



ORDER: GOD'S, MAN'S AND NATURE'S

Causation and Order in Islamic Kalam

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Abstract

Most of the studies that dealt with the issue of causation in Arab-Islamic philosophy, such as Wolfson, Burrell, and Alon¹, concentrated on the Greek influence on Islamic philosophy. Such influence might be significant if there were a separation between Islamic Philosophy and Islamic Kalam. I do not believe in such separation. In this paper I want to explore the different ways that Kalam dealt with causation and how it consciously refused the Greek-Islamic philosophers' conception of causation. In doing so, I will reflect on how such perceptions of causation might help contemporary philosophy of science. Causation in Kalam is expressed on more than one level: 1) direct causation, 2) actions by association, 3) probable cause, and 4) functional causation. In this paper I will explore these different definitions of causation and their implications for our current discussions.

Introduction:

In recent years interest in causation and causal order has increased in the philosophy of science, especially after the works of many philosophers and historians of science on the failure of fundamental theories of physics in representing nature².

The main idea is to be able to build causal laws or a kind of causal order in representing nature and natural phenomena, rather than sticking with natural laws and fundamental theories. In this paper I want to show the Arab-Islamic version of science did not adopt a mathematical law-like science, and although most of the bases of enlightenment scientific theories were imported from the Arab Science, that science did not concentrate on a law like equations to express direct relations between the elements of nature. In the following section I will introduce a historical account of the Islamic Kalam and its schools in order to help the reader to follow on

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¹ See for instance:

- H.A. Wolfson, *The Philosophy of the Kalam*, Harvard University Press, 1976.
- I. Alon. 'Al-Ghazali on Causality', *Journal of the American Oriental Society* 100 (4): 397-405, 1980.
- D. Burrell, "Causality and necessity in Islamic thought" in the Islamic Encyclopaedia, <http://www.muslimphilosophy.com/ip/rep/H005.htm>

² See for instance, N. Cartwright, *How the Laws of Physics Lie*, OUP, Oxford 1983.

the argument in the paper. Such an account is in no way a comprehensive one. The second section will concentrate on the differences, and debates that took place, between Islamic Kalam and Muslim philosophers influenced by the Greek philosophy. I will represent the last of these debates which was between Averroes and Al-Ghazali. The third section will address the idea of science from an Arab-Islamic perspective. I will try to draw some parallels between such a picture of science and current representation of science. The fourth section will present the developments in the ideas of causation in Islamic Kalam.

In her book *Nature's Capacities and their Measurement*,³ Nancy Cartwright defended causal laws and insisted that such laws cannot be ruled out of science. She defended the concept of capacity, in which she insisted that associations such as 'aspirin relieve headaches', "are best rendered as ascriptions of capacities"³. Islamic Kalam, and even the whole Arab-Islamic concept of science, was built on accepting causal laws rather than the mathematical conception of scientific laws. Even when the advances in geometry and algebra took place, and with people who in fact developed many of the ways to calculate cosmic laws, such as Nasir al-Din al-Tusi in 1247, he continued to accept a causal law like science⁴.

The other important point was related to the Al-Moatazilah concept of capacities. More than one thousands years ago, Ibrahim Alnatham (d. 231h/845ad⁵), one of the early Islamic Kalam philosophers, in his reply to theologians who denied causation, suggested that all things in nature have the capacity to do whatever they can do and he affirmed that such capacities are what makes them obey casual laws. He stated that God (Allah) created everything in one go but he: "engulfed some of it in others, that will be appearing in time, because being early or late is only a matter of time."⁶ This kind of engulfing of things, empowering them to act in certain ways where they have the capacity to do something, was the rational answer the Discourse Scientists (Alama' Al-Kalam) produced as a successful answer to uphold God's will and at the same time insisting that nature has its own order that keeps it going as planned by the almighty.

No doubt that there is no relation between Cartwright's position and that of Al-Natham and the Islamic Kalam, but what I will try to do here is to follow the Islamic Kalam discussions on causation and science and try to show that they present a very advanced picture, not as a reply to modern science but as a reply to religious thought and solving religious problems.

Islamic Kalam: a brief history

Islamic Kalam started in the first century of Islamic Hegri Calendar. The main aim of Kalam was to be able to interpret the words of the Koran and to debate the theological issues related to such interpretation. The first known circle of such discussions started in Al-Basra in the south of Iraq. One of its eminent figures was

³ N. Cartwright, *Nature's Capacity and their Measurements*, Oxford University Press, Oxford 1994, p 141.

⁴ For a detailed account of Nasir al-Din al-Tusi position please consult George Saliba: <http://www.columbia.edu/~gas1/project/visions/case1/sci.1.html#int1> and Toby Huff, *The Rise of Modern Science*, 1993.

⁵ Here d indicates died, h for Hegri calendar and ad for Christian calendar. Hereafter the dating will reflect (Hegri/Christian) dating to give the date when that thinker died.

