sense-perception either.<sup>65</sup>

#### The Transformation of the Body

We now understand why the theologian was eager to find the philosopher disagreeing with him on only a minor point, the time required for extreme transformations. But lurking behind the discussion was a deeper disagreement: what is the minimal substrate required during the transformation of matter for it still to remain in essence the selfsame matter? Would the rod, in other words, still be

<sup>63</sup> See Jacques Bouveresse, *Philosophie, mythologie et pseudo-science: Wittgenstein lecteur de Freud* (Cahors, 1991), 82, 85-87, 91, 97, 105, 140.

<sup>64</sup> Cf. *Tractatus Logico-Philosophicus*, 5.135-5.1363n.

<sup>65</sup> Ghazālī, *al-Munqidh min al-Ḍalāl*, 83-84.

a rod once it has become a serpent? From the theologian's perspective, "matter abides" during extensive metamorphoses.

When we say that blood metamorphosizes into sperm, we intend by this that the matter [*mādda*] itself has disrobed a form (*ṣūra*) and worn another form, so that one form disappears and another appears, but there is an abiding matter under the two successive forms.... For matter is common, while quality (*ṣifa*) is changeable.... Between the accident [*araḍ*] and the substance (*jawhar*) there is no common matter.<sup>66</sup>

This, of course, is precisely the philosopher's terminology. The concept of diachronic change requires the postulate about the continuity of matter. But the philosopher would apply such language to the real world, not to the possible world where rods turn into serpents.

Ghazālī postpones the discussion of this issue until the last chapter of *Tahāfut al-falāsifa*. The philosopher argues in this chapter that iron can be woven into a turban only after its "constituent parts" (*ajzā'*) have "broken down" into "simple elements" (*basā'it al-<sup>c</sup>anāṣir*), which can then gradually recombine to form cotton.<sup>67</sup> The turban would not be woven of iron strings, but of an entirely different material, cotton. Similarly, a wooden rod may turn to the dust from which the serpent comes, but the rod's matter does not remain unchanged. For the rod would decompose into simple elements, which would evolve into the serpent's constituent elements. To speak of a rod acquiring a serpentine quality makes no sense to the philosopher, given that such language would conflate "substance" and "accident."<sup>68</sup>

The debate on the abiding identity of matter culminates when the philosopher advances several wickedly good examples against the resurrection of the original human body.<sup>69</sup> How will God all-merciful bring back to life the body of a dead man who, eaten by worms or vultures, has been dispersed by flight or crawl? God could presumably round up all the atoms of the man's body from the four corners of the earth. But if a man ingests part of another man's body (by, for instance, eating the fruit that grew from the vulture's body turned into dust), in whose body would God resurrect that matter? Such arguments compel the theologian to claim that man could be resurrected in some human body, not necessarily the original one. Yet man remains the same. "For man is not body, but soul," which as self-subsisting substance survives death.<sup>70</sup>

<sup>66</sup> TF xvii.294.9-295.2. *The Incoherence of the Philosophers*, tr. Marmura, 180.

<sup>67</sup> TF xx.366.9-367.1.

<sup>68</sup> TF xvii.293.2.

<sup>69</sup> TF xx.360.3-362.6.

<sup>70</sup> TF xx.363.9, 364.4.

Ghazālī, it has been said, adopted this view of man only for the sake of argument. But earlier in the dialogue Ghazālī had already declared his opinion:

We intend to object to their claim of knowing, by rational proofs, that the soul's essence is self-subsisting substance. We would not argue that God's power is beyond such a thing, nor that the Revelation opposes it. On the contrary, we will make clear in the exposition on the Resurrection [*al-ḥashr wa-l-nashr*] that the Revelation verifies it. However, we deny their claim that the mind can prove this, while dispensing with the Revelation.<sup>71</sup>

Is it not likely, then, that Ghazālī's disbelief (recalled in *al-Iqtisād fi l-ʿtiqād*)<sup>72</sup> was directed against the rational grounds on which philosophers held the same view of soul he held on religious grounds?

The deeper issue at stake is whether, in order to uphold the resurrection of the body as possible, the theologian has dropped the Aristotelian framework he had been cultivating throughout the dialogue. Has he come to define the soul as that which abides under a succession of bodies? The body as such would be no more than an accidental quality dependent on the continuation of soul.

Perhaps. But there is also evidence that the theologian in *Tahāfut al-falāsifa* thought of man as body. Since the body is continually changing, the philosopher argues, man cannot be, in essence, body. But some matter abides, the theologian responds. "Were a man to live a hundred years, it would be inevitable for constituent parts of the sperm (*ajzā' min al-nuḥfa*) to remain."<sup>73</sup> To be sure, most of man's body regenerates in time, but so long as a minimal part of the original body remains, man's identity as body perseveres. Immediately after stating that man is man because of his soul, not his body, the theologian argues: "Since the parts of the body are continually changing from childhood to old age, growing lean or fat with changes in nourishment, thus man's physical constitution varies. Yet in spite of this a man remains himself."<sup>74</sup>

Now arguing against the Platonic idea of soul as immortal and self-subsisting, the theologian says: the soul "has a bond [*alāqa*] with the body in that it does not come into existence unless a body exists." Avicenna's research proves, he continues, that the soul comes to exist "with the occurrence of sperm in the womb" (*ḥudūthuhā ʿinda ḥudūthi n-nuḥfati fi r-raḥim*). He concludes, extraordinarily: "When this bond is severed, the soul perishes. It won't return to exist-

<sup>71</sup> TF xviii.304.1-5. *The Incoherence of the Philosophers*, tr. Marmura, 185-86.

