

e-ISSN: 2602-2710



# Kader

Founded in 2003, Turkey

Special Issue of Kader in English

Volume : 19

Issue : 3

December 2021

<http://dergipark.org.tr/kaderdergi>



## Kader

e-ISSN: 2602-2710

Volume: 19

Issue: 3

December 2021

Special Issue of Kader in English

Founded In: 2003

Previous Title: KADER Kelam Araştırmaları Dergisi

Former ISSN: 1309-2030

Year Range of Publication with Former Title:

Vol. 1 No. 1 (2003) - Vol. 15 No. 2 (2017)

## Owner

Mehmet BULGEN

## Editors

Dr. Ahmet Mekin KANDEMİR / [ahmetmekin@hotmail.com](mailto:ahmetmekin@hotmail.com)  
Sosyal Bilimler U. Faculty of Islamic Studies - Ankara/Türkiye

Dr. Hasan CANSIZ / [hcansiz@gmail.com](mailto:hcansiz@gmail.com)  
Şırnak University Faculty of Theology - Şırnak/Türkiye

Dr. Ömer SADIKER / [01sadiker@gmail.com](mailto:01sadiker@gmail.com)  
Çukurova University Faculty of Theology - Adana/Türkiye

Dr. Sibel KAYA / [sibelkaya@erciyes.edu.tr](mailto:sibelkaya@erciyes.edu.tr)  
Erciyes University Faculty of Theology - Kayseri/Türkiye

Dr. Tuğba GÜNAL / [t\\_gunal@hotmail.com](mailto:t_gunal@hotmail.com)  
Ankara University Faculty of Theology - Ankara/Türkiye

## Field Editors

Dr. Mehmet Akif CEYHAN / [eyul980@hotmail.com](mailto:eyul980@hotmail.com)  
Yıldırım Beyazıt U. Faculty of Islamic Studies - Ankara/Türkiye

Res. Asst. Dr. M. Mustafa SANCAR / [snrc.mustafa@gmail.com](mailto:snrc.mustafa@gmail.com)  
Siirt University Faculty of Theology - Siirt/Türkiye

Res. Asst. Abdullah YILDIZ / [abdullahyildiz11@gmail.com](mailto:abdullahyildiz11@gmail.com)  
Selçuk University Faculty of Islamic Sciences - Konya/Türkiye

Res. Asst. Ali Fikri YAVUZ / [afyavuz@istanbul.edu.tr](mailto:afyavuz@istanbul.edu.tr)  
İstanbul University Faculty of Theology - İstanbul/Türkiye

Res. Asst. Ali SATILMIŞ / [alisatilmis42@gmail.com](mailto:alisatilmis42@gmail.com)  
Kocaeli University Faculty of Theology - Kocaeli/Türkiye

Res. Asst. Hamdi AKBAŞ / [hamdiakbas83@hotmail.com](mailto:hamdiakbas83@hotmail.com)  
Çukurova University Faculty of Theology - Adana/Türkiye

Res. Asst. Harun ASLAN / [harunilahiyat04@gmail.com](mailto:harunilahiyat04@gmail.com)  
Kırşehir Ahi Evran U. Faculty of Islamic Sciences - Kırşehir/Türkiye

Res. Asst. Kamile AKBAL / [kamileakbal@hotmail.com](mailto:kamileakbal@hotmail.com)  
Yıldırım Beyazıt U. Faculty of Islamic Studies - Ankara/Türkiye

Res. Asst. M. Bilal GÜLTEKİN / [mbilalgultekin@gmail.com](mailto:mbilalgultekin@gmail.com)  
Siirt University Faculty of Theology - Siirt/Türkiye

Res. Asst. Mehmet Akif KAHVECİ / [mak743@hotmail.com](mailto:mak743@hotmail.com)  
Marmara University Faculty of Theology - İstanbul/Türkiye

Res. Asst. Mustafa BORSBUĞA / [mustafa.borsbuga@asbu.edu.tr](mailto:mustafa.borsbuga@asbu.edu.tr)  
Sosyal Bilimler U. Faculty of Islamic Studies - Ankara/Türkiye

Res. Asst. Oğuz BOZOĞLU / [oguzbozoglu@gmail.com](mailto:oguzbozoglu@gmail.com)  
Karabük University Faculty of Islamic Sciences - Karabük/Türkiye

Res. Asst. Osman SEZGİN / [osmansezginn@gmail.com](mailto:osmansezginn@gmail.com)  
Marmara University Faculty of Theology - İstanbul/Türkiye

Res. Asst. Semra CEYLAN / [semraceylan19@gmail.com](mailto:semraceylan19@gmail.com)  
Ankara University Faculty of Theology - Zonguldak/Türkiye

Res. Asst. Sercan YAVUZ / [sercanyavuz2654@gmail.com](mailto:sercanyavuz2654@gmail.com)  
Eskişehir Osmangazi U. Faculty of Theology - Eskişehir/Türkiye

Res. Asst. Sezgin ELMALI / [sezginelmali@gmail.com](mailto:sezginelmali@gmail.com)  
Trakya University Faculty of Theology - Edirne/Türkiye

Bilal KIR (Doctoral Student) / [bilal\\_086@hotmail.com](mailto:bilal_086@hotmail.com)  
Marmara University - İstanbul/Türkiye

Recep ERKMEN (Doctoral Student) / [recep.erkmen@nyu.edu](mailto:recep.erkmen@nyu.edu)  
Indiana University - USA

Zeliha ULUYURT (Doctoral Student) / [zelihauluyurt89@gmail.com](mailto:zelihauluyurt89@gmail.com)  
Marmara University - İstanbul/Türkiye

## Editorial Board

Prof. Dr. İbrahim ASLAN / [aslanteolog@hotmail.com](mailto:aslanteolog@hotmail.com)  
Ankara University Faculty of Theology - Ankara/Türkiye

Prof. Dr. Metin YURDAGÜR / [metin.yurdaqur@isam.org.tr](mailto:metin.yurdaqur@isam.org.tr)  
Diyanet Foundation Centre for Islamic Studies - İstanbul/Türkiye

Prof. Dr. Metin ÖZDEMİR / [metin.ozdemir@asbu.edu.tr](mailto:metin.ozdemir@asbu.edu.tr)  
Sosyal Bilimler U. Faculty of Islamic Studies - Ankara/Türkiye

Prof. Dr. Osman DEMİR / [demir.osman@hbv.edu.tr](mailto:demir.osman@hbv.edu.tr)  
Ankara Hacı Bayram Veli U. Faculty of Theology - Ankara/Türkiye

Prof. Dr. Temel YEŞİLYURT / [temelyesilyurt@erciyes.edu.tr](mailto:temelyesilyurt@erciyes.edu.tr)  
Erciyes University Faculty of Theology - Kayseri/Türkiye

Prof. Dr. Ebrahim MOOSA / [emoosa1@nd.edu](mailto:emoosa1@nd.edu)  
University of Notra Dame - USA

Prof. Dr. Mohammed B. ALTAIE / [maltaie@yu.edu.jo](mailto:maltaie@yu.edu.jo)  
Yarmouk University Faculty of Sciences - Irbid/Jordan

Prof. Dr. Said Mukhtar OKILOV / [saidmukhtar@mail.ru](mailto:saidmukhtar@mail.ru)  
International Islamic Academy - Uzbekistan

