The Encounter of *Falsafa* and *Kalām* in Sayf al-Dīn al-Āmidī's Discussion of the Atom: Asserting Traditional Boundaries, Questioning Traditional Doctrines

Laura Hassan

Abstract: Islamic intellectual history is characterised in part by the co-existence, competition, and eventual integration of two distinct doctrinal traditions. On the one hand, the kalām tradition of rational speculative theology developed, from the eight century, as the major indigenous system of thought across the Islamic world. On the other hand, falsafa began as a movement of Arabicised Hellenic philosophy, the most dominant form of which came to be the Islamicised Neo-platonic philosophy of Ibn Sīnā (d. 428/1037). These thought systems overlapped to a considerable extent in many of the basic questions asked about God and the world. Yet their answers to these questions sprung from different concerns and were expounded within different conceptual frameworks.

Sayf al-Dīn al-Āmidī, a thirteenth century Ashʿarī theologian, like many of his contemporaries, engaged with the falsafa tradition to an extent unprecedented among Ashʿarīs.[1] This paper considers al-Āmidī's reception of falsafī arguments and concepts, which traditionally lay outside of the realm of kalām, through analysis of his discussion of matter in his Abkār al-Afkār. I argue that al-Āmidī upholds the traditional dichotomy between the traditions, perceiving himself as insider of the kalām tradition, and maintaining the structural parameters set for this discussion within that tradition. On the other hand, his thought has been deeply influenced by the 'outside influence' of falsafa, and this has implications for the overall coherence of his kalām theology in this work. Research into the falsafa-kalām encounter in this period is still in its early stages, and these findings are a new contribution to our knowledge of the integration of the traditions.

The question of how, and to what extent, the two dominant intellectual traditions of the Islamic world were integrated from the twelfth century onward has come to occupy a significant field in Islamic intellectual history in recent years. It is increasingly understood, *contra* the longstanding myth that Ibn Sīnā's (d. 428/1037) Islamicised Neoplatonism died at the pen of al-Ghazālī (d.505/1111), that his philosophy in fact became the subject of analysis and appropriation in the following centuries.[2] We now know that certain key concepts from the logic, metaphysics, and even physics of Ibn Sīnā's philosophy became central to later *kalām* methods and doctrines.

---

[1] Ashʿarism was one of two competing schools of *kalām* rational theology, named after its founder, Abū al-Ḥasan al-Ashʿarī (d. 324/936), a Basrian who turned away from the Muʿtazilī school in reaction to their doctrine that the Qurʾān was created. It was the school with which al-Āmidī identified in his works of theology.

[2] Two contributions from Gutas in 2002 on the historiography of Islamic studies have provoked serious engagement with the intellectual output of the post-Ghazālīan period (Dimitri Gutas, "The Study of Arabic Philosophy in the Twentieth Century: An Essay on the Historiography of Arabic Philosophy". In *British Journal of Middle Eastern Studies* 29, 5–25, (2002a) and "The heritage of

One question raised by the increasing engagement with *falsafa* by *kalām* theologians is that of intellectual commitment.[3] Given the sometimes diametrical opposition between the two traditions prior to this period, we must consider the apparently puzzling fact that some scholars from al-Ghazālī onward wrote works of *falsafa* <u>and</u> of *kalām.*[4] The question that presents itself is whether such scholars considered themselves as insiders of one or the other tradition, and the implications of this for their intellectual projects, methods, and doctrines.

Sayf al-Dīn al-Āmidī is a prime example of an intellectual within whose career and works the two traditions intersect and overlap. Over the course of his career he wrote works that can immediately be classified as *falsafa*, as well as works of *kalām.* His extant works of *falsafa* include *al-Nūr al-bāhir fī'l-ḥikam al-zawāhir*, a *summa* styled after Ibn Sīnā's comprehensive *Kitāb al-Shifā',* and a super-commentary exposing the flaws in al-Rāzī's commentary on Ibn Sīna's *Kitāb al-Ishārāt wa'l-tanbīhāt* (Pointers and Reminders).[5] The works for which he is best known, however, are works of *kalām*, namely his *Abkār al-Afkār fī Uṣūl al-Dīn*, and the shorter *Ghāyat al-Marām fī 'ilm al-kalām*.[6] Does al-Āmidī belong to one or the other tradition? How does he conceive of his own intellectual identity, and does this make him an outsider to one tradition or the other? What are the consequences for his doctrines?

Avicenna: the golden age of Arabic philosophy, 1000 - ca.1350." In *Avicenna and His Heritage*. Edited by Jules Janssses and Daniel De Smet (Leuven: Leuven University Press, 2002b)).

Shihadeh (2005) drew up for the first time an outline for the developing integration of the philosophical and theological traditions between al-Ghazālī and al-Rāzī (d. 606/1210), and several subsequent studies by him contribute to this field (Ayman Shihadeh, 'From al-Ghazālī to al-Rāzī: 6th / 12th century developments in Muslim philosophical theology." In *Arabic Sciences and Philosophy: a Historical Journal* vol 15(1): 141-179, (2005)).

There have since been many other important contributions to the field (for instance, Eichner (2007 and 2011), Michot (2007) Griffel (2011), Wisnovsky (2013)).

[3] I leave the terms *falsafa* and *kalām* un-translated because it seems to me that describing the former as 'philosophy' obscures the fact that *kalām* speculative theology is a philosophy in its own right. I also use the terms *falāsifa* and *mutakallimūn* for proponents of, respectively, the *falsafa* and *kalām* traditions.

[4] One key point of diametrical opposition is the debate over the origins of the world. For an example of the *kalām* refutation of the *falsafī* doctrine of the pre-eternity of the world, see 'Abd al-Malik al-Juwaynī, *Kitāb al-Shāmil fī Uṣūl al-Dīn* (Alexandria: Maktabat 'ilm uṣūl al-dīn, 1969), 226-9. Given the general identification of doctrines like the pre-eternity of the world with *falsafa*, increasing engagement on the part of *mutakallimūn* with that tradition raises doctrinal questions.

[5] *Kashf al-tamwīhāt fī sharḥ al-ishārāt*, partially extant MS Pm. (Petermann) 569= no. 5048 in Ahlwardt's Catalogue, Staatsbibliothek, Berlin, fully extant in MS Laleli 2519, and recently published (*Kashf al-tamwīhāt fī sharḥ al-ishārāt*. Beirut: Dar al-Kotob al-Ilmiyah, 2013).

6 Al-Āmidī was also an influential jurist. Bernard Weiss presents a comprehensive study of his jurisprudistic methodology in *The Search for God's law: Islamic jurisprudence in the writings of Sayf al-Dīn al-Āmidī*. (Salt Lake City: University of Utah,1992).

In this article, I consider evidence for al-Āmidī's intellectual identity in his *Abkār*. I take as a case study his discussion of a traditionally important Ashʿarī doctrine, namely, the notion that matter is ultimately reducible to indivisible parts.[7] This doctrine was opposed by Ibn Sīnā, who upheld a hylomorphic conception of the universe, i.e. that matter (*hayūla*) is a continuous substrate which, when combined with form (*ṣūra*), constitutes bodies in the world. I argue that in his discussion of matter in his major *kalām* work, al-Āmidī does indeed present himself as outside the *falsafa* tradition. However, I will show that he is deeply influenced by that tradition. Thus, though his discussion upholds the parameters established for the investigation of the physical world within the *kalām* tradition, and though he explicitly denounces the parallel *falsafī* framework, the outcome of his discussion is a significant break with *kalām* doctrine.[8]

The article will first provide background to the doctrinal significance of the debate over the atom. I will then briefly consider al-Āmidī's discussion of the question in an early philosophical work. The main analysis will present two contrasting aspects of al-Āmidī's reception of *falsafa* in his discussion of the indivisible part in the *Abkār*: on the one hand, his overt opposition to the *falsafa* tradition, on the other, the deep influence of that tradition on his thinking. The implications of that influence will then be considered and conclusions drawn regarding the *falsafa-kalām* encounter in al-Āmidī's thought.

