

# THE RELEVANCE OF THE IBN SINA-GHAZALI DEBATE AN EVALUATION AND A REASSESSMENT

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Islamic philosophy has a history that manifests a peculiar process of emergence and developmental stages.<sup>1</sup> First, we can identify a date for the beginning of this process, 610 A.C., which is the beginning of Revelation. If this stage is referred to as “the Prophetic Period”, then we can say that at this stage a fundamental Islamic worldview suitable for the cultivation of philosophic and scientific activities was established. If analyzed logically it would be possible to identify within this worldview a sophisticated ‘knowledge structure’ that acted as a framework for all scientific activities.<sup>2</sup> Secondly, we are also able to ascertain a formative stage (650-750) after the Prophetic Period in which the main characteristics of Islamic thought took a definite shape and the main cluster of scientific terminology was established. In this way a conceptual scheme that was to become scientific was thus established. Thirdly, in the next stage of its development Islamic intellectual tradition gave birth to the specifically named sciences, such as law, linguistics, history, Qur’anic exegesis and philosophy, by a specific name ‘kalām’ (750-950).

In early stages of many intellectual traditions that lead to the emergence of a scientific tradition we usually observe a characteristic; the members of this intellectual tradition begin to develop an interest in other past or present intellectual traditions. In its earlier stages Islamic thought exhibited this characteristic as well and because of this some members of the learning community, i.e., the ‘*ulamā*’, showed an interest in the earlier learning of the neighboring civilizations. Moreover, some of the members of these communities also showed interest in Islamic learning and some of them converted to Islam and thus they themselves brought their learning tradition into Islam. Gibb expresses this fact as a ‘Law’: “cultural influences (by which I mean, of course, not purely superficial adjuncts, but genuinely assimilated elements) are always preceded by an already existing activity in the related fields which creates the factor of attraction without which no creative assimilation can take place”.<sup>3</sup>

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\* Frequently used names of Muslim Philosophers are spelled the way they are pronounced without any diacritical marks. I would like to thank Dr. Kiki Kennedy-Day for her suggestions to improve the text and her critical comments on certain points to revise my ideas.

<sup>1</sup> History of Islamic philosophy has been presented with various frameworks. I defend a framework that shows the way this history unfolded through stages in an article entitled “The Framework for a History of Islamic Philosophy”, *Al-Shajarah*, 1: 1-2 (1996).

<sup>2</sup> For a detailed discussion of worldview and its structures acting as the framework for scientific activities see the present author’s *Scientific Thought and its Burdens* (Istanbul: Fatih University Publications, 2000).

<sup>3</sup> Sir Hamilton Gibb. “The Influence of Islamic Culture on Medieval Europe”, *Bulletin of the John Rylands Library*, 38 (1955-6), 85.

The same Law is valid for the Islamic civilization; there was an already existing creative intellectual activity in early Islam, which led to such an interest in earlier scientific and philosophical activities. In this process the most important event that took place was translation of certain scientific works of earlier civilizations, and thus began a translation movement. Among the works translated the Aristotelian corpus stand out as the most problematic one. It is these translations and the Neoplatonic commentaries on these works that cause disturbance in Islamic thought. There are reasons for this and it is one of the main purposes of this paper to examine these in relation to what we call "Ibn Sina-Ghazali Debate". We shall argue that it is this mutual but unbalanced intellectual and scientific exchange of ideas that led to a severe critique of Greek philosophy, which eventually culminated with Ghazali's *philosophical* attack on Aristotelian as well as Neoplatonic philosophy. This philosophical critique of an earlier tradition opened a new tradition in Islamic intellectualism, which we can call 'Tahāfut Tradition'.<sup>4</sup> Although there was no real debate, taking place between Ibn Sina and Ghazali, it is on the basis of this tradition that I find a justification for calling Ghazali's critique a "debate". For it is this critique that started the debate, and later many others, including Ibn Rushd participated in this discussion between the *falāsifah* and *mutakallimūn*. Although it may be argued that Ibn Sina's philosophical system as such is not the primary target of Ghazali's criticism of the *falāsifah* in the *Tahāfut*<sup>5</sup>, we can still defend our thesis that this critique is a debate between Ibn Sina and Ghazali. For the main source for the issues criticized in the *Tahāfut* is still Ibn Sina's system. The *Tahāfut* formulates most of the problems, it attempts to refute, on the basis of Ibn Sina's works. Therefore, we are justified in formulating the project of the *Tahāfut* as the "Ibn Sina-Ghazali debate". We shall then try to examine this debate through a series of questions.

In the whole process of the emergence of philosophical thought in Islam we may ask; in the first place, why was there a reaction to Greek Philosophy? In the second place, what was the nature of this reaction? Finally, why did Ghazali come to represent this reaction? The main purpose of our questioning is to understand the fundamental reasons for Ghazali to launch his critique of the Greek tradition of

<sup>4</sup> This is because Ghazali opened a philosophical debate on the problems which he criticized in his *Tahāfut*, and thus followed a series of similar works with the same name. Among them the most important ones are the following; Ibn Rushd, *Tahāfut al-Tahāfut*, ed. by Maurice Bouyges (Beyrouth: Dar el-Machreq, 1927), English translation by Simon Van Den Bergh as *Averroes' Tahāfut Al-Tahāfut* (London: E.J.W. Gibb Memorial, 1978); Muṣṭafā Muṣliḥiddin Bursavi Khojāzāde (d. 1488), *Tahāfut al-Falāsifah* (Cairo, 1321, printed on the margins of Ghazali's and Ibn Rushd's *Tahāfut*), for a detailed analysis of these three *Tahāfuts* (together with Ghazali's) see Mubahat Turker, *Uc Tahafut Bakimindan Felsefe ve Din Munasebeti* (Ankara: Ankara Universitesi Dil ve Tarih-Cografya Fakultesi Yayinlari, 1956); 'Alā al-Dīn al-Ṭūsī, *Tahāfut al-Falāsifah*, ed. by Ridā Sa'ādah (Beyrut: Al-Dār al-'Ālamīyah, 1981); Muḥy al-Dīn Muḥammad Qarabāghī (d. 1535), *Ta'liqāt 'alā Sharḥ Tahāfut al-Falāsifah li-Khojāzāde* (Suleymaniye Library, Husnu Pasha Collection, Istanbul, MS no. 787).

<sup>5</sup> See, for example, Jules Janssens, "Al-Ghazzali's Tahāfut: Is It Really A Rejection of Ibn Sina's Philosophy", *Journal of Islamic Studies*, 12 (2001), 7.

philosophy. It is clear from the way we approach this issue that we shall not dwell upon the arguments of both sides developed in order to refute each other; our main purpose shall remain as an evaluation or even a re-evaluation of the situation and the aftermath of the debate.<sup>6</sup> It is possible, then, to discuss our assessment and re-evaluation of this debate under three headings: The reaction, which represents our explanation of how Muslim intellectuals and thinkers reacted to Hellenized philosophy; the *faylasūf* (or *falsafah*), which represents the Muslim conception of philosophy at that time; and finally the aftermath, which shall represent our analysis of the situation after Ghazali's attack on philosophy.

## I THE REACTION

We need a thorough analysis of the phenomenon, which can be referred to as 'reaction to the Hellenized thought' under Islam. This reaction must be analyzed from all perspectives so that we can provide a compelling assessment of Ghazali's critique and grasp the spirit of the Ibn Sina-Ghazali debate. The purpose of this analysis is to discover the nature of this reaction because, as we shall see, it is the nature of this reaction that determines Ghazali's motives to launch his attack against the Hellenic philosophical thinking.

First of all, it is possible to argue that this reaction is merely a religious fanaticism against all scientific activities coming from foreign sources to Islam. Considering the Law, concerning the factor of attraction, mentioned above, we can say that any approach of fanaticism of whatever kind it may be, especially at the beginning stage of a scientific tradition, cannot lead to a creative response and therefore fail at that stage to produce any meaningful scientific and philosophical activity within that civilization. This does not mean, however, that there were absolutely no fanatic reactions at that time. As we would conclude, exceptions cannot change a universal law. Therefore, the fanatic reactions should not determine the real nature of this phenomenon. If the reaction did not have a fanatic religious intent, then what kind could it have been? In answering this question we will attempt to demonstrate that this reaction was expressed in a religious framework giving the impression that it is simply a religious phenomenon. Only now it seems to us to be a fanatical or a radical movement to eradicate philosophy. For example, if we look at Ghazali's *Tahāfut* we find some accusations on his part that calls the holders of certain theories 'infidels' (*kāfir*). This is only a religious designation to disclose the

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<sup>6</sup> For some of the earlier evaluations of this debate the following works may be cited: Oliver Leaman, *An Introduction to Medieval Islamic Philosophy* (Cambridge: Cambridge University Press, 1985); Michael E. Marmura, "Ghazali and Demonstrative Science", *Journal of the History of Philosophy*, 3 (1965); *Idem*,

status of a person. It is not done in the name of fanaticism, although the so-called fanatics may also have used it. If it were not so then Ghazali would not have been able to study Greek philosophy at all and would not have developed philosophical arguments against them; he would have simply called them *kāfir* and would not have found them worth refuting.

Secondly, we can further examine the religious framework that is used by the reactionaries, or rather, more accurately, by the scholars who launched a scientific attack against the Greek metaphysicians. This framework is definitely found within the Islamic worldview as it emerged out of Revelation during the time period of the early Muslim community. This emergence exhibits a process and within this process we find certain terms acquiring definite technical meaning within the Islamic worldview. Among these terms the ones that specifically concern us here are *'ilm*, *fiqh*, *kalām* and *hikmah*. We shall try to evaluate the nature of this reaction through a semantic analysis of these terms within the historical process of early Islamic learning. This process gradually led to the emergence of an Islamic scientific tradition.

