

The Western Reception of al-Ghazālī's Cosmology from the Middle Ages to the 21st Century

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Abstract

Among subjects of Islamic theology, the cosmology of al-Ghazālī has received much attention in the West. Scholars in the Renaissance were familiar with al-Ghazālī's critique of philosophical theories of causality in the 17th discussion of his *Incoherence of the Philosophers* (*Tahāfut al-falāsifa*). During the first half of the 19th century, when the Western academic study of Islamic theology began, scholars came to the conclusion that in this chapter, al-Ghazālī denied the existence of causal connections. That position was connected to an apparent lack of progress in scientific research in the Muslim countries. Ernest Renan, for instances, understood al-Ghazālī critique of philosophical theories of causality as an anti-rationalist, mystically inspired opposition to the natural sciences. This view became immensely influential among Western intellectuals and is still widely held. When al-Ghazālī's *Niche of Lights* (*Mishkāt al-anwār*) became available during the first decades of the 20th century, Western interpreters understood that at least here al-Ghazālī does not deny the existence of causal connections. During much of the 20th century, Western scholars favored an explanation that ascribes two different sets of teaching to al-Ghazālī, one esoteric and one

exoteric. The last decades of the 20th century saw two very different interpretations of al-Ghazālī's cosmology in the works of Michael E. Marmura and Richard M. Frank. Both rejected that al-Ghazālī held exoteric and esoteric views. Marmura explained causal connections as direct actions of God and Frank regarded them as expressions of secondary causality. Their contributions led to the understanding in the West that al-Ghazālī did not deny the existence of causal connections and cannot be regarded as an opponent of the natural sciences in Islam.

Key Words: al-Ghazālī, Cosmology, Causality, Occasionalism, Ernest Renan.

IN 1798 A FRENCH ARMY under the leadership of the general Napoleon Bonaparte invaded Egypt and established a short-lived colonial rule over the country. Similar to many later examples of colonial invasions, the French thought of themselves as liberators. Egypt had been ruled by a Mamlūk elite for more than five centuries. The French—who had just gone through a revolution that abolished a conservative monarchy as well as the political power of the Catholic church—regarded Mamlūk rule as backward oriented and in need of regime change. In the first proclamation of the French occupying forces, the new European rulers presented themselves not as foreigners but as people who are greatly concerned about Egypt's wellbeing, much more so than the Mamlūks "who are imported from the lands of the Caucasus and from Georgia." God has decreed that their rule is over. Addressing the people of Egypt, the French wrote that their enemies will portray them as destroyers of the Muslim religion. Nothing, however, could be further from the truth. Against those vilifications Napoleon tells the Egyptian people:

Answer those slanderers that I have come to you only to restore your rights from the hands of the oppressors, and tell them that I worship God exalted and respect His Prophet and the glorious Qur'an more than the Mamlūks do. Tell them also that all men are equal before God, and only intelligence (*'aql*), virtues and knowledge create differences among them, but the Mamlūks struggle with intelligence and virtue. (...)

If the land of Egypt were the sole possession of the Mamlūks then we do not see the deed that God has written for them. God, however, is kind, just and gentle (*ḥalīm*) and, more so, with His help there will be from now on no inhabitant of Egypt who will be exempt from achieving

high ranks and from acquiring eminent posts. The most intelligent, the most virtuous and the most knowledgeable among them will rule their affairs; and by that all things will improve in the nation.

In the past there have been great cities in Egypt, immense irrigation canals and many market places, but nothing is left of that other than the oppression and the greed of the Mamlūks. O you judges, sheikhs, Imāms, Çorbacis and dignitaries, tell your people that the Frenchmen too are devout Muslims. This is proven by the fact that they have gone to the great city of Rome and there they destroyed the seat of the Pope, who constantly incited Christians to wage war on the Muslims. Then they aimed at the island of Malta and chased away the Knights of St. John, who had claimed that God exalted commanded them to wage war against the Muslims. And during all this the Frenchmen have remained the loyal friends of the Ottoman Sultan—may God lengthen his rule—and the enemies of his enemies, while the Mamlūks refused to show obedience to him and be subject to his command.¹

Napoleon and his French advisers clearly did not perceive themselves as outsiders in Egypt. They even claimed to be better Muslims than the Mamlūks. Their rule would lead Egypt to a more just political system, one where the most meritorious Egyptians would hold the highest ranks. For Napoleon and his French advisers the problems of the Islamic orient were very similar to France's problems before the revolution of 1789. The Islamic world was much like France once was: stuck in a feudal and pietistic, pre-Enlightenment and anti-rationalist slumber that hindered all progress. In Europe that slumber was first and foremost associated with the "dark Middle Ages." Europe awoke from this slumber first during the Reformation in the 16th century and secondly during the Enlightenment and its political manifestation, the French revolution. The Islamic world was still in a state of development equal to the European Middle Ages.

The idea that the Islamic world was like pre-Enlightenment and pre-Reformation Europe was developed during the European Enlightenment and it was the most fundamental premise of the systematic scientific exploration of the Orient that began in Europe during the early 19th century. Napoleon not only brought soldiers, officers and administrators with him to Egypt, his expedition force also included biologists, geologist, archaeologists, historians and

1 al-Jabartī, *Ajā'ib al-athār fī tarājim al-akhbār*, 4 vols., Cairo 1986, vol. 3, p. 6 (Monday, 25 Muḥarram 1213).

experts in oriental languages. Napoleon's short-lived occupation of Egypt was the official blast-off of modern Oriental studies in the West. From now on European travellers, diplomats and businessmen would be eager to buy manuscript books from Muslim scholars and booksellers and pass them in large collections to the newly founded national libraries in Paris, London and Berlin.

At its beginning, Paris was the centre of modern Oriental studies and there, a small number of influential scholars set the agenda. One important field early on was the study of Islamic intellectual history, i.e. the study of Islam's theology and that of the philosophical movements in Islam. Here, the French historian of philosophy Ernest Renan (1823–92) was most influential. His monograph study *Averroes and Averroism* (*Averroès et l'averroïsme*) came out in 1852 and had a tremendous influence on generations of European scholars after him. The book deals with the life and works of Ibn Rushd (Averroes, d. 1198) and his influence on European thinkers in the Middle Ages and the Renaissance. When I began studying Islamic philosophy in Germany during the 1980s, Renan's work was still treated as a valuable textbook and was on the reading lists of my professors. Few other books, they said, have captured the spirit of the philosophical movement in Islam—and its importance for Europe—as much as Renan's, and none other offers so much valuable insight on Ibn Rushd and his European followers. There is, indeed, much good and correct that Renan says about the philosophical movement in Islam. Yet Renan also sets up what becomes the grand narrative of philosophy and theology in Islam, a narrative that is still very much prevalent today. Renan tells his readers, for instance, that Ibn Rushd was the last exponent of philosophy in the Islamic world. "When he died in 1198," Renan wrote, "Arab philosophy had lost its last representative and the triumph of the Qur'an over free-thinking was assured for at least six-hundred years."² What relieved the Islamic world from the "triumph of the Qur'an" was, of course, the French invasion of 1798.

Ernest Renan also wrote much about al-Ghazālī (d. 1111), who shall be the focus of this article. For Renan, al-Ghazālī was the arch-rival of Ibn Rushd and the nemesis of philosophical free-thinking. There was a war going on in Islam during the end of the 12th century, writes Renan, "a war against philosophy," triggered by a

² Ernest Renan, *Averroès et l'averroïsme*, 3rd. ed. (Paris: Michel Levy, 1866), p. 2. The book was first published in 1852.

“theological reaction similar to the one that followed in the Latin church after the Council of Trent.” The Council of Trent (1545–63) was, of course, the beginning of the Catholic counter-reformation, a movement that aimed at re-conquering the intellectual ground that had been lost to the Protestant Reformation and that did not shy away from violence and from civil war.³ According to Renan, al-Ghazālī was one of the forces behind the open war against philosophy. Reading al-Ghazālī's autobiography *The Deliverer from Error* in a French translation, Renan knew that he had confessed to Sufi teachings. For Renan, the mystics are simply “the most intolerant enemies of philosophy.” Nowhere else becomes al-Ghazālī's enmity of philosophy so evident than in his teachings on causality. In a passage that had a long-lasting influence on Western scholarship of al-Ghazālī, Renan writes:

After becoming a Sufi, al-Ghazālī undertook to prove the radical incapacity of reason, and, with a manoeuvre that has always seduced minds more fervent than wise, he founded religion on scepticism. In this fight he fielded an astonishing sharpness of mind. He opened his attack against rationalism especially through his critique of the causal principle. We only perceive simultaneousness, never causality. Causality is only that the will of God creates two things ordinarily in sequence. Laws of nature do not exist, rather they express a mere habitual cause. God Himself in unchanging. This was, as one can see, the negation of all science. Al-Ghazālī was one of those bizarre minds who only embraced religion as a manner to challenge reason.⁴

Renan based his strong opinions about al-Ghazālī not on his own research but rather on works done by colleagues around him in Paris, most notably the two German-born scholars Solomon Munk (1803–67) and August Schmölders (1809–80). Munk and Schmölders were the first generation of Ghazālī-scholars in the West. They began the Western tradition of studying al-Ghazālī's life and his works, a tradition that is still going on today. In the following I would like to take a closer look at this tradition and here particularly on its views about al-Ghazālī's cosmology. The word cosmology here refers to views about the most elementary constituents of the universe and how they interact with one another, if, in fact, they are assumed to do so. Al-Ghazālī took, as we will see, a critical or even a sceptical position towards what may be called the

3 Ibid. pp. 29–30.

4 Ibid. p. 97.

principle of causality. His teachings in this field have posed a significant challenge to his interpreters both in the West and the East. This article will try to explain how his teachings on causality were understood and interpreted by readers in the West, who stood outside of the Islamic teaching tradition of his works.