1. Background

The conceptual background: Atomism and Hylomorphism as competing ontological frameworks

The discussion of the atom is an ideal case study for the encounter of *falsafa* and *kalām* in al-Āmidī's doctrine, because it sits at the boundary between two very different frameworks for investigating the world. Both Sabra (2006 and 2009) and Dhanani (1997 and 2014) have emphasised the importance of *kalām* atomism as an ontological framework capable of explaining the phenomena of the natural world and the God-world relationship.[9] Because of its explanatory power, atomism came

---

[7] The indivisible part (Arabic: *al-juzʾ alladhī lā yatajazzaʾ*) is also called the atom (*al-jawhar al-fard*). *Jawhar* is also the Arabic term used by Ibn Sīnā and other *falāsifa* to denote 'substance'.

[8] This article has been written for the 2014 edition of the *SOAS Journal of Postgraduate Research*, which is on the theme of 'the Insider and the Outsider'. As such, I explore al-Āmidī's intellectual influences from the specific perspective of whether they make him an insider to one tradition or the other.

[9] The origins of *kalām* atomism, and therefore of its initial conceptual context, are currently unascertainable (see Alnoor Dhanani, *The physical theory of Kalām: atoms, space, and void in Basrian Muʿtazilī cosmology,* Leiden: E.J.Brill, 1994:5-6). However, through an analysis of *kalām*

to be a crucial premise in many theological arguments. For instance, the debate over human agency between Muʻtazilī and Ashʻarī theologians was worked out in part over the question of whether or not human beings have the capacity to produce any of the accidents which inhere in the atoms of their bodies.[10] The related question of the extent of God's determinism over events in the natural world also relied on the atomistic framework.[11] Even more doctrinally significant was the function played by atomism in proofs for the temporal creation of the world and, in turn, for God's very existence. Specifically, the proof from accidents relied on several tenets in atomistic ontology.[12] The resurrection of the body, the ontology of the human body and soul, and various other doctrinal questions were all considered within this basic framework.[13] The atomistic ontology, then, was not a natural philosophical add-on to *kalām* theology but an indispensible foundation thereof.

The doctrine of the continuity of matter was equally well integrated into the overall *falsafa* framework for discussion of the world and the God-world relationship. Ibn Sīnā's conception of matter as a continuous substrate for natural bodies is intrinsically connected with the conceptions of both motion and time as continuums. Taken together, these notions support his Neoplatonic cosmology, at the heart of which is the continuous pre-eternal motion of the celestial bodies.[14]

The specific question of whether or not matter is actually divisible into discrete parts was the point at which these two ontological frameworks happened to meet. In some ways, confrontation over this particular question was rather accidental. It arose in part because the debate already existed within the philosophical tradition appropriated and adapted by the Arabic *falāsifa*.

---

ontology, *Sabra* has ventured an answer to the question of the impetus of the development of Islamic atomism. He argues that the atomistic ontology was developed in deliberate response to the *falsafa* tradition, providing the theologians with a natural philosophy of their own, within which framework they could answer questions about the God-world relationship (Sabra, 2006 and 2009).

[10] The basic *kalām* division of all existents is into atoms and accidents. Atoms are the material aspect of bodies, while accidents are all immaterial qualities which inhere in that material, including, for instance, whiteness, motion, life, knowledge, and so on.

[11] For one treatment of *kalām* discussions over God's determinism of events and human actions, see Richard M. Frank, "The Structure of Created Causality according to al-Ashʻarī." In *Studia Islamica* No. 25 (1966), 13-75.

[12] The proof, briefly, is that: existents other than God are either atoms or accidents; atoms cannot exists without accidents inhering within them; accidents are generated; there cannot be an infinite regress of temporally created things; therefore atoms are also generated in time. See Herbert A. Davidson, *Proofs for Eternity, Creation and the Existence of God in Medieval Islamic and Jewish Philosophy* (Oxford: Oxford University Press, 1987), 134-143.

[13] See, for instance, Ayman Shihadeh, 'Classical Ashʻarī Anthropology: Body, Life and Spirit' *The Muslim World* 102 (3-4) (2012): 433-477.

[14] On the metaphysical significance of the concept of time, and its implicit connection with the discussion of matter across philosophical traditions, see Richard Sorabji, *Time, Creation and the Continuum* (Chicago: University of Chicago Press, 2006), 1.

Aristotle, in his *Physics* (especially Book 4), refutes Democritean atomism. Among the Muslim philosophers, the obvious targets of Aristotelean anti-atomist arguments were the *mutakallimūn*. Thus, a clearly defined debate was inherited by the Muslim philosophers and theologians in which their ontologies came face-to-face.[15]

The outcome of this debate between the *falāsifa* and *mutakallimūn* would impact on the wide range of theological doctrines for which the theologians relied on the existence of an indivisible part. A comment from Ibn Taymiyya (d. 728/1328), a later Ḥanbalī scholar who critiques many of the methods of the *mutakallimūn*, demonstrates this point. Casting doubt on the proof from accidents for the temporal creation of the world, referred to above, he writes of their use of the term *jawhar* therein:

> If they mean by '*jawhar*' the indivisible part... there is doubt here not easily [resolved]. This is because the existence of an indivisible atom is not known by itself, and regarding its existence there are strong and stubborn objections.[16]

Al-Āmidī's treatment of the debate is, then, an ideal case study in his reception of a tradition outside the boundaries of *kalām*. His approach to a doctrine so strongly opposed by Ibn Sīnā will demonstrate something of the influence of *falsafa* on his thought.

Al-Āmidī's intellectual background: operating within the *falsafa* framework

Al-Āmidī's extant works of *falsafa* merit thorough investigation.[17] For the purpose of this paper, a brief discussion of his treatment of the indivisible part in his longest extant work of *falsafa* will illustrate the *falsafī* influence at the background of his *kalām*.

---

[15] See Endreß' study of a treatise by the philosopher Yaḥya b. ʿAdī (d.363/974) against the *mutakallimūn* on the indivisible part. He demonstrates the Aristotelean origins of many of ʿAdī's counter-atomistic arguments (Gerhard Endreß, "Yahyâ ibn Adî's Critique of Atomism: three Treatises on the Indivisible Part." In *Zeitschrift für die Geschichte der arabische-islamischen Wissenschaften*, 1 (1984),155-179.
We must also note that many of the *kalām* arguments for the existence of the indivisible part were developed <u>within</u> the *kalām* tradition in the context of discussions between al-Naẓẓām (d. ca 230/854), who seems to have upheld the infinite divisibility of bodies, and his uncle, Abū al-Hudhayl al-ʿAllāf (d. c. 227/842), For more on this important background to the *kalām* doctrine, see Alnoor Dhanani, *The physical theory of Kalām: atoms, space, and void in Basrian Muʿtazilī cosmology* (Leiden: E.J.Brill) 1994:7-9.
[16] Aḥmad ibn ʿAbd al-Ḥalīm ibn Taymiyya. *Darʾ taʿāruḍ al-ʿaql wa-al-naql* (Cairo: Maṭbaʿat Dār al-Kutub, 1971), vol 9:76.
[17] My overall thesis examines all of al-Āmidī's extant works of *falsafa* and *kalām* with a view to understanding the relationship between the two traditions in al-Āmidī's thought.