It is clear that the Islamic worldview emerged out of the Revelation, viz., the Qur'ān, and the way it was taught to the early Muslim community by the Prophet himself. In this worldview, there are three fundamental elements that are emphasized in such a way that they became the fundamental structure of the worldview of Islam. These fundamental elements are *tawhīd*, the idea of the oneness of God and His relationship to us in the first place and to the world in the second; *nubuwwah*, i.e. the fundamental notion of religion as reflected through the chain of prophets, namely the all-embracing teachers of humanity; and finally *ḥashr*, namely the idea of a final judgment, which is intimately connected with the idea of justice and human deeds. As soon as these fundamental elements were clarified, it was also made clear that no one but God is the Authority on these subjects; for when these are in question, then "the true knowledge is with God alone" (46/*al-Aḥkāf*, 23). This meant that the fundamental element cannot be known unless one has 'knowledge', namely *al-'ilm*. But this knowledge is not just *any* knowledge, which may be true or false, even when one cannot decide whether it is true or false; it is rather the absolute knowledge that cannot be doubted. Many references can be given for this but the following may suffice in this context:

We have given them a book (i. e., Revelation) and explained it with knowledge as a guidance and mercy for people who believe. (7/*al-A'raf*, 52; also see 4/*al-Nisā'*, 157; 6/*al-An'ām*, 119; 27/*al-Naml*, 15-6; 31/*Luqmān*, 20); also: "above all those who possess knowledge is an All-knowing." (12/*Yūsuf*, 76)

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"Ghazali's Attitude to the Secular Sciences", in *Essays on Islamic Philosophy and Science*, ed. by George F. Hourani (Albany: State University of New York Press, 1975); Jules Janssens, "Al-Ghazzali's *Tahafut*", op. cit.

In this way the concept of *'ilm* was so emphasized in the Islamic worldview that it became a doctrinal concept forming a major component of the worldview of the early Muslims. *'Ilm* meant for them 'absolute knowledge' that was based on Revelation. But what about our understanding of the Revelation? Is it not also *'ilm*? If it were *'ilm* then it would be absolute, so the question is: How can human knowledge be absolute? In order to distinguish this sensitive variation in meaning, the word *fiqh* was utilized by both the Revelation and the Teacher of the Revelation. In this usage, *fiqh* meant 'human knowledge' which is a break from the literal meaning of the term. When there is such a break, it means that the term has already been picked up for a technical meaning. Indeed this is what happened with regard to the term *'fiqh*': "If God wants to do good to a person, He makes him a *faqih* in religion", said the Prophet.<sup>7</sup> Moreover, he also remarked "A *faqih* is more vehement to the Satan than one thousand devout persons (*'ābid*)".<sup>8</sup> We can speculate about this remark and interpret it in the following way. Since *fiqh* is not absolute knowledge, someone within an environment in which absolute knowledge is emphasized may be greatly discouraged from using his personal ability to acquire *fiqh*. For, he will consider himself utterly insignificant in the face of absolute knowledge and ask why he should pursue an element of knowledge that only has the possibility to be correct in contrast to a kind of knowledge that is absolutely correct. This difference between *'ilm* and *fiqh* is clear in the following report by Hishām ibn Muslim:

Do not say that *'ilm* will disappear, for it will not disappear as long as the Qur'an is recited; instead you should say that *fiqh* will disappear.<sup>9</sup>

If we consider this early technical meaning of *fiqh* we can easily contrast it with the technical meaning of the term 'science' today. In this contrast we can ascertain the close meaning between the two terms. For it is obvious that as soon as the term *fiqh* has acquired the meaning of scientific knowledge it was immediately picked up by scholars to be utilized for that purpose; such as Abū Ḥanifa's usage of *fiqh akbar* (the greater science) and al-Tha'ālibī's usage in the title of his book, *Fiqh al-Lughah* (The Science of Lexicography). In contrast to the term *fiqh*, the term *'ilm* meant only 'revelational knowledge'; as such both terms should not have been mixed. In other words, one cannot use *fiqh*, for example, to interpret the *'ilm*, as the Prophet warns:

If one interprets the Qur'an on the basis of his theory, he has committed an error even if he is correct in his interpretation" (*man qāla fī'l-Qur'ān bi ra'yihī fa aṣāba, fa qad akhṭa*)<sup>10</sup> (Please note that *fiqh*, just like

<sup>7</sup> Al-Bukhārī, "Kitāb al-'Ilm", chapter 14.

<sup>8</sup> Al-Tirmidhī, "'Ilm", 13; also Ibn Mājah, "Muqaddimah", 222.

<sup>9</sup> Ibn Sa'd. *Tabaqāt al-Kubrā*, ed. by Ihsan 'Abbas (Beyrut: n.p., n.d.), 5: 51.

<sup>10</sup> *Sunan Abū Dāwud*, trans. by Ahmad Hasan as *Sunan Abu Dawud* (Lahore: Sh. Muhammad Ashraf, 1984), 1036.

science, is based on personal judgment which we interpret here to be 'theory').

The early Islamic epistemology which is latent in the style of the Qur'an assigns a specific truth function for the twin words of *'ilm* and *fiqh*. In this epistemology we can ask: how is the truth of *'ilm* known? Moreover, how is the truth of the *fiqh*-knowledge known? We raise these questions because both types of knowledge belong to different ontological realms. *'Ilm* belongs to the realm identified in the Qur'an as *ghayb*, whereas *fiqh* pertains to the realm identified as *shahādah*. The knowledge of the *ghayb* is acquired and its truth is thus known through the guidance of Revelation. The faculties utilized in this knowledge-acquisition process are mental faculties (such as intellect, imagination, memory, will and intuition) via the experiential faculties represented by the heart (*qalb*). Now since *fiqh* can mean rational understanding of any subject including the *'ilm* as such, it recognizes its limits and does not speculate on *'ilm*; and thus limits itself to the *shahādah* aspects only. Therefore, faculties utilized in the *fiqh*-acquisition process are mental faculties as well as sense perception. Although Muslim thinkers never systematically formulated this epistemology it was the main perspective from which they were evaluating philosophical ideas. This means that in a vague sense they had a similar epistemology in mind.

Just as the words, *'ilm-fiqh*, the term *kalām* also acquired a technical meaning in the early Islamic learning. This term already contains in its literal sense 'logical and reasoned discourse'. Because of this discursive aspect of its meaning, it became an excellent candidate to be used for expressing speculative thought. Among many early usages Hasan al-Basri's (d. 728) usage is a striking example: "we initiated the speculative study of *qadar*; just as people initiated the denial of it" (*adathnā al-kalām fīhi*).<sup>11</sup> Besides this all the usages in the *kalām* books, such as "*kalām fī*" (speculative study in §) indicates the philosophical character of the term. More examples for similar usage can be given: "*Wa'l-nās yatakallamūn fī'l-qadar*" (Ibn Ḥanbal, *Musnad*, 2: 178).<sup>12</sup> The usage of the word "*yatakallam*" in relation to a speculative issue expresses the speculative intention of the word. When one considers all such technical meanings one is obliged to translate *fiqh* as 'science', *kalām* as philosophy, and *'ilm* as 'revelational knowledge. The term *ḥikmah* is also clarified in this context by al-Ṭabarī's report that *ḥikmah* was defined by his predecessors as the Qur'an and its (rational) understanding (*al-ḥikmah hiya al-Qur'ān wa'l-fiqh bihi*).<sup>13</sup>

<sup>11</sup> Julian Obermann, "Political Theology in Early Islam", *Journal of the American Oriental Society*, 55 (1935), 145; Arabic text, Helmut Ritter, "Studien zur Islamischen Fromigkeit I: Hasan al-Basri", *Der Islam*, 21 (1933), 68, lines 10-11.

<sup>12</sup> Also "*balaghanī annaka tatakallam fī shay'in min al-qadar*". (Ibn Ḥanbal, *Musnad*, 2: 90).

<sup>13</sup> Al-Ṭabarī, *Jāmi' al-Bayān fī Tafsīr al-Qur'ān* (Beyrut: Dār al-Ma'rifah, 1980), 3: 60.

This enlightened process also had its community of scholars all the way from the beginning. As an educational process we find early Muslims forming schools and communities of learned men and women until it gives birth to the rise of special sciences in Islamic civilization.<sup>14</sup> However, at one moment of this process the community of the learned almost suddenly came across books loaded with primary translations of Greek philosophical terminology in which terms, such as *'ilm*, *fiqh*, *kalām* and *hikmah* are used wrongly. For instance, the term *'ilm* is used to mean 'science' and the term *fiqh* is isolated from its original usage; the term *kalām* is no longer utilized for speculative thought and so on.<sup>15</sup> Now let us consider ourselves among the members of the early community of scholars active in scientific research at that time; would we react to this wrong usage or not? Moreover, these words are not terms that may be negligible in wrong usages. On the contrary, they belong to the fundamental structure of Islamic worldview. Therefore, any inaccurate usages would damage their outlook on the universe and on the scientific activities of understanding the universe and existence in its entirety. We can say with confidence, on the other hand, that all these kinds of inaccurate usages are found in the Arabic translations of the Greek philosophical literature. For the translators were not Muslims and naturally they were not trained in the Islamic scientific terminology. Thus they were unaware of the terms' scientific meaning. They were nevertheless Arabs and knew only the literal meanings of these terms. Hence they translated Aristotle's *episteme* as *'ilm*, i.e. scientific knowledge, instead of *fiqh*. Moreover, the term *kalām* was not utilized to translate the term *philosophia*, but first the term itself was used as *falsafah* and later the term *hikmah* was utilized. This is again an inaccurate usage because as we have seen in Ṭabari's explanation, it is based on earliest usages reported by Mujāhid *hikmah* is *fiqh*-knowledge but only in relation to the Qur'an, i.e. revelation.<sup>16</sup> The term *falsafah*, however, is only *fiqh*-knowledge without any relation to a divine source. We claim that this phenomenon clearly represents the nature of the early reaction against the Greek philosophical works.

It is the same spirit exhibited in the early reaction that determines Ghazali's reaction as well. However, by the time of Ghazali certain theories in Greek philosophical works became more apparent as contradicting the vital Islamic elements in its worldview, such as the ones cited and criticized in the *Tahāfut*. Thus was written his critique in the spirit of this scientific inquiry; no other motive should be sought for

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<sup>14</sup> See for details M. Hamidullah. "Educational System in the Time of the Prophet", *Islamic Culture*, 13 (1939), 53-55.

<sup>15</sup> For these wrong usages more examples can be given, such as the term *nazar* instead of *ra'y* to mean 'theory' or 'theoretical'; *wujūd* in relation to God, whereas in the terminology of the early Islamic learning *haqq* is used to express God's existence, and so on.

<sup>16</sup> Al-Ṭabari, op. cit., 3: 60.

the composition of the *Tahāfut* and thus started the Ibn Sina-Ghazali debate in this spirit of scholarly change of ideas.