I. Knowledge About al-Ghazālī's Cosmology during the Middle Ages and the Renaissance

Al-Ghazālī's critical position towards causality has been known in Europe for quite some time. Al-Ghazālī expresses it most clearly in the 17th discussion of his book *The Incoherence of the Philosophers* (*Tahāfut al-falāsifa*). That book attracted the criticism of Ibn Rushd, who 70 years after al-Ghazālī's death wrote a response to it, *The Incoherence of the Incoherence* (*Tahāfut al-tahāfut*). When European scholars in the late 12th and the early 13th centuries translated philosophical works from Arabic into Latin they did not focus much on al-Ghazālī. He was only a very marginal author within the medieval translation movement of Arabic philosophical literature into Latin. Only a single book of his, the *Doctrines of the Philosophers* (*Maqāṣid al-falāsifa*), was translated. The book is a mere report of Ibn Sīnā's (Avicenna, d. 1037) philosophy, which led to the misunderstanding among Europeans of the Middle Ages and the Renaissance that al-Ghazālī was a close follower of Ibn Sīnā.⁵ The works of Ibn Rushd, however, were right at the centre of the translation movement from Arabic to Latin and by the high Renaissance in the mid-16th century almost all of his books had been translated into Latin. Ibn Rushd's *Incoherence of the Incoherence* was translated twice into Latin, once during the Middle Ages in 1328, and then again during the Renaissance in 1526. Both Latin translations became available in print during the early 16th century. The Latin translation of Ibn Rushd's *Incoherence of the Incoherence* became part of the multi-volumes *Collected Works of Ibn Rushd* editions that were published in various places in Europe, most importantly in Lyon and Venice. The Giunta Brothers in Venice, for instance, produced in 1550–52 a thirteen-volume edition of all available works by Ibn Rushd in Latin. This publishing project was done with much care and produced a very valuable edi-

⁵ Dominique Salman, "Algazel et les latins," *Archives d'histoire doctrinale et littéraire du moyen âge*, 10 (1935): 103–127.

tion that included as its 9th volume the *Incoherence of the Incoherence* under its Latin title *Destructio destructionum*. This edition and others made the book available to a great number of European scholars.⁶ Ibn Rushd's book is like a commentary on al-Ghazālī's *Incoherence of the Philosophers*; it quotes al-Ghazālī at length and then tries to refute his arguments. The great number of Ibn Rushd-editions during the Renaissance thus made al-Ghazālī's sceptical arguments against the principle of causality widely known in Europe. The French Renaissance philosopher Jean Bodin (1530–96), for instance, appreciated al-Ghazālī's arguments against causality more than those of Ibn Rushd and in one of his works writes:

(...) We gather that nothing in nature is necessary that could happen otherwise. Algazel (i.e. al-Ghazālī), the sharpest of the Arab philosophers, perceived this learnedly in contradiction to Averroës (= Ibn Rushd).⁷

Bodin's very short report is a pretty accurate one-sentence summary of al-Ghazālī's position. We can conclude from it that philosophers in Europe at least since the 16th century knew of al-Ghazālī's work as a critique of Aristotelian philosophy, and they knew about his sceptical criticism of causality.

If we compare Bodin's short comment with the analysis of Ernest Renan we find a great contrast. Renan, who also used the monumental Latin Ibn Rushd-editions of the Renaissance, had read al-Ghazālī's 17th discussion of the *Incoherence of the Philosophers* in its Latin translation. But Renan as well as many others European scholars of the Enlightenment period read al-Ghazālī through the lense of Ibn Rushd's commentary. The philosophical conflict between Ibn Rushd and al-Ghazālī was a very complex one as both are representatives of rationalist theology in Islam. Yet for 19th century late-Enlightenment scholars such as Renan, there was noth-

6 Ibn Rushd, *Aristotelis omnia quae extant opera (...) Averrois Cordubensis in ea opera omnes, qui ad haec usque tempora pervenere, commentarii*, 13 vols. (Venedig 1562). Reprint edition: *Aristotelis opera cum Averrois commentariis*, 9 vols. and 3 supplementvols. (Frankfurt 1962). On the importance of this edition see Charles B. Schmitt, "Renaissance Averroism Studied through the Venetian Editions of Aristotle-Averroes (with Particular References to the Giunta Edition of 1550–2)," in: *Convegno internazionale. L'averroismo in Italia (Roma, 18–20 aprile 1977)*, Rome 1979, pp. 121–142.

7 *Joannis Bodini Colloquium Heptaplomeres de Rerum Sublimium Arcanis Abdidis*, ed. Ludwig Noack, Schwerin 1857, p. 22. Cf. the English translation *Colloquium of the Seven about Secrets of the Sublime*, transl. Marion L. Daniels Kuntz, Princeton 1975, p. 31.

ing complex in this conflict. Renan interpreted it along the lines of the central European struggle between the Catholic Church on one side and Enlightenment rationalism on the other. Al-Ghazālī was for Renan simply a representative of “official” Islam, which he equated with “official” Christianity, which in France in the mid-19th century was the Catholic Church with its centre in the Vatican. We already read that for Renan the situation in Islam during the 11th and 12th centuries was similar to the Catholic counter-reformation of the 16th century in Europe and the subsequent attacks of the Catholic Church authorities against Protestantism and Enlightenment. Regarding himself and Ibn Rushd on the Enlightenment side, Renan constructs al-Ghazālī as the arch-enemy of progress and of philosophical knowledge. Ibn Rushd’s refutation of al-Ghazālī’s philosophical objections is, therefore, an important influence on Renan and many other European scholars of this age. Ibn Rushd had concluded that any doubt in the existence of causal connections leads to the denial of all rational knowledge: “whoever rejects causes, rejects rationality (*al-‘aql*).”⁸ This merely prompts Renan’s own assessment that al-Ghazālī’s scepticism towards causality implies “the negation of all science.”

Compared to the early 19th century there were very few readers of al-Ghazālī in Europe during the Middle Ages, the Renaissance, and the early Enlightenment. Yet through one of his texts, al-Ghazālī may have had a very crucial influence on the course of modern philosophy in Europe. The first of his Arabic books to become available and be studied in Arabic in Europe was al-Ghazālī’s autobiography *The Deliverer from Error* (*al-Munqidh min al-dalāl*). Short excerpts of the *Deliverer* had already appeared in Latin translation in a work by the Catalan Dominican Raimundus Martini (d. 1285), *Pugio fidei adversos Mauros et Judaeos* (“The Dagger of Faith directed against Moors and Jews”). The Latin translation was part of the Dominican efforts to convert the Muslims and Jews of the re-conquered Iberian peninsular, and it was first printed in Paris 1651 and afterwards in Leipzig 1687. The passages, however, are not well identified and even if this book were widely known—which it wasn’t—one would have gained no clear idea of al-Ghazālī’s life and his intellectual development. During the 17th century, however, an Arabic manuscript of the *Deliverer from Er-*

⁸ Ibn Rushd, *Tahāfut al-tahāfut*, ed. M. Bouyges, 2nd. ed., Beirut 1987, p. 522, line 8.

ror became available in Paris. Cardinal Jules Mazarin (1602-1661), whose agents bought books at far away places such as Istanbul, may have brought the book to Europe, and from his library it may have come into the Royal Library in Paris, where it was easily accessible for scholars. The manuscript is still in Paris at the Bibliothèque Nationale.⁹ The French orientalist Barthélemy d'Herbelot (1625-1695) and his colleagues used this manuscript for their encyclopaedia of Islamic literature, the monumental *Bibliothèque Orientale*, published in 1697. D'Herbelot describes the manuscript in quite some detail and translates the title *al-Munqidh min al-ḍalāl*, correctly as "ce qui nous délivre de l'erreur." ("that what delivers us from error"). His description even makes an allusion to the epistemological character of the second chapters in this book:

This doctor [i.e. al-Ghazālī], while asked which is the method that he had employed in order to arrive at the high level of knowledge which he had reached, responded that he had never been obsessed to ask what he did not know.¹⁰

If Barthélemy d'Herbelot could read the *Deliverer from Error* at the end of the 17th century, could other scholars of oriental languages maybe have also read it earlier in that century? And could they have informed René Descartes (1596-1650) of a chapter in that book that has so much similarity with his *First Meditation*? The resemblance between al-Ghazālī and Descartes was first discovered in 1857 by George Henry Lewes in his *Biographical History of Philosophy*.¹¹ Lewes reports with astonishment the similarities between Descartes' *First Meditation*—the first chapter in his Latin work *Meditationes de Prima Philosophia* ("Meditations on Metaphysics") of

9 MS Paris, BN fonds arabe 1331 (ancien fonds 884). See Baron William de Slane, *Bibliothèque Nationale. Département de manuscrits. Catalogue de manuscrits arabe*, Paris 1883-95, pp. 252-253. It contains five text ascribed to al-Ghazālī: *al-Ma'ārij al-'aqliyya*, *al-Munqidh min al-ḍalāl*, *al-Maḍnūn bihi 'alā ghayr ahlihi*, *Mishkāt al-anwār*, and *Mi'rāj al-sālikin*.