Let us begin with an example of the discussion of the indivisible part in the *Nūr.*[18] The *Physics* of Ibn Sīnā's *Shifā'*, the work upon which the *Nūr* is modelled, contains a sustained attack on the doctrine of the atom. This includes presentation and refutation of a proof for the atom based on the variation in size between bodies. Ibn Sīnā summarises the proof briefly:

> They said that if the body were infinitely divisible, the parts of a mustard seed would equal the parts of an enormous mountain, which is absurd.[19]

In the *Nūr,* al-Āmidī gives an expanded presentation of the proof, in which the argument goes that if the parts of both mustard seed and mountain were infinite, there could be no variation between their respective sizes. He makes explicit the underlying premise, namely that the size of a body is related to the number of its parts.[20] This may be inspired by the version presented by the Ash'arī *mutakallim* al-Juwaynī (d. 478/1085), in his *Kitāb al-Shāmil*, which also includes statement of this premise.[21] Al-Āmidī goes on to present a refutation much like Ibn Sīnā's.[22]

This brief example illustrates al-Āmidī's extensive familiarity with Ibn Sīnā's arguments against the atom, and more generally, his encounter with the *falsafa* tradition in this work. Overall, the *Nūr* is marked by its reflection of the contents of the *Shifā'*, and its support for the doctrine presented therein. On many occasions in the *Nūr*, al-Āmidī deals with objections against those doctrines not addressed by Ibn Sīnā himself. Thus, al-Āmidī's treatment of the principles of nature includes support of the notion that matter (*hayūla*) is a continuous substrate, which remains

---

[18] Al-Āmidī's *Nūr* is modelled on the *Shifā'*, and represents an early phase in his career. There has been some debate over the dating of the work because of a passage in the introduction in which al-Āmidī speaks of his near departure from the world ('Āmidī, 'Alī ibn Abī 'Alī, *al-Nūr al-bāhir fī l-ḥikam al-zawāhir* (Frankfurt: Institut für Geschichte der Arabisch-Islamischen Wissenschaften, 2001), vol 1:3). Arif concludes on this basis that the work was written late in al-Āmidī's life (Syamsuddin Arif. "Al-Âmidî's Reception of Ibn Sînâ: Reading *Al-Nûr al-Bâhir fî al-Hikam al-Zawâhir"*. In *Avicenna and his Legacy: A Golden Age of Science and Philosophy*. Edited by Y Tzvi Langermann, Turnhout: Brepols, 2010), 213. For reasons to be discussed in my thesis, I date the work, according to the date on the MS, to the 580s or 90s AH. At this time al-Āmidī was based in Baghdād, and, according to his biographers, engaged in the study of *falsafa* and *kalām.*
The question of al-Āmidī's motivations in writing the *Nūr* is a very intriguing one which will be investigated in my thesis. Specifically, the question of whether this work represents al-Āmidī's own commitment, or a dialectical exercise in the reception of *falsafa*, will be discussed.

[19] Avicenna, *The Physics of the Healing.* Translated by Jon McGinnis. (Provo, Utah: Brigham Young University Press, 2009), vol 2:276.

[20] Āmidī, 'Alī ibn Abī 'Alī, *al-Nūr al-bāhir fī l-ḥikam al-zawāhir* (Frankfurt: Institut für Geschichte der Arabisch-Islamischen Wissenschaften, 2001), vol 3, 161.

[21] 'Abd al-Malik Al-Juwaynī. *Al-Shāmil fī uṣūl al-dīn.* Alexandria: Maktabat 'ilm uṣūl al-dīn, 1969:146.

[22] Āmidī, 'Alī ibn Abī 'Alī, *al-Nūr al-bāhir fī l-ḥikam al-zawāhir* (Frankfurt: Institut für Geschichte der Arabisch-Islamischen Wissenschaften, 2001), vol 3: 162, and *cf.* Avicenna, *The Physics of the Healing.* Translated by Jon McGinnis. (Provo, Utah: Brigham Young University Press, 2009), vol 2:304-5.

potential until actualised by form (*ṣūra*).[23] In turn, the existence of the indivisible part is disputed in a manner that broadly corresponds with Ibn Sīnā's refutation of the theory, as we have seen.[24] In the *Nūr*, then, al-Āmidī upholds Ibn Sīnā's arguments and closely engages with the *falsafa* tradition. This will be important as I turn to consider how he incorporates aspects of that tradition into his major work of *kalām.*

2. Case Study: *falsafa* as an outside influence on al-Āmidī's discussion of the atom in *Abkār al-Afkār*

Al-Āmidī as _kalām_ insider: the framing of the discussion

I have asserted that there is a paradox in al-Āmidī's approach to the question of the atom in his major work of *kalām, Abkār al-Afkār*. On the one hand, he upholds the dichotomy between the *falsafa* and *kalām* traditions, positioning himself as an opponent of *falsafī* doctrine. On the other, he has been deeply influenced by that system of thought. In this section, I demonstrate the first aspect.

One remarkable feature of the *Abkār* is its heavy reference to the *falsafa* tradition in discussion of many and varied topics. Al-Āmidī's introduction to the natural philosophical part of the work (volume 3) is a case in point. The volume includes al-Āmidī's take on many standard *kalām* topics relating to the atom. These include defence of the notions that no two atoms may inhere in the same space; that atoms cannot exist free from accidents inherent in them; and that the convergence of atoms is impossible.

However, al-Āmidī begins the volume with a summary of the *falsafa* view of the division of contingent existents.[25] He signals his position on the view he is about to summarise with the following statement:

> Let us first mention the doctrine of the philosophers (*al-falāsifa*) on [the division of existents] and highlight what it entails, and then incline ourselves toward the doctrine of the orthodox (*ahl al-ḥaqq*).[26]

---

[23] Āmidī, 'Alī ibn Abī 'Alī, *al-Nūr al-bāhir fī l-ḥikam al-zawāhir* (Frankfurt: Institut für Geschichte der Arabisch-Islamischen Wissenschaften, 2001), vol 3:13-14.

[24] Ibid., 155-170.

[25] Even his discussion of the world under the category of 'the possible existent' (*al-mawjūd al-mumkin*) reflects the fundamental Avicennan metaphysical proposition that all existents are either possible or necessary by their own essences.

[26] 'Alī ibn Abī 'Alī al-Āmidī. *Abkār al-afkār fī uṣūl al-dīn*, ed. A. al-Mahdī, Cairo: Dār al-Kutub wa-al-Wathā'iq al-Qawmīya, 2002, vol 3:7.

What follows is a concise survey of Ibn Sīnā's natural philosophy, which imposes a structure akin to that used for the subsequent division of existents according to *kalām* ontology.[27] This survey is concluded with the following statement:

> This categorisation, though the most eminent of the latter philosophers inclined towards it, is deficient and unable to fulfil its purpose.[28]

Al-Āmidī then presents a refutation of fourteen aspects of the divisions he has presented.[29] The critique is neither systematic nor comprehensive, but highlights weaknesses in the overall framework. For instance, he observes a contradiction in the definition of 'subject' (*mawḍūʻ*) as used in natural philosophy. He writes that if the *falāsifa* use this word to mean 'substrate' (*maḥall*), this contradicts their categorisation of corporeal form as a substance. This is because according to them, the substance is that which does not inhere in a substrate, but in their understanding, the corporeal form inheres in a substrate of matter (*mādda*). Having listed fourteen such objections, al-Āmidī briefly presents the *kalām* division of body, atom, and the various categories of accidents.