⁶ "الله خلق الناس والبهائم وسائر الحيوان وأصناف النبات والجواهر المعدنية كلها في وقت واحد،، غير أنه أكن بعض الأشياء في بعض، فالتقدم والتأخر، إنما يقع في ظهورها من أماكنها". عن النظام في البغدادي، الفرق بين الفرق، تحقيق: محمد محي الدين عبد الحميد، القاهرة بدون تاريخ، ص 127.

Al-Hassen Al-Basri (d 110 h/ 726 ad) who was a supporter of one of the early positions in Kalam: Al-Jbriah (Fatalism - they believed that humans have no choices, their acts are dictated by the will of God, for them all actions (humans or non-human) are a direct consequence of God's will). Wasel Bin A'taa (131/748), one of his bright students, fundamentally disagreed with him and formed another circle which was thereafter known as Al-Moatazilah (Fractionists) – this fraction evolved to be one of the major schools in Kalam; they supported human free will, and were known as Al-Qadariyah (The Power of Choice - and their philosophy was depicted as the "Philosophy of Power"⁷). Al-Moatazilah insists that human actions are a direct result of their own will. They thought that if humans are not responsible for their actions then God's punishment would be unjust, but God is Just and would not punish anyone unless he/she is responsible for his/her actions. This led directly to accepting a direct causal relation between humans' actions and their consequences. Nonetheless, the first school also was interested in causation, not for the same reason, but because they were trying to interpret how to obey religious obligations.

The debate between these two schools ended in the formation of a third school: Al-Ashariah, named after its founder Abu Al-Hassen Al-Ashari (d 324/935), a school that is still the dominant school in Sunni Islam. This school believes that although all our actions are the direct consequence of God's will, we are nonetheless responsible for our choices because we chose these actions. i.e. while the Omniscient God knows all that has happened and will happen in the future, and nothing would happen without his will, we humans do not know the outcomes, and hence when we choose to act in a certain way we ought to be held responsible to these actions.

Kalam Main Schools Some of the main names that are used in this paper		
Al-Jbriah	Al-Moatazilah	Al-Ashariah
Fatalism all actions (humans or non-human) are a direct consequence of God's will	Humans have the choice: human actions are a direct result of their own will	Humans are responsible for their actions because they acted in their free will, although God's will supersedes the Human will
Hassen Al-Basri (110/726)	Wasel Bin A'taa (131/748) Al-Natham (231/845) Abu Huziel Al-A'laf 234/849 Al-Jah'eth 254/868 Al-Khaiat 289/902 Al-Qadi Abd-Algabbar 415/1024	Abu Al-hassen AlAshari 324/935 Al-Baqalani 403/1013 Abu Al-Ma'ali Al-Jouini 478/ 1123 Al-Sarkhasi 490/1097 Abu Hamed Al-Ghazali 504/1111 Fakher Al-Dain Al-Razi 606 / 1210

In Kalam there are two major issues that the A'lama Al-kalam (Kalam scientists or discourse scientists as they are usually referred to) are concerned with. The first is Jalil Al-Kalam, refine Kalam, the discourse on God's will; God's words; God's attributes; God's actions; the debate over Koran; whether it is created or old and on

⁷ In this regard see the book by Samieh Dgiam on: *The philosophy of Power*.
سميح دغيم، فلسفة القدر في فكر المعتزلة، دار التنوير، بيروت 2007.

religious issues such as human actions (Jabriah and Qadrieh); i.e. the discourse on theological issues. The second is Daqieq Al-Kalam: accurate Kalam, the discourse related to the world: natural order, laws, phenomena, etc; i.e. the discourse that is related to nature and science. The three schools disagreed dramatically on the first issue while they agreed mostly on the second.

Moreover, another major debate was taking place at the same time between these Kalam theologians and philosophers, who insisted on upholding the Aristotelian concept of causation. Historians of Islamic philosophy extensively discussed such a debate and especially the last (which some might count as the most important of them): that is the well-known debate between Averroes (Ibn- Rushed (d 598/1198)) and Ghazali. Abu Hamed Al-Ghazali (d 504/1111) was a philosopher who converted to be theologian. In his conversion Al-Ghazali tried to inflict the highest possible critique on the Islamic philosophy in his book *Tahafut al-falasifah*⁸ – *Incoherence of Philosophers*. Averroes, who lived 50 years later, in defence of philosophy wrote his reply in *Tahafut al-tahafut*⁹ – *The Incoherence of Incoherence*.

In this debate, most scholars think that Averroes was defending rationality and philosophy, and did defend causal relations, while insisting that Ghazali intended to refute causality¹⁰. But some did argue that in spite of Al-Ghazali's rejection of direct causation, he did not deny causation, but upheld a special type of it on the natural level, as we will see below¹¹.

The important point in understanding the Arab-Islamic discourse on causation is to understand the paradigms on three major issues: these are science, mind and will. In all these, the main discourse was on the role of God in relation to these three issues. Science is defined in two ways: the science of the words of God (Jalil Al-Kalam), which is related to Koran and the theological issues related to interpretation of the text and on beliefs, and the science of nature (Daqieq Al-Kalam).