## II

### THE *FAYLASŪF* (AND *FALSAFAH*)

Among the terms that are used as incorrect signifiers in the translated books, the most important for the Ibn Sina-Ghazali debate is the Greek term *falsafah* in its Arabized form. Philosophy meant for the Ancient Greeks the "love" or "passion" for learning. But for Aristotle it carried the tone of 'scientific learning' as well. This ancient conception of philosophy continued until it put its impression on the minds of Muslim intellectuals. Farabi, (d.950) for instance, classified sciences in his famous work *Ihṣā' al-'Ulūm*, and included in his classification such philosophical disciplines as logic, metaphysics, and ethics.<sup>17</sup> Ibn Sina wholeheartedly supported this classification. Perhaps he also utilized the phrase *al-'ilm al-ilāhī* for the first time to refer to 'metaphysics'. Kindi, for example, used only 'first philosophy'.<sup>18</sup> As it is clear also from his definition of this discipline Ibn Sina regards it as a science. However, Ghazali, opposed this classification of sciences and did not admit metaphysics as a science, namely, 'ilm as such, in the Islamic sense. This is in fact the point that is to be emphasized. For the term *al-'ilm al-ilāhī* already acquired a wide usage by the time of Ghazali.

The early translators found it difficult to translate the Peripatetic jargon such as 'metaphysics' and 'theology', although it was quite easy to translate the term 'First Philosophy' in an Arabized phrase (*al-falsafat al-ūlā*). Therefore, they tried to also Arabize these terms as *uthūlujya* and *matāfisiqā*. However, later when Muslim philosophers mastered in these disciplines they were able to come up with Arabic equivalents. Alas, this was achieved only by a significant divergence from the main stream of Islamic scientific terminology. This is because by the time of Ibn Sina when most of this terminology was established, the term 'ilm had acquired double meaning; one referring to its original revelational character, the other referring to any scientific inquiry. In fact among the Muslim Aristotelian circles it referred primarily to scientific learning in a sense intimately related to Aristotle's *epistemé*.

Thus Ghazali was able to launch his attack. In the *Tahāfut* he argued from the epistemological perspective that the human mind tried to reach the sort of certitude in metaphysical subjects, which it reached in formal studies such as logic and mathematics. The nature of metaphysical problems is, however, such that they evade

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<sup>17</sup> See al-Farabi, *Ihṣā' al-'Ulūm*, 'Uthmān Amīn, ed. (Misr: Dār al-Fikr al-'Arabī, 1949), 53, 99ff. and 102ff.

<sup>18</sup> See *Al-Kindi's Metaphysics: A Translation of Ya'qub Ibn Ishaq al-Kindi's "On First Philosophy"*, trans. by Alfred L. Ivry (Albany: State University of New York press, 1974).



the mathematical exactitude. This fact is clearly observed in the agreement of philosophers upon the solution of a certain mathematical problem. However, metaphysics has never succeeded in reaching a conclusion upon which all philosophers agree.<sup>19</sup> It is clear that when Ghazali refutes metaphysics to be science, he means *'ilm*; if it were translated as *fiqh*, his scientific motive would have been much clearer for us today. We do not, however, mean that had it been translated as *'al-fiqh al-ilāhī*, namely as 'the science of metaphysics', he would have accepted it as such. For he accepts metaphysics neither as *'ilm* nor as *fiqh*. He thinks that subjects discussed in this discipline are known only through the Revelation (the Qur'an), and as such they are not open for scientific scrutiny. Nevertheless, we are arguing in this context that if *al-fiqh al-ilāhī* had been used instead of *al-'ilm al-ilāhī*, Ghazali's scientific motives would have been more palpable and his remarks concerning the religious dangers of indulging in such issues would be understood also in that sense.

The term *philosophia*, moreover, was not translated properly as *kalām*; but signified in its Arabized form as *falsafah*. Now if we carefully examine this term, we shall see that it was properly applied to only Greek speculative way of thinking and not the *kalām* way of thinking. Therefore, *falsafah* at that time did not signify what we mean by 'philosophy' today. Let us utilize the term 'philosophy' in today's sense and try to determine the exact position of the two ancient scientific activities; *falsafah* and *kalām*. For this way of approaching the problem shall clarify the terms and the exact motive of Ghazali's critique expressed in the Ibn Sina-Ghazali debate. We can say in this respect that *falsafah* and *kalām* are two different modes of philosophy, the former referring to the Greek approach and the latter to the Islamic. Once this is well understood then we can clearly see that Ghazali's critique is not directed against philosophy and philosophers as understood today, but rather against a particular way of philosophizing that is expressed as *falsafah*. For Ghazali this way of philosophizing is not legitimate, neither in the epistemological sense nor in the Islamic.

We have historical evidence for the use of the term '*kalām*' in the sense of philosophy. Shahrastani, for example, refers to Aristotle's system as 'the *kalām* of Aristotle'.<sup>20</sup> These usages make it clear that *falsafah* means only the kind of philosophical thought found in the Aristotelian Neoplatonic corpus. We can translate accurately the term *ḥaylasūf* as 'Hellenic philosopher' and the term *kalām* as 'Muslim philosopher'. On the other hand, considering the wider meaning attached to the term *kalām* it can be understood today as 'philosophy' in the proper sense, namely 'any speculative thought carried out in any civilization'.

<sup>19</sup> See *Tahāfut al-Falāsifah*, ed. by Maurice Bouyges, S.J. (Beirut: Al-Maṭba'at al-Kathūlikīyah, 1927); especially 39 and the First Introduction.

<sup>20</sup> Al-Shahrastani., *al-Milal wa al-Nihal*, ed. by Muḥammad Sayyid Kilānī (Beirut: Dār al-Ma'rifah, 1961), vol. 2.

We must be careful that some of the statements we make here are primarily related to Aristotelian and Neoplatonic metaphysics. As far as the other branches of *falsafah* is concerned they must be evaluated by the standards of *fiqh*, i.e. scientific criticism. The rules of *'ilm* do not apply to the other branches of *falsafah* because of the epistemology outlined above. Although Ghazali's approach to these disciplines differs from the way we have explained it, nevertheless he makes it clear in the *Munqidh* that his criticism is primarily directed to metaphysics and the other disciplines can be evaluated within their own standards since they are not related to religion.<sup>21</sup>

When we come to this conclusion we are in a better position to evaluate the claim that Ghazali "did not consider himself a philosopher."<sup>22</sup> Moreover, his rebuttal against the philosophers has also been interpreted as "his identification with the antiphilosophical party."<sup>23</sup> Our analysis shows that we must be extremely careful in applying terms that have a different connotation today than what they signified for philosophers in earlier centuries. The same conclusion is valid for the uses of the terms 'rational' and 'rationalism'. Since the rational method is closely linked with philosophical thinking Ghazali's attitude can easily be interpreted as 'anti-rational'. This is obviously not the case. Ghazali is a philosopher in today's sense, but he is not a *faylasūf*. Moreover, he is a rationalist in *fiqh*-knowledge (scientific inquiry), but revelationist<sup>24</sup> in the *'ilm*, namely metaphysical subjects.

### III THE AFTERMATH

We have so far tried to analyze the nature of the reaction against *falsafah* through the development of early Islamic thought and tried to show that this nature also primarily dominated the spirit of the Ibn Sina-Ghazali debate. Now we need to evaluate not only the aftermath of this debate but also the reactions to this reaction itself. Normally looking at the problem today, the first reaction we are inclined to think is that since Ghazali criticized the *falsafah* approach he would have attempted to develop another philosophical approach that could rival the *falsafah*. If this was the case then we should be able to talk of a Ghazalian system of philosophy, which is based on an epistemology that is suitable to his approach. The only answer one can give for this is

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<sup>21</sup> See *The Faith and Practice of Ghazali* for a translation of the *Munqidh* by W. M. Watt (London: George Allen And Unwin Ltd., 1970), 33-39.

<sup>22</sup> Massimo Campanini, "Al-Ghazzali", in *History of Islamic Philosophy*, ed. by S.H. Nasr and Oliver Leaman (London: Routledge, 1995), 1: 258.

<sup>23</sup> Majid Fakhri, *A History of Islamic Philosophy* (New York: Columbia University Press, 1983), 222.

<sup>24</sup> I avoid using the term 'dogmatist' because in the Islamic case the dogma can be questioned if there is such a thing as dogma. This term somehow appears to me to be irrelevant in the Islamic case.

his *Ihyā'*. We can, I think, defend the *Ihyā'* as his philosophical system especially considering its Introduction which begins with a philosophical classification of sciences and proceeds therefrom. The only objection one can bring against this conclusion is that his methodology may not be entirely philosophical in the *Ihyā'*.

The question of methodology is a problematic issue in philosophy, which is closely linked with our conception of philosophy. We may raise the following questions: Is there a standard method that is applied alike in every philosophical venture? If there is, then what is the nature of that method? On the other hand, if there is no such universal method, is there then at least (a) some universal characteristic that belongs to all the particular methods applied in different philosophical traditions? This aspect of the Ibn Sina-Ghazali debate is very much relevant to our concern in contemporary philosophical problems. We may approach the problem of methodology by first defining philosophy as a science. Since each science must have a subject matter, a method, and an organized body of knowledge consisting the theories and discoveries in that science, philosophy must also have these characteristics. Its subject matter is *systems* that are investigated and/or constructed by the method of establishing theories. It is clear, therefore, that philosophy as a science must have a method but there is no universal method belonging to all such scientific activities. Empiricism, rationalism, intuitionism, and mysticism all together mark a peculiar method belonging to a specific philosophical tradition. Moreover, it is extremely difficult to ascertain a universal characteristic pertaining to all philosophical methods. Yet the fact that some kind of a method is indispensable for a philosophical activity is a sufficient universal characteristic that belongs to all philosophical traditions. In the same way, Ghazali has his own method which is dictated by his worldview; and it is this methodology that he applies in the *Ihyā'*. We shall discuss this method briefly below in our concluding remarks.