The priority al-Āmidī gives here to the *falsafa* view indicates certain features of his stance towards *falsafa* within this work of *kalām*. It is obvious that *falsafī* doctrine is not far from his mind as he composes a work of *kalām*: his philosophical background is everywhere present in his approach to traditional *kalām* discussions. It seems to me that he gives priority to presenting and refuting the *falsafa* framework in order to rule it out. He thus shows the *kalām* framework to be superior, then continues his natural philosophical discussions according to that framework. This

---

[27] That is to say, al-Āmidī presents the primary *falsafī* division of existents as being the division between substances (*jawāhir*) and accidents (*ʻarāḍ*).
This primary division of contingent existents is alien to Ibn Sīnā's own procedure. In his *Shifāʼ* Ibn Sīnā's primary route to the examination of contingent existents is the discussion of the principles of nature (which include matter, form and motion). It seems that al-Āmidī presents the ontological framework of the *falāsifa* in this rather flattening manner so that he can more readily and economically compare it with the *kalām* equivalent.
The presentation of the *falsafa* ontology as based primarily on the categories of substance and accident also appears in al-Ghazālī's *Māqāṣid al-falāsifa* (Muḥammad ibn Muḥammad al-Ghazālī. *Maqāṣid al-falāsifa*, ed. M. al-Kurdī, (Cairo, 1912), 234). Al-Rāzī's discussion of 'the division of contingents according to the philosophers' in his *Muḥaṣṣal afkār al-mutaqaddimīn wa al-mutaʼakhkhirīn.* (Beirut: Dār al-Kitāb al-ʼArabī, 198),125-6, though not identical to al-Āmidī's, shares very similar contours. Whether or not al-Āmidī was influenced here by al-Ghazālī or al-Rāzī, the similarity of their approaches is unsurprising, since all three shared a background in Ashʻarī ontology. They all applied the basic framework with which they were most familiar in their presentations of *falsafa*. This approach accommodated their engagement with that thought system.

[28] ʻAlī ibn Abī ʻAlī al-Āmidī. *Abkār al-afkār fī uṣūl al-dīn*, ed. A. al-Mahdī, Cairo: Dār al-Kutub wa-al-Wathāʼiq al-Qawmīya, 2002, vol 3:11.

[29] Ibid., 11-16.

indicates that though he operates here as *kalām*-insider, this is not done in isolation from the principle competing philosophical framework. Rather, he engages with *falsafa* from the outset.[30]

Upon closer analysis of his presentation of the specific debate over which these two competing frameworks meet, we will see that the clear influence of *falsafa* on his thought somewhat contrasts with his dichotomising of the traditions in these preliminary discussions.

The mark of *falsafa*: features of the outside influence on al-Āmidī's discussion

Al-Āmidī's procedure in presenting the debate over the existence of the atom is to present firstly eight traditional proofs for the atom, all of which he shows to be undemonstrative; secondly, to present two reliable proofs for the atom; thirdly, to present sixteen proofs against the atom; and finally, to suspend judgement. I will discuss three aspects of the mark of *falsafa* on his discussion.

a. Negativism in the treatment of traditional *kalām* proofs for the atom

Of the eight *kalām* proofs for the atom refuted by al-Āmidī, two are discussed here to illustrate al-Āmidī's negativistic approach toward the arguments of his *kalām* predecessors and contemporaries.

The first proof has already been mentioned. This is the argument that on the assumption that all bodies are divisible into an infinite number of parts, the number of parts in the mustard seed would be the same as the number in the mountain, which would entail the impossible result that the mustard seed and mountain would be the same size.[31] This is a well-established *kalām* proof; Dhanani demonstrates, by inference from references found in al-Ashʿarī's *Maqālāt* and al-Khayyāt's *Intiṣār,* that this proof has its *kalām* roots in the work of the Muʿtazilī Abū al-Hudhayl.[32] In al-Āmidī's more immediate Ashʿarī context, al-Bāqillānī and al-Juwaynī also have versions of the proof in their own defences of the indivisible part.[33]

Al-Āmidī's refutation of the proof in this work of *kalām* is, then, a break with the tradition of the school with which he identifies throughout the work. The source of his counter-argument is

---

[30] Perhaps a rhetorical function of his acknowledgement, then dismissal, of the competing frame of reference is a demonstration of his ability to surpass that tradition. He seems to be asserting himself as a skilled *mutakallim*, perpetuating the traditional *falsafa-kalām* dichotomy. However, intellectual motivations are impossible to determine with any certainty, so these comments remain speculative.
[31] Ibid., 56-7.
[32] Alnoor Dhanani, *The physical theory of Kalām: atoms, space, and void in Basrian Muʿtazilī cosmology* (Leiden: E.J.Brill, 1994), 164.
[33] Muḥammad Ibn al-Ṭayyib al-Bāqillānī. *Kitāb al-Tamhīd* (Beirut: Libraire Orientale, 1957), 17-18, and ʿAbd al-Malik Al-Juwaynī. *Al-Shāmil fī uṣūl al-dīn* (Alexandria: Maktabat ʿilm uṣūl al-dīn, 1969),146.

immediately traceable to his summary of Ibn Sīnā's proof as it appears in the *Nūr*. The starting point of the argument in both *Abkār* and *Nūr* is to oppose the posited connection between the size of a body and the number of its parts. Al-Āmidī then argues that things which can increase infinitely need not share the same magnitude. In support of this argument, he provides a mathematical example. We can potentially multiply x by 10 *ad infinitum*. We could also multiply x by 100 *ad infinitum*. Yet x multiplied by 10 an infinite number of times will not be equivalent to x multiplied by 100 an infinite number of times. A further thought experiment concretes the argument. If one imagines doubling the size of the mustard seed *ad infinitum*, and also doubling the size of the mountain *ad infinitum*, the result would not be equivalence of size between the mountain and mustard seed.[34] Similarly, dividing both *ad infinitum* would not result in their being the same size.

The origin of the counter-proof is Ibn Sīnā's refutation of the proof, which features the same arguments, though al-Āmidī makes no acknowledgement.[35] This manner of critique is the pattern of al-Āmidī's treatment of all eight proofs.

Let us consider one further proof in which al-Āmidī responds with the same negativism to arguments developed by his Ashʿarī contemporary, Fakhr al-Dīn al-Rāzī (d. 606/1210).[36]

The proof is that the point at which a sphere placed on a flat surface connects with that surface must be indivisible (*Abkār*, vol 3:61-54). This proof appears in al-Shahrastānī's (d. 548/1153) presentation of the atomism debate as follows: if the point at which a sphere meets a plane is divisible, the sphere must actually be angular. Since this is impossible, the point of contact must be an indivisible part.[37] The proof undergoes considerable development at the hands of al-Rāzī, and it is al-Rāzī's version which al-Āmidī refutes.

---

[34] ʿAlī ibn Abī ʿAlī al-Āmidī. *Abkār al-afkār fī uṣūl al-dīn*, ed. A. al-Mahdī, (Cairo: Dār al-Kutub wa-al-Wathāʾiq al-Qawmīya, 2002) vol 3:57-8 and Āmidī, ʿAlī ibn Abī ʿAlī, *al-Nūr al-bāhir fī l-ḥikam al-zawāhir* (Frankfurt: Institut für Geschichte der Arabisch-Islamischen Wissenschaften, 2001), vol 3: 162-3.

[35] Avicenna. *The Physics of the Healing.* Translated by Jon McGinnis. (Provo, Utah: Brigham Young University Press, 2009), vol 2:304-5.

[36] For a discussion of al-Rāzī's geometrical proofs for the atom in his last and most comprehensive work, *al-Maṭālib al-ʿĀliyya*, see Setia (2006). On the applications of al-Rāzī's logical system to discussion in natural philosophy including the indivisible part, see Bilal Ibrahim, "Fakhr al-Din al-Razi and Aristotelian Science: Essentialism versus Phenomenalism in Post-Classical Islamic Thought" In *Oriens 41* (2013), 411-7.

[37] Muḥammad ibn ʿAbd al-Karīm al-Shahrastānī, *Nihāyat al-iqdām fī ʿilm al-kalām* (London: OUP, 1934), 508.

Al-Rāzī applies axioms from Euclidean geometry to develop three sub-proofs.[38] Given the enormous detail of each sub-proof, I only discuss the second here, by way of illustration. The argument is as follows:

- If one imagines a sphere rolling along a flat surface, one can postulate a straight line drawn between the points on the sphere at which contact occurs as the sphere rolls along;
- According to Euclid, every straight line connecting two points falling on the circumference of the sphere must fall within that circle;
- If each individual point of contact is divisible, a straight line traced from one division of that point to another must occur on the outside of the circumference. However, given Euclid's statement, this would necessitate that the straight line falls both within the circumference and outside. This is inconceivable;
- Therefore, the sphere must be composed of indivisible parts.