Assoc. Prof. Dr. Hüseyin MARAZ / [huseyinmaraz78@hotmail.com](mailto:huseyinmaraz78@hotmail.com)  
Bilecik Şeyh Edebali U. Faculty of Islamic Sciences - Bilecik/Türkiye

Assoc. Prof. Dr. Mahsum AYTEPE / [maytepe33@hotmail.com](mailto:maytepe33@hotmail.com)  
Mersin University Faculty of Islamic Studies - Mersin/Türkiye

Assoc. Prof. Dr. Mustafa Selim YILMAZ / [s.mutekellim@gmail.com](mailto:s.mutekellim@gmail.com)  
Karabük University Faculty of Theology - Karabük/Türkiye



Assoc. Prof. Dr. Muzaffer BARLAK / [muzaffer\\_barlak@hotmail.com](mailto:muzaffer_barlak@hotmail.com)  
Sinop University Faculty of Theology – Sinop/Türkiye

Assoc. Prof. Dr. Ulvi Murat KILAVUZ / [murat\\_kilavuz@hotmail.com](mailto:murat_kilavuz@hotmail.com)  
Bursa Uludağ University Faculty of Theology – Bursa/Türkiye

Assoc. Prof. Dr. Abzhalov Sultanmurat UTESHOVICH  
/ [sultanmurat.abzhalov@ayu.edu.kz](mailto:sultanmurat.abzhalov@ayu.edu.kz)  
Akhmet Yassawi University – Kazakhstan

Assoc. Prof. Dr. Ahmed Abdel MEGUID / [a\\_meguid@aucegypt.edu](mailto:a_meguid@aucegypt.edu)  
The American University in Cairo – Egypt

Dr. Abdullah DEMİR / [abdillahdemir@hotmail.com](mailto:abdillahdemir@hotmail.com)  
Yıldırım Beyazıt U. Faculty of Islamic Studies – Ankara/Türkiye

Dr. Mehmet Akif CEYHAN / [eylu980@hotmail.com](mailto:eylu980@hotmail.com)  
Yıldırım Beyazıt U. Faculty of Islamic Studies – Ankara/Türkiye

\* Editors and field editors are inherent members of the editorial board.

## Advisory Board

Prof. Dr. M. Saim YEPREM / [msaimyeprem@gmail.com](mailto:msaimyeprem@gmail.com)  
İstanbul Aydın University – İstanbul/Türkiye

Prof. Dr. Çağfer KARADAŞ / [ckaradas@uludağ.edu.tr](mailto:ckaradas@uludağ.edu.tr)  
Uludağ University – Bursa/Türkiye

Prof. Dr. Cemalettin ERDEMCI / [cemerdemci@yahoo.com](mailto:cemerdemci@yahoo.com)  
Siirt University – Siirt/Türkiye

Prof. Dr. Hulusi ARSLAN / [hulusiarslan@inonu.edu.tr](mailto:hulusiarslan@inonu.edu.tr)  
İnönü University – Malatya/Türkiye

Prof. Dr. Hülya ALPER / [hulyaalper@hotmail.com](mailto:hulyaalper@hotmail.com)  
Marmara University – İstanbul/Türkiye

Prof. Dr. İlhami GÜLER / [iguler@ankara.edu.tr](mailto:iguler@ankara.edu.tr)  
Ankara University – Ankara/Türkiye

Prof. Dr. İlyas ÇELEBİ / [ilyas.celebi@yahoo.com](mailto:ilyas.celebi@yahoo.com)  
İstanbul 29 Mayıs University – İstanbul/Türkiye

Prof. Dr. Mahmut AY / [mahmutay@ankara.edu.tr](mailto:mahmutay@ankara.edu.tr)  
Ankara University – Ankara/Türkiye

Prof. Dr. Mehmet EVKURAN / [mehmetevkuran@hitit.edu.tr](mailto:mehmetevkuran@hitit.edu.tr)  
Hitit University – Çorum/Türkiye

Prof. Dr. Ramazan Altıntaş / [ramazanaltintas59@hotmail.com](mailto:ramazanaltintas59@hotmail.com)  
Necmettin Erbakan University – Konya/Türkiye

Prof. Dr. Sinan ÖGE / [sinanoqe@atauni.edu.tr](mailto:sinanoqe@atauni.edu.tr)  
Atatürk University – Erzurum/Türkiye

Prof. Dr. Ebrahim MOOSA / [emoosa1@nd.edu](mailto:emoosa1@nd.edu)  
University of Notre Dame – USA

Prof. Dr. Kelly James CLARK / [clarck84@yahoo.com](mailto:clarck84@yahoo.com)  
Grand Valley University – USA

Prof. Dr. M. Basil ALTAİE / [maltai@yu.edu.jo](mailto:maltai@yu.edu.jo)  
Yarmouk University – Irbid/Jordan

Prof. Dr. Said Mukhtar OKILOV / [saidmukhtar@mail.ru](mailto:saidmukhtar@mail.ru)  
International Islamic Academy – Uzbekistan

Assoc. Prof. Dr. Abzhalov Sultanmurat UTESHOVICH  
/ [sultanmurat.abzhalov@ayu.edu.kz](mailto:sultanmurat.abzhalov@ayu.edu.kz)  
Akhmet Yassawi University – Kazakhstan

Assoc. Prof. Dr. Ahmed Abdel MEGUID / [a\\_meguid@aucegypt.edu](mailto:a_meguid@aucegypt.edu)  
The American University in Cairo – Egypt

## Official Contact

<http://dergipark.org.tr/kader>  
[kaderdergaj@gmail.com](mailto:kaderdergaj@gmail.com)

## Editorial Contact

Assoc. Prof. Dr. Mehmet BULGEN  
Marmara Üniversitesi İlahiyat Fakültesi  
Mahir İz Cad. No. 2 Üsküdar/ İSTANBUL  
Tel: 0216 651 4375 - 1519  
[mehmet.bulgen@marmara.edu.tr](mailto:mehmet.bulgen@marmara.edu.tr)

## Indexes

Atla Religion Database (Atla RDB)  
(Approval Date: 01.2020)  
Indexing Start: 2003, Vol./Issue: 1/1



EBSCO Academic Search Complete  
(Indexing Start: 01/08/2010)



DOAJ Directory of Open Access Journal  
(Approval Date: 23/10/2018)



ULAKBİM Tr Dizin  
(Approval Date: 02/04/2018)  
Indexing Start: 2017, Vol./Issue: 15/1



## Data Providers

SOBİAD Sosyal Bilimler Atf Dizini  
TDV İSAM İlahiyat Makaleleri Veri Tabanı

## Publishing Policy

Kader is an international academic journal published two times (June and December) a year. The journal provides to publish high quality research articles, and besides them, translated papers, research notes, book and dissertation reviews, evaluations of academic activities such as symposiums, congresses and workshops and works such as edition critiques and text simplifications in Kalām (Islamic Theology) and interdisciplinary fields related to Kalām. Each article to be submitted must contain an abstract comprising the introduction, methodology, findings, discussions and conclusion sections briefly, both in Turkish and English between 350-400 words (may not exceed 5000 characters including space). The articles due to be published are carried out on the principle of double blind review. The articles are verified by plagiarism detection program that they do not contain any plagiarism and that they are not previously published. Kader adopts open access and free scientific publishing as a principle, published online through TUBİTAK ULAKBİM's DergiPark system, which allows academic journals published in Turkey to be published electronically. No fee is charged from the authors for the publication of the article, and the published articles can be accessed free of charge under the [CC BY NC ND 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/) license. The final decision regarding the publication of the articles belongs to the editorial board. Scientific and legal responsibility of the articles published in our journal belong to the respective authors.