Kalam and Philosophers debate:

Throughout the first four centuries of Islamic civilisation the debate between philosophers (followers of the Greek stream of philosophy) and Mutakelimun (Kalam Scientists) did not stop. The major points of disagreements were:

Philosophers	Mutakelimun
The world is old	There is a starting point: Creation
The world is continuous (continuity)	The world consists of atoms (discreteness)
The world is coherent and stable	Divisibility is the symptom of the world
The world is deterministic	The world is probabilistic
The world is absolute	The world is relativistic

⁸ أبو حامد الغزالي، تهافت الفلاسفة، تحقيق سليمان دنيا، دار المعارف، القاهرة 1966.

⁹ أبو الوليد ابن رشد، تهافت التهافت، تحقيق محمد عابد الجابري، مركز دراسات الوحدة العربية، بيروت 1998.

¹⁰ In his introduction to both "Tahafut al-tahafut" and "Alkashef a'n Manaheg Al-Adellah fi A'caed Al-Amah" of Averroes, Mohammed Abid Algabiri presented an overview on such a debate: Ibid and

أبو الوليد ابن رشد، "الكشف عن مناهج الأدلة في عقائد الملة"، تحقيق: محمد عابد الجابري، مركز دراسات الوحدة العربية، بيروت 1998.

the introduction.

¹¹ See:

- جيران جهامي، مفهوم السببية بين الفلاسفة والمتكلمين، دار الشرق، بيروت 1985.
- أبو يعرب المرزوقي، مفهوم السببية عند الغزالي، دار بوسلامة، تونس 1978

As it turned out, most of the points that the Mutakelimun adhered to are more in line with our current perception of the universe.

The Mutakelimun stated that the God should be the only old thing, he is the only uncreated being and the rest should be created. Hence the Aristotelian perception of God being the first mover was unacceptable from their point of view. They conclude then that whatever is created can be divisible into smaller parts up to a point of being atoms that cannot be divided. As Abu Huziel Al-A'laf (234/849) says: "God (the almighty) can divide the substance and dismantle its unity until it arrives to a part that cannot be divided, with no width or height or length with no union in it and no separation, to the limit where it can be united with other parts or be separated from other parts."¹²

In this context I think it should be noted that for causation we have two worlds in Arabic: 1) Cause: A'llah – Ma'llol deterministic causation related to non-willing things. 2) Cause: Sabebe – Musabib - depends on actions and human or God's will. In this paper, I will use the current descriptions of causation as a translation of the different types of causation accepted by Kalam scientists. In their rejection of the philosophers' monochromatic causal presentation, the Kalam scientists stated that causal relations can be expressed by one of four means (as we will explore in details below). These are: 1) direct causation, 2) actions by association, 3) probable cause (here they specify natural laws as an outcome of such causation – probabilistic causation), 4) functional causation.

Let me now turn to the last round of debate and state the differences between the two positions in regard to causation. I will not give a comprehensive account of the whole debate, only the points related to causation.

Al-Ghazali Causation

Al-Ghazali's¹³ main objection to causation concentrated on the idea of deterministic causation. He claimed that deterministic causation would be valid only if the relation between the cause X and the effect Y is bi-conditional, where X would not exist without Y and Y would not exist without X. But if we can find X or Y without the other, then such causation is not necessary. He argued that natural associations between two events do not obey such relation, and he gave some examples of such cases where X and Y do exist without each other: "the existence of one does not necessitate the other, as for water and thirstiness, eating and hunger, fire and burning, light and sun rise, death and beheading, etc..."¹⁴ where he thought that each of these can have a separate existence from the other, and therefore would not entail the other.

¹² Stated in

الأشعري، أبو الحسن، مقالات الإسلاميين واختلاف المصلين، تحقيق هلموت ريتز، دار احياء التراث العربي، بيروت، ص314
"إن الجسم يجوز أن يفرقه الله سبحانه ويبطل ما فيه من الاجتماع حتى يصير جزءاً لا يتجزأ وأن الجزء الذي لا يتجزأ لا طول له ولا عرض له ولا عمق له ولا اجتماع فيه ولا افتراق، وأنه قد يجوز أن يجامع غيره وأن يفارق غيره وأن الخردلة يجوز أن تتجزأ نصفين ثم أربعة ثم ثمانية إلى أن يصير كل جزء منها لا يتجزأ"

¹³ Al-Ghazali cannot be counted as a fully fledged Kalam philosopher, as he was moving away from philosophy to Kalam and his work was in line with the new transition into the Al-Ashariah position, away from depending heavily on reason and rational conviction in the Al-Moatazilah position. Moreover, Averroes replied to his book and the great interest in Averroes made such debate important.

¹⁴ Al-Ghazali "Tahafut" P 67.