The generations after Ghazali did not take *Ihyā'* to be a philosophical venture, either in the *falsafah* tradition or in today's philosophical sense. Two reactions followed naturally; defending Ghazali as the champion of religion, and attacking him as the enemy of *falsafah*. On the other hand, philosophers like Ibn Rushd tried to defend that tradition by launching another attack. But among the former reactionaries there were fanatics as well. These fanatics did not understand the purpose of philosophy. They thought that there could only be one type of philosophy which is to say the kind Ghazali criticized, i.e., *falsafah*. In this sense we will respond to Ghazali's approach. His criticism from the epistemological perspective was weak because he did not develop a systematic theory of knowledge, like, for example, Kant. Some have already claimed that Ghazali like Kant refused the validity of theoretical

reason in matters of belief.<sup>25</sup> In this sense, of course Ghazali is a precursor of Kant. But he did not develop a systematic theory of knowledge as Kant did in his *Critique of Pure Reason*. I think because of this Ghazali was understood as a simple *salafi* rather than a profound philosopher. I am not saying that Ghazali does not have a theory of knowledge; on the contrary, it is possible to make up a theory of knowledge on the basis of Ghazali's works. But this would not be a systematic construction.

Another relevant point we can distinguish from the Ibn Sina-Ghazali debate is Ghazali's role in the wave of the Greek philosophical influence. This issue is also to be evaluated within the framework of the terminological analysis reached above. There is, on the one hand, Ghazali's legitimization of the Aristotelian terminology by his frequent use of these terms in his works. On the other hand, he attempts to invent new terminology in order to avoid legitimizing the Greek philosophical terminology by frequent use. We need to study this nomenclature in his works in order to judge this issue in an accurate way. Are the frequently employed terms the ones that belong to Ghazali's approved philosophical sciences or to the metaphysical sciences that he rejected? In order to understand this correctly we shall try to give two examples. The first is from the *Ihyā'*, in which he classifies sciences with a completely new terminology based on the *fiqh* methodology.<sup>26</sup> We do not find this terminology in the Greek philosophical works; the other is from the *al-Qistās al-Mustaqīm* in which there is an obvious endeavor to Islamize the Aristotelian logical terminology. For example, the first figure of categorical syllogism is named 'greater balance' (*al-mizān al-akbar*) and is said to have been established by the Prophet Abraham as he used it to refute Nimrod's claim for divinity.<sup>27</sup> In the same manner Ghazali proves in this work that the main logical arguments can be derived from the Qur'an and that all these syllogistic rules are used to perceive the true knowledge. In that case we need to evaluate Ghazali's critique by paying attention to his works as a whole in order to understand the true spirit of his debate with Ibn Sina.

One of the most common reactions brought against the Ibn Sina-Ghazali debate is the claim that Ghazali denies causality in nature.<sup>28</sup> We react to this accusation by

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<sup>25</sup> Cf., for example, M.M. Sharif, "Philosophical Influence from Descartes to Kant" in *A History of Muslim Philosophy* (Delhi: Low Price Publications, 1995), 2: 1385.

<sup>26</sup> See the English translation by Nabih Amin Faris as *The Book of Knowledge* (New Delhi: International Islamic Publishers, n.d.).

<sup>27</sup> *Al-Qistās al-Mustaqīm*, ed. by Victor Chelhot (Beirut: Dar al-Mashriq, 1991), 49-50.

<sup>28</sup> Some scholars do not accept this conclusion but still express the same claim in order to refute it. Cf. Majid Fakhri, *Islamic Occasionalism and its Critique by Averroes and Aquinas* (London: George Allen & Unwin Ltd., 1958); and Michael E. Marmura, "Ghazali and Demonstrative Science", *Journal of the History of Philosophy*, 3 (1965); *Idem*, "Al-Ghazali's Second Causal Theory in the 17th Century Discussion of his *Tahāfu'*" in *Islamic Philosophy and Mysticism*, ed. Morewedge, Parviz (Delmar, NY: Caravan Books, 1981); also Jules Janssens, "Al-Ghazzali's *Tahāfu'*", op. cit. The most comprehensive study of the problem is by Lenn Evan Goodman "Did Al-Ghazali Deny Causality?", *Studia Islamica*, 47 (1978).

asking a simple question: Can common sense thinker can deny causality? If Ghazali has any common sense at all he cannot deny this phenomenon. Once we observe his brilliant critique of the *falāsifah* even without examining his other works one can conclude that Ghazali does not deny causality. After a careful study of his works, however, one can clearly discern that Ghazali denies only the necessary logical connection attached to a cause and its effect by the *falāsifah*, i.e. the Aristotelian philosophers. This means that in nature there is no inherent necessary connection between a cause and its effect. There is however such a connection as far as we are concerned because there is a regularity in nature thanks to God's regular creation. Therefore, we always observe God's regular actions and establish a relationship between them. God acts in this way so that life would be possible for us; for we cannot live in a chaotic nature. This is because human mind works only in an orderly system out of which it is able to infer rules on the basis of which we can live. In that case the necessary connection is only from our point of view not from the side of the natural events. With this theory Ghazali also becomes a precursor of Hume. Strangely enough Hume has never been accused of denying causality in nature.

### Concluding Remarks

Most works dealing with Ibn Sina-Ghazali debate do not try to evaluate this issue from a broader perspective within its own historical and scientific setting, as it has been done in this study. They have so far concentrated on the philosophical problems discussed both in the *Tahāfut* and among the later participants of the debate. This approach does not tell us accurately about the actual purpose of the debate. That is why we have avoided approaching the issue from this perspective in this study. We have tried to understand Ghazali's motive in starting such a debate by first attempting to analyze the nature of the early reaction against the Greek philosophical theories in the Muslim world. Only after this is done we are able to appreciate Ghazali's scientific approach to the problem.

The weakest point of the debate has been expressed within the aftermath as the need for a systematic theory of knowledge, which is utterly urgent today in the Muslim world.<sup>29</sup> Without a theory of knowledge it is impossible to establish any significant philosophical theory. But we must understand that the Ibn Sina-Ghazali debate should give us a better perspective to understand this need not only as a necessity of partial philosophical theories but also as an urgent need for the

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<sup>29</sup> By emphasizing the urgent need for a systematically constructed theory of knowledge I do not mean that there is no such theory today. Cf. Syed M. N. Al-Attas, *Prolegomena to the Metaphysics of Islam: An Exposition of the Fundamental Elements of the Worldview of Islam* (Kuala Lumpur: ISTAC, 1995). But such attempts must be studied and critically evaluated so that its full impact in the philosophical circles will be felt.

construction of a philosophical system. Such a system must obviously be based on a theory of knowledge.

One may argue that there is Ghazali's *Ihyā'* as a system so why look for another? We may reply by saying that scientific knowledge is not static, since systems are organized scientific knowledge based on an epistemology and/or ontology; there is a continual need to update systems. Therefore, we need to revise the old systems according to new scientific developments. This does not mean that knowledge changes according to scientific progress. For, we are merely claiming that theories change according to new scientific discoveries on the basis of which we must revise previous systems. It is clear that since the time of *Ihyā'* almost a millennium has passed and there is a considerable accumulation of new scientific knowledge. Hence, we have to either revise the *Ihyā'* today or simply make use of it and other previous systems in the Muslim world in order to construct a new system.

We may raise in this context the methodology utilized in the *Ihyā'*. For the methodology we establish today may not use the same approach. The method utilized in the *Ihyā'* can be called 'irshādī approach' as opposed to the discursive approach which is more common in philosophy.<sup>30</sup> I would like to translate the *irshādī* approach as 'spiritual illumination', which is more a practical philosophy as opposed to the theoretical approach commonly employed in philosophy. Both approaches, that is, the spiritual illumination and the discursive, are useful in their own spheres. For example, in developing a theory of society or a moral theory we can use a more discursive approach. However, in instructing the society of that moral theory, in other words in moral deliberation, we need the spiritual illuminationist approach as applied in the *Ihyā'*. Closely linked with the issue of methodology is the question whether Ghazali is a philosopher or not. Our terminological analysis has shown that he does not use the Aristotelian philosophical method and thus he is not a *faylasūf*, but the fact that he develops his own method qualifies him to be a philosopher.

We, therefore, express the lesson to be drawn from the Ibn Sina-Ghazali debate as an urgent need for scientific philosophical discussions today in the Muslim world. This need cannot be fulfilled unless we try to develop new philosophical theories in order to work our way to a new expression of the Islamic philosophical system.

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<sup>30</sup> Cf. Nicholas L. Heer. "Moral Deliberation in Al-Ghazali's *Ihyā'* 'Ulūm al-Dīn" in *Islamic Philosophy and Mysticism*, ed. Morewedge, Parviz (Delmar, NY: Caravan Books, 1981).

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***Rationalism in Islam and the Rise of Scientific Thought:  
The Background of al-Ghazālī's Concept of Causality.***

The term rationalism originated as a key word of European philosophy in the 17th and 18th century. Later, in the 19th century, the concept of rationalism was propagated by freethinkers and atheists as superior to the superstition of traditional religion. In modern historiography it means scientific knowledge based on unprejudiced cognition, similar to the ideal of the European Enlightenment (17-19th c.), which replaced religion by human rationality<sup>1</sup>.

In view of this definition of rationalism which opposes religion to rationality, one might immediately assume that Islam and rationalism are two contradictory concepts. This conclusion was indeed drawn by the French orientalist Ernest Renan in a well-known paper given at the Sorbonne in Paris on 29 March 1884: he defended the thesis that Islamic religion did not promote the rise of sciences, that science in Islam was in reality Greek science and that rationalism in contrast to religion is the precondition for the development of sciences. Renan was contradicted at that time by Djamāladdīn al-Afghānī who in his plea described Islamic religion as a moral force and as an inspirer of human phantasy which enabled the Muslim to contribute to science.

These remarks by Afghānī surely deserve our attention. Moreover, our knowledge of the history of ideas in Islam, which has grown considerably since the days of Renan and Afghānī, enables us to revise the modern traditional assumption of an opposition of rationalism and Islam, of rationality and Islamic religion. On the contrary, religion in Islam fostered the rise of scientific thought, the Koran became a stimulus of science in early Islam<sup>2</sup>.

<sup>1</sup>Cf. art. Rationalismus in *Historisches Wörterbuch der Philosophie* 8, Darmstadt 1992, col. 44-47 (G. Gawlick).