## CONTENTS

XVIII Editorial

**Research Articles**

---

- 888-898 Prof. Dr. Şaban Ali DÜZGÜN  
*Deism as a Heterodox Religious Identity with its Historical and Contemporary Aspects*  
*Tarihsel ve Çağdaş Yönleriyle Heterodoks Dini Bir Kimlik Olarak Deizm*
- 899-913 Assoc. Prof. Dr. Enis DOKO  
*Islam and Evolution: A Defense*  
*İslam ve Evrim: Bir Savunma*
- 914-937 PhD Student Baki KARAKAYA – MA Student Asiy Şefika Sümeyye KAPUSUZ  
*Kant, Bergson, and Iqbal on the Concept of Time and its Effect on Iqbal's Reconstruction of Freewill*  
*Kant, Bergson ve İqbal'de Zaman Kavramı ve Bunun İqbal'de Özgür İradenin Yeniden İnşasına Etkisi*

**Translations**

---

- 938-967 Assoc. Prof. Dr. Mehmet BULGEN  
*Science and Philosophy in The Classical Period of Kalām: An Analysis centered upon The Daqīq and Latīf Matters of Kalām*  
*Klasik Dönem Kelâmında Bilim ve Felsefe: Kelâmın Dakik ve Latif Konuları Ekseninde Bir Değerlendirme*

**Letters to the Editor**

---

- 968-974 Asst. Prof. Dr. Shoaib Ahmed MALIK  
*Why I wrote "Islam and Evolution: Al-Ghazālī and the Modern Evolutionary Paradigm"*  
*"Islam and Evolution: Al-Ghazālī and the Modern Evolutionary Paradigm" Adlı Kitabı Yazma Nedenime Dair*
- 975-983 *Publishing Policy*





## EDITOR'S NOTE

Dear readers,

KADER, which has been issued under the supervision of the “Coordinating Committee of Kalam Chairs of Turkish Theology Faculties”, began its publication life in 2003 with the “KADER Journal of Kalam Studies” (e-ISSN: 1309-2030) and then later the name has been changed to that of the KADER (e-2602-2710) since 24/10/2017. The current issue that we present becomes the first English issue of KADER.

As noted in the introductory article of the first issue, the objective of KADER is to set the studies carried out in the field of Kalām which constitutes an important part of Islamic Thought in motion. Since motion and time are related, the absence of motion indicates that there is a kind of stagnation in terms of time as well. Since thought is ultimately a motion of a mind, the absence of thought necessarily means that time also stops in the field of thinking. In light of this evaluation, the stagnation observed in the Islamic Thought Movement after a certain period of time is indicative of the frozenness of both thought and time. After a long interval, the revival of Islamic thought, which reached its peak in the first four centuries of Islamic history, and the rapid compensation of the lost time can only be achieved through the necessary and sufficient speed of the realization of thought movement.

KADER has been ceaselessly continuing its publication life for nearly 20 years in line with its goal of keeping the essential link between time and thought movement alive. Looking at the past issues of the journal, published twice a year at the end of June and December, the richness and quality of the academic studies published prove that the journal has fulfilled its founding purposes. Especially, academic studies that have been carried out in the Faculties of Theology, Master's, Doctoral Thesis and articles prepared for Associate Professorship and Professorship, conferences, panels, symposiums, and published bulletins constitute the very basis of this success. Furthermore, while doing this, showing no compromise of the principles of international academic publication standards has increased the quality of the journal and rendered it one of the journals that are pointed out in the field of theology in Turkey due to the indexations of the journal and citations that its articles receive. As well as having contributed to the raising of standards of the journals published in the field of theology, Kader has been instrumental in bringing about an intellectual awakening in the field of Kalām studies in Turkey. Undoubtedly authors,

reviewers, readers and the editorial board in particular Prof. Dr. Şaban Ali DÜZGÜN who has worked with great dedication throughout the publication life of the journal played a big role in achieving this success.

The current issue is the first issue of KADER published in English, and it aims to bring the knowledge and achievements of the journal from the national arena to an international arena. In line with this objective, this issue brings together three research articles, a translation and a letter to the editor, both historically and contemporarily important. It is our hope that these published articles will lead to an increase in the interest of English-speaking readers of the journal and therefore conduces to further research that pushed the frontiers forward for the upcoming issues.

We would like to thank those who contributed to the preparation of the journal and those who will support with their articles and suggestions for the upcoming volumes.

**On Behalf of the Editorial Board**

**Dr. Mehmet BULGEN**



## Deism as a Heterodox Religious Identity with its Historical and Contemporary Aspects

Tarihsel ve Çağdaş Yönleriyle Heterodoks Dinî Bir Kimlik Olarak Deizm

Şaban Ali DÜZGÜN

Prof. Dr., Ankara University, Faculty of Theology, Ankara/Türkiye  
[duzgun@ankara.edu.tr](mailto:duzgun@ankara.edu.tr) | [orcid.org/0000-0002-0447-9018](https://orcid.org/0000-0002-0447-9018) | [ror.org/01wntqw50](https://ror.org/01wntqw50) | [sabanaliduzgun.com.tr](http://sabanaliduzgun.com.tr)

### Article Information

#### Article Type

Research Article

#### Date Recieved

31 October 2021

#### Date Accepted

27 December 2021

#### Date Published

31 December 2021

#### Plagiarism

This article has been scanned with iTenticate software. No plagiarism detected.

#### Ethical Statement

It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited (Şaban Ali Düzgün).

Licensed under CC BY-NC-ND 4.0 license.

Cite As

“ Düzgün, Şaban Ali. “Deism as a Heterodox Religious Identity with its Historical and Contemporary Aspects”. *Kader* 19/3 (December 2021), 888-898. <https://doi.org/10.18317/kaderdergi.1016998> ”

## Abstract

*Deism from the beginning has positioned itself as a heterodox religious identity contrary to orthodoxy. In this regard, it is the review of established classical theological presuppositions regarding the following headings: conception of God; God-world relationship; religion-science relationship; ethical considerations regarding the problem of evil, etc. In these contexts, deism could be seen as a sort of religious self-criticism. As arose in British philosophical-theological circles, deism sounds to have resisted some conventional Christian presuppositions as put forward by E. Herbert of Cherbury, the father of English deism, in the forthcoming articles: "There is a supreme God. This sovereign deity should be worshipped. Virtue arises from the piety created by this worship. As the man is filled with wickedness, he needs repentance, which means communication with this sovereign Being. There is reward or punishment in the life to come." In the course of time, different kinds of deisms turned up, ranging from accepting God as a sublime creator alone and rejecting revelation, i.e., institutional religion, to those accepting religion on the condition that it should be compatible with reason. Samuel Clarke mentions the arguments of different kinds of deists and skillfully criticizes them. Historical and contemporary deism have the following in common: "The compromise between truth of revelation and truth of reason; saving knowledge versus saving faith; rejection of institutional structures; glorification of reason and human nature; ethical rationality." With this doctrinal backdrop, hot debates on deism in Turkey have recently gotten new dimensions. Figures showing the rise of deism in recent years under an Islamist political rule makes the case all the more thought-provoking. The visibility of religion in the public sphere has increased, and the rate of religiosity would also be expected to increase. However, the result is quite the opposite. There is a widespread and remarkable secularization in conservative circles. After they got the political power and economic welfare, which enabled them to attain worldly glory, they have gradually left religious glory behind and glorified profanity. In this case, deism seems to take the form of secularized orthodoxy. Deists in Turkey, rather than rejecting revealed religion they want it to be compatible with reason, to demythologize it from supernatural narratives, and to find a way of getting rid of fanatical elements in the religion. They want to replace religious institutional authority with the authority of reason, which rests itself on innate ideas and a priori truths. They claim ethical rationality, which means ethical truths are accessible through reasoning. My study tackles some statistical data specifically signifying why youngsters tend to claim to be deists. Some surveys among high school students have been included in the study and due evaluations have been made. It seems sectarian identities, radical voices, authoritative religious language, blockades to freedom of speech, a dichotomy between religious and scientific facts in the curricula and mythological religious language are among the reasons counted by the youngster to reject conventional religion and embrace deism. The mainstream theological tradition of Islam is quite familiar with deistic claims. The discussions on deism will finally bring the enlightened minds together with the reasonable religious line.*