Al-Āmidī's refutation is as geometrically involved as the proof it refutes. His basic tenet is that a sphere composed of indivisible parts is inconceivable. His argument is as follows:

If we postulate a line composed of indivisible parts forming a circle, those parts must come into contact at the internal side of the line. The external side of the line must be conceived of in one of two ways:

1. The indivisible parts come into contact at the external side of the line as well as the internal side (fig.1)
2. The indivisible parts do not come into contact at the external side, but only at the internal side (fig.2)
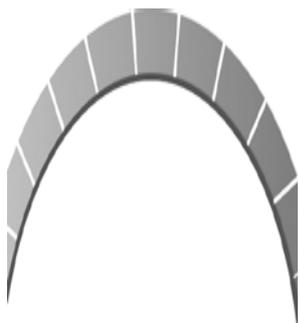

Figure 1.

---

[38] Fakhr al-Dīn Muḥammad ibn 'Umar al-Rāzī, *Kitāb al-arba'īn fī uṣūl al-dīn*. (Hyderabad: Dā'irat al-Ma'ārif al-'Uthmānīyah,1934), 8, and *al-Mabāḥith al-mashriqīyya fī 'ilm al-ilāhīyyāt wa-'l-tabī'īyyāt* (Hyderabad: Da'irat al-Ma'arif al-Nizamiyyah, 1922-3), 28-30, and *al-Maṭālib al-'āliyah min al-'ilm al-Ilāhī* (Beirut: al-Kitāb al-'Arabī, 1987), vol 6:47-52 (in this latter work, a further sub-proof is appended).
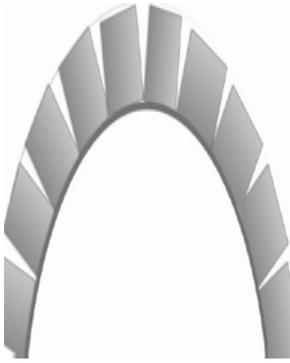
Figure 2.

Both possibilities are inconceivable because:

1. If the parts did come into contact on the internal and external sides of the line forming the circle, this would make the surface extent of the inside of the line equal to the surface extent of the outside of the line. This would mean that a line forming a concentric circle traced immediately around the first circle would have an inner surface extent equal to the internal surface extent of the first line. The more circles we postulate traced around the first, the more the inconceivability of this becomes apparent (fig.3)

2. If, however, the parts did not come into contact at the external side of the line, this would mean that the parts were divisible (there being one aspect of them in contact with other parts and another aspect without contact). It would also make the line of the circle angular - another inconceivability.

Figure 3.

The geometrical intuition behind this counter-proof is not original. It is found in a statement found among Ibn Sīnā's own proofs against the atom. He writes:

> The existence of atoms would necessarily entail that there be no circles, right angled triangles, or many other [geometrical] figures. [This follows in the first case,] since the circle requires that the outside circumference be larger than any inside circumference that is contiguous with it, but what is contiguous is equal to that with which it is contiguous, not larger.[39]

---

[39] Avicenna, *The Physics of the Healing.* Translated by Jon McGinnis. (Provo, Utah: Brigham Young University Press, 2009), vol 2:284-5.

One again, al-Āmidī opposes a *kalām* proof for the atom, this time one that has received sophisticated development. Conceptual inspiration for his counter-argument can be found in the anti-atomist arguments used by Ibn Sīnā, and thus, it is clear that his encounters with *falsafa* have permanently shaped his own approach to *kalām*.[40]

b. *Falsafa* inspiration for al-Āmidī's demonstrative proofs for the atom

Al-Āmidī does present two proofs for the atom which he considers reliable (*muʿtamad*). Both are markedly different in character from traditional proofs, and have clearly been formed in the context of close engagement with the *falsafī* framework for investigation of matter.

The two proofs are conceptually similar: both are designed to undermine the notion that motion is a continuum. On that basis, it is argued that since motion must correspond, in continuity or discreteness, to matter, matter must also be an aggregate of discrete parts, and not a continuum. I discuss one of these proofs by way of illustration.

Al-Āmidī presents the proof as follows: the parts of motion that occurred in the past and that will occur in the future can have no existence simultaneous with the part of motion occurring in the present. However, if the part of motion occurring in the present is susceptible to infinite division, then some of its divisions must occur prior to others, making some of them past occurrences, and some future occurrences. But these cannot have simultaneous existence, meaning that that which we have called the present part of motion does not exist. But without the present part of motion, no part of motion can exist at all, since that which is called the past part of motion is that which was the present part, and that which is called the future part is that which is anticipated in the present part. The existence of motion is something known necessarily; therefore, it can only be that motion is not a continuum. Al-Āmidī describes this proof as sound (*qawī*), demonstrative (*yaqīnī*), and well formed (*ṣaḥīḥ al-ṣūra*).

It seems clear that the closer engagement on the part of Ashʿarī theologians with the *falsafa* tradition provides the context for these new proofs. For although discussions of motion and time of course feature in *kalām* discussions of the atom, no previous defence of atomism engaged so closely

---

[40] We should observe that al-Rāzī himself is well aware that Euclidean geometry relies on the concept of continuity. Indeed, al-Rāzī also lists a number of proofs against the atom which are based on Euclidean principles in *al-Maṭālib al-ʿāliyah min al-ʿilm al-Ilāhī* (Beirut: al-Kitāb al-ʿArabī, 1987), vol 6:131-138. It seems to me that al-Rāzī utilises Euclidean principles in defence of the atom in part to demonstrate that appeal to the authority of 'the ancients' was not the exclusive right of the anti-atomist philosophers.

with the *falsafa* understanding of motion and time as continuums in relation to matter as a continuum. Al-Rāzī appears to have been the pioneer of this genre of proofs.

An important observation needs to be made here regarding al-Āmidī and al-Rāzī's respective approaches to the integration of *falsafī* concepts. Al-Āmidī demonstrates a structural conservatism which produces tension in the *Abkār* between *kalām* and *falsafa* influences. Considering how this proof for the atom arises in the thought of al-Rāzī, and comparing that with al-Āmidī's use of the proof illustrates a difference between the thinkers' approaches.

Let us first consider how this proof arises in the thought of al-Rāzī. The *Muḥaṣṣal*, a work described by Shihadeh as 'one of the heights of al-Rāzī's experimentalism' in synthesising *falsafa* and *kalām,* contains a discussion which seems to have inspired the proof.[41] In his discussion of time, al-Rāzī presents an argument from philosophers who argue that time has no objective existence:

> Time is either present, future or past. There is no doubt that the past and future are non-existents. As for the present, it is 'now'; either this is divisible or not; if it is divisible, its parts cannot have existence simultaneously, so what we considered to be existent is not really existent, which is incorrect.
> If it is not divisible, its non-existence would be, necessarily, an instant, at the disappearance of which, another would occur. This necessitates the succession of moments. And this necessitates the composition of bodies from a succession of points, which is incorrect.[42]

Ibn Sīnā lists this proof as the first of the 'Skeptical Puzzles' of those who deny time's existence.[43] Though it has no direct connection here to the question of the indivisible part, it seems likely to have been a source of inspiration for al-Rāzī for the proof under discussion. Later in the same work, the proof for the atom taken up by al-Āmidī appears as a proof for the indivisible part.[44] The proof recurs throughout al-Rāzī's works, including *Sharḥ al-Ishārāt*.[45] In the *Maṭālib*, the proof appears within the context of comprehensive investigations connecting the discussion of time and motion

---

[41] Ayman Shihadeh, "From al-Ghazālī to al-Rāzī: 6th / 12th century developments in Muslim philosophical theology." In *Arabic Sciences and Philosophy: a Historical Journal* vol 15(1): 141-179, (2005), 172.