<sup>72</sup> Cf. Marmura "Al-Ghazālī on Bodily Resurrection and Causality," 56-59.

<sup>73</sup> TF xviii.327.12.

<sup>74</sup> TF xx.364.5-7. *The Incoherence of the Philosophers*, tr. Marmura, 223.

ence unless God, holy and exalted, reinstates it in the way of reviving and resurrecting, as the Revelation teaches us about the Resurrection.”<sup>75</sup>

This view of body and soul, surely inspired by the second book of Aristotle’s *De Anima*, directly contradicts the earlier view.<sup>76</sup> Does the soul perish with the body’s death or is it immortal? Can the soul subsist without a body or must it dwell within a body? Given our drive to explain away the obscurities of narrative, it is surely tempting to argue that Ghazālī believed in one view and not the other. Surely, however, the contradictions were as evident to him as they are to us. If Ghazālī did not eliminate them it is because he saw in *Tahāfut al-falāsifa* not a work of personal dogma but an eclectic work of theological skepticism. His project was never to present a unified theological front, free of incoherence. It is interesting not for his personal beliefs but for the manner in which he set up theological against philosophical belief. If this perspective leaves us in the dark about Ghazālī’s belief, it nevertheless elucidates the nature of the text.

The miracle of the Resurrection, to be quite clear, is the return of the soul to a body that, however transformed, is still the same. The process, involving as it does a cause unobserved (the soul) and the transformation of inanimate matter (dust or bones) into life restored (the body lost), cannot be explained with Aristotelian terminology.

“Shall we be resurrected when we are worm-gnawed bones?” The atheist who denies the Resurrection has not pondered how he came to know that the causes of existence are limited to what he has observed. But it is not unlikely that the resurrection of the bodies will occur in a way different from anything he has observed.<sup>77</sup>

The miraculous resurrection of the gnawed bones could happen only in the possible world where the efficient and sufficient cause is unobservable. It makes no sense in the real world of physical causes and normal effects, where matter cannot leap refashioned into the body reformed.

All this does not mean that Ghazālī denied natural causality. He quite clearly regarded it as possibly true.

It was not established for us whether the Resurrection—the collection of bones, and the quickening with flesh, and its cultivation—will take the shortest time or a long while. The controversy is not on this. Rather,

<sup>75</sup> TF xix.335.3-6, 336.5, 337.5-7. See Timothy Gianotti, *Al-Ghazālī’s Unspeakable Doctrine of the Soul* (Leiden, 2001); and Jules Janssens, “Al-Ghazzālī’s Tahāfut: Is it Really a Rejection of Ibn Sina’s Philosophy?,” *Journal of Islamic Studies*, 12 (2001), 1-17.

<sup>76</sup> Aristotle, *De Anima*, ed. and tr. R. D. Hicks (Cambridge, 1907), II.1-2: 412b4-9, 412b25-413a10, 414a15-25.

<sup>77</sup> TF xx.371.4-7. *The Incoherence of the Philosophers*, tr. Marmura, 227.

what requires discernment is whether this cycle can be brought about by mere power [*al-qudra*] without a mediator, or by some cause [*sabab min al-asbāb*]. Both are possible in our view, as we mentioned in the first discussion on Physics [*tabṛiyāt*].<sup>78</sup>

However, the bond between Aristotelian epistemology and the real world could not follow necessarily. Why? Not only because Ghazālī sought to uphold the possibility that God is the sufficient cause behind every observable effect, but more importantly, because he wished to deny that the real world would abide inevitably. Transformed miraculously, the next world could be governed by an order beyond the logical reach of natural philosophy. Thus, he divided the world into three stages, deliberately conflating the two intermediate stages:

- 1) when God existed, and the world did not;
- 2) when he created the world according to the observed order [*‘alan-nazm al-mushāhad*]; then renewed a second order, which is that promised in paradise;
- 3) when all ceases to exist until nothing remains but God.<sup>79</sup>

To return to the scholarly question: on the balance, was Ghazālī an Ash‘arite or an Aristotelian? The answer depends, I suppose, on the world in question.

By showing that natural philosophy is not applicable to the possible world where bodies are resurrected, the theologian could have reminded the philosopher that the object of his science is the physical world. But Ghazālī provoked no such paradigmatic shift in natural philosophy, which remained a logical exercise removed from the natural world. This comes as no surprise, since he had no such goal in mind. However, he did succeed in redirecting natural philosophy away from the sphere of theology, for never again did it so giddily cross the line into the world of unnatural causes. In the aftermath of Ghazālī’s skeptical games the tension between occasionalist metaphysics and Aristotelian philosophy grew palpable. One would still wonder about the reality of the causal nexus in this world. But hardly a doubt remained about the role of Aristotle’s physics in the world of the Resurrection.

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<sup>78</sup> TF xx.369.2-7. *The Incoherence of the Philosophers*, tr. Marmura, 226.

<sup>79</sup> TF xx.375.3-6; *The Incoherence of the Philosophers*, tr. Marmura, 229; and cf. TF xx.373.7-10.