**Anahtar Kelimeler:** *Deism, God, Secularized orthodoxy, Deism as a heterodox identity.*

## Öz

Deizm başından beri kendini ana akım dinî kabullere karşı heterodoks dinî bir kimlik olarak konumlandırmış, felsefe ve teolojinin temel düşünce üretim alanları olan Tanrı tasavvurları, Allah-âlem ilişkisi, din-bilim ilişkisi, kötülük meselesinden kaynaklı ahlakî tartışmalarda geleneksel kabullere aykırı görüşler ileri sürmüştür. Bu yönüyle deizm, dinin kendi içinden bir eleştirisidir. İngiltere’de deizmin babası olarak isimlendirilen E. Herbert of Cherbury’nin deizmin beş ilkesi bu eleştirinin en başat örneğidir. Ona göre; 1. Yüce bir Tanrı vardır, 2. Bu yüce Varlığa ibadet edilmelidir, 3. Erdem ibadetin yarattığı bir değer olduğu için din ve ahlak arasında doğrudan bir ilişki vardır, 4. İnsanlar zayıf yaratıldıkları için tövbe ihtiyacındadırlar; bu da Tanrı’yla iletişime açıklık demektir, 5. Ölümünden sonraki hayatta ceza ve mükâfat vardır. Deizmin iddiaları zaman içinde değişikliğe uğramıştır. Bu değişimi, farklı deizm iddialarını tasnif eden ve eleştiren Samuel Clarke’ta görmek mümkündür. Bununla birlikte, deistler şu konularda ortak fikre sahiptirler: imanın kurtarıcılığına karşı bilginin kurtarıcılığı esastır; kurumsal dinî yapılar reddedilmelidir; akıl ve insan doğası yüceltilmelidir; ahlak akılla temellendirilebilir; (vahyin imkânını kabul eden deistlere göre) vahyin doğrusu ile aklın doğrusu uyum içinde olmalıdır. Türkiye’de deistler dini reddetmekten daha çok onun akılla uyumunu talep etmekte, hurafelerden arındırılmasını ve radikal söylemlerden temizlenmesini istemektedirler. Kurumsal dinî otorilerin yerine, insanın aklına ve doğasına yaslanan doğruları önermektedirler. Bu doktrin temeline ek olarak Türkiye’de deizm ilginç veriler ve sonuçlar üretmektedir. Türkiye’de muhafazakâr bir yönetim iş başındayken deizmin artış kaydetmesi çok çarpıcıdır. Kamusal alanda dinin daha fazla görünür olmasına rağmen, deizmin ve sekülerleşmenin artması, din-siyaset ilişkisinin çok sıkı kurulduğu ülkelerde dine yabancılaşma gibi bir sonucun ortaya çıktığı tezini bir kez daha doğrulamış görünmektedir. Bu çalışma deizmin farklı iddialarını dikkate alarak ve Türkiye’de lise öğrencileri arasında yapılan araştırmalara dayanarak şu sonuçları okuyucuya paylaşmaktadır: Mezhep farklılığının tetiklediği şiddet, radikal söylemler, buyurgan din dili, mitolojik anlatımlar genç



zihinleri geleneksel olarak tevarüs ettikleri birikimi yeniden değerlendirmeye itmektedir. Kendilerini dinin dışında konumlandırmak istemeyen bu zihinler, yeni bir dini kimliği tercih etmektedirler. Bu kimlik bugün artık heterodoks bir kimlik olarak kendini göstermektedir. Bu aynı zamanda sekülerleşmiş bir ortodoksinin ortaya çıktığının da açık göstergesidir.

**Keywords:** Deizm, Tanrı, Sekülerleşmiş ortodoksi, Heterodoks bir kimlik olarak deizm.

## 1. Deism Revisited: Philosophical and Theological Backdrop

The first thing to know about deism is that it was neither uniform in history nor today. In the same way, neither in the beginning nor at present has it a clear-cut monolithic doctrine and methodology. Theoretically, there are different kinds of deisms with different arguments and justifications; and in the social stage, there are quite various deistic forms and their motives behind.

Edward Herbert of Cherbury, the father of English deism<sup>1</sup> (1583-1648) counts five beliefs of deism: 1. “There is a supreme God”, 2. “This sovereign deity should be worshipped”, 3. “The connection of virtue with piety is the most important part of religious practice”, 4. “The minds of men have always been filled with horror for their wickedness; their vices and crimes have been obvious to them; they must be expiated by repentance” and, 5. “There is reward or punishment after this life”.<sup>2</sup>

A critic of deism Samuel Clarke (1675-1729) mentions four groups of deists of his time with their arguments and assesses them: **The first group** believes in a God who created the world as an eternal, infinite, potent, and intelligent Being. He makes the world like a clock and takes it over, but he has no connection with the world and is not concerned with what is happening over there. S. Clarke’s answer to this deistic claim is as follows: First, science has shown that, due to the nature of matter, it cannot make the laws to which it is a subject. Therefore, the matter needs God, who continually cares for it. Secondly, a God who is not concerned with the world implies that He neither has knowledge nor the power or will and wisdom to intervene when necessary. Such a conception of God has no appeal for us. **The second group** admits that God is interested in the universe, and there is no place for morality in this concern. According to this group, God’s volition is not affected and changed by the appeals from earthlings. God’s volition directly corresponds to cosmic events, and it is not an object of individual persons’ desires and hopes. An act that is moral to us is neutral in the sight of God. S. Clarke criticizes this second group as follows: First, this group did not understand that morality is a matter of fixed, eternal relations. Second, denying the existence of God’s moral attributes requires denial of either God’s wisdom or power. **The third group** accepts God’s moral attributes but denies the immortality of the human soul, and they do not give any moral functionality to the attributes of God. Such a claim leads to the removal of all

<sup>1</sup> For detailed analysis of English deism and its theological assessment see: Meryem Özdemir Kardeş, *Deistik Argümanlara Karşı Vahyin İmkân ve Gerekliliği: 18. Yüzyıl İngiliz Deizmi ve Kelami Açıdan Analizi (The Possibility and Necessity of Revelation Against Deistic Arguments: 18th Century English Deism and Its Theological Analysis)* (Unpublished PhD thesis), Ankara 2021.