[42] Fakhr al-Dīn Muḥammad ibn 'Umar al-Rāzī, *Muḥaṣṣal afkār al-mutaqaddimīn wa al-muta'akhkhirīn*. (Beirut: Dār al-Kitāb al-'Arabī,1984),131.

[43] Avicenna, *The Physics of the Healing.* Translated by Jon McGinnis (Provo, Utah: Brigham Young University Press, 2009), vol 1:220.

[44] Fakhr al-Dīn Muḥammad ibn 'Umar al-Rāzī, *Muḥaṣṣal afkār al-mutaqaddimīn wa al-muta'akhkhirīn*. (Beirut: Dār al-Kitāb al-'Arabī,1984),165.

[45] Fakhr al-Dīn Muḥammad ibn 'Umar al-Rāzī, *Sharḥ al-Ishārāt wa al-tanbīhāt* (Tehran: Injaman athār wa mafākhir frahngā, 2006), 8-9. Al-Āmidī does not discuss this proof in his super-commentary on al-Rāzī's work.

with the question of the atom.[46] Al-Rāzī is explicit in acknowledging the need to prove that both time and motion are discrete in establishing the discreteness of matter.

Let us compare this with al-Āmidī's approach. Al-Āmidī's discussion of time within the *Abkār* occurs, according to *kalām* convention, within the discussion of accidents. Despite being restricted to that section, the treatment of time is heavily influenced by Ibn Sīnā's. As such, al-Āmidī, like al-Rāzī, presents arguments against its objective existence, including the proof just mentioned. However, time receives no separate treatment in relation to matter, despite its obvious applicability in the continuity versus discreteness debate. Similarly, his discussion of motion occurs in isolation from the discussion of the discreteness of matter.[47] Thus, al-Āmidī's demonstrative proofs for the atom are cleft from the conceptual framework in which they find their inspiration. This is typical of al-Āmidī's approach to natural philosophy in the *Abkār*. He tends to isolate problems and arguments because his investigations are carried out according to the *kalām* ontological framework. I will shortly return to a discussion of the implications of this isolationist approach.

3. The persuasiveness of *falsafa*: al-Āmidī's presentation of evidence against the atom

Al-Āmidī's concludes his discussion by listing, without refutation, no less than sixteen proofs <u>against</u> the atom.[48] The presentation of these proofs is characterised by a lack of precision, and by its apparently random ordering. For instance, the first and fifth proofs presented are almost identical. Proofs from a variety of sources are also collated without reference to their sources or to the specific doctrines in support of which they were devised.[49] All this suggests that al-Āmidī's purpose here is not critical engagement with these proofs, but rather, to demonstrate that considerable evidence exists that would undermine the existence of the atom. I will provide one brief example to illustrate this part of the discussion.

---

[46] Fakhr al-Dīn Muḥammad ibn ʿUmar al-Rāzī, *al-Maṭālib al-ʿāliyah min al-ʿilm al-Ilāhī* (Beirut: al-Kitāb al-ʿArabī, 1987), vol 6:40-41.

[47] Al-Āmidī demonstrates the influence of *falsafa* on his thinking here, too. He begins with a summary of the doctrine of the majority of the philosophers on the definition of motion, referring the reader to his *falsafī* work, *Daqāʾiq al-ḥaqāʾiq.* He then refutes that doctrine, and only then turns to a traditional *kalām* debate on atomistic motion: Alī ibn Abī ʿAlī al-Āmidī. *Abkār al-afkār fī uṣūl al-dīn*, ed. A. al-Mahdī, (Cairo: Dār al-Kutub wa-al-Wathāʾiq al-Qawmīya, 2002), vol 3:196-9.

[48] ʿAlī ibn Abī ʿAlī al-Āmidī. *Abkār al-afkār fī uṣūl al-dīn*, ed. A. al-Mahdī, (Cairo: Dār al-Kutub wa-al-Wathāʾiq al-Qawmīya, 2002) vol 3:66-73.

[49] For instance, three of the proofs against the atom were actually developed by al-Naẓẓām in support of his doctrine of the leap (*al-ṭafra*), that is, that it is possible for a body in motion to traverse a distance without moving through each of its parts, but instead, by leaping over some of them (for more, see Alnoor Dhanani, *The physical theory of Kalām: atoms, space, and void in Basrian Muʿtazilī cosmology* (Leiden: E.J.Brill, 1994), 160-1).

Al-Āmidī lists Ibn Sīnā's proofs against the atom without distinction among the other proofs listed. One of these is an innovative argument which appears as the main counter-atomistic proof in Ibn Sīnā's *Ishārāt,* and is the first of many in his *Shifā'*.[50] The proof draws on Aristotle's notion that an indivisible cannot possess distinct extremities and introduces the notion of convergence. Ibn Sīnā writes that two atoms on either side of a third atom must either each come into contact with the third atom at the same part of that third atom, or not. If they do, convergence is occurring, which is inconceivable, since it would mean that whatever the increase in the number of atoms, they could never create any magnitude. If the points at which the two outside atoms come into contact with the third atom are different, on the other hand, the third atom must be divisible. Al-Āmidī lists this proof in brief, and as for all the other proofs, lists no counter-proofs for this argument. He does not acknowledge its source.

The outcome of the list of proofs presented is a strong sense of the mass of proof against the atom; their sheer number is double that of the 'weak' proofs for the atom refuted by al-Āmidī. It seems likely, given al-Āmidī's background in *falsafa*, that Ibn Sīnā's critique of the atomist doctrine underlies al-Āmidī's sense of the strength of proof against the atom. Let us now consider the outcome of the *falsafī* influence in this debate and more broadly.

3. Doctrinal outcomes of the influence of *falsafa*

The Suspension of Judgement

Al-Āmidī's conclusion on the question of the atom is to suspend judgement. He writes:

> At the bottom of [the whole discussion] is the fact that [arguments against the atom] contradict the proofs of the orthodox, and the need to suspend judgement on this matter, finding solace in this among a group of the most eminent theologians - and it may well be that among others, another [opinion] will be found. [51]

The weakness of traditional proofs for the atom, combined with the mass of proofs against it, together appear to have undermined al-Āmidī's confidence in a doctrine long central to the Ash'arī

---

[50] Avicenna, *al-Ishārāt wa-al-tanbīhāt* (Cairo: Dār al-Ma'ārif, 1957), vol 2:131 and *The Physics of the Healing.* Translated by Jon McGinnis (Provo, Utah: Brigham Young University Press, 2009), vol 2:282-4. Shamsi gives this proof the title 'Ibn Sīnā's Argument' in recognition of the fact that it is not found before him. F.A. Shamsi, "Ibn Sina's Argument against atomicity of Space/Time" In *Islamic Studies,* 23, 1984.

[51] Alī ibn Abī 'Alī al-Āmidī. *Abkār al-afkār fī uṣūl al-dīn*, ed. A. al-Mahdī, (Cairo: Dār al-Kutub wa-al-Wathā'iq al-Qawmīya, 2002) vol 3:73.

ontological framework. The significance of this should not be underestimated. The fact that al-Āmidī does not renounce the doctrine altogether does not make his departure from Ashʿarī teaching a minor matter. We have already seen that the division of existents into atom and accident is intrinsic to the establishment of many key theological doctrines. Al-Āmidī's suspension of judgement calls into question statements made elsewhere in this work. For instance, among his proofs for the temporal creation of the world, al-Āmidī upholds the traditional proof from accidents, which relies on the fundamental division of all contingent existents into atoms and accidents.[52] The issue is unresolved by al-Āmidī within this work.