10 Barthélemy d'Herbelot et alii, *Bibliothèque orientale, ou, Dictionnaire universel contenant tout ce qui fait connoître les peuples de L'Orient*, 4 vols., Paris 1697; vol. 2, p. 362: "Ce Docteur étant interrogé de quelle methode il s'étoit servi pour arriver à ce haut point de science qu'il avoit acquise; répondit qu'il n'avoit jamais eu hante de demander ce qu'il ne sçavoit pas." Cf. also another passage that focuses on the anti-philosophical attitude of the *Munqidh*, in *Bibliothèque orientale*, vol. 2, p. 621.

11 George Henry Lewes, *The Biographical History of Philosophy, From its Origins in Greece to the Present Day. Library Edition. Much Enlarged and Thoroughly Revised*, London 1857, pp. 304-311.

1641—and the second chapter in al-Ghazālī's autobiography *The Deliverer from Error*. Both texts depart from a radical scepticism in order to reclaim the very possibility of human knowledge. The connection between al-Ghazālī and Descartes has fascinated a number of Arabic scholars during the second half of the 20th century, among them the long-time Egyptian minister or Religious Endowments (*awqāf*), Maḥmūd Ḥamdī Zaqqūq.¹² At one point, the Tunisian scholar 'Uthmān al-Ka'āk – who reported his findings at a conference in Annaba, Algeria, in 1976—promised to show a groundbreaking discovery from the French National Library. Soon after this announcement, however, he died and the assumed proof of a connection between al-Ghazālī and Descartes never materialized.¹³ The question of whether al-Ghazālī had an active influence on Descartes—although generally dismissed by European historians—is still very much debated among Arabic and Muslim historians of philosophy.¹⁴

12 Maḥmūd Ḥamdī Zaqqūq, *Manhaj al-falsafī bayna l-Ghazālī wa-Descartes*, Cairo 1973; and idem, *Bayna l-falsafa al-Islāmiyya wa-l-falsafa al-ḥadītha. Muqārīna bayna l-Ghazālī wa-Descartes*, Cairo 1390/1970. Zaqqūq was Egyptian Minister of *awqāf* from 1996 to 2011. His Arabic publications are based on his German dissertation: Mahmud Zakzouk, *Al-Ghazālī's Grundlegung der Philosophie, mit einer Erörterung seines philosophischen Grundansatzes im Vergleich mit Descartes*, Munich 1968.

13 *Muḥāḍarāt wa-munāqashāt al-multaqā al-āshir li-l-fikr al-Islāmī. 'Annaba 12–21 Rajab 1396h., 10–19 Yūliyū 1976m.*, 5 vols., Annaba 1980, vol. 1, p. 333. Prof. al-Ka'āk tragically deceased during the conference in Annaba, see. *ibid.*, vol. 5, p. 143.

14 See, for instance, Mir Muhammed Sharif in: idem (ed.), *A History of Muslim Philosophy. With Short Accounts of other Disciplines and the Modern Renaissance in Muslim Lands*, 2 vols., Wiesbaden 1963–66, vol. 2, p. 1382; Ghanem Georges Hana, "Vorläufer des 'Cogito, ergo sum' Descartes, in der arabischen Philosophie?" in: *Erkenntnis und Meinungen I*, ed. G. Wießner, Wiesbaden 1973, pp. 107–134; Sami M. Najm, "The Place and Function of Doubt in the Philosophies of Descartes and al-Ghazali," in: *Philosophy East and West* (Honolulu), 16 (1966): 133–141; Leo Groarke, "Descartes' First Meditation: Something Old, Something New, Something Borrowed," *Journal of the History of Philosophy* (St. Louis) 22 (1984): 281–301; Vitali V. Naumkin, "Some Problems Related to the Study of Works by al-Ghazali," in: *Ghazālī. La raison et le miracle. (Table ronde UNESCO, 9–10 decembre 1985)*, Paris 1987, pp. 109–124, at p. 124; Abdelhamid I. Sabra, "Science and Philosophy in Medieval Islamic Theology. The Evidence of the Fourteenth Century", in: *Zeitschrift für die Geschichte der arabisch-islamischen Wissenschaften*, 9 (1994): 1–42, at pp. 28–32

II. The Beginnings of Modern Academic Research:

Solomon Munk, August Schönders and Ernest Renan

Al-Ghazālī's autobiography *The Deliverer from Error* was also the first of his Arabic books to become available in print. August Schönders, a German student of the influential French scholar of oriental languages Sylvestre de Sacy (1758-1838), edited the Arabic text in 1842 from the very manuscript we just discussed and he provided a French translation.¹⁵ In the *Deliverer from Error* al-Ghazālī famously stresses his opposition to the Muslim philosophers and cast himself against them as an upholder of Muslim orthodoxy. The book was initially an apology against accusation of being himself too close to the Muslim philosophers, accusations that were brought forward in Nishapur when al-Ghazālī began teaching at the Nizāmiyya madrasa there in 1106.¹⁶ During the 19th century, European scholars had no knowledge of the Nishapurian controversy; they only read al-Ghazālī's apology where he makes a strong point of distancing himself from the *falāsifa*. Scholars like Renan and many others would pick this up and establish al-Ghazālī as an "enemy of philosophy."

The most important source for Ernest Renan's view of al-Ghazālī was his colleague Solomon Munk. Already in 1844, Munk had published an important study of al-Ghazālī as part of an encyclopaedia project.¹⁷ Munk was an Arabist as well as a scholar of Hebrew and he used many Hebrew translations of the works of al-Ghazālī that were available in Paris at the Bibliothèque Nationale before many Arabic manuscripts were bought there later during the 19th century. One of those Hebrew manuscripts was a translation of al-Ghazālī's *Incoherence of the Philosophers*. Munk was the first European scholar who read this book without Ibn Rushd's refutation next to it. He gives a detailed report of its content, focusing particularly on the 17th discussion about causality. Munk slightly misrepresents

15 *Essai sur les écoles philosophiques chez les Arabes, et notamment sur la doctrine d'Algazzali*, par Auguste Schönders, Paris 1842.

16 See Kenneth Garden, "Al-Māzarī al-Dhakī: al-Ghazālī's Maghribi Adversary in Nishapur," *Journal of Islamic Studies* 21 (2010): 89–107.

17 *Dictionnaire des sciences philosophique. Par une société des professeurs de philosophie*, ed. Adolphe Franck, 6 vols., Paris 1844–52, vol. 1, pp. 177, 506–512. This study was later incorporated into Solomon Munk, *Mélanges de philosophie juive et arabe*, Paris 1857–59, pp. 366–383.

al-Ghazālī, I think, when he says that according to al-Ghazālī “the philosophers’ theory of causality is wrong.” Yet when it comes to the details, Munk is careful in his analysis and correctly states that according to al-Ghazālī, the philosophers are mistaken when they say that the effects cannot come about without the causes. Munk sums up al-Ghazālī’s teachings on causality in two points, saying that he (1) objected that even if two events always appears simultaneous to one another that cannot prove that the one is the cause of the other, and (2) that what the philosophers call laws of nature or the principle of causality are things that come to be through habit, because God wants them that way. There are no immutable laws that God could not break. Overall, Munk’s analysis is quite accurate. Still, it reinforced the wrong impression that al-Ghazālī rejected causality in favour of an occasionalist ontology.¹⁸

Munk was probably the first Western reader of al-Ghazālī who explicitly mentions the connection between al-Ghazālī’s critique of causality and the occasionalism of the early Ash‘arites. Occasionalism is a philosophical ontology that was developed by early Ash‘arite scholars during the 10th century. In their desire to safeguard the Creator’s omnipotence, Ash‘arites worked out this truly original cosmology from earlier Mu‘tazilite theories. One key element of Ash‘arite occasionalism is atomism. Earlier, Mu‘tazilites had argued that all physical objects consist of smaller parts, which at one point can no longer be divided. Atoms are the smallest units of matter and are by themselves bare of all color, structure, smell, or taste. Atoms gain these sensory attributes only after they are assembled into bodies. Their attributes are viewed as “accidents” (singl. *‘araḍ*), that inhere in the substances, i.e. the atoms of bodies. This atomist theory developed in Islamic theology is different from modern ideas about the atom, for instance, because it assumes that atoms are by themselves completely powerless and have no predetermined way of reacting to other atoms or to accidents. Atoms are empty building blocks, so to speak, and they only constitute the shape of a body. All other characteristics are formed by the accidents that inhere in the body.