<sup>2</sup> George Williams, “Socinianism and Deism: From Eschatological Elitism to Universal Immortality”, *Historical Reflections/Reflexions Historiques*, Winter 1976, vo. 2, no. 2 (1976), p. 1.

attributes of God. **The fourth group** acknowledges that religions can give us some moral doctrines, but they object to the claim that this doctrine can only be represented by Christian revelation.<sup>3</sup>

Jean Jacques Rousseau (1712-78) emphasized the weight of emotions rather than reason in deism as defended by Voltaire (1694-1778) whose “life-long obsession was the eradication of all organized religion, with its superstition, fanaticism, intolerance, and obscurantism”.<sup>4</sup> “Contrary to excessive confidence of philosophes<sup>5</sup> in reason, Rousseau focused on the interior life of a human kind and on the role of the heart, conscience, sentiment, feelings, and moral intuition in the conduct of moral life. Reason was not enough. Rather, conscience as the function of man’s interiority and sentiments tells us what our moral obligations are. God reveals himself not only through nature, but speaks to us through conscience and our sentiments”.<sup>6</sup>

In addition to these varieties in doctrine and methodology, we can list the dominant common features of deism as follows:

### 1.1. The Compromise between Truth of Revelation and Truth of Reason

A group of deists asserts that humankind need prophetic truths in addition to the facts discovered by reason. One of the pioneers of deism Benjamin Whichcote (1609-1683) specified the motto of this kind as follows: “Reason has the capacity to discover what is **natural** and to accept what is **supernatural**.” However, he adds: “The precondition for what is accepted as supernatural by us is that it passes the test of conformity with nature and reason. Otherwise, it should be rejected. The final aim of them is to reconcile findings of reason and the claims of revelation. The compromise between reason and revelation manifests itself in relations as sobriety/temperance (between body and mind) as righteousness/morality (between man and man), as godliness/piety (between God and humankind).<sup>7</sup>

### 1.2. Saving Knowledge versus Saving Faith

Historically there are deists who replaced the saving faith with saving knowledge. To illustrate, Nicholas Cusanus criticizes Christianity as the intolerant and monopolistic structure that replace faith with knowledge. The expression ‘saving faith’ necessarily makes people dependent on religions, but ‘saving knowledge’ renders them, independent individuals. Faith has to show people how to live in a harmonious way by following their true nature and the reason given them by God to illuminate their way. “The intellect was created by God with the aim of enabling man to come

---

<sup>3</sup> For more detail see: Samuel Clarke, *A Demonstration of the Being and Attributes of God and Other 22 Writings* (1705), ed. Ezio Vailati, Cambridge University Press, 1998. For the pioneer figures of deism and the basic doctrine see: Şaban Ali Düzgün, “Deizm: Öncü İsimler ve Temel Doktrin”, *Din Karşıtı Çağdaş Akımlar ve Deizm* (“The Pioneer Figures of Deism and the Fundamental Doctrine”, in *Contemporary Movements Against Religion and Deism*) (ed. V. Sönmez, B. Kıyıcı and Metin Yıldız), Ensar Yay. Van, 2017, pp. 3-15.

<sup>4</sup> Raul J. Bonoan, “The Enlightenment, Deism and Rizal”, *Philippine Studies*, First Quarter 1992, vol. 40, no. 1, p. 55.

<sup>5</sup> The French enlightenment thinkers called themselves philosophes, not philosophers.

<sup>6</sup> Raul J. Bonoan, *ibid.*, p. 54.

<sup>7</sup> For detail see. Jay Gomer Williams, *The Life and Thoughts of Benjamin Whichcote*, (PhD Thesis) Columbia University, 1964.

to know God.”<sup>8</sup> Including knowing God, intellect manifests its capability in orientating man in his worldly journey.

### 1.3. Rejection of Institutional Structures

Deists reject institutional authority they consider as the source of fanaticism and intolerance and replace it with the final authority of rational knowledge. They suggest the language of persuasion be favored instead of dictation and imposition. They see institutional structures such as religion, sects/religious denominations as the most significant obstacles to independent thought.

The contradiction between institutional religion and God, between state-religion togetherness and science, between true belief in God and mythologies, between the God of religions and God of Creator of the universe, can be seen in the declaration of Deism Association.<sup>9</sup>

### 1.4. Glorification of Reason and Human Nature

Deists claim that reason, logic, and human nature are truly glorified only within deism. Their emphasis on rationality brought them in line with the idea of innate ideas and obvious logical truths (Cambridge Platonists). Therefore, they are in favor of moral rationalism, claiming moral truths can rationally be discovered. As moral truths are mental truths, reason alone can discover the facts contained in natural religion. It is inconceivable that religion has mysteries and secrets, which a human being cannot understand. According to deists, savior knowledge is knowledge to be based on reason and common sense.

### 1.5. Religion within the Boundaries of Reason

*The title of the books penned by the enlightenment thinkers on religion denotes that the pivotal character ascribed to religion is that it should be sited within the boundaries of reason. To them, religion must be ‘natural’, ‘reasonable’ and ‘free of superstitions’. John Toland’s Christianity not Mysterious (1696) illustrates the prominent character ascribed to religion at that time.*

### 1.6. Ethical Rationality and Ethically Transcendent God

Deism portrays absolute transcendence in which God manifests Himself in the universe, not in human life. The ethical imperfections in the world can be explained either by reference to humans or to God. The fact that no imperfection can be ascribed to God brings deists to a logical conclusion that the evil in the world is a human affair. This is ethical rationality, which leads deists to believe that God is not interested in human life in any way; otherwise, the world would be a very different if the case were the other way.

## 2. The Rise of Deism in Turkey and The Possible Reasons Behind

Islam has many historical and social manifestations. It has basic creedal and ethical principles that blend the historical and social and thus create what is proper for the spirit of the time. These principles, which aim to ensure the continuation of existence in the best form, become archaic

<sup>8</sup> Martin Thurner, “Die Sinnlichkeit Als Selmstdarstellung Des Geistes: Die ‘Aeginmata’ Des Cusanus”, *Recherches de théologie et philosophie médiévales*, Vol. 71, No. 2 (2004), p. 373.

<sup>9</sup> <https://deizmdernegi.org/deizm-dernegi-deklarasyonu/>

and need reformulation when it cannot adapt to the spirit of the time. It seems we are passing through times when a great gap has arisen between these principles and the spirit of the time.

Turkey's imperial and republican experiences place it in a different place from other Islamic countries, which requires a *sui generis* religious and societal stand. When we consider this backdrop, it becomes possible to understand the new progressive demands. Different tendencies that sometimes question the current orthodox religious identity, sometimes put it on the line of reasonableness or reject it, have always existed in the society.

### 2.1. A Paradox: Increased Visibility of Religion in Public Sphere and Rise of Deism

*The rise of deism in Turkey despite the increased visibility of religion in the public sphere in recent years seems as a paradox and requires further analysis. It has been historically proved that any initiative to instrumentalize religion eventually harms religion most; and Turkey is no exception.*

There is a widespread and remarkable secularization in conservative circles.<sup>10</sup> After they got the political power and economic welfare, which enabled them to attain worldly glory, they gradually left religious glory behind and justified profanity. The conservatives have the habit of handling every issue under a religious rubric and penetrate religiosity into every issue they come across, which creates religious fatigue, as specified by a Turkish theologian Necdet Subaşı. The reason why we do not witness sincere piety is religiosity taken over by popular culture, according to the author.<sup>11</sup> Apparently, religion occupied every space but it dwells nowhere in its real meaning.