Ibn Taymiyya's observations on al-Āmidī's *kalām* reinforce the picture of unresolved inconsistencies brought about by several suspensions of judgement. He observes confusion and doubt (*al-ḥīra wa'l-shakk*) present in the investigations of those (including al-Rāzī and al-Āmidī) who engage in philosophical contemplation. The result of al-Āmidī's suspension of judgement (*tawaquf*), says Ibn Taymiyya, is that he is confused about 'the fundamental metaphysical questions - even the question of the existence of God'.[53] Al-Āmidī's uncertainty over the existence of an indivisible part is one fault line in his *kalām* caused by the impact of his encounter with *falsafa.*

Implications in later work

In al-Āmidī's later work of *kalām*, *Ghāyat al-Marām*, there is evidence of al-Āmidī's awareness of difficulties in the atomist doctrine and in its theological applications. In that work, al-Āmidī covers only strictly theological topics. As such, the question of the indivisible part is not debated. However, in his discussion of the debate over the origination of the world, al-Āmidī implicitly distances himself from atomist ontology. While in the *Abkār*, he upholds the proof from accidents for temporal creation, he explicitly rejects the proof in his *Ghāya.* His criticism of the proof is as follows:

> On this proof: even if it were possible to establish within it that accidents exist, and that they are additional to substances, and that latency (*kumūn*) and translocation (*intiqāl*) are false – yet it would still be difficult to establish that substances (*jawāhir*) cannot be free from accidents...[54]

---

[52] Ibid., 335-7.

[53] Aḥmad ibn ʿAbd al-Ḥalīm ibn Taymiyya. *Darʾ taʿāruḍ al-ʿaql wa-al-naql* (Cairo: Maṭbaʿat Dār al-Kutub, 1971), vol 1:164. Ibn Taymiyyah later discusses al-Āmidī's proof for God's existence and shows that it relies on the premise of the impossibility of an infinite regress of causes - a doctrine over which al-Āmidī has expressed doubt elsewhere (Ibid,, vol 3:93). The suspension of judgement over the doctrine of the atom is not an isolated case in al-Āmidī's works.

[54] Alī ibn Abī ʿAlī al-Āmidī. *Ghāyat al-marām fī ʿilm al-kalām.* Edited by Ḥ al-Shāfiʿī (Cairo: Dār al-kutub al-miṣrīyah, 2010), 262.

This statement speaks of the impact of al-Āmidī's encounter with *falsafa* on his approach to the ontological framework of his own tradition. In the *Abkār*, the implications of al-Āmidī's uncertainty about traditional Ash'arī ontology are not unravelled. Only in this later work is al-Āmidī more explicit about problems he perceives in defending Ash'arī ontology. Al-Āmidī's encounter with the *falsafa* tradition, which he portrays as alien to his own, has nonetheless changed his own approach to Ash'arī *kalām* such that it is utterly distinct to that of his predecessors.

4. Conclusion

I have shown that a more fundamental problem than the suspension of judgement over individual doctrines underlies the tensions resulting from the influence of *falsafa* on al-Āmidī's *kalām.* In his treatment of natural philosophical questions, al-Āmidī retains the traditional *kalām* parameters of discussion. The radical structural experimentalism of al-Rāzī is not present in al-Āmidī's *Abkār:* indeed, as we have seen, he overtly upholds the dichotomy between the *falsafa* and *kalām* frameworks for the discussion of natural philosophy.[55] Despite the consistent presence of al-Āmidī's Avicennan background, when he explicitly identifies *falsafī* doctrines, he does so in such a way that *falsafa* is seen an alien tradition with an explanatory framework in competition with *kalām*. More often, however, the presence of *falsafa* is covert. As we have seen, al-Āmidī evaluates parts of his own tradition in keeping with Ibn Sīnā's evaluation thereof. But this influence is never acknowledged. Unlike al-Rāzī's bold restructuring of the frames of reference for discussion of God and the world, al-Āmidī's is a far more conservative endeavour, which re-enforces his own insider-status in relation to *kalām*.

The suspension of judgement is, in part, a natural consequence of the tension in al-Āmidī's *Abkār* between his reinforcement of the *falsafa-kalām* dichotomy on the one hand, and the deep

---

Ḥasan al-Shāfi'ī's is the only book length study of al-Āmidī's *kalām*. Commenting on his doctrine on the atom in relation to this passage, he suggests that al-Āmidī accepts the doctrine of the atom in relation to the natural body, but rejects its application to theological proofs on the basis that existents which are not in this world are unknown to us (Ḥasan al-Shāfi'ī, *Al-Āmidī wa ārā'uhu al-kalāmiyya* (Cairo: Dār al-Islām, 1998), 415). It is true that this is the practical outcome of al-Āmidī's uncertainty over the doctrine, but I disagree that it is a deliberate doctrinal decision. Al-Shāfi'ī has not acknowledged the suspension of judgement and the tensions involved in this discussion.
[55] On al-Rāzī's methodology and his increasing experimentalism throughout his career, see: Ayman Shihadeh, "From al-Ghazālī to al-Rāzī: 6th / 12th century developments in Muslim philosophical theology." In *Arabic Sciences and Philosophy: a Historical Journal* vol 15(1): 141-179, (2005), 163-177. Eichner (2007) and Ibrahim (2013) have also provided important analyses of al-Rāzī's structural innovations.

influence of *falsafa* on his thought on the other. For it seems that it would not have been possible for al-Āmidī to renounce the doctrine of the indivisible part in this work without exercising a far greater degree of innovation in his treatment of the Ashʿarī ontological framework. A renunciation of the doctrine would have forced al-Āmidī to grapple with the resulting inconsistencies in his ontological frame of reference. His suspension of judgement means that the doctrinal tension goes unresolved.

I hope to have demonstrated something of the uneasy encounter of *falsafa* and *kalām* within the discussion of atomism in the *Abkār*. Because of the degree of difference between the two ontological paradigms, a certain radicalism was required for their integration. In this discussion at least, al-Āmidī instead demonstrated conservatism, by confining his investigations within the boundaries set by Ashʿarī *kalām*. This is not to say that he did not considerably transform that tradition in some respects: his suspension of judgement is no small matter. Al-Āmidī retained his insider status, but through his work and the works of others like him, his tradition was being changed by outside influences forever.

Bibliography

Primary Texts

Āmidī, ʿAlī ibn Abī ʿAlī. *Abkār al-afkār fī uṣūl al-dīn*. Edited by Aḥmad al-Mahdī, 5 volumes, Cairo: Dār al-Kutub wa-al-Wathāʾiq al-Qawmīya, 2002.

—. *Ghāyat al-marām fī ʿilm al-kalām.* Cairo: Matabiʿ al-ahram al-najdiyah, 1971.

—. *al-Nūr al-bāhir fī l-ḥikam al-zawāhir* [Facsimile of MSS Ankara, Dil ve Tarih-Coğrafya Fakültesi, Ismail Saib, 631, 2866, 4624 and 4830]. 4 vols. (vols. 1–3 and vol. 5; vol. 4 is missing). Frankfurt: Institut für Geschichte der Arabisch-Islamischen Wissenschaften, 2001.

—. *Kashf al-tamwīhāt fī sharḥ al-ishārāt* MS Pm. (Petermann) 569= no. 5048 in Ahlwardt's Catalogue, Staatsbibliothek, Berlin.

Avicenna. *The Physics of the Healing/ al-Shifaʾ: al-Ṭabīʿiyyāt.* Translated by Jon McGinnis. Provo, Utah: Brigham Young University Press, 2009.

—. *al-Ishārāt wa-al-tanbīhāt* Cairo: Dār al-Maʿārif, 1957.

—. *al-Shifāʾ: al-Ṭabīʿīyyāt*. Qum: Maktabah Āyat Allāh al-ʿUẓmā al-Marʿashī al-Najafī, 1984.

—. *al-Najāḥ.* al-Qāhirah : Maṭbaʿāt al-Saʿādah, 1913.