Nonetheless, Al-Ghazali would not deny causation (but not deterministic) in two practical fields; these are nature and feqah, i.e. the relation between two events in nature might be causal. How does he defend such causal relations? He starts by saying that as long as, when discussing the ability to have a causal relation between events, we do not deny that God is capable of changing any association between two events, then he can start accepting that God would not deceive us, and a probabilistic causal relation would be possible between any two events that are related, i.e. when an ensemble of observations confirm that when X then Y, then we can associate that with saying that X is probable cause of Y.

He says: “Understand that when humans were not capable of knowing God’s discourse in every case – specially after the discontinuity of wahi – **God, the almighty, shows his intentions to his creations in a substantive way he erected as causes to its judgments, and he made it necessitating to such judgments, as is the effect is necessitated by its cause... what is meant here that stating causes as causes for judgments is in itself a judgment of Sharai’ (religious instruction)**”¹⁵. ???

In such a position, Al-Ghazali did adopt a very strong line against deterministic causation. Such a hard position was in line with both Al-Jbriah and Al-Ashariah but not necessarily in line with Al-Moatazilah who accepted direct causation, which is deterministic, and they accept that such causation is built into nature.

Averroes’ reply

Averroes’ reply insisted on deterministic causation. He started by insisting that we need to deal only with whatever is known to us and is physically accessible, while what we do not know or touch might not fall into the realm of knowledge and then we cannot judge it¹⁶.

He insisted that any relinquishing of the direct cause–effect relation is relinquishing reason altogether. If we uphold reason, he says, we uphold that when two things are in constant correlation and when the cause happens it dictates the effect then we should not reduce this relation to a probabilistic one depending on the times we can associate these two events. He tied the causal relation to God’s creation. He quoted the same verses of the Koran to show that association between cause and effect is a natural association related to the mere creation of the things.

Nonetheless, Averroes was cautious not to contradict religious text (the Koran verses), and insisted that the cause-effect relation on natural events does not rule out God’s will to act miraculously against the usual natural cause–effect, but such divine intervention should not rule out that nature is ordered in such a way of relation between the causes and their effects by God. Hence, such relation is in line with religious belief not against such belief.

In his reply to the causal debate, Averroes concentrated on Al-Ghazali’s concept of probabilistic causation (Tajwiz wa ah’timal) only. He did not discuss other concepts in the Kalam causation. He thought that the concept of probabilistic causation might lead anyone to believe that miraculous events might happen on a daily basis, where some bizarre events might happen. This idea might be a response to Al-Ghazali’s

¹⁵ Al-Ghazali: *Almustasfa*, P 59.

أبو حامد الغزالي، المستصفى، ج 1، طبعة بولاق كردي، القاهرة 1901، ص 59-60، مقتبس من: أبو يعرب المرزوقي، مفهوم السببية عند الغزالي، دار بوسلامة، تونس 1978، ص 96.

¹⁶ Averroes “Tahafut” P 505.

presentation of some examples which can force such response, such as his discussion of the possibility of not having a direct relation between beheading a person and that person dying!!! But such examples are not common in the Kalam tradition especially for Al-Moatazilah who did not accept any unreasoned arguments. They assert that even when God's exact words defy reason, such words should be reinterpreted in such a way that it becomes acceptable to rational thinking.

I do not want to go into detailed discussion of the Averroes – Al-Ghazali debate here. All I want to show is that such debates do not really constitute a reply to Kalam, especially to Kalam causation.

Science in Islamic Kalam¹⁷

The Islamic Kalam conception of science reflects in fact the Arab-Islamic understanding of science, where the relations in such science are built upon causal laws. Even though Arab-Islamic scientists practiced highly developed algebra and geometry, they did not use their mathematical knowledge in producing scientific laws. This does not mean that they did not use mathematics to calculate relations and associations in natural events, but the calculations were merely a tool to find results but not a means to represent scientific events. When explaining a scientific event or phenomenon, they adhere to a causal rational representation of the relations that produces such an event or phenomenon.

Science, from Islamic Kalam perspective, by definition is a firm belief that corresponds to reality with a sufficient cause to accept it (Figure 1). Science, therefore, is a self reflection which depends on certainty and on reflections of reality that adheres to rationality beyond any kind of doubts and that rule it out of being any kind of an illusion. If there is any hesitation in accepting a belief, then we cannot accept that belief to be a part of science. Hesitant belief would be either a kind of scepticism or contingency or illusion.

The cause should depend on either deductive reasoning (theoretical), or perceptual reasoning or ad hoc reasoning. If a belief fit such criteria then it might be depicted as scientific. Science is one of two types: either God's science which we accept by necessity or natural science that requires argument and proof to be accepted.

Nonetheless, the argument and proof need not be mathematical. It is related to causal laws and causal relations, as we will see. In accepting such a concept Kalam is saying that even if the stone has been thrown by a person, who is responsible for his direct action of throwing the stone, the movement of the stone in a certain way (trajectory) is not related to the human action. Rather, it is related to the laws that are encrypted into the stone when God created it.