This occasionalist kind of atomism appealed to the Ash‘arites because it does not assume that potentialities in things limit how these things will develop in the future. Such potentialities would limit God’s actions. Ash‘arites insisted that God would rearrange

 18 Ibid. pp. 377–379.

the atoms and the accidents in every new moment. Whatever exists in this moment has no causal connection to what existed in the moment before. God creates every event in this world—with its atoms and accidents—directly, without any intermediary between Him and the event. There are, therefore, no causal laws. In principle, any atom can adopt any kind of accident as long as God has created the association of this particular atom with that particular accident. If we get the impression that there are indeed laws that govern God's creation it is because God has certain "habits," to create certain things always together with others. These habits give us the impression of causal laws, yet in principle, they are not laws but can be broken.

European scholars and philosophers were quite well informed of the occasionalist ontology of the Ash'arites. The Jewish philosopher Moses Maimonides (d. 1204) gives a faithful yet critical report of the occasionalist teachings of classical Ash'arism at the end of the first part, in chapters 71–76, of his book *The Guide of the Perplexed* (*Dalālat al-ḥā'irīn*).¹⁹ Maimonides presents twelve premises (*muqaddimāt*) of Ash'arite occasionalism and explains their implications. While written in Arabic, Maimonides' *Guide* became known in Europe first through its Hebrew translation (*Mōreh nevūkhīm*, translated c. 1200 by Samuel Ibn Tibbon) and through a Latin translation (*Dux neutrorum* or *Dux perplexorum*, translated c. 1240) made from the Hebrew version. The Ash'arite *mutakallimūn* thus became known in Latin as *loquentes* ("those who speak"). Thomas Aquinas (d. 1274), for instance, was well acquainted with their occasionalist theories. Aquinas discusses and refutes a number of occasionalist assumptions of the Ash'arite *mutakallimūn* in his *Summa contra gentiles* and in other works.²⁰

A good library in late medieval Europe might have contained the Latin version of Maimonides' report on Ash'arite occasionalism in his *Guide of the Perplexed* as well as the Latin translation of Ibn Rushd's *Incoherence of the Incoherence*, which includes al-Ghazālī's famous arguments against causality. Yet we know of no

19 Mūsā ibn Maymūn, *Dalālat al-ḥā'irīn*, ed. Hüseyin Atay, Ankara 1974, pp. 179–228; Engl. trans. *The Guide of the Perplexed*, transl. by S. Pines, 2 vols., Chicago 1963, vol. 1, pp. 175–231.

20 Dominic Perler and Ulrich Rudolph, *Occasionalismus: Theorien der Kausalität im arabisch-islamischen und im europäischen Denken*, Göttingen 2000, pp. 131–153.

European scholar before Munk who made the connection between these two texts and understood that al-Ghazālī's critique of causality is to a significant degree the mere philosophical expression of the Ash'arite's occasionalist ontology. Medieval European scholars did not think of al-Ghazālī—who was known to them as Algazel—as a *mutakallim*—or, as they would say, one of the *loquentes*. Most of them thought of Algazel as a student of Ibn Sīnā—an opponent of the Ash'arites. With Munk and his generation of scholars, the connection between al-Ghazālī's critique of causality and the occasionalist ontology of the early Ash'arites becomes evident. This realization, namely that al-Ghazālī was an occasionalist, becomes widespread during the 19th century and is the point of departure for the next step of al-Ghazālī scholarship on this issue.

Once the connection between al-Ghazālī's philosophical critique of causality and occasionalism is known, it seems that al-Ghazālī's critique becomes less interesting to Europeans. It is quite remarkable that Jean Bodin, for instance, in the 16th century, appreciates al-Ghazālī's ideas on causality and calls him the “smartest of the Arabic philosophers” (“Arabum philosophorum acutissimus”), meaning smarter even than Ibn Rushd. In the 19th century, however, the sympathies of European scholars have shifted to the other side. Now, Ibn Rushd is the champion of rationality and al-Ghazālī the upholder of religious orthodoxy. Two things have obscured Europe's perspective on Islamic philosophy: First, the context of the European Enlightenment which tended to reduce any religious dispute—however subtle it may have been—to a mere contest between progressive rationalism and reactionary fideism. Second, the context of European colonialist expansion that created a need and an urgent desire to portray the prevailing Islamic thinking as irrational, backward oriented, and unfit to lead Islamic nations into the future. Renan's interpretation of al-Ghazālī offers all that.

The importance of Ernest Renan for the European understanding of Islamic philosophy cannot be overstated. Renan created the grand narrative of the fate of philosophy in Islam. This narrative says that based on the translations from the Greek, Arabic and Islamic culture produced great minds of philosophy, philosophers such as al-Kindī, al-Fārābī, Ibn Sīnā and Ibn Rushd. But this philosophical movement fell into decay after the 5th/12th century when the torch of rationalist thinking passed from the Islamic civilization to the Christian one. Renan writes—probably not very well in-

formed—that at his time, Muslim scholars were ignorant of the existence of a philosophical tradition in Islam.²¹ Renan implies that the true heirs of these philosophers are not the Muslims but rather the Christians, a fact that is expressed even in the title of Renan's book: *Averroes and Averroism*. The Averroists, i.e. the followers and the heirs of Ibn Rushd in that title, were not Muslims but they were Christian scholars at the faculty of arts in Paris.

In order for al-Ghazālī to fit into this grand narrative, he had to become an “enemy of philosophy.” Renan describes him as having “a decisive influence on Arabic philosophy,” and suggests that he was behind the persecution of philosophers and “the war against philosophy at the end of the 12th century.”²² These words shaped the view of al-Ghazālī among intellectuals in Europe, a view that, as we will see, is still rampant.

III. Doubts in al-Ghazālī's Occasionalism — W. T. H. Gairdner and the Early 20th Century

The next step in the study of al-Ghazālī's cosmology and his views about causality followed the publication of his *Niche of Lights* (*Mishkāt al-anwār*) at the beginning of the 20th century. The *Niche of Lights* was a relative latecomer among the major works of al-Ghazālī known to Western scholars. Like many of his texts, the book became first known in its medieval Hebrew translation. Based on that, there were a few studies of it from the second half of the 19th century.²³ The first Arabic printing of the book, however, in Cairo 1904 led to important developments among Western Ghazālī-scholarship.²⁴ In an article of 1914, the Scottish scholar of religion William H. T. Gairdner (1873–1928) lines out a number of problems that are created by passages in the *Niche of Lights* where

21 Renan, *Averroès et l'averroïsme*, p. 90.

22 Ibid. pp. 29, 98.

23 See Richard Gosche, “Über Ghazzālīs Leben und Werke,” *Abhandlungen der philo.-histor. Klasse der Königl. Akademie der Wissenschaften* [Berlin] (1858): 239–311, at pp. 263–264; and Moritz Steinschneider, *Die hebraeischen Übersetzungen des Mittelalters und die Juden als Dolmetscher: Ein Beitrag zur Literaturgeschichte des Mittelalters, meist nach handschriftlichen Quellen*, Berlin 1893, pp. 345–348.

24 al-Ghazālī, *Mishkāt al-anwar*, ed. A. 'Izzat and F. Zakī al-Kurdī, Cairo: Maṭba'at al-ṣidq, 1322 [1904–5]). The text was reprinted by the Maṭba'at al-Sa'āda in Cairo in 1325 [1907–08].

al-Ghazālī puts forward teachings that are not at all compatible with the assumption that he was an occasionalist.

Gairdner's doubts in the occasionalist nature of al-Ghazālī's ontology were prompted by what he called the Veil Section in the *Niche of Lights*, a relatively brief passage of about 8–10 pages at the end of al-Ghazālī's book.²⁵ Here, al-Ghazālī classifies various religious sects according to how thickly they are veiled from "the light." In the earlier parts of the book, al-Ghazālī had explained that the word "light" should be regarded as referring to God as the source of all being. In the closing part of the Veil Section at the very end of the book, al-Ghazālī describes the insight of those people who are not veiled and who have a proper knowledge of God. It is this report of the knowledge of the un-veiled and initiated that baffled Gairdner. Al-Ghazālī says here that the people who are not veiled from God understand that God is neither a being that moves the heavens, nor one that govern the heavens' movements. He is highly exalted over these kinds of activities. God is also exalted over the action of giving the order (*al-amr*) that the heavens are moved. All these actions, al-Ghazālī assigns to other beings that are below God and that are, in fact, His creations. In al-Ghazālī's view, those who have full insight into the divine assume that there are several "vice-regents" of whom the highest one is "the one who gives the order" (*al-āmir*). The lower beings who receive his order identify him as the "one who is obeyed" (*al-muṭā*). Gairdner correctly concluded that a God that delegates tasks to elements of His creation is not compatible with occasionalism. Occasionalism means that God creates everything immediately by Himself. It clearly violates the occasionalist principle that God is the unmediated creator of everything.²⁶

25 al-Ghazālī, *Mishkāt al-anwār* [1907–08], pp. 47–57. Cf. the English translations by W. H. T. Gairdner, *Al-Ghazzālī's Mishkāt al-anwār* ("The Niche for Lights"), London 1924, pp. 150–172; and David Buchman: *Al-Ghazālī: The Niche of Lights. A Parallel English-Arabic Text*, Provo [Utah] 1998, pp. 44–53.