### 2.2. Deism as a Heterodox Religious Identity

*Deism from the beginning has been seen as a heterodox religious identity rather than an atheistic one. It is not as easy for a person to claim to be an atheist as to claim to be a deist. Considering this historical backdrop, deism is still referred as a kind of religiosity and makes it easy for someone to claim to be a deist. This is especially true in societies with strong religious conventions and traditions where the social construction of deism is much stronger than its justified philosophical arguments.*

Interestingly enough, unorthodoxies like Arianism and Socinianism have the same tenets with deism like rejecting the doctrine of trinity and divinity of Christ.<sup>12</sup>

### 2.3. Deism as the Secularized Orthodoxy

Deism is the secularization of theology from within. A theology that cannot make peace with science and the world, and cannot meet the basic principles of rationality is to create a different form of being scientific in itself. It is the review of classical theological presuppositions regarding

---

<sup>10</sup> For further analysis of religion-secularization relation see: Volkan Ertit, *Sekülerleşme Teorisi*, (The Theory of Secularization), Liberte Pub. İstanbul, 2019.

<sup>11</sup> See more detail: Necdet Subaşı, "'Din Yorgunluğu' ya da Gündelik Popüler Kültürün Tükettiği 'İslami' Yorumlar", *Gelenek ve Modernite Arasında İslam Yorumları*, ("Religious Fatigue' or 'Islamic' Interpretations Consumed by Daily Popular Culture", *Islamic Interpretations between Tradition and Modernity*) ISAV: Konya 2017, ss. 223-229.

<sup>12</sup> See George Williams, Socinianism and Deism: From Eschatological Elitism to Universal Immortality, *Historical Reflections/Reflexions Historiques*, Winter 1976, vo. 2, no. 2 (1976), pp. 265-290.

the relationship between God and the world and how the relationship between religion and science should be. It is a religious self-criticism.

As the secularized orthodoxy and a heterodox religious identity, deism in Turkey presupposes the followings:

Human nature is inborn encoded to reveal the natural laws through his reason and experience and declare it as a universal inductive law. Some traditional religious claims that go contrary to factual statement on nature creates a mental dichotomy. Some religious people pervert human reason and experience; thus, religion, according to deists, distorts the natural flux of events. This also creates a rationale for those claiming to be deists.

Some deists in Turkey, rather than rejecting revealed religion they want it to be compatible with reason, to demythologize it from supernatural narratives, and to find a way of getting rid of fanatical elements from the religion. They want to replace religious institutional authority with the authority of reason, which rests itself on innate ideas and a priori truths. They claim ethical rationality, which means ethical truths are accessible through reasoning. The claims that there are some unexplainable elements within a religion or supra-natural elements or secrets within the religion are rejected. They claim that in order to get the knowledge of God, we do not need mediators who first introduce people to the fear of God, then they offer ways to save people from this fear.

Deism in Turkey serves as a protest movement against intolerance prevalent among religious groups. If religion is irrational, intolerant, and sectarian, it naturally cannot find any positive response on the public side. Some youngsters' claim that they are deists indeed is just an objection to traditional religion. They reject religion as it is understood and practiced in the popular area, and they are taking revenge of the dogmatic education imparted by the family.

Deism debates in Turkey may be taken as one of the earlier signals of a *sui generis* enlightenment. The Kantian enlightenment motto of *sapere aude* currently manifests itself in many forms as the signal of this enlightenment. Sometimes in the form of reason, sometimes as human nature, and sometimes as the rejection of what has traditionally been inherited.

The dichotomy between religious and scientific facts in the high school curriculum creates a vortex for young minds. This dichotomous and dual character of curricula in Turkey, such as creationism/intelligent design versus Darwinism, creates this schizophrenic mind in the educational system.

The aspiration to distance himself/herself from the negativities created by Islamist politics. Many people who want to distance themselves from existing political negativities want to define themselves with a different identity. To claim to be deist fitted the case best.

#### **2.4. Youngsters Alienation to Religion and Possible Causes Behind**

Youngsters shifting from orthodox Islamic mainstream tend to define themselves as 'deist' increasingly in recent years. Why is that? What are the historical, social, religious, cultural and political implications of this orientation? Why does deism as a new heterodox religious identity



arise? What does it reject? What does it highlight? It seems there are more than one reason to these questions.

Considering these questions, the following factors could be seen among the crucial ones that lead youths to protest, object and reject what is presented to them as mainstream Islam.

- Sectarian identities that overshadow the search for truth. Islam of identity precedes the Islam of truth.
- Radical voices and acts of some Muslim groups.
- Over-idealization of Islam. This creates a huge gap between ideal and phenomenal/real one. Unrealized ideals radicalize people. Deism is one of these radical forms of reaction. Deism is a form of resentment to religion in this case.
- Authoritative religious language. Religious language is authoritative rather than convincing; legal and judiciary rather than ethical; exclusive rather than inclusive.
- Blockades to freedom of speech. It is almost improbable to declare any opinion outside the orthodox line.
- The dichotomy between religious and scientific facts in high school curriculum such as creationism/intelligent design versus Darwinism creates a schizophrenic mind in the educational system.
- Rejection of state-sponsored religiosity.
- The mythological and superstitious language used by a traditional religious narrative.

### **2.5. Some Statements of the Youths Claiming to be Deist**

Qualitative surveys conducted among high school students exhibit the overall objection of the students to religion as it is understood and practiced in Turkey. Some of the students' statements are below:

- The religious rhetoric of so-called Muslim scholars of today estranges me from the faith.
- Religion is using the language of threat and fear in order to keep people away from evil acts.
- As religion is resistant to changing life and its requirements, there is no need it at all.
- All religions are not but the sources of chaos and killings.
- Religion is a kind of opium. It is an instrument and source of legitimacy for those who have the intention of exploiting the sincere feelings of the people.
- Even on the identity card of a baby, religion is designated. How could it be possible for a baby to have a religion? This shows that religion is something inherited, not a matter of choice.
- There are good people outside Islam, but they are believed to go to hell just because they are not Muslims. This is not fair.
- The fact that religion is so efficient in political affairs does not fit my mind.

- Having sent many religions, if God claims only one of them is viable and true, there must be something wrong with the religion itself.
- Religion tells us we are in an ongoing exam in the World. Why is this exam? Why did the omnipotent God not annihilate the devil in the beginning?
- If there is an omnipotent, omniscient, and all-good God, why is there evil and all these sufferings?
- Any religion that does not say anything about child abuse but strictly prohibits alcohol indeed says nothing to me.
- To claim that prophets are human on the one hand and to say they are immune to sins on the other is not but a contradiction.<sup>13</sup>

## Conclusion

The reason why the debates about deism is so controversial in Turkey is that it increased during the period of a political rule whose primary feature is deemed as piety. But the merger of politics and religion almost creates the same result: Alienation to religion. With the increasing visibility of religion in the public sphere, hot debates on the reasonableness of religion on the one hand and the legitimacy of what religious people do on the other have flared up. It is sociologically well established that secularization is expected to abolish religion. Conversely, it is thought that religion's gaining ground will abolish secularization. However, we are faced with an interesting situation in Turkey. Despite the areas religion has won, the fact that it did not give what is expected of it increased secularization. In this sense, deism is a form of secularization some devout people adhere. After all, deism is a *religious identity*, but quite different from the thought represented by the mainstream orthodox religiosity. As with all identities, the content of this religious identity is secondary. The primary thing is that they feel the need to identify themselves with an identity outside of the present.