From such a position on causal science we find that Kalam scientists did suggest many causal relations that are essential to our current perception of science, such as Al-Baqalani's (1013) presentation of moving bodies where he stated: "the evidence

¹⁷ The discussion in this part depends on:

- Al-Qadi Abd-Algabbar in Al-Magni
- القاضي عبد الجبار، المغني في أبواب التوحيد والعدل، المجلد الخامس، تحقيق توفيق الطويل وسعيد زايد، بدون تاريخ
- Fakher Al-Dain Al-Razi in Al-muhasel:
- فخر الدين الرازي، المحصل مع تزييل بكتاب تلخيص المحصل لنصير الدين الطوسي، تحقيق طه عبد الرؤوف سعد، مكتبة الكليات الأزهرية، القاهرة بدون تاريخ.
- Hassen Hanafi in from ideology to revolution: a study in tradition and modernity
- حسن حنفي: التراث والتحديث: من العقيدة إلى الثورة، الجزء الأول، دار التنوير، بيروت 1988.

on proving symptoms is found in a moving body after being at rest or stopping it after being moving, such change should be either by itself or for cause. If it was moving for itself then it will not rest unless something did stop it. In being stopped after its movement the evidence that something caused it to rest"¹⁸ – compare with Newton's first law: "Every body remains in a state of rest or uniform motion (constant velocity) unless it is acted upon by an external unbalanced force."

Al-Baqalani's definition of science can be summed up: "Science is to know the knowledge of something by evidence"¹⁹ Because from his perspective, in science we do not know something by itself but we know whatever we know of that thing through our knowledge of that thing. I.e. Our perception of things and the evidence that we state are the elements of science. Now, if we can present causal evidence of our perception of something, then at that point our knowledge of that thing will change from knowing what we know of that thing to knowing that thing. I find it a 'must' here to appreciate such persistence on separating our ability to know something from being able to know really what is that something by itself.

¹⁸ Al-Baqalani, Tamheed, p 8:

"والدليل على إثبات الأعراض تحرك الجسم بعد سكونه وسكونه بعد حركته ولا بد أن يكون ذلك كذلك لنفسه أو لعله فلو كان متحركاً لنفسه ما جاز سكونه وفي صحة سكونه بعد تحركه دليل على أنه متحرك لعله هي الحركة." الباقلاني، تمهيد الأوائل وتلخيص الدلائل، مكتبة المصطفى، نشر الكتروني:

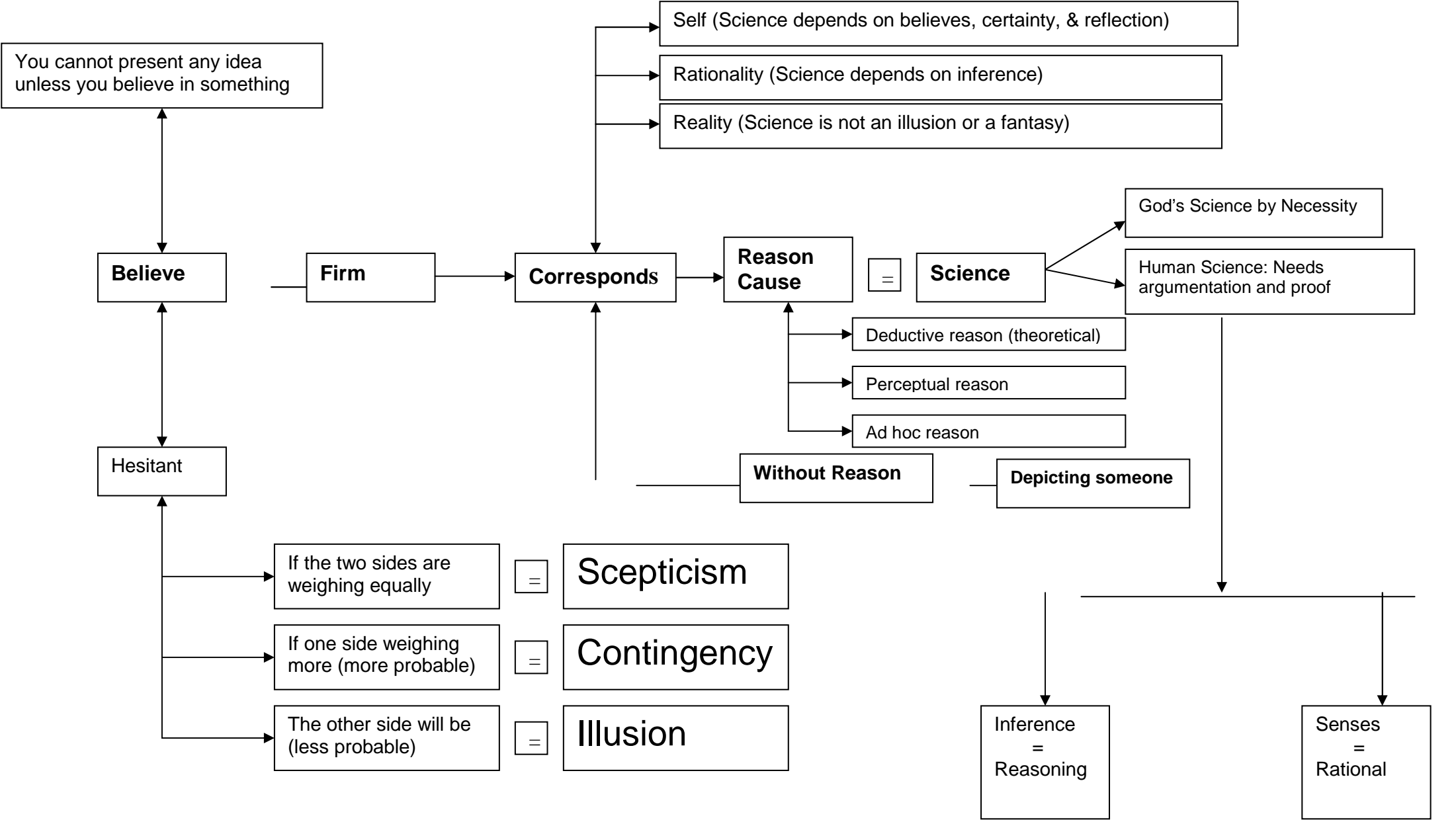
<http://www.al-mostafa.info/books/htm/disp.php?page=list&n=44>