26 W. H. T. Gairdner, "Al-Ghazālī's Mishkāt al-Anwār and the Ghazālī Problem," *Der Islam* 5 (1914): 121–153, at p. 128: "Not only is Allāh now denied to be the immediate efficient cause of the motion of the outermost Sphere, but – and this is startling – it is even denied that that Sphere is moved in obedience to His command. For even this supreme function is explicitly transferred from Allāh to a Being whose nature is left obscure, since our only information about him is that he is not (the) Real Being (*al-wujūd al-ḥaqq*)."

What Gairdner saw here—and what later Western scholars saw even clearer—was a different cosmological theory, called “secondary causality.” This cosmological model was developed by Islamic philosophers such as al-Fārābī (d. 950), for instance. Al-Fārābī taught that there are ten spheres, with the lowest being the sub-lunar sphere of generation and corruption where humans, animals, and plants live. The nine other spheres are in the heavens, wrapped around each other like layers of an onion. Each of the ten spheres in al-Fārābī’s model of the universe consists of a material body and a soul. The soul is dominated by an intellect that governs the sphere and causes its movement. The intellect that governs the highest sphere is the highest created being. Beyond it is only the being that causes all this, i.e. the First Principle, of which al-Fārābī says it is God. God directly acts only upon one being, which is the intellect that resides in the highest celestial sphere. God’s oneness prevents Him from acting upon anything else. What is truly single in all its aspects is unchanging and can only have one effect, says al-Fārābī, which is the highest created being. This is the first intellect that causes, in turn, the existence of its sphere, and it also causes the intellect of the sphere right below it, i.e. that of the fixed stars. Every celestial intellect causes the sphere and the intellect below it. Al-Fārābī calls the ten celestial intellects “secondary causes” (*asbāb thawānī*). God mediates His creative activity through these secondary causes to the lowest celestial intellect, the tenth one, the so-called “active intellect.” It causes the existence of all the beings in the sub-lunar sphere—all beings on earth. Almost all members of the philosophical movement in Islam applied this Farabian model of secondary causality. All in all it describes creation in long chains of secondary causes, where every event in this world is caused by God, but not caused directly as in the occasionalist model, but through the mediation of other causes, i.e. secondary causes, that are also created by God.

Gairdner regarded occasionalism as an expression of the principle of the unity of God (*tawḥīd*). Since *tawḥīd* was “the anxious care” of al-Ghazālī, Gairdner finds the division of labour between God as creator and some of His creatures in the Veil Section of the *Niche of Lights* most disturbing.²⁷ Gairdner correctly assumed that in the Veil Section al-Ghazālī applies a neo-Platonic, i.e. a Farabian model of secondary causality and he points to an “apparent con-

²⁷ Ibid. p. 132.

tradition" of this teaching with what al-Ghazālī has put forward in his autobiography *The Deliverer From Error*. There he teaches occasionalism, so Gairdner, by saying that nature (*al-ṭabīʿa*) does not work by itself and that all creatures, even the highest ones like the sun, the moon, and the stars, are subject to the Creator's command (*amr*) and have no action by themselves coming from themselves.²⁸ In short, Gairdner claimed that in works such as *The Deliverer From Error*, al-Ghazālī put forward an occasionalist model of divine creation and teaches that God is the immediate creator and commander of His creatures, while in the *Niche of Lights* God's creative activity is mediated by "vice-regents," most notably the "one who is obeyed" (*al-muṭāʿ*). In the *Niche of Lights* al-Ghazālī would therefore affirm causality, whereas elsewhere he had denied it.

In an attempt to explain and reconcile these apparent contradictions, Gairdner suggested that al-Ghazālī published two different sets of teachings, one in works written for the ordinary people (*ʿawāmm*) and a different set of teachings in works that were written for an intellectual elite (*khawāṣṣ*). The *Niche of Lights* was of the latter kind, Gairdner suggested, written for a readership that was able to properly evaluate possible conflicts of its teachings with widely accepted religious doctrine put forward in the more popular books by al-Ghazālī.²⁹ But if these two teachings were equally true, Gairdner asked, did al-Ghazālī teach a "doppelte Wahrheit,"³⁰ a double truth, meaning that he taught one truth for his less educated readers and another for his well-trained close followers?³¹ Gairdner

28 Ibid. p. 143. See al-Ghazālī, *Al-Munqidh min al-ḍalāl / Erreur et délivrance*, ed. and trans. into French by Farid Jabre, Beirut 1969, p. 23. Cf. the English translation in *Deliverance from Error. An Annotated Translation of al-Munqidh min al-ḍalāl and Other Relevant Works of al-Ghazālī* by R. J. McCarthy, 2nd ed., Louisville [Kenn.] 2000, p. 66.

29 Gairdner, "Al-Ghazālī's Mishkāt al-Anwār and the Ghazālī Problem," p. 153.

30 Ibid. p. 153. Gairdner quotes the term in German.

31 The accusation of teaching a "double truth" was initially levied against some Averroists, i.e. Latin followers of Ibn Rushd (Averroes) in Paris during the late 13th century. They were accused of assuming that there is one truth on the side of religion and another on the side of philosophy. In his 1277 condemnation of 219 philosophical theses, Stephen Tempier, the Bishop of Paris, accused some Averroists at the Paris University of saying that there are teachings which are "true according to philosophy but not according to the Christian faith, as if there were two contrary truths (*duae contrariae veritates*) and as if there stood against the truth of Holy Scripture the truth in the sayings of the damned gentiles."

called this question the “Ghazālī-problem.” The difficulty was, in Gairdner’s words: “What was the *absolute* Islamic truth in his view? Was it the exotericism of the pious *‘awāmm*? or the esotericism of the mystic *khawāṣṣ*?”³² Was it occasionalism for the Muslim masses or creation by delegation for the elite? Gairdner includes in his article a pessimistic note, saying that the “Ghazālī problem” can probably never be solved.³³

Gairdner also assumed that he was not the first scholar stunned by the teachings in the Veil Section and he quotes from the works of Ibn Ṭufayl (d. 1185–86) and Ibn Rushd who were equally taken aback by this apparent contradiction in al-Ghazālī’s writings.³⁴ “The matter does not lack in strangeness, and it certainly looks as if [al-Ghazālī’s] esoteric theory of divine action differed considerable from his exoteric one.”³⁵

After Gairdner’s important article on the “Ghazālī problem” of 1914, other Western scholars shared his conclusion that there must be two sets of teachings by al-Ghazālī one exoteric one and one esoteric one. The *Niche of Lights* with its veil section remained popular with scholars of al-Ghazālī and the Dutch orientalist Arent J. Wensinck (1882–1939) contributed two interesting studies on the subject.³⁶ In 1949, the Scottish scholar of Islamic studies William M. Watt (1909–2006) tried to solve the problem of an exoteric and esoteric al-Ghazālī by suggesting that the Veil Section in the *Niche of Lights* is a forgery not authored by al-Ghazālī and unduly inserted into the text of the book.³⁷ Watt was an immensely influential scholar and his suggestion—albeit based on

32 Gairdner, “Al-Ghazālī’s Mishkāt al-Anwār and the Ghazālī Problem,” p. 153. Emphasis in the original.

33 Ibid. p. 144: “It also looks as if we shall never know the whole explanation of the matter.”

34 bid. pp. 133–134, 138, 145–151. Gairdner refers to Ibn Rushd’s comments on al-Ghazālī in [*al-Kashf ‘an*] *Manāhij al-adilla fī ‘aqā’id al-milla*, ed. M. Qāsim, Cairo 1969, pp. 183–184, and to Ibn Ṭufayl’s remarks in the introduction to his *Ḥayy ibn Yaqzān*, ed. L. Gauthier, Béirut 1936, pp. 17–18.

35 Gairdner, “Al-Ghazālī’s Mishkāt al-Anwār and the Ghazālī Problem,” p. 144.

36 Arent J. Wensinck, “Ghazālī’s Mishkāt al-anwār (Niche of Lights),” in idem, *Semietische Studien uit de Nalatenschap*, Leiden 1942, pp. 192–212; and idem, “On the Relation Between Ghazālī’s Cosmology and his Mysticism,” *Mededeelingen der Koninklijke Akademie van Wetenschappen, Afdeling Letterkunde Deel 75, Serie A, No. 6* (1933), pp. 183–209.