Although the Presidency of Religious Affairs does not seem to see deism as a serious threat, it actually conducts serious workshops to discuss where the issue stems from and what can be done. Theology Faculties take the issue much more seriously. Politics tries to gloss over the issue in order not to see the consequences it caused.

As Turkey's historical-theological background, i.e. Hanafi-Mâturîdî tradition, is predominantly built on a rational line, deism's claims is not new to Turkish mind and seem very unlikely to gain permanent ground in Turkey. There is a huge difference between the irrational theology that deism opposed in Europe and the rational theology initiated by Mutazila and continued with Muslim philosophers in philosophy and Hanafi-Mâturîdî line in theology. Therefore, deism does

<sup>13</sup> For further questions that are deemed to push students to deism see Fatma Günaydın, "İmam Hatip Liselerinde İnanç Soru(n)ları", *Din Karşıtı Çağdaş Akımlar ve Deizm*, ("Belief Problems in Religious High Schools", in *Contemporary Movements Against Religion and Deism*) Ensar Yay. Van, 2017, s. 321; See for a detailed survey conducted about belief problems including deism, Ayşe Betül Akdemir, "Öğrencilerde İnanç Problemlerine Neden Olan Faktörlerin Belirlenmesi" ("Determining the Factors Causing Belief Problems in Students"), *dergiabant*, Spring 2020, vol. 8, no. 1, pp. 318-342.

not propose a novel horizon to a Turkish-Muslim mind on this front. However, it seems it has new offers and serious challenges to traditional orthodoxy.

Deism's distance from prophethood creates an aversion and abhorrence. Furthermore, the language they use is philosophically-theologically quite weak; and they are not aware of deep Muslim theological and philosophical tradition.

It is hoped that all these discussions will activate the processes that will reveal an individual and social theory that grounds religion on a reasonable line and offer individual freedoms and social equity for all.

### **Acknowledgements**

The author is on the editorial board of Kader. However, in this issue, in which the author's article was published, the editorial duties and authorizations of the author were suspended. Thus, the principle of double-blind refereeing was complied with.

## Bibliography

- Akdemir, Ayşe Betül. “Öğrencilerde İnanç Problemlerine Neden Olan Faktörlerin Belirlenmesi” (Determining the Factors Causing Belief Problems in Students). *dergiabant*, Spring 2020, vol. 8, no. 1.
- Bonoan, Raul J. “The Enlightenment, Deism and Rizal”. *Philippine Studies*, First Quarter 1992, vol. 40, no. 1.
- Clarke, Samuel. *A Demonstration of the Being and Attributes of God and Other 22 Writings* (1705). ed. Ezio Vailati, Cambridge University Press, 1998.
- Düzgün, Şaban Ali. Deizm: “Öncü İsimler ve Temel Doktrin”, *Din Karşıtı Çağdaş Akımlar ve Deizm* (“The Pioneer Figures of Deism and the Fundamental Doctrine”, in *Contemporary Movements Against Religion and Deism*). (ed. V. Sönmez, B. Kıyıcı and M. Yıldız), Ensar Yay. Van, 2017.
- Ertit, Volkan. *Sekülerleşme Teorisi*, (The Theory of Secularization). Liberte Yay. İstanbul, 2019.
- Günaydın, Fatma. “İmam Hatip Liselerinde İnanç Soru(n)ları”, *Din Karşıtı Çağdaş Akımlar ve Deizm*, (“Belief Problems in Religious High Schools”, in *Contemporary Movements Against Religion and Deism*). (ed. V. Sönmez, B. Kıyıcı and M. Yıldız), Ensar Yay. Van, 2017.
- Kardaş, Meryem Özdemir. *Deistik Argümanlara Karşı Vahyin İmkân ve Gerekliliği: 18. Yüzyıl İngiliz Deizmi ve Kelami Açıdan Analizi* (*The Possibility and Necessity of Revelation Against Deistic Arguments: 18th Century English Deism and Its Theological Analysis*). (Unpublished PhD thesis) Ankara, 2021.
- Subaşı, Necdet. “Din Yorgunluğu’ ya da Gündelik Popüler Kültürün Tükettiği ‘İslami’ Yorumlar”, *Gelenek ve Modernite Arasında İslam Yorumları*, (“Religious Fatigue’ or ‘Islamic’ Interpretations Consumed by Daily Popular Culture”. *Islamic Interpretations between Tradition and Modernity*). Konya: İSAV,2017.
- Turner, Martin. “Die Sinnlichkeit Als Selmstdarstellung Des Geistes: Die “Aeginmata’ Des Cusanus”. *Recherches de théologie et philosophie médiévales*. Vol. 71, No. 2 (2004).
- Williams, Jay Gomer. *The Life and Thoughts of Benjamin Whichcote*. (PhD Thesis) Columbia University, 1964.
- Williams, George. “Socinianism and Deism: From Eschatological Elitism to Universal Immortality”. *Historical Reflections/Reflexions Historiques*, Winter 1976, vo. 2, no. 2 (1976).

## Websites

<https://deizmdernegi.org/deizm-dernegi-deklarasyonu/>



## Islam and Evolution: A Defense

İslam ve Evrim: Bir Savunma

Enis DOKO

Associate Professor, İbn Haldun University, Humanities and Social Sciences School, İstanbul/Türkiye  
[enisdoko@gmail.com](mailto:enisdoko@gmail.com) | [orcid.org/0000-0001-9021-6021](https://orcid.org/0000-0001-9021-6021) | [ror.org/02y5xdw18](https://ror.org/02y5xdw18)

### Article Information

#### Article Type

Research Article

#### Date Recieved

28 October 2021

#### Date Accepted

28 December 2021

#### Date Published

31 December 2021

#### Plagiarism

This article has been scanned with iTenticate software. No plagiarism detected.

#### Ethical Statement

It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited (Enis Doko).

**Licensed under CC BY-NC-ND 4.0 license.**

Cite As

“ Doko, Enis. “Islam and Evolution: A Defense”. *Kader* 19/3 (December 2021), 899-913. <https://doi.org/10.18317/kaderdergi.1011590>

”



## Abstract

Arguably most crucial issue in science-religion interaction in the Muslim context is the relation of Islam and the Neo-Darwinian theory of evolution. Muslim scholars are divided into two main camps. On the one hand, Muslim scholars with more traditional inclinations think that Islam conflicts with evolution. On the other camp, we have more scientifically oriented Muslim thinkers who think that theory of evolution is fully compatible with Islam. These thinkers, primarily practicing scientists, usually either offer a metaphorical reading of some of the Qur'anic verses or reinterpret them. In this paper, I will take a middle ground and try to evaluate the compatibility of the traditional reading of Qur'an with the Neo-Darwinian theory of evolution without invoking metaphorical reading or reinterpretation. We will also accept the standard scientific narrative without any distortion. First, I will defend the claim that the scriptural creation narrative is incompatible with the theory of evolution is analogous to the problem of evil, i.e., the claim that evil is incompatible with the God of classical Theism. Using this analogy, I will argue that rather than trying to find a complete and plausible account of how the Qur'anic narrative and the theory of evolution can both be true, we should search for more modest approaches which just aim to show that two accounts are compatible—similar to defenses in the context of the problem of evil. After sketching both the scientific as well as the scriptural accounts, and after arguing that the only potential conflict lies in the common ancestry thesis, I will present two such defenses which aim to show the compatibility of the Qur'anic narrative with the theory of evolution. First, the "double creation defense" involves scenarios at which Adam is created twice, once in Paradise, which is described by scripture, and the other one on Earth described by evolutionary science. As such, both accounts can be true at the same time and therefore are compatible. Second, "the multiple ancestors defense" argues that God might have created Adam out of clay directly, with his descendants reproducing with evolved homo sapiens. As such, both creation narratives coexist without inconsistency.