Aristotle. *Physics*. Translated by Robin Waterfield. Oxford: Oxford University Press, 1999.

al-Bāqillānī, Muḥammad Ibn al-Ṭayyib. *Kitāb al-Tamhīd.* Edited by Richard McCarthy, Beirut: Libraire Orientale, 1957.

Ibn Taymiyya, Aḥmad ibn ʿAbd al-Ḥalīm. *Darʾ taʿāruḍ al-ʿaql wa-al-naql*. Edited by Muḥammad Salīm, in 11 volumes. Cairo: Maṭbaʿat Dār al-Kutub, 1971.

Al-Juwaynī ʿAbd al-Malik. *Al-Shāmil fī uṣūl al-dīn.* Alexandria: Maktabat ʿilm uṣūl al-dīn, 1969.

Al-Ghazālī Muḥammad ibn Muḥammad. *Maqāṣid al-falāsifa*. Edited by Muḥyī al-Kurdī, Cairo, 1912.

Al-Rāzī, Fakhr al-Dīn Muḥammad ibn ʿUmar. *Kitāb al-arbaʿīn fī uṣūl al-dīn*. Hyderabad: Dāʾirat al-Maʿārif al-ʿUthmānīyah, 1934.

—. *al-Mabāḥith al-mashriqiyya fī 'ilm al-ilāhīyyāt wa-'l-tabīʿīyyāt*, Hyderabad: Da'irat al-Ma'arif al-Nizamiyyah, 1922-3.

—. *Muḥaṣṣal afkār al-mutaqaddimīn wa al-mutaʾakhkhirīn*. Beirut: Dār al-Kitāb al-ʾArabī, 1984.

—. *al-Maṭālib al-ʿāliyah min al-ʿilm al-Ilāhī*. Beirut: al-Kitāb al-ʿArabī, 1987.

—. *Sharḥ al-Ishārāt wa al-tanbīhāt*. Tehran: Injaman athār wa mafākhir frahngā, 2004.

al-Shahrastānī, Muḥammad ibn ʿAbd al-Karīm. *Nihāyat al-iqdām fī ʿilm al-kalām.* London: Oxford University Press, 1934

Secondary Texts

Arif, Syamsuddin. "Al-Âmidî's Reception of Ibn Sînâ: Reading *Al-Nûr al-Bâhir fî al-Hikam al-Zawâhir".* In *Avicenna and his Legacy: A Golden Age of Science and Philosophy*. Edited by Y. Tzvi Langermann, Turnhout: Brepols, 2010.

Dhanani, Alnoor. *The physical theory of Kalām: atoms, space, and void in Basrian Muʿtazilī cosmology, Islamic philosophy, theology and science*. Leiden: E.J.Brill, 1994.

—. "Atomism." In *Encyclopaedia of Islam, THREE*. Edited by: Gudrun Krämer, Denis Matringe, John Nawas, Everett Rowson. Brill Online, 2014. Reference. School of Oriental and African Studies (SOAS). 03 February 2014 <http://referenceworks.brillonline.com/entries/encyclopaedia-of-islam-3/atomism-COM_24249>

Eichner, Heidrun. 'Dissolving the Unity of Metaphysics: from Fakhr al-Din al-Rāzī to Mullā Sadrā al-Shīrāzī'. *Medioevo* 32 (2007): 139–98.

—. "Essence and Existence: Thirteenth Century Perspectives in Arabic-Islamic Philosophy and Theology". In *The Arabic, Hebrew and Latin Reception of Avicenna's Metaphysics.* Edited by In Dag Nikolaus Hasse and Amos Bertolacci, Berlin; Boston: De Gruyter, 2011.

Endreß, Gerhard. 'Yahyâ ibn Adî's Critique of Atomism: three Treatises on the Indivisible Part. Edited with an Introduction and Notes.' In *Zeitschrift für die Geschichte der arabische-islamischen Wissenschaften*, 1 (1984): 155-179.

Ess, Josef van. *60 years after: Shlomo Pines's Beiträge and half a century of research on atomism and Islamic theology*. Jerusalem: Israel Academy of Sciences and Humanities, 2002.

Frank, Richard M. "The Structure of Created Causality according to al-Ash'arī." In *Studia Islamica* No. 25 (1966): 13-75.

Griffel, Frank. 'Between al-Ghazali and Abu l-Barakat al-Baghdadi: The Dialectical Turn in the Philosophy of Iraq and Iran During the 6th/12th Century.' In *In the Age of Averroes: Arabic Philosophy in the Sixth/Twelfth Century*. Edited by Peter Adamson, London: Warburg Institute, 2011.

Gutas, Dimitri. 'The Study of Arabic Philosophy in the Twentieth Century: An Essay on the Historiography of Arabic Philosophy'. *British Journal of Middle Eastern Studies* 29 (2002a): 5–25.

Gutas, Dimitri. 'The heritage of Avicenna: the golden age of Arabic philosophy, 1000 - ca.1350'. In *Avicenna and His Heritage. Acts of the International Colloquium, Leuven - Louvain-la-Neuve September 8 - September 11, 1999*. Edited by Jules Jansses and Daniel De Smet, Leuven: Leuven University Press, 2002b.

Ibrahim, Bilal. "Freeing Philosophy from Metaphysics: Fakhr al-Dīn al-Rāzī's Philosophical Approach to the Study of Natural Phenomena." PhD diss., McGill University, 2013.

—. "Fakhr al-Din al-Razi and Aristotelian Science: Essentialism versus Phenomenalism in Post-Classical Islamic Thought" In *Oriens 41* (2013): 379–431.

Michot, Yahya. "Al-Nukat wa'l-fawā'id: an Important Summa of Avicennian Falsafa." In *Classical Arabic Philosophy: Sources and Reception,* 90-123. Edited by Peter Adamson. London: Warburg Institute, 2007.

Pines, Shlomo. *Studies in Islamic atomism.* Jerusalem: Magnes Press, Hebrew University, 1997.

Sabra, Abdelhamid.I.. "Kalam atomism as an alternative philosophy to Hellenizing Falsafa". In *Arabic Theology, Arabic Philosophy: From the Many to the One*. Edited by James Montgomery, Leuven: Peeters Publishers, 2006.

—. "The simple ontology of kalām atomism: an outline". Early Science and Medicine: a Journal for the Study of Science, Technology and Medicine in the Pre-modern Period 14 (2009): 68–78.

Setia, 'Adi. "Atomism versus hylomorphism in the kalam of al-Fakhr al-Din al-Razi: a preliminary survey of the Matalib al-'Aliyyah". Islam and Science 4 (2006): 113–140.

al-Shāfi'ī, Ḥasan. *Al-Āmidī wa ārā'uhu al-kalāmiyya*. Cairo: Dār al-Islām, 1998.

Shamsi, F.A.. "Ibn Sina's Argument against atomicity of Space/Time" *Islamic Studies* (Islamabad) 23 (2) (1984): 83-102.

Shihadeh, Ayman. "From al-Ghazālī to al-Rāzī: 6th / 12th century developments in Muslim philosophical theology." In *Arabic Sciences and Philosophy: a Historical Journal* vol 15(1) (2005): 141-179.

—. "Classical Ashʿari Anthropology: Body, Life and Spirit." In *The Muslim World*, 102 (3-4) (2012): 433-477.

Sorabji, Rirchard. *Time, creation, and the continuum : theories in antiquity and the early middle ages.* New York: Cornell University Press, 1983.

Weiss, Bernard. *The search for God's law: Islamic jurisprudence in the writings of Sayf al-Dīn al-Āmidī.* Salt Lake City: University of Utah, 1992.

Wisnovsky, Robert. "Avicenna's Islamic reception." In *Interpreting Avicenna: Critical Essays,* 190-213. Edited by Peter Adamson, Cambridge: Cambridge University Press, 2013.