37 William M. Watt, “A Forgery in al-Ghazālī’s Mishkāt?” *Journal of the Royal Asiatic Society* 1949: 5–22.

feeble evidence—was taken seriously for at least a few decades. Today, with our increased awareness of how carefully Muslim scholars treated the texts in their own scholarly tradition, we cannot imagine how anybody could make changes to a text that was published during the lifetime of the author, that circulated in various manuscripts, and that was continuously studied through the centuries.³⁸ To assume that one could simply insert several pages into an already existing book—and that such changes would remain undetected until discovered by a scholar in the West who had not worked with any of the manuscripts—shows a significant degree of disdain for the seriousness of Islamic scholarship. Such attitude was to some degree typical for Western scholarship on Islam during the mid- and late-20th century and has since given way to a more open appreciation of the academic contribution of Ghazālī-scholars within the Muslim tradition, scholars such as Tāj al-Dīn al-Subkī (d. 1370), al-Wāsiṭī (d. 1374), al-Nawawī (d. 1277), Ḥājji Khalīfa Çelebi (d. 1657), or al-Murtaḍa al-Zabīdī (d. 1791), who contributed immensely to our knowledge of al-Ghazālī's life and his works.

IV. Beyond the Esoteric and the Exoteric:

Michael E. Marmura and Richard M. Frank

The explanation that al-Ghazālī published two sets of teaching during his lifetime, an esoteric and exoteric one was dominant though the most part of the 20th century and was, for instance, also the working assumption of Hava Lazarus-Yafeh's (1930–1998) important collection of studies on al-Ghazālī published in 1975.³⁹ Lazarus-Yafeh taught at the Hebrew University in Jerusalem and in 1988, her student Binjamin Abrahamov began a new chapter in the search for al-Ghazālī's true position with regard to causality. In an article of that year he looked at all of al-Ghazālī's works written after the *Incoherence of the Philosophers* and asked whether there, he teaches occasionalism or creation through secondary causality?

³⁸ Classical Muslim scholars treated the texts of their tradition with much respect and they compared and collated different manuscripts of any given text, see for instance Franz Rosenthal, *The Technique and Approach of Muslim Scholarship*, Rome 1947, pp. 22–27.

³⁹ On esoteric and exoteric writing in al-Ghazālī (though with little reference to the question of his cosmology), see Hava Lazarus-Yafeh, *Studies in al-Ghazali*, Jerusalem 1975, pp. 349–411.

Abrahamov excluded the *Incoherence of the philosophers* because as a work of refutation it may include positions and arguments that may not represent the author's real opinion, Abrahamov studied *The Revival of the Religious Sciences* (*Ihyā' 'ulūm al-dīn*), *The Book of the Forty* (*Kitāb al-Arba'īn*), and al-Ghazālī's commentary on the Ninety-Nine Noble Names (*al-Maḥṣad al-asnā fi sharḥ ma'ānī asmā' Allāh al-ḥusnā*). Abrahamov concluded that in these three works, al-Ghazālī uses language that assumes that causes do have efficacy on other things. To be sure, it is God who creates the causes and maintains and regulates their influences. Yet in these works, al-Ghazālī suggests that the influence of causes is indeed real and not just an illusion. Once put into place, the causes lead to effects that are themselves desired by God. Abrahamov also noted that in a fourth work of al-Ghazālī's, *The Balanced Book on What-To-Believe* (*al-Iqtīṣād fi l-i'tiqād*) the author uses language that is distinctly occasionalist. Here he maintains that God should be regarded as the immediate creator of each individual event and that if He so wished, He could break His habitual patterns of creation and suspend what we postulate as efficient causality. Given that those works implying a causal theory were written after *The Balanced Book*, Abrahamov suggests that al-Ghazālī changed his mind "but preferred to conceal his true opinion by contradicting himself."⁴⁰ In his analysis Abrahamov is not different from what W. T. H. Gairdner had proposed seventy years earlier, namely that al-Ghazālī had two sets of teachings, one where he proposed occasionalism and another, where he put forward secondary causality.

However, there had been other voices. All through the fifty years between 1959 and his death in 2009, the Palestinian-Canadian scholar Michael E. Marmura (1929–2009) had published numerous articles on al-Ghazālī's cosmology, where the assumption that there are two sets of Ghazalian teachings no longer appear. Marmura, who was born in Jerusalem and had moved to Canada, began his academic career with a dissertation on philosophical arguments in al-Ghazālī's *Incoherence of the Philosophers*. Soon thereafter, Marmura made particularly valuable contributions for our understanding of the philosophy of Ibn Sīnā, and he came to understand the large degree to which al-Ghazālī had been influenced by Ibn Sīnā. In all of his studies Marmura maintained, however, that al-Ghazālī

40 Binjamin Abrahamov, "Al-Ghazālī's Theory of Causality," *Studia Islamica* 67 (1988): 75–98, at p. 91.

was an occasionalist who adopted elements from Ibn Sīnā's philosophy and employed them to serve his drastically different philosophical purposes.⁴¹ Other interpreters such as William L. Craig followed Marmura in their analysis and maintained that al-Ghazālī "did not believe in the efficacy of secondary causes."⁴²

In 1992, the American Richard M. Frank (1927–2009) published the first study that would openly argue against the notion that al-Ghazālī published two or more different sets of teachings in his different works. In his short monograph *Creation and the Cosmic System: Al-Ghazālī & Avicenna*, Frank rejected the division of al-Ghazālī's works into esoteric and exoteric.⁴³ Like Abrahamov, Frank based the bulk of his analysis on the works *The Highest Goal in Explaining the Beautiful Names of God*, *The Book of Forty*, and several books of the *Revival*. Frank also includes *The Niche of Lights*, *Restraining the Ordinary People from the Science of Kalām*, and *The Balanced Book on What-to-Believe*, and was thus able to cover almost the whole Ghazalian corpus. Frank claimed that contrary to common opinion, al-Ghazālī teaches (1) that the universe is a closed, deterministic system of secondary causes whose operation is governed by the first created being, an "angel" (or "intellect") associated with the outermost sphere; (2) that God cannot intervene in the operation of secondary causes, celestial or sublunary; and (3) that it is impossible that God have willed to create a universe in any respect different from this one he has created.⁴⁴ God governs the universe through intermediaries, and He cannot disrupt the

41 Michael E. Marmura, "Ghazālī and Demonstrative Science," *Journal of the History of Philosophy* 3 (1965): 183–204; idem, "Al-Ghazālī's Second Causal Theory in the 17th Discussion of His Tahāfut," in: *Islamic Philosophy and Mysticism*, ed. P. Morewedge, Delmar (N.Y.) 1981, pp. 85–112, and idem, "Al-Ghazālī on Bodily Resurrection and Causality in Tahafut and The Iqtisad," *Aligarh Journal of Islamic Thought* 2 (1989): 46–75. The first and the last mentioned studies are (with different pagination) reprinted in Michael E. Marmura, *Probing in Islamic Philosophy: Studies in the Philosophies of Ibn Sīnā, al-Ghazālī and Other Major Muslim Thinkers*, Binghamton (N.Y.) 2005.

42 William L. Craig, *The Kalām Cosmological Argument*, London and Basingstoke 1979, pp. 45–46; repeated in idem, *The Cosmological Argument from Plato to Leibniz*, London and Basingstoke 1980, p. 101.

43 Richard M. Frank, *Creation and the Cosmic System. Al-Ghazālī & Avicenna*, Heidelberg 1992, p. 11. See also Frank's subsequent monograph, *Al-Ghazālī and the Ash'arite School*, Durham 1994, p. 91.

44 Cf. Frank's own synopsis of his conclusions in his book *Al-Ghazālī and the Ash'arite School*, p. 4.

operation of these secondary causes. Frank concluded that while al-Ghazālī rejected the emanationism of al-Fārābī and Ibn Sīnā, for instance, his own cosmology is almost identical to that of Ibn Sīnā. Earlier contributions to the academic debate, Frank pointed out, had already established that al-Ghazālī accepted some of Ibn Sīnā's teachings while rejecting others.

What we have seen on a closer examination of what [al-Ghazālī] has to say concerning God's relation to the cosmos as its creator, however, reveals that from a theological standpoint most of the theses which he rejected are relatively tame and inconsequential compared to some of those in which he follows the philosopher.⁴⁵

Al-Ghazālī's views on causality, so Richard M. Frank, in *The Balanced Book on What-to-Believe*, for instance, do not differ from those in his commentary on God's Ninety-Nine Noble Names or in *The Niche of Lights*. Frank implicitly acknowledged that al-Ghazālī uses both causalist and occasionalist language in his works. The contradictions that were noted by earlier readers, however, exist only on the level of language and do not reflect substantive differences in thought. When al-Ghazālī uses occasionalist language, Frank claimed, he subtly alters the traditionalist language of the Ash'arite school, making it clear that he does not subscribe to its teachings. Thus while al-Ghazālī's language in such works as *The Balanced Book* often reflects that of the traditionalist Ash'arite manuals, his teachings even in that work express creation by means of secondary causality.⁴⁶

Michael E. Marmura objected to Richard M. Frank's results and rejected the suggestion that al-Ghazālī accepted any efficient causality among God's creatures.⁴⁷ Reacting to Frank's suggestion,

45 Frank, *Creation and the Cosmic System*, p. 86.

46 Ibid., pp. 31–7. Frank was highly critical of al-Ghazālī's ability—or willingness—to express himself clearly. On certain subjects, so Frank, al-Ghazālī, “fudges the issue (...) in a fog of traditional language,” “tends to weasel,” “buries the real issue under a cloud of dialectical obfuscation,” and offers “somewhat inconclusive rigmarole” (Frank, *Al-Ghazālī and the Ash'arite School*, pp. 49, 89–90). Frank's analysis of al-Ghazālī's language has been criticized by Ahmad Dallal in his “Ghazālī and the Perils of Interpretation,” *Journal of the American Oriental Society* 122 (2003): 773–87, at pp. 777–87. Dallal sees a certain philological sloppiness in Frank's treatment of al-Ghazālī's texts that jumps to pre-conceived and often untenable conclusions.