<sup>2</sup>See my article "The Qur'an as Stimulus of Science in Early Islam" (in: *Islamic Thought and Scientific Creativity* 2/2, Islamabad 1991, 29-37) and on the discussion between Afghānī and Renan my article "Science and Technology versus Islam. A Controversy from Renan and Afghānī to Nasr and Needham and its Historical Background (in: *Annals of Japan Association for Middle East Studies* 8, 1993, 169-187;

In addition, religious ideas of Islam on God and His creation, world and man, became a fertile soil for scientific thought, which influenced European thinkers in the Middle Ages. Here, a key-figure is the famous Ghazālī from the 11th/12th century A.D. He gave a clear answer to those who tried to replace God, Allāh by another kind of causality, to those people who appear in early Islamic sources under the name dahrites "materialists" and who may be called "atheists", to use a term which originated in the 16th-17th century Europe<sup>3</sup>.

Drawing a contrast between this so-called "atheistic" replacement of God by matter as the only causality and Ghazālī's doctrine of causality will show us the real starting-point of Ghazālī's doctrine; it will lead us to a correct understanding of Ghazālī's concept of causality, which must be understood as a development within the framework of a theocratic religion. This correct understanding presupposes the awareness of the alternative divine cause - non-divine cause, an awareness which stimulated the reflection on causality in a scientific manner. Ghazālī's contribution to this reflection turns out to be the quintessence of the preceding discussions with those who tried to replace God by another cause. He deserves our attention, as he influenced through his *Tahāfut al-falāsifa* and its refutation by Ibn Rushd, the *Tahāfut at-Tahāfut*,<sup>4</sup> the discussion in medieval Europe, also in: *Journal for the History of Arabic Science* 10/1-2 Aleppo 1992-1994, pp. 119-153).

<sup>3</sup>Cf. art Atheismus in *Historisches Wörterbuch der Philosophie* 1, Darmstadt 1971, col. 595-599 (H.-W. Schütte). On the history of "atheism" see Georges Minois, *Geschichte des Atheismus. Von den Anfängen bis zur Gegenwart*. (Translated from French [*Histoire de l'athéisme. Les incroyants dans le monde occidental à nos jours*] by Eva Moldenhauer) Weimar 2000. The book includes a short chapter on "the Arabic-Muslim contribution to unbelief" (pp. 68-76). This can be supplemented by a collection of articles ed. by Friedrich Niewöhner and Olaf Pluta under the title: *Atheismus im Mittelalter und in der Renaissance*. Wiesbaden 1999 (= *Wolfenbütteler Mittelalter-Studien*.12); on "atheism" in Islam s. the contributions by H. Daiber, *Rebellion gegen Gott. Formen atheistischen Denkens im frühen Islam* [23-44]; Sarah Stroumsa: *The Religion of the Freethinkers of Medieval Islam* [45-59]; Muhammad Abū Al-fadl Badran: "...denn die Vernunft ist ein Prophet" - Zweifel bei Abū 'l-<sup>c</sup>Alā' al-Ma<sup>c</sup>arrī [61-84]; Dominique Urvoy: *La démystification de la religion dans les textes attribués à Ibn al-Muqaffa<sup>c</sup>* [85-94]; Mohammad Mohammadian: *Der oblique Blick. Zum Verhältnis von Philosophie und Religion in den Robā' iyāt von Omar Khayyām* [95-114].

<sup>4</sup>Ed. by Maurice Bouyges, (Beirut 1930. = *Bibliotheca arabica scholasticorum*. Série arabe. III. [3rd edition Beirut 1992]. English translation by Simon van den Bergh: *Averroes' Tahafut Al-Tahafut (The Incoherence of the Incoherence)*, I-II. London 1969. - On Ibn Rushd's concept of causality and his critique of Ghazālī cf. Barry S. Kogan, *Averroes and the Metaphysics of Causation*, Albany 1985 (review by Daiber in: *Der Islam* 64, 1987, 310f.).



the arguments of Albertus Magnus, Thomas Aquinas, Bernard of Arezzo and of Nicolaus of Autrecourt<sup>5</sup>. His originality has even prompted a comparison with similar ideas of the English philosopher David Hume in the 18th century.<sup>6</sup>

Before we discuss Ghazālī's forerunners in his reflections on causality, we shall describe Ghazālī's concept of causality and extract those key-terms whose previous history throws new light on Ghazālī's thought. The starting-point for Ghazālī is his concept of God as the determining factor against the Aristotelian-Avicennian thesis of the eternity and perpetuity of the world; God created the world from nothing.<sup>7</sup> Consequently - as Ghazālī criticizes in the 16th question of his *Tahāfut al-falāsifa*<sup>8</sup> - the Neoplatonic-Avicennian reduction of the movements of the heavens and the effects of nature to "separate intelligences" through the mediation of celestial causes, their knowledge and will, ascribes to things and not to God a determining power. This means that every effect has a contingent cause and is ultimately, via a series of intermediary

<sup>5</sup>Cf. Johannes Erich Heyde, *Entwertung der Kausalität? Für und wider den Positivismus*. Stuttgart 1957; <sup>2</sup>1962), p. 14ff.; Majid Fakhry, *Islamic Occasionalism and its Critique by Averroës and Aquinas* (London 1958); Harry Austryn Wolfson, Nicolaus of Autrecourt and Ghazālī's Argument Against Causality, in: *Speculum* 44, 1969, 234-238 (reprinted in Wolfson, *The Philosophy of the Kalam*, Cambridge/Mass. and London 1976, pp. 593-600); R. E. Abu Shanab, Ghazali and Aquinas on Causation, in: *Monist* 58, Chicago 1974, 140150; the article on "Causality and necessity in Islamic thought" in: *Routledge Encyclopedia of Philosophy*, ed. Edward Craig (vol. II, London and New York 1998); and on Al-Ghazali (by Kojiro Nakamura) ib. vol. IV, esp. p.65 col.a. - Finally the recently published monograph by Dominik Perler and Ulrich Rudolph, *Occasionalismus. Theorien der Kausalität im arabisch-islamischen und im europäischen Denken*. Göttingen; 2000. = *Abhandlungen der Akademie der Wissenschaften in Göttingen. - Philologisch-historische Klasse*. Göttingen. 3. Folge. 235.

On the Latin transmission of Ghazālī's works compare H. Daiber, Lateinische Übersetzungen arabischer Texte zur Philosophie und ihre Bedeutung für die Scholastik des Mittelalters, in: *Rencontres de cultures dans la philosophie médiévale. Traductions et traducteurs de l'antiquité tardive au XIVe siècle*. Édités par Jacqueline Hamesse et Marta Fattori. Louvain-La-Neuve - Cassino 1990 (= *Publications de l'Institut d'Études Médiévales - Textes, Études, Congrès*. 11 = *Rencontres de Philosophie Médiévale*.1), [pp. 203-250], pp. 232-235.

<sup>6</sup>Cf. Abdul Matin, The Ghazalian and the Humian Critiques of Causality: a comparison, in: *The Dacca University Studies*. A. 29, 1978, pp. 29-434.

<sup>7</sup>See Ghazālī's *Tahāfut al-falāsifa* ed./transl. M. Marmura (*Al-Ghazālī, The Incoherence of the Philosophers*, Provo/Utah 1997), 12ff. esp. 31ff.; cf. the analysis of Marmura, *The Conflict over the World's Pre-eternity in the Tahāfuts of Al-Ghazālī and Ibn Rushd*, thesis Michigan 1959, 39ff.

<sup>8</sup>Ed./transl. Marmura (as prec.n.) 156ff.

causes, caused by the "eternal heavenly movement".<sup>9</sup> God as determining factor is denied and replaced by the causality of nature, the laws of generation and corruption, which is ultimately determined by the movement of the heavenly bodies and the volition of the "celestial souls";<sup>10</sup> there is no place for divine miracles<sup>11</sup>.

Here, the notion of necessity implied in this kind of causality is criticized by Ghazālī as something based purely on the observation that the effect "occurs *with* the cause, but not (necessarily) *by* it" (*‘indahū lā bihī*).<sup>12</sup> Although acting factors of nature (e.g. fire) might possess specific qualities which lead to identical effects, it might happen, for example, that through the intervention of God's Will, of a free and omnipotent Agent<sup>13</sup> or His angels fire does not lead to combustion<sup>14</sup>. Causes are mere conditions

<sup>9</sup>Cf. Ghazālī, *Tahāfut* ed./transl. Marmura (as n. 7) 157ff.; Ghazālī refers to Ibn Sinā's doctrine as e.g. described in his *Kitāb al-Nad̄jāt* (ed. Majid Fakhry, Beirut 1985, pp. 175ff. - On Ibn Sinā's Neoplatonic doctrine of emanation cf. Louis Gardet, *La pensée religieuse d'Avicenne*, Paris 1951, 45ff.; Osman Chahine, *Ontologie et théologie chez Avicenne*, Paris 1962, 121ff.; Jules Janssens, *Avicenna: tussen neoplatonisme en Islam* (thesis Leuven 1984) I 75ff.

<sup>10</sup>Cf. Fakhry, *Islamic Occasionalism* (as n. 5), pp. 58ff..

<sup>11</sup>Cf. Ghazālī, *Tahāfut* ed./transl. Marmura (as n. 7) pp. 168f.

<sup>12</sup>Ghazālī, *Tahāfut* ed./transl. Marmura (as n. 7) p. 171; cf. Fakhry, *Islamic Occasionalism* (as n. 9) 61; 63f.; Wolfson, *Philosophy of Kalam* (as n. 5) pp. 543ff.; M. Marmura, Ghazali and Demonstrative Science, in: *Journal of the History of Philosophy* 3, 1965, pp. 183-204.

<sup>13</sup>Ghazālī, *Tahāfut* ed./transl. Marmura (as n. 7) 77, 15ff.; cf. Fakhry, *Islamic Occasionalism* (as n. 5). 66.

<sup>14</sup> Cf. Ghazālī, *Tahāfut* 17th discussion ed./transl. Marmura (as n. 7) 170ff.; cf. Fakhry, *Islamic Occasionalism* (as n. 5) 69.