Download date: 12/9/2010

¹⁹ Ibid, p 2, the full statement reads as follows:

"أنه معرفة المعلوم على ما هو به والدليل على ذلك أن هذا الحد يحصره على معناه ولا يدخل فيه ما ليس منه ولا يخرج منه شيئاً هو منه والحد إذا أحاط بالمحدود على هذه السبيل وجب أن يكون حداً ثابتاً صحيحاً فكل ما حد به العلم وغيره وكانت حاله في حصر المحدود وتمييزه من غيره وإحاطته به حال ما حددنا به العلم وجب الاعتراف بصحته وقد ثبت أن كل علم تعلق بمعلوماً فإنه معرفة له وكل معرفة لمعلوماً فإنها علم به فوجب توثيق الحد الذي حددنا به العلم وجعلنا تفسيراً لمعنى وصفه بأنه علم. فإن قال قائل فلم يرغبتم عن القول بأنه معرفة الشيء على ما هو به إلى القول بأنه معرفة المعلوم على ما هو به قيل لما قام من الدليل على أن المعلوم يكون شيئاً وما ليس بشيء ولأن المعدوم معلوم وليس بشيء ولا موجود فلو قلنا حده أنه معرفة الشيء على ما هو به لخرج العلم بما ليس بشيء من المعلومات المعدومات عن أن يكون علماً وذلك مفسد له فوجب صحة ما قلناه."

Definition of Science from an Arab Civilisation Perspective:



Kalam causation

Unlike Al-Ghazali's claim, Kalam scientists did not deny causation at all. They suggested four types of causation:

- Direct causation
- Probabilistic causation
- Functional causation
- Action by association

■ Direct Causation

Direct causation is related to the concept of A'allah (natural cause), which is associated with nature and natural relations. The important difference of such causation from Sabebiah (cause associated with actions – human cause) is in three points:

- The cause necessitates the effect.
- Cause always comes before effect
- There is a one to one relation between the cause and effect.

The first clear definition of such causation was presented by Al-Natham (845), who suggested that God created everything that is there and in one go, but he engulfed these creations in each other in a way that necessitates their appearance in the future. He states that God (Allah) created everything in one go but he: "engulfed some of it in others, that will be appearing in time, because being early or late is only a matter of time."²⁰ I.e. the natural events are dictated by their mere nature and are so from the moment they have been created.

This idea was later developed by both Al-Jah'eth (868) and Al-Khaiat²¹ (902) who believed in the encrypted nature of things, where natural entities behave in a certain way because they were created in such a way. Water can flow because it has the capacity to do so by its nature.

In accepting such a concept Kalam is saying that even if the stone has been thrown by a person who is responsible for his direct action of throwing the stone, the movement of the stone in a certain way (trajectory) is not related to the human action; rather it is related to the laws that are encrypted into the stone when God created it.

This position continued to hold influence. Even in the Al-Ashariah tradition, we can see that Fakher Al-Dain Al-Razi 1210 did accept that the nature of elements is what dictates their actions.

²⁰ See AlBaghdadi:

"الله خلق الناس والبهائم وسائر الحيوان وأصناف النبات والجواهر المعدنية كلها في وقت واحد،، غير أنه أكمّن بعض الأشياء في بعض، فالتقدم والتأخر، إنما يقع في ظهورها من أماكنها". عن النظام في البغدادي، الفرق بين الفرق، تحقيق: محمد محي الدين عبد الحميد، القاهرة بدون تاريخ، ص 127

²¹ See Al-Jah'eth:

الجاحظ: كتاب الحيوان، تحقيق عبد السلام هارون، القاهرة بدون تاريخ، ص 206 - 213.
And Al-Khaiat:
الخياط: الانتصار، تحقيق الدكتور نبيرج، أوراق شرقية، ط2، بيروت 1993، ص ص 25-41.