47 Michael E. Marmura, “Ghazālīan Causes and Intermediaries,” *Journal of the American Oriental Society* 115 (1995): 89–100, at pp. 92–93.

Marmura conceded that al-Ghazālī makes use of causalist language, “sometimes in the way it is used in ordinary Arabic, sometimes in a more specifically Avicennian / Aristotelian way,” and that this usage of language is innovative for the Ash‘arite school discourse.⁴⁸ Yet in all major points of Muslim theology, al-Ghazālī held positions that closely followed ones developed earlier by Ash‘arite scholars, such as the possibility of miracles, the creation of human acts, and God’s freedom in all matters concerning the creation of the universe.⁴⁹ In Marmura’s view, al-Ghazālī never deviated from occasionalism, although he sometimes expressed his opinions in ambiguous language that mocked philosophical parlance, likely to lure followers of *falsafa* into the Ash‘arite occasionalist camp.

Like Frank, Marmura did not assume that al-Ghazālī expressed different opinions about his cosmology in different works. In research published after Frank’s 1992 study, Marmura focused on the *The Balanced Book* (*al-Iqtiṣād*) and tried to prove that at least here, al-Ghazālī expresses unambiguously occasionalist positions.⁵⁰ Using a passage in the *Incoherence*, Marmura assumed this work to be the “sequel” to that work of refutation, where al-Ghazālī “affirms the true doctrine.”⁵¹ For Marmura, the *Balanced Book* is thus the most authoritative work among al-Ghazālī’s writings on theology. Like Frank, he claimed that a close reading of all of al-Ghazālī’s texts will find no contradictions on the subject of cosmology. Marmura acknowledged that al-Ghazālī uses causalist language that ascribes agency to created objects in the *Revival*, in the *Incoherence*, in the *Standard of Knowledge*, and in other works. Yet such language is used metaphorically, just as we might say, “fire kills” without assuming that it has such agency in real terms.⁵² Rather, the causal language must be read in occasionalist terms.⁵³ Al-Ghazālī’s use of such words as “cause” (*sabab*) or “generation”

48 Ibid. p. 89.

49 Ibid. pp. 91, 93–97, 99–100.

50 Michael E. Marmura, “Ghazali’s Chapter on Divine Power in the *Iqtiṣād*.” *Arabic Sciences and Philosophy* 4 (1994): 279–315. The study is repinted in Marmura, *Probing*, pp. 301–334.

51 Michael E. Marmura, “Ghazali’s *al-Iqtisad fi al-I’tiqad*. Its Relation to *Tahaft al-Falasifa* and to *Qawa’id al-Aqa’id*.” *Aligarh Journal of Islamic Philosophy* 10 (2004): 1–12.

52 Marmura, “Ghazālian Causes and Intermediaries,” p. 96.

53 Marmura, “Ghazali and Demonstrative Science,” p. 193.

(*tawallud*) is only metaphorical, Marmura claims. These terms are commonly used in Arabic, and "it would be cumbersome to have to keep on saying that this is metaphorical usage, or that the reference is to habitual causes and so on."⁵⁴ Like Frank, Marmura was aware of the significant extent to which Ibn Sīnā's thought has shaped al-Ghazālī's theology. Marmura sees in al-Ghazālī "a turning point in the history of the Ash'arite school of dogmatic theology (*kalām*)."⁵⁵ He adopts many of Ibn Sīnā's ideas and reinterprets them in Ash'arite terms. While al-Ghazālī's exposition of causal connections often draws on Ibn Sīnā, the doctrine that he defends is Ash'arite occasionalism.⁵⁶

Both Frank and Marmura denied the possibility that al-Ghazālī showed any uncertainty or may have been in any way agnostic about which of the two competing cosmological theories is true.⁵⁷ Frank bemoaned al-Ghazālī's failure to compose a complete, systematic summary of his theology.⁵⁸ He also believed that there was no notable theoretical development or evolution in al-Ghazālī's theology between his earliest works and his last. This theology is the one Frank had characterized in his *Creation and the Cosmic System*, and it is, in Frank's view, "fundamentally incompatible with the traditional teaching of the Ash'arite school."⁵⁹ While rejecting this last conclusion, Marmura did agree that al-Ghazālī held only one doctrine on cosmology and causation. Marmura argued that the evidence from texts like *The Balanced Book on What-to-Believe* and some textual expressions in the *Incoherence* leads to the assumption that al-Ghazālī was committed only to the occasionalist explanation of causal connections.⁶⁰

54 Marmura, "Ghazālian Causes and Intermediaries," p. 97.

55 Michael E. Marmura, "Ghazali's Attitude to the Secular Sciences and Logic," in: *Essays on Islamic Philosophy and Science*, ed. G. F. Hourani, Albany 1975, pp. 100–111, at p. 100.

56 Michael E. Marmura, "Ghazali and Ash'arism Revisited," *Arabic Sciences and Philosophy* 12 (2002): 91–110, at pp. 93, 108.

57 Marmura expressed that explicitly ("Ghazali and Demonstrative Science," p. 183); Frank never considered that option as far as I can see.

58 Frank, *Al-Ghazālī and the Ash'arite School*, pp. 3, 100–101. Marmura believed this work is available as *al-Iqtisād fī l-i'tiqād*.

59 Frank, *Al-Ghazālī and the Ash'arite School*, pp. 4, 29, 87, 91.

60 Marmura, "Al-Ghazālī's Second Causal Theory," pp. 86, 96–98, 101–107; idem, "Ghazali on Bodily Resurrection and Causality," pp. 50, 59–65.

V. Latest Developments:

Understanding al-Ghazālī's Cosmology in the 21st Century

When I began studying al-Ghazālī at the beginning of the 1990s, the controversy between Richard M. Frank and Michael E. Marmura seemed unsolvable. Both had very good arguments on their side and both provided a good documentation for them from the works of al-Ghazālī. It was most disturbing that Frank and Marmura used some of the same works, sometimes even the same passages, to underline their different theses. Apparently, the same texts by al-Ghazālī could be interpreted either as Frank or as Marmura did. Any suggestion that al-Ghazālī wrote two types of works, one that supports Frank's analysis of a philosophical, causalist cosmology and another type of works that provides evidence for Marmura's interpretation that he applied the traditional Ash'arite occasionalist cosmology was futile.

In in a book published in 2009, I tried to resolve the impasse created by Frank's and Marmura's work. In the introduction to my *Al-Ghazālī's Philosophical Theology*, I write that I see the course of Ghazālī-studies in the West as a fitting illustration for G.F.W. Hegel's theory of a dialectical progress, with thesis, anti-thesis and synthesis:

While Frank's and Marmura's works are the thesis and the anti-thesis (or the other way round), this book wishes to be considered a synthesis. In truly Hegelian fashion, it does not aim to reject any of their work or make it obsolete. Rather, its aim is the *Aufhebung* of these earlier contributions in all meanings of that German word: a synthesis that picks up the earlier theses, elevates them, dissolves their conflict, and leads to a new resolution and progress.⁶¹

In my book I argue that neither Frank nor Marmura were wrong in their analyses of al-Ghazālī's works. Al-Ghazālī wrote his texts in a way that these two interpretations are both supported. I argue that al-Ghazālī was ultimately undecided whether God governs over every element of his creation immediately and mono-causal, or whether His creative activity is mediated by other beings, who are themselves His creations. In different of his works al-Ghazālī teaches sometimes an occasionalist model of divine creation and at other times one that allows for the existence of secondary causes as means of divine creative activity. In most of his texts, howev-

61 Frank Griffel, *al-Ghazālī's Philosophical Theology*, New York 2009, p. 11.

er, he does not commit himself to any of the two alternatives and uses language that can be understood in both ways. In my book I try to show that at the end of his life al-Ghazālī was quite outspoken about his indecisiveness in this matter. In his short work *Restraining the Ordinary People from the Science of Kalām* (*Iljām al-'awāmm 'an 'ilm al-kalām*) he discusses whether God employs secondary causes in His creation and concludes that the learned scholar must admit that we do not know whether He does or not. Al-Ghazālī's teaches that the scholar must refrain from judgment in this matter, even if he thinks that he is overwhelmed by an assumption in one direction.⁶²