Ghazālī's concept of causality has been the subject of a large number of articles and monographs: We mention in western languages: Muhammed Yasin El-Taher Uraibi, *Al-Ghazalis Aporien im Zusammenhang mit dem Kausalproblem*, thesis Bonn 1972, pp. 250ff.; Kwame Gyekye, *Al-Ghazālī on Causation*, in: *Second Order* 2/1, ILE-IFE/Nigeria 1973, pp. 31-39; Lenn Evan Goodman, *Did Al-Ghazālī Deny Causality?* In: *Studia Islamica* 47, Paris 1978, pp. 83-120; Carol Lucille Barger, *The Concept of Causality in Abu Hāmid Muḥammad Al-Ghazālī's Tahāfut Al-Falāsifah*, thesis University of Wisconsin-Madison 1978; Ilai Alon, *Al-Ghazālī on Causality*, in: *Journal of the American Oriental Society* 100, 1980, pp. 397-405; M. Marmura, *Al-Ghazālī's Second Causal Theory in the 17th Discussion of His Tahāfut*, in: *Islamic Philosophy and Mysticism* Ed. P. Morewedge. New York 1981, pp. 85-112; Mohammed Allal Sinaceur, *Logique et causalité chez Ghazali*, in: *Un trait d'union entre l'orient et l'occident: Al-Ghazzali et Ibn Maimoun*, Rabat 1986 (= *Academie du Royaume du Maroc. Publications* 12), pp. 173-211; Luciano Rubio, *El "Ocasionalismo" de los teologos especulativos del Islam. Su posible influencia en Guillermo de Ockham y en los "ocasionalistas" de la Edad Moderna*, El Escorial 1987 (on Ghazālī s. pp. 161-198); Abu Yaarub Al Marzouki, *Le concept de causalité chez Gazali*, Tunis (s.d.).

of the conditioned and do not necessarily imply any effect relatable to it. As in Ash<sup>c</sup>arite theology God is the sole agent with unlimited activity.<sup>15</sup>

Ghazālī has modified the Ash<sup>c</sup>arite concept of God's all-determining will, by introducing his differentiating doctrine of causality. He assumes mediating causes between the divine First Cause, its "primary planning" (at-tadbīr al-awwal) and "ruling" (al-ḥukm) and the final effects and ascribes to God's decree (qaḍā') and predestination (qadar) the arrangement and application of causes to their "numbered and defined effects" (musabbabātuhā al-ma<sup>c</sup>dūda al-maḥdūda) "according to a determined measure which neither increases nor decreases". The causes are described as "universal, primary, fixed and stable causes (asbāb), which remain and do not change, like the earth, the seven heavens, the stars and celestial bodies, with their harmonious and constant movements, which neither change nor end".<sup>16</sup> This description of the causes shows traces of the Aristotelian (*Metaphysics* XIII 8) and Avicennian (*Kitāb al-Nadjāt* [as n. 9] p. 300, 15ff.) doctrine of eternal moving celestial spheres and their unmoved Prime Mover. Ghazālī illustrates it with a water clock, in which a hollow vessel swims on water in a hollow cylinder with a small hole in its bottom. If the water flows out of this hole little by little, the hollow vessel swimming on it sinks and draws through the string connected with it a ball in such a manner that the ball falls after every hour into a bowl and tinkles.<sup>17</sup>

#### The water-clock exemplifies the interaction of divine and natural

<sup>15</sup> Cf. e.g. al-Ash<sup>c</sup>arī, *Kitāb al-Luma<sup>c</sup>* ch. 3 = ed. Richard J. McCarthy (*The Theology of Al-Ash<sup>c</sup>arī*, Beirut 1953) pp. 24ff./transl. pp. 33ff.

<sup>16</sup> Cf. *al-Maqṣad al-asnā fī Sharḥ ma<sup>c</sup>ānī asmā' Allāh al-ḥusnā* ed. Fadlou Shehadi (Beyrouth 1971), p. 98, 7ff. esp. l. 10ff./Engl. transl. by David Burrell and Nazih Daher: *Al-Ghazālī, The Ninety-Nine Beautiful Names of God* (Cambridge 2nd ed. 1995) p. 86. - The text is quoted in Ghazālī's *Kitāb al-Arba<sup>c</sup>in fī uṣūl ad-dīn* (Cairo without year) p. 13, 6ff. - On the interpretation of the text cf. Binyamin Abrahamov, *Al-Ghazālī's Theory of Causality* (*Studia Islamica* 67, Paris 1988, pp. 75-98), pp. 80-84.

<sup>17</sup> *al-Maqṣad al-asnā* p. 99/transl. Burrell and Daher (s. prec. n.) pp. 86f. = *Kitāb al-Arba<sup>c</sup>in* (s. prec. n.) pp. 14f. - This type of water-clock is described in Eilhard Wiedemann, *Aufsätze zur arabischen Wissenschaftsgeschichte* ed. Wolf Dietrich Fischer I, Hildesheim-New York 1970, p. 366; cf. id., *Gesammelte Schriften zur arabisch-islamischen Wissenschaftsgeschichte*. Gesammelt, bearbeitet und mit Indices versehen v. Dorothea Girke u. Dieter Bischoff, III (Frankfurt/M. 1984. = *Veröffentlichungen des Institutes für Geschichte der Arabisch-islamischen Wissenschaften*. Ed. by F. Sezgin. B, 1/3), pp. 1234f.

causality leading to one and the same effect. This co-operation, which reminds us of a similar explanation of causality in Thomas Aquinas<sup>18</sup>, presupposes a chain of causes between the divine first cause and the effect - of causes which derive from God's action, His spontaneous will and from the nature of the intermediating causes, the necessity of their essence.

In connection with this theory of intermediary causes between God and final effect Ghazālī explicitly warns against the assumption that a thing does **not** come into being through God's power.<sup>19</sup> Here, he gives the explanation that each one of the intermediating causes derives from the other "in the same way as a conditioned thing (*mashrūt*) derives from a condition".<sup>20</sup> At the same time God's power remains present in the things. This is exemplified by Ghazālī with the example of an impure person submerged up to his neck in water: his impurity will only be removed under the condition that he also washes his face. God's eternal power surrounds the determined things in the same way as the water surrounds the man's body.<sup>21</sup> His power is actualized under the condition that the man also washes his face; but the real cause remains God's eternal power which is actualized under certain conditions. The series of causes or

<sup>18</sup> *Summa contra gentiles* ch. 70, 3rd book; → Fakhry, *Islamic Occasionalism* (as n. 5) pp. 148ff..

<sup>19</sup> Ghazālī, *Ihyā' 'ulūm al-dīn* (ed. by 'Abdallāh al-Khālidī, Beirut 1998) IV 334,1ff.; cf. Abrahamov (as n. 16) 89f. - For this reason Ghazālī cannot be interpreted as maintaining that beings other than God have real causal efficacy - a thesis which is elaborated by R. M. Frank in his monograph *Creation and the Cosmic System: al-Ghazālī and Avicenna*, Heidelberg 1992 (= *Abhandlungen der Heidelberger Akademie der Wissenschaften, Philosophisch-historische Klasse*, Jg. 1992, 1. Abhandlung), and which with good reason is criticized by M. Marmura, Ghazālīan Causes and Intermediaries, in: *Journal of the American Oriental Society* 115, 1995, 89-100. - Here, in the accentuation of God as remaining the real cause acting through intermediaries Ghazālī appears to be an Ash'arite and not a philosopher following Ibn Sīnā. This observation does of course not exclude the amalgamation of Avicennian rudiments, e.g. the Aristotelian-Avicennian notion of God as prime mover. - On the problem of classifying Ghazālī as Ash'arite cf. Kojiro Nakamura, Was Ghazālī an Ash'arite? in: *Memoirs of the Research Department of the Toyo Bunko* 51, Tokyo 1993, 1-24.

<sup>20</sup> Ghazālī, *Ihyā'* (as prec. n.) IV 334,9. The translation of Abrahamov (as n. 16) p.90 "some of the determined things ... derive from others" is wrong and has seduced the translator to the assumption that "Al-Ghazālī contradicts himself. Above he says that some determined things derive from others. whereas here he says that all that happens in the world come about through a necessary derivation". The Arabic word *ba'ḍ* does not mean here "some", but "one" - "the other". Consequently, the following discussion of Abrahamov (90f.) is superfluous.

<sup>21</sup> Ghazālī, *Ihyā'* (as n. 19) IV 334,23ff. Cf. Abrahamov (as n. 16) pp. 91f.

conditions constitute a rule or law, called *sunna* or *‘āda*.<sup>22</sup> This rule or law, the connection of effects with conditioning causes, which through God's power can be violated in the case of miracles<sup>23</sup>, reveals God's wisdom.<sup>24</sup>

The same rule or law of the connection of divine and secondary causality is also valid for the action of man and his free will: on the basis of the Ash‘arite doctrine, which appears modified, Ghazālī develops a differentiating view, in which three kinds of man's actions are distinguished<sup>25</sup>: 1) action according to nature (*fi‘l ṭabī‘ī*), e.g. when someone stands on water, he breaks through it; 2) action based on his instinct, his “volition” (*fi‘l irādī*), e.g. when one breathes; 3) action based on choice (*fi‘l ikhtiyārī*), e.g. writing. The kinds of action mentioned remain exposed to necessity, compulsion, i.e. the rule or law imposed by God. Like every effect the kinds of man's action mentioned are also the result of conditioning causes; the breaking through water is conditioned by the weight of the man, the motion of the throat for breathing is conditioned by the man's instinct; the volitional action and the man's choice or motivation are conditioned by his judgement and knowledge; finally, the man's motivation, his motives, which with good reason have been compared with Naẓẓām's “motive force” (*khāṭir*)<sup>26</sup> are the condition of man's power (*qudra*) to act. All the conditions mentioned of man's action are ultimately conditioned by the existence of man as living being, by his life.

<sup>22</sup>Cf. Wolfson, *Philosophy of Kalam* (as n. 5) pp. 544f. and on Ibn Rushd's critique ib. pp. 551ff. - Against Abrahamov (as n. 16) (p. 95) there is no difference between *sunna* (as used in Ghazālī's *Ihyā'*) and *‘āda* (as used in Ghazālī's *Tahāfut*). This is confirmed by Ghazālī's statement that miracles occur through God's power [*fi maqdūrāt Allāh* : s. Ghazālī, *Tahāfut* ed./transl. Marmura (as n. 5) p. 176, 1ff. if “in the habitual course of nature” (*bi-ḥukm al-‘āda*) e.g. the change of earth and other elements into a plant does not occur as usual over a long space of time, but “in a time shorter than has been known” (*Tahāfut* ed./transl. Marmura [as n. 7] 176,4ff.). - On Ghazālī's concept of miracles cf. Barry S. Kogan, *The Philosophers Al-Ghazālī and Averroes on Necessary Connection and the Problem of the Miraculous*, in: *Islamic Philosophy and Mysticism*, ed. by Parviz Morewedge, New York 1981, pp. 113-132; Edward H. Madden, *Averroes and the Case of the Fiery Furnace*, ib. pp. 133-150; Jalāl al-Haqq, *Al-Ghazālī on Causality, Induction, and Miracles*, in: *Al-Tawḥīd* III/3, Tehran 1986, 55-62.