■ Probabilistic Causation

Tajwiz wa ah'timal (possibility and probability) is a form of human causation in which a human might be able to do something but for some reason would not do it, or when a cause–effect relation might not be activated. Here the Kalam scientists are insisting that in spite of the possible causal relation between a human action and its consequences, such relation might not materialise due to unforeseen auxiliary reasons, which might be, sometimes but not always, God's intervention. Here we have two main positions; one is related to Al-Moatazilah and another to Al-Ashariah, of which Al-Ghazali is a representative.

From Al-Moatazilah's point of view, Al-Natham insisted that God's intervention would not rule it out of the order of relations. Al-Khaiat presents Al-Natham's position as follows: Al-Natham "claimed that God cohere contradictories to coexist against their nature, ..., then such contradictories are able, by their nature, when forced to coexist, and to repulse otherwise. Such a position most people would agree with. Water runs by its nature but we can stop it from running, the heavy stone should roll down the hill but we can prevent it from doing so,..."²² i.e. that even if we accepted that there is a probability that a causal relation might not materialise, such lack of materialising is in itself a property of that phenomenon. That is, it will not be possible to stop a causal relation if it is not in its nature that it can be stopped.

As for Al-Ashariah, they would say that the causal relation that is usually detected between two events is the outcome of the probable causal relation between these two events, and we can make such association only if we have enough repetitions that help in accepting such association. But God's intervention is possible any time and God's intervention can alter any kind of associations between events.

■ Functional Causation

Here the causal relation is a function of time, or/and a non-linear relation of an action X. Most of the applications of such causation are related to mandatory religious worshipping actions. In Islam, if you do not apply any of the mandatory actions, you will be asked to cover for it and each action of not obliging to fulfil any of these actions will lead to further accumulation of obligations that should be fulfilled.

Let us take the example of praying and its fulfilment. "Not praying necessitates punishment" but in such case the punishment is accumulative and is time related: two variables: time, and number of times a person did not pray. If you did not fulfil the act of praying in time, you need to cover for it by praying at the end of the day, but if you did not, then you need either to do some deed as an alternative to not praying or to have an accumulative punishment. Now the more times you do not pray the more responsibilities you have to be able to cover for not praying in time, and the longer you did not fulfil these responsibilities the heavier the fulfilment requirements would be.

As Al-Sarkhasi, puts it: "in sum, it is a must for the part of causation that is related to time, that its connection to the first part is the cause to the second part and the second part is the cause of the third part and so on", hence the causal relation will be paid forward to the time when it is fulfilled.²³

²² Ibid, pp 41 – 42.

²³ From Al-Sarkhasi: "Asoul" p33:

■ Actions by association

Tawled: our actions can have consequences that go beyond their direct cause – effect relation. This generated deep discussions in Islamic Kalam, especially because Al-Moatazilah held humans responsible for their actions, because they thought that if humans are not responsible for their actions then God will not be Just when inflicting punishment on them, but if they are held responsible for their actions then God's Justice can be understood. But that leads us to an important question: if we should be held responsible to our actions, and if such actions have continuing consequences, then to what extent can we be held account for those? To all these consequences? To a limited number of them? Let us assume that a person acted in a certain way, and unintentionally, or even without her knowledge, ended up causing the death of another person, would that person be held responsible for the death of the other one?

There was no clear answer on such questions. While Al-Jah'eth and Al-Khaiat, said that the causal relation should only be held for the first action and not to any of the rolling effects of such action, (i.e. the person should not be held accountable for the death of the other person), Al-Qadi Abd-Algabbar 1024 insisted that we will be held responsible to all our actions and their consequences²⁴.

The other major point of debate in this type of causation is related to God's will. Is it the case that everything which happens in this universe is a consequence of God's creation of the universe, and hence would all the good and bad things be attributed to his will? If so, then how is it possible to hold anyone but God responsible for anything that happens in such a universe? Otherwise, we need to accept that God's will is only associated with the first action but not any of its consequences. But wouldn't that mean that God is not aware of the consequences of his actions and hence there is doubt about his omniscience? But God is omniscient, and such an attribute means that all the consequences are also an outcome of his will. This means that we would be forced to associate God's actions with the good and the evil, but such association is in direct contradiction with the religious beliefs.

From a sketch of the debate on such a point, we can see the importance of this type of causation and the importance of discussing the points related to it.

Late Kalam: Al-Razi

It might be said that Fakher-Aldein Alrazi (d 1219) was one of the last mutakilmun (scientists of Kalam) and he presented to us a summary of all Kalam (Al-Muhasal), in which he presented all the positions and debates related to Kalam and stated his own position on all such points. Although Alrazi was a member of the Al-Ashariah school, his position did not represent a scholastic Al-Ashariah position, but represented a kind of a mid-way position between Al-Ashariah and Al-Moatazilah.