In my book I suggest that once the epistemological status of knowledge about God's creative activity is taken into account, the apparent contradiction in al-Ghazālī's teachings on cosmology can be much better understood, and, as I suggest, even be resolved. For al-Ghazālī we *cannot* know how God acts upon His creation—either directly or through secondary causes. Yet both models, occasionalism and secondary causality, offer congruent explanations of the universe. For al-Ghazālī these two models represent different speculative attempts to explain God's creative activity that have the same practical results. For all practical purposes, so teaches al-Ghazālī, we should assume that the causes that we witness will not change in terms of the effects to which they lead. All talk about God's "habits," boils down for al-Ghazālī to unchanging laws of nature. God has created these laws, and although God's omnipotence would allow Him to break these laws if He wanted so, God informs us in revelation that He will never do so. In the thirty-first book of his *Revival of the Religious Sciences* (*Iḥyā' 'ulūm al-dīn*), al-Ghazālī says that God creates all things one after the next in an orderly manner. This God may achieve on an occasionalist way, we may add, or by employing secondary causes. After making clear that this order represents God's habit (*sunna*), al-Ghazālī quotes the Qur'an: "You will not find any change in God's habit."⁶³ This verse is quoted several times in the *Revival of the Religious Sciences*; in one passage, al-Ghazālī adds that we should not think that God would ever change his habit (*sunna*). The implication is clear: If God does not change His habit, all causal connections that we

⁶² Ibid., pp. 264–274.

⁶³ *lā tajidu fī sunnati Llāhi tabdīlan*, Q 33:62, 48:23; cf. also Q 30:30: *lā tabdīli li-khalqi Llāh*. Griffel, *Al-Ghazālī's Philosophical Theology*, p. 198–199.

witness today will be the same all through the time that God maintains His creation, i.e. all through the universe.

From all this it becomes clear that despite having a sceptical attitude towards causality, al-Ghazālī had a keen interest to produce a theology and a philosophy that would allow for the pursuit of the natural sciences. Whatever al-Ghazālī thinks about God's omnipotence, his God is a rational one who does not deceive humans nor does He lead them astray. Al-Ghazālī's God created a universe where humans can predict the outcome of causal processes based on the experience they make today. In that way, al-Ghazālī should with more justification than Aristotelians such as Ibn Sīnā or Ibn Rushd be considered someone who laid the foundations for the modern methods of the natural sciences—based on experience (*tajriba*). The deductive epistemology of Ibn Sīnā and Ibn Rushd would have not led humanity to formulate the basis of modern physics and the natural sciences.⁶⁴ Al-Ghazālī's epistemology thus laid the ground-work for important scientific achievements in Islam after the 11th century.

Overall, however, Western intellectuals are still far from acknowledging that al-Ghazālī was a promoter of the sciences in Islam. Most Western intellectuals are still all too familiar with the grand narrative of the fate of philosophy in Islam that is dominant in the West since the days of Ernest Renan. A recent example from 2007 illustrates how al-Ghazālī is understood among most readers in the West. In January and February of 2007 the *Times Literary Supplement* of London—a publication that appeals to the general readership in England and North America—devoted considerable space on its pages to a dispute on the fate of the natural sciences under Islam. Steven Weinberg, a professor emeritus of physics at the University of Texas at Austin who in 1979 received the Nobel Prize for his work in theoretic physics, contributed a review on science and religion. Weinberg believes that there is an inherent conflict between religion and science, and that religious authority and the productive pursuit of the natural sciences are natural enemies. In his review Weinberg turned his attention to Islam. He writes:

(...) Islam turned against science in the twelfth century. The most influential figure was the philosopher Abu Hamid al-Ghazzali, who argued in *The Incoherence of the Philosophers* against the very idea of laws of nature, on the ground that any such laws would put God's hands in

chains. According to al-Ghazzali, a piece of cotton placed in a flame does not darken or smoulder because of the heat, but because God wants it to darken and smoulder. After al-Ghazzali, there was no more science worth mentioning in Islamic countries.⁶⁵

Weinberg's comments triggered some noteworthy responses from expert scholars who work in the field of Islamic sciences. Jamil Ragep, for instance, professor at McGill University, highlighted the backwardness of Weinberg's views and pointed out that he disregards "three or more generations of scholarship over the past hundred years that has brought to light the works of scores of Islamic scientists between the twelfth and the eighteenth century." Given the considerable literature that is available today, Ragep continued, it is difficult to understand why Weinberg prefers ideologically based opinion to solid historical research. In his response to these letters, Weinberg again states that Muslim scientists made no contribution to the development of such discoveries as the heliocentric planetary system or the pulmonary circulation of the blood. All these, he claimed, were Western discoveries to which Islamic scholars made no contribution. Weinberg also repeated his view that while there were still talented scientists after al-Ghazali, their work found no place in Islamic societies.

Weinberg could, of course, expect that many readers of the *Times Literary Supplement* would sympathize with his views. After all, most people in the West think of Islamic Civilization as a phenomenon of the past. Ernest Renan's view that Islam is stuck on a lower developmental stage than Western societies in the eternal fight between rationalism and religion is still widespread in the West. Like Renan, many people are convinced that Islam needs to undergo either a period of Reformation or a period of Enlightenment. Since the days of Renan, al-Ghazālī has always played a leading role in Western attempts to explain the assumed backwardness of Islam.

65 Steven Weinberg, "A Deadly Certitude," in *Times Literary Supplement*, 19 January 2007, p. 3. Weinberg repeated this passage in his article "Without God," in *The New York Review of Books*, 25 September 2008. For another discussion of Weinberg's remark and the reaction to it see my article "Al-Ghazālī's Appropriation of Ibn Sīnā's Views on Causality and the Development of the Sciences in Islam / El-Gazali'nin, İbn Sina'nın Nedenlilik Hakkındaki Görüşlerini Benimsemesi ve İslam'da Bilimin Gelişimi," in: *Uluslararası İbn Sīnâ Sempozyumu Bildiriler / International Ibn Sina Symposium: Papers*, ed. Nevzat Bayhan *et alii*, 2 vols., Istanbul 2009, vol. 2, pp. 105–126.

We can only hope that the public opinion in the West will catch up with what is currently discussed among its Ghazālī-scholars and acknowledge the progressive and rationalizing role al-Ghazālī had within the history of Islamic theology and the sciences in Islam.

Özet

Ortaçağlardan 21. Yüzyıla

Gazâlî'nin Kozmolojisinin Batılı Alımlanışı

İslam teolojisinin konuları arasında özellikle Gazâlî'nin kozmolojisi Batı'da oldukça dikkat çekmiştir. Rönesans dönemi ilim adamları Gazâlî'nin *Filozofların Tutarsızlığı* (*Tehâfütü'l-felâsife*) adlı eserinin 17. meselesinde filozofların nedensellik teorilerine yönelttiği eleştirilere aşınaydılar. İslam teolojisine dair akademik araştırmaların başladığı 19. yüzyılın ilk yarısında ilim adamları, Gazâlî'nin sözkonusu meselede nedensel ilişkilerin varlığını reddettiği sonucuna ulaştılar. Gazâlî'nin bu tutumu aynı zamanda Müslüman ülkelerin bilimsel araştırmadaki bariz gelişmemişlikleriyle de ilişkilendirildi. Mesela Ernest Renan, Gazâlî'nin filozofların nedensellik teorilerine yönelik eleştirisini, tabii bilimlere yönelik gayr-i akli ve mistisizmden ilhamını almış bir karşı çıkış olarak anladı. Bu yaklaşım Batılı entelektüeller arasında oldukça etkili olmakla kalmadı; bugün bile yaygın olarak kabul görmeye devam etmektedir. Gazâlî'nin *Nurların Nişi* (*Mişkâtü'l-envâr*) adlı eseri 20. yüzyılın ilk onlu yıllarında kullanılmaya başlandığında Batılı yorumcular, en azından burada Gazâlî'nin nedensel ilişkilerin varlığını reddetmediğini düşündüler. 20. yüzyılın büyük bölümünde Batılı ilim adamları, iki farklı öğretiyi bütününe Gazâlî'ye atfeden bir açıklamayı tercih ettiler: Zâhirî öğretiyi ve bâtinî öğretiyi. 20. yüzyılın son onlu yılları, Michael E. Marmura ve Richard M. Frank'in çalışmalarında Gazâlî'nin kozmolojisine dair iki farklı yoruma şahitlik etti. Her ikisi de Gazâlî'nin zâhirî ve bâtinî görüşlerinin olduğunu reddetti. Marmura nedensel ilişkileri doğrudan Tanrı'nın fiili olarak açıklarken, Frank onları ikincil sebepliliğin bir ifadesi olarak değerlendirdi. Onların katkıları, Batı'da, Gazâlî'nin aslında nedensel ilişkilerin varlığını reddetmediği ve İslam'da tabii bilimlerin bir muhalifi olarak ele alınmaması gerektiği şeklinde bir algının oluşumunu sağladılar.

Anahtar Kelimeler: Gazâlî, Kozmoloji, Nedensellik, Vesilecilik, Ernest Renan.