<sup>23</sup>See the preceding note.

<sup>24</sup>Cf. Abrahamov (as n. 16) pp. 80 and 95.

<sup>25</sup>Ghazālī, *Ihyā'* (as n. 19) IV332,5ff.; cf. Abrahamov (as n. 16) 86f.

<sup>26</sup>Wolfson, *Philosophy of Kalam* (as n. 5) pp. 624-644 (“The *Hātirāni* in the *Kalam* and Ghazālī as Inner Motive Powers of Human Actions”), esp. pp. 639ff.

Ghazālī's doctrine of man's will and action follows the same scheme of conditioning causes and conditioned effects. Even man's choice is compulsory and ultimately determined by God, insofar as it is conditioned by his life, his knowledge and his creation by God.<sup>27</sup>

My short description so far has revealed the following elements as corner-stones of Ghazālī's doctrine of causality:

- 1) God as the all-determining cause;
- 2) nature implanted by God in the substances, God's creatures, as the rule or law of things qua chain of causes leading to effects, which appear to be conditioned by a series of causes conditioning each other;
- 3) man's choice and action as a result of conditioning power and cognition;
- 4) the establishment of primary and unchangeable causes, namely earth, seven heavens, stars, celestial sphere and their proportional perpetual motions, which are created by God's decree (*qadā'*) and which through their proportioned and measured motions were directed by God to their final effects.<sup>28</sup>

These corner-stones have an interesting history in Islam before Ghazālī, as they mirror a compromise of a dilemma in early Islam and of disputes about divine determination by God and independence of man. Can God be replaced by another kind of causality?<sup>29</sup>

An important starting-point for our discussion is the oldest document of Islam, the Koran. In Sura 45, verse 23 (22)f. we find the following remark about the unbeliever - I quote the translation of Arthur J. Arberry:

*Hast thou seen him who has taken his caprice (hawāhu) to be his god, and God has led him astray out of a knowledge, ... They say, 'There is nothing but our present life; we die, and we live, and nothing but Time (dahr) destroys us'.*

Here, we detect the divine cause replaced by the inclination of man (*hawāhu*), who orientates himself solely towards his life in this world,

<sup>27</sup>Cf. Abrahamov (as n. 16) 88-90.

<sup>28</sup>Cf. note 16.

<sup>29</sup>Some of the ideas formulated in the following discussion can be found in my article "Rebellion gegen Gott" (s. n. 3).

who considers himself as perishable, as victim of time.

Apparently, Mohammed is here criticizing his contemporaries who confess the old Arabic, pre-islamic fatalism and deny any kind of religious predestination. Mohammed is here denouncing people, who prefer to religion the old Arabic virtue of man, the virtue which honours the tribe.

Remarkable in the formulation of the Sura quoted is the assessment of individuality as causal factor equal to God. According to Mohammed this is not compatible with his new belief in one God, to whom everyone must surrender. Moreover, in Sura 26,123ff. Mohammed asks people to fear God and to obey him by referring to the perishability of the world, which he exemplifies with the end of the tribes ʿĀd and Thamūd, who did not obey God. He who does not surrender to God must assume, according to Sura 45, 24, which I have quoted, that time, *dahr* in Arabic, lets people perish: there is no God who could promise them paradise in the other world.

Here, we detect the Koranic starting-point of the description of those who deny God as "Dahrites".<sup>30</sup> This term, with the same connotations, reappears in the writings of the famous prose-writer Djāhīz, who died in about 868 A.D. In his book on animals he demonstrates that even animals hint at God's existence, "at His perfect creation", "His marvellous rule" and "His subtle wisdom".<sup>31</sup>

According to Djāhīz this cosmological and teleological proof of God contradicts the denial of God by the Dahrites. These Dahrites consider, as Djāhīz formulates it, "command and prohibition (by God) as something absurd; they deny prophecy and declare matter as something eternal; they deny the existence of reward and punishment; they do not acknowledge the permitted and prohibited things; they do not accept the evidence of a creative act and of created existing in the whole world, of Creator and creation; according to their opinion the stars cannot increase or decrease their movement or circulation; they cannot replace rest by movement, cannot stand still for one moment or deviate from one direction. (Through

<sup>30</sup>On the term cf. D. Gimaret, art. Dahrī II (In the Islamic Period), in: *Encyclopedia Iranica* VI, Costa Mesa, California 1993, p. 588b-590a.

<sup>31</sup>Djāhīz, *Kitāb al-Ḥayawān* ed. ʿAbdassalām Hārūn II (2nd ed. Cairo 1965), p. 109,5f.

the stars) everything is confirmed or refuted, all the small and great things happen...".<sup>32</sup>

These remarks by Djāḥiẓ are directed against the so-called Dahrites and aim to explain, that the creation of animals and their wise rule are not due to the unchangeable movement of stars, but to a divine cause.

The critique of the Dahrites is turning into a critique of astrologers. Astrology was rather popular in the time of Djāḥiẓ and had reached its first climax at that time.<sup>33</sup> One of their critics was Djāḥiẓ, who here refers to discussions of agnostic circles from the 8th/9th century who in the tradition of old sceptic-materialistic traditions of the Sassanians from the 6th century deny the influence of the stars on the sublunar world.<sup>34</sup> According to Djāḥiẓ the assumption of any astrological influence on creation means the denial of God. He who asserts the eternal uniformity of the celestial bodies, cannot anymore assume generation and corruption, or the "distinction between Creator and created", but solely "eternal matter".

This conclusion by Djāḥiẓ is not new. It takes up an alleged discussion between the theologian Abū Ḥanīfa and a Dahrite, which is summarized in the 10th century by Abū l-Laith as-Samarqandī in his commentary on the oldest Islamic credo, on Abū Ḥanīfa's *al-Fiqh al-absaṭ*.<sup>35</sup>

Abū l-Laith as-Samarqandī polemizes against the "Dahrites, i.e. the atheists, the heretics and astrologians", who "deny the Creator, believe in the eternity of time and trace all things back to the natures, the *ṭabā' i<sup>c</sup>*".

Abū l-Laith substantiates his criticism with his explanation that the change of things requires a separate cause, which brings it about. As an illustration Abū l-Laith adds his report of the discussion between Abū Ḥanīfa and a Dahrite, as follows:

<sup>32</sup>Djāḥiẓ, *Kitāb al-Ḥayawān* (as prec. n.) VII (Cairo 1968) 12,11ff. Compare, in addition Daiber, *Rebellion* (as n. 3) p. 25.

<sup>33</sup>Compare on the beginnings of astrology in Islam F. Sezgin, *Geschichte des arabischen Schrifttums*. VII, Leiden 1979.

<sup>34</sup>For further details see Daiber, *Rebellion* (as n. 3) 26f.

<sup>35</sup>Ed. (with commentary) by H. Daiber, *The Islamic Concept of Belief in the 4th/10th Century. Abū l-Laith as-Samarqandī's Commentary on Abū Ḥanīfa (died 150/767), al-Fiqh al-absaṭ*, Tokyo 1995 (= *Studia culturae islamicae*. 52), ll. 771-784. Compare for further details Daiber, *Rebellion* (as n. 3) 28-30.



"People tell about Abū Ḥanīfa, that he disputed with a Dahrite and cornered him with his arguments. The Dahrite answered: Things change from one state into another, because they are based on four natures: on humidity, dryness, cold and heat. As long as these four natures exist in an equal manner, their owner has balance. In case one nature predominates the others, the balance ceases to exist and the balance of their owner too.

Abū Ḥanīfa answered: Herewith you confess in fact the existence of a Creator (ṣāniʿ) and of the created (maṣnūʿ), of something dominating (al-ghālib) and something which is dominated (al-maghlūb), even if you deny that. For you maintain: one of the natures dominates the others and the others are dominated by the one. Herewith it is proven, that the whole world has a dominating cause. And thus we can go beyond your question and maintain: the dominating cause is nothing other than God, the creator."

Although the report seems to be late,<sup>36</sup> we can nevertheless detect old ideas in the report. The thesis of the Dahrite and its refutation by Abū Ḥanīfa, with the argument that contrary qualities like humidity, dryness, cold and heat can only be combined by a superior factor, by God, is among others<sup>37</sup> also found in the older theologian Māturīdī, who died in 944 A.D. In his "Book on the unity of God", his *Kitāb at-Tauḥīd*,<sup>38</sup> he informs us that he based his information on the Dahrites on their critic Ibn Shabīb, a pupil of the Muʿtazilite Naẓẓām, who died between 835 and 845 A.D.<sup>39</sup> Apparently Ibn Shabīb was Māturīdī's source for his own counterarguments and his thesis of the prevailing divine cause.

In addition, we know that Ibn Shabīb, like Māturīdī, follows Naẓẓām, whose critical description of the Dahrite principles is preserved.<sup>40</sup> Naẓẓām had developed against the Dahrites and dualists the doctrine that all things, even contrary things, are "mixed" by the intervention of God.<sup>41</sup>

<sup>36</sup>Cf. Daiber, *Rebellion* (as n. 3) pp. 29f.

<sup>37</sup>For further references see Daiber, *Rebellion* (as n.3) p. 30, n. 27.

<sup>38</sup>Ed. Fathallah Kholeif (Beirut 1970) p. 141ff.

<sup>39</sup>On his doctrine cf. J. van Ess, *Theologie und Gesellschaft im 2. und 3. Jahrhundert Hidschra* III, Berlin und New York 1992, 367.

<sup>40</sup>Djāhīz, *Kitāb al-Ḥayawān* (as n. 31) ed. Hārūn V (2nd ed. Cairo 1966), p. 40,5ff./translation van Ess, *Theologie* (as prec. n.) VI, 1995, p. 66.

<sup>41</sup>Cf. van Ess, *Theologie* (as n. 39) III pp. 366f.