يقول السرخسي: "والحاصل أنه يتعين للسببية الجزء الذي يتصل به الأداء من الوقت، فإن اتصل بالجزء الأول كان هو السبب وإلا تنتقل السببية إلى آخر الجزء الثاني ثم إلى الثالث هكذا لمعنيين: أحدهما أن في المجاوزة عن الجزء الذي يتصل به الأداء في جعله سبباً لا ضرورة وليس بين الأدنى والكل مقدار يمكن الرجوع إليه، والثاني أنه إذا لم يتصل الأداء بالجزء الذي تتعين به السببية يكون تقويتاً، كما إذا لم يتصل الأداء بالجزء الأخير من الوقت يكون تقويتاً حتى يصير ديناً في الذمة ولا وجه لجعله مقوتاً ما بقي الوقت" السرخسي، أصول السرخسي، ج 1، ص 33 أي أن السببية تنتقل من الجزء إلى الجزء إلى حين القضاء

²⁴ See Al-Qadi Abd-Algabbar, Al-Moghnie part 9:

القاضي عبد الجبار، المغني في أبواب التوحيد، الجزء التاسع: التوليد، تحقيق توفيق الطويل وسعيد زايد، القاهرة بدون تاريخ.

Here I will highlight only some of his positions and from such a position try to represent the final status of Kalam on various issues²⁵:

- First: He accepts a law like nature, where laws here are causal laws. He says: Reason forces us to accept that in nature all actions are dictated by the laws that are written into the things when created: water falls because it is created as such, or the movement of a stone - -----, etc.
- Second: he believes in a holistic approach where he insisted on the whole being greater than its parts, he says: "the whole is greater than the part, because if not, the existence of the other part is redundant, if so then the part can exist and extent at the same time" (Al-Muhasal p29)²⁶
- Third: although he accepts all the above mentioned concepts of causation, he insisted that these all are variations of probabilistic causation. For him: "the essence of causation is probability" (Al-Muhasal p26). He moves on to say: "we say, in disagreement with philosophers and Moatazilah, that one cause can produce more than one effect" (Al-Muhasal p146)²⁷. Also, he insisted on that "the causal-effect relation from one thing to another is not deterministic" (Al-Muhasal p146)²⁸, i.e. probabilistic.
- Fourth: he is aware of the possibility that similar effect need not be caused by the same cause, he says "two similar effects might be caused by two different causes" p 145²⁹
- Fifth: "Rational cause when effecting something, might be caused by a separate condition" (Al-Muhasal p147)³⁰
- Sixth: he insists on accepting that any effect must be caused by something, but such relation between the cause and effect need to be verified by the absence of any other cause that might in principle be responsible of such effect. (Al-Muhasal p147)³¹. He continued to say that natural things hold an essential essence by their mere creation and that essence reflects their effects/nature upon an ordered relation between the cause and effect: "things are created with their casual capabilities" (Al-Muhasal p131).
- Seventh: although he is an Al-Ashari he continued to uphold the Al-Moatazilah concept of rational argumentation in accepting any new knowledge or interpreting God's words. In doing so he insisted that such rational argumentation can be complex, he says: "Rational argument can be synthetic/complex, opposing to our friends' position" p 147³².

Conclusion:

I have tried here to highlight some of the elements of the concept of causation as presented in Islamic Kalam. I am fully aware that each of these concepts needs to

²⁵ All the quotations are from Al-Muhasal,

²⁶ "الكل أعظم من الجزء لأنه لو لم يكن كذلك لكان وجود الجزء الآخر وعدمه بمثابة واحدة، فحينئذ تجمع في ذلك الجزء كونه موجوداً ومعدوماً معاً" المحصل، ص 29

²⁷ "العلة الواحدة يجوز أن يصدر عنها أكثر من معلول واحد خلافاً للفلاسفة والمعتزلة" المحصل ص 146

²⁸ "مؤثرية الشيء في الشيء ليست ثبوتية" المحصل ص 146 (السببية الاحتمالية)

²⁹ "المعلولان المتمثلان يجوز تعليلهما بعلةتين مختلفتين خلافاً لأصحابنا" المحصل 145

³⁰ "العلة العقلية يجوز أن يتوقف إيجابها لأثرها على شرط منفصل خلافاً لأصحابنا" المحصل 147

³¹ "لنا أن الجوهر يوجب قبول الاعراض بأسرها لكن صحة كل عرض مشروط بانتفاء ضده عن المحل." المحصل 147

³² "العلة العقلية يجوز أن تكون مركبة عندنا خلافاً لأصحابنا" 147

be further investigated, especially two of them: probabilistic causation as finally being applied from Al-Razi perception, and actions by association which has been an important element in the causation debate in Islamic Kalam, and especially the Al-Qadi Abd-Algabbar's position on such issues. (He insisted on writing a whole volume on such an issue in his Al-Moghnie series.) Furthermore, I will explore in a later paper the possibility of applying such concepts to modern problems in quantum mechanics.