Nazzām's thesis that contrary things are forceably put together through the intervention of a superior divine cause is not new. He himself is inspired by Christian circles of his time, who themselves ultimately follow the doctrine of the pseudo-Aristotelian treatise *De mundo*, described there in chapters five and six.<sup>42</sup>

Remarkable is the effort of the Islamic texts to refute with their proof of God's existence the Dahrites, who are called "adherents of natures" (*aṣḥāb at-ṭabā'ī*), who deny God.

This peculiarity the texts share with Djāḥiẓ, who - as already mentioned - criticized the Dahrites in his *Book of Animals*. This observation leads us to a better assessment of Djāḥiẓ' text, not only as a critique of contemporary astrology, but also as an echo of Nazzām's theology, which itself appears to be inspired by Christian circles of his time and is based ultimately on Greek ideas.

At the same time, the idea of God as guarantor of harmony and order in the world is enriched with the Koranic nuance of God as creator.

Djāḥiẓ's contrasting of God-creator and eternal matter, as well as his deprivation of the stars of their divinity, is very significant; both can be retraced to a revolutionary innovation of John Philoponus in the 6th century. Based on the Christian axiom that God created the whole world, John Philoponus had refused the heathen thesis of the immanence of gods in the world as well as in the stars; he defended the doctrine of a transcendent God, who created the universe from nothing<sup>43</sup> and who thereupon leaves the universe to its immanent laws.<sup>44</sup>

Here, in John Philoponus, we detect the first beginnings of a separation between natural sciences and theology.<sup>45</sup> This separation could not yet

<sup>42</sup>Cf. H. A. Davidson, *Proofs for Eternity, Creation and the Existence of God in Medieval Islamic and Jewish Philosophy*, New York and Oxford 1987, pp. 150f.; van Ess, *Theologie* (as n. 39) III p. 367.

<sup>43</sup>Cf. on this and its afterlife in Islamic and Jewish thinkers Davidson, *Proofs* (as prec. n.) pp. 86ff.

<sup>44</sup>Cf. W. Böhm, *Johannes Philoponus, Grammatikos von Alexandrien (6. Jahrhundert n. Chr.). Ausgewählte Schriften übersetzt, eingeleitet und kommentiert*. München, Paderborn, Wien 1957, pp. 300ff.

<sup>45</sup>Cf. on this S. Sambursky, *The Physical World of Late Antiquity*, Princeton,

gain a foothold in Islam and is confined there primarily to the deprivation of stars and matter of their divinity. God remains active in creation through nature. Thus, the Islamic theologian Dirār Ibn ʿAmr, who lived between 728 and 796 A.D., opposed the so-called “naturalists” by denying the independent “nature” of things and assuming a connection of things, of “parts”, effected by God. Even man’s action is determined by God: man “acquires”, what God has created.<sup>46</sup>

A contemporary of Dirār, the Shi’ite Hishām Ibn al-Ḥakam, introduced a new factor here, namely the “cause” created by God; this “cause”, Arabic *sabab*, “necessarily” “calls forth” the acts of man, provided that man wants them.<sup>47</sup>

This deterministic component appears a little later in a different manner in Nazzām’s theology. Nazzām replaces the term “cause” by the terms “nature” (*khilqa*, *ṭabīʿa*) and “coercion” (*idjāb*): According to him, God has created in things and imposed on them their “nature” or “coercion”; man has only the potentiality to give the impulse to a causality, which as such is determined by God and is therefore unavoidable.<sup>48</sup>

His contemporary Muʿammar Ibn ʿAbbād as-Sulamī differed from this. According to him, nature is not something created by God, but a keyterm for causality, which is inherent in things. God determines this causality only indirectly: Here, Muʿammar offers a unique solution: according to him the determinant cause for its part is determined indirectly, via an endless chain of causes of *maʿānī*, of determinant factors, by God.<sup>49</sup>

This solution appears to be a promising step in the direction of the revolutionary thesis of John Philoponus: God is a transcendent creator of N. J. 1962 (pb. 1987), pp. 154ff.

<sup>46</sup>Cf. van Ess, *Theologie* (as n. 39) III pp. 38, 41f. and 44ff.

<sup>47</sup>Cf. al-Ashʿarī, *Maqālāt al-Islāmiyīn wa-khitāf al-muṣallīn*, ed. Hellmut Ritter, 2nd ed. Wiesbaden 1963 (= *Bibliotheca Islamica*. 1), p. 40, 12ff.; Wolfson, *Philosophy* (as n. 5) pp. 672f.; van Ess, *Theologie* (as n. 39) I (1991) pp. 369f.

<sup>48</sup>Cf. H. Daiber, *Das theologisch-philosophische System des Muʿammar Ibn ʿAbbād as-Sulamī (gest. 830 n. Chr.)*, Beirut-Wiesbaden 1975 (= *Beiruter Texte und Studien*. 19), pp. 403f.; van Ess, *Theologie* (as n. 39) III 378f.

<sup>49</sup>Cf. Daiber, *Das theologisch-philosophische System* (as n. 48) pp. 222ff.; id., art. Muʿammar in *Encyclopaedia of Islam* VIII (2nd ed. Leiden 1993); van Ess, *Theologie* (as n. 39) III pp. 67ff.

substances; nature which inheres in these substances, determines the causality of things coming into being, the causality of "accidents". Nature has become independent and has become a causal principle, which is related to the first, divine effective cause, Aristotle's unmoved prime mover, solely via an endless chain of determinant factors, the *maʿānī*.

Muʿammar's doctrine was not accepted by his pupils, but reminds us of Ghazālī's assumption of a series of causes and their effects determined by God. Here, John Philoponus' doctrine became a stimulus, as for Muʿammar's forerunners and successors: a stimulus to dispute and refute the ancient Greek thesis of the eternity of matter and the divine influence of stars in the spirit of Islam and on the basis of the Koranic theology of creation.

In spite of Muʿammar's starting-point God remains in early Islam an immanent cause of creation. Therefore, God's existence can be proven in different manners from creation.<sup>50</sup> Sometimes, we find associated with it the teleological proof of God: the functionality of creation, in which everything has its function and aim, shows the existence of a wise creator.<sup>51</sup>

Herewith, we are back to Djāḥiẓ' critique of the Dahrites, the "materialists". Djāḥiẓ had used his critique, in line with his teacher, the Muʿtazilite Nazzām, as the starting-point for his proof of God's existence from creation. God did not become a complete transcendent being, but can be conceived in the reasonable order of creation. According to Nazzām God imposed on all things created by him a nature which determines their causality. God acts indirectly, through nature created by Him in things. Nazzām adduced the example that "God provided the stone with such a nature that it rolls, if someone pushes it".<sup>52</sup>

This explanation forms the basis of Ghazālī's doctrine of causality: Ghazālī uses the terms *ṭabīʿī*, *sunna* or *ʿāda*<sup>53</sup> to describe causality and specifies this by introducing a series of conditioning causes between God

<sup>50</sup>Cf. Davidson, *Proofs* (as n. 42) ch. 6ff.

<sup>51</sup>Cf. Davidson, *Proofs* (as n. 42) pp. 216ff.

<sup>52</sup>Ashʿarī, *Maqālāt* (as n. 47) p. 404,7f.; cf. H. Daiber, *Das theologisch-philosophische System* (as n. 49), p. 403f.

<sup>53</sup>Compare above n. 22 and 25.

and the final effect: a cause becomes a condition for the caused, the conditioned, the effect. This appears as further development of Mu<sup>c</sup>ammar's doctrine of an endless chain of causes, called *ma<sup>c</sup>ānī*, between God the first cause and the final effect. Unlike in Mu<sup>c</sup>ammar, however, and in the spirit of Nazzām, God remains present in the causes in the doctrine of Ghazālī. God determines whether a cause becomes a condition for the effect or not and God determines whether the chain of causes can be shortened and thus can lead to a miracle<sup>54</sup>. Even man's choice and action are subjected to God's power, which determines their conditions, namely man's cognition and capacity.

Ghazālī's statement about the cognition of man as a condition of his choice preceding his action implies the assumption that man's action causes something, if the conditions do not prevent it. Moreover, it implies the assumption that man can recognize causalities, effects following their causes, if the conditions are fulfilled. This reminds us of modern discussions in the 20th century: a monograph on causality published by the German philosopher Johannes Erich Heyde in 1957, declares that causality means "the condition of change"<sup>55</sup> and is not dependent upon "regularity" or "necessity".<sup>56</sup> Moreover, he explains, man perceives and reflects causality as he perceives himself, his will and acting as "causes" of changes which he desires.<sup>57</sup> Against the "positivists" this reflection on causality, on the relation between cause and effect, forms the basis for a true understanding of "reality" ("Wirklichkeit").<sup>58</sup>

Ghazālī has contributed to this reflection on causality, not only in classical Islam<sup>59</sup> and in European philosophy<sup>60</sup>. He continues to contribute to this reflection in our age. Our short description of the background of

<sup>54</sup>Compare above n. 23.

<sup>55</sup> Heyde, *Entwertung* (as n. 4) p. 132: 'bei "Kausalität" handelt es sich ... um das "*Bedingung sein für Veränderung*" selbst'.

<sup>56</sup>Heyde 133ff.

<sup>57</sup>Heyde 145.

<sup>58</sup>Heyde 146.

<sup>59</sup>Ghazālī was criticized by Ibn Rushd in his *Tahāfut at-Tahāfut*, whose Latin translation was available since the 14th century: → Daiber, *Lateinische Übersetzungen* (as n. 4), p. 236f.

<sup>60</sup>Cf. above n. 4.

Ghazālī's doctrine of causality reveals the correlation of Islam and rationalism. This confirms that religion as stimulus of science was shaping the history of sciences in Islam in a specific manner. In contrast to the statement by Djamāladdīn al-Afghānī quoted at the beginning of my paper, Islam was not only a moral force and not only an inspirer of human phantasy. In addition, the contrasting of the "atheistic" replacement of God by matter as the only causality with Ghazālī's doctrine of causality has shown us the real starting-point of Ghazālī's doctrine. He formulated it in the context of contemporary Ashʿarite theology and maintaining a critical attitude towards Ibn Sīnā's mainly Aristotle-orientated philosophy. Finally, Ghazālī's doctrine must be understood as a development within the framework of a theocratic religion and as a result of discussions in agnostic and Muʿtazilite circles long before Ghazālī, especially of Nazzām and Muʿammar.