**Keywords:** Evolution, Human evolution, Evolutionary biology, Islam, Problem of evil, Adam and Eve.

## Öz

Müslüman bağlamında bilim-din etkileşiminde muhtemelen en can alıcı konu, İslam ve Neo-Darwinci evrim teorisi arasındaki ilişkidir. Müslüman alimler iki ana kampa ayrılır. Bir yandan, daha geleneksel eğilimlere sahip Müslüman düşünürler, İslam'ın evrimle çeliştiğini düşünüyorlar. Diğer tarafta, evrim teorisinin İslam'la tamamen uyumlu olduğunu düşünen daha bilimsel yönelimli Müslüman düşünürlerimiz var. Başta bilim insanları olmak üzere bu düşünürler, genellikle Kuran ayetlerinin bazılarının mecazi bir okumasını sunarlar ya da onları yeniden yorumlarlar. Bu makalede, ben orta yolcu bir yaklaşım tercih edecek ve mecazi okumaya ya da yeniden yorumlamaya başvurmadan, geleneksel Kuran okumasının Neo-Darwinci evrim teorisi ile uyumluluğunu göstermeye çalışacağım. Standart bilimsel anlatıyı da herhangi bir çarpıtmaya maruz bırakmadan kabul edeceğim. İlk olarak, kutsal kitaptaki yaratılış anlatısının evrim teorisiyle bağdaşmadığı iddiasının kötülük sorununa, yani kötülüğün klasik Teizm'in Tanrısı ile bağdaşmadığı iddiasına, benzediğini savunacağım. Bu analogiyi kullanarak hem Kuran anlatısının hem de evrim teorisinin nasıl doğru olabileceğine dair eksiksiz ve makul bir açıklama bulmaya çalışmak yerine, sadece bu iki açıklamanın birbiri ile çelişmediğini göstermeyi amaçlayan daha mütevazı yaklaşımlar aramamız gerektiğini iddia edeceğim—yani kötülük sorunu bağlamındaki savunmalara benzer bir yaklaşım geliştirmeye çalışacağım. Hem bilimsel yaratılış anlatısı hem de Kuran'daki yaratılış anlatısı özetledikten sonra ve olası tek çelişkinin ortak ata tezinde olduğunu savunduktan sonra, Kuran anlatımının evrim teorisiyle uyumluluğunu göstermeyi amaçlayan bu tür iki savunma sunacağım. Birinci savunma, "çifte yaratılış savunması", Adem'in, kutsal kitapların tarif ettiği Cennet'te ve evrim biliminin tarif ettiği Dünya'da olmak üzere iki kez yaratıldığı senaryoları içerir. Bu nedenle, her iki yaratılış anlatısı da aynı anda doğru olabilir ve bu nedenle ikisi bir biri ile tutarlıdır. İkincisi, "çoklu ata savunması", Tanrı'nın Adem'i doğrudan topraktan yaratmış olabileceğini ve onun soyundan gelenlerin evrimleşmiş homo sapiens ile ürediğini öne sürer. Bu nedenle, her iki yaratılış anlatıları da tutarsızlık olmadan bir arada kabul edilebilir.

**Anahtar Kelimeler:** Evrim, İnsan evrimi, Evrimsel biyoloji, İslâm, Kötülük sorunu, Adem ve Havva.

## Introduction

Arguably most crucial issue in science-religion interaction in the Muslim context is the relation of Islam and the Neo-Darwinian theory of evolution. Muslim scholars are divided into two main camps. On the one hand, Muslim scholars with more traditional inclinations, such as Seyyed Hossein Nasr<sup>1</sup>, Nuh Ha Mim Keller<sup>2</sup>, Yashir Qadhi and Nazir Khan<sup>3</sup>, think that Islam conflicts with evolution. These scholars either reject the theory of evolution entirely or exclude humans from it. Some of these scholars acknowledge the theory of evolution as a valid scientific theory but embrace scientific anti-realism. Such thinkers claim the inconsistency of Islam and evolution. On the other camp, we have more scientifically oriented Muslim thinkers such as Rana Dajani<sup>4</sup>, Caner Taslaman<sup>5</sup>, Nidhal Guessoum<sup>6</sup>, and Basil Altaie<sup>7</sup>, who think that theory of evolution is fully compatible with Islam. These thinkers, primarily practicing scientists, usually either offer a metaphorical reading of some of the Qur'anic verses or reinterpret them. Such thinkers claim the consistency of Islam and evolution<sup>8</sup>.

The first camp's views, perhaps with the exception of the anti-realist approach, contradict modern science and as such does not appeal to Muslim scientists. On the other hand, the second group's approach, while in accord with modern science, usually fails to convince the more traditionally oriented scholars who insist on more traditional readings of the scripture. While I sympathize with this second camp, I believe we need a more balanced approach to the issue to convince wider audiences on the compatibility of Islam and evolution. In this paper, I will try to take the middle ground and argue that the traditional readings of the Muslim scriptures are compatible with the theory of evolution.

Unlike the above-mentioned thinkers, I am not going to offer a particular reading of the Qur'an which is compatible with evolution. Instead, I will make an analogy with the problem of evil and develop a *defense* of the compatibility of Islam and evolution: a possible but not necessarily plausible scenario in which both the scientific theory of evolution and the literal reading of the Qur'an consistently coexist. In the next section, I will develop the analogy with the problem of evil and introduce the terminology, then summarize the central tenets of the theory of evolution. In the following section, I will outline the Qur'anic creation narrative. In the last section, I will present two defenses of the compatibility of Islam and evolution.

<sup>1</sup> Seyyed Hossein Nasr, "On the Question of Biological Origins." *Islam and Science* 4/2 (2006), 181-197.

<sup>2</sup> Nuh Ha Mim Keller, *Sea Without Shore: A Manual of the Sufi Path* (Amman: Sunna Books, 2011), 350-356.

<sup>3</sup> Yaser Qadhi and Nazir Khan "Human Origins: Theological Conclusions and Empirical Limitations." (2019), *Yaqaenstitute* (Accessed July 29, 2021).

<sup>4</sup> Rana Dajani, "Evolution and Islam's Quantum Question." *Zygon: Journal of Religion and Science*, 47/2 (2012), 343-353.

<sup>5</sup> Caner Taslaman, *Can a Muslim Be an Evolutionist?* (Istanbul: Istanbul Yayınevi, 2020).

<sup>6</sup> Nidhal Guessoum, *Islam's Quantum Question: Reconciling Muslim Tradition and Modern Science* (London: I.B. Tauris, 2011), 271-326.

<sup>7</sup> Basil Altaie, *The Divine Word and The Grand Design: Interpreting the Qur'ān in the Light of Modern Science*. (Manchester: Beacon Books, 2018), 131-135.

<sup>8</sup> For detailed review of various Muslim opinions on Islam and evolution reader may refer to, Shoaib Malik, *Islam and Evolution: Al-Ghazālī and the Modern Evolutionary Paradigm*. (New York: Routledge, 2021), 106-155.

## 1. An analogy with the Problem of Evil

For a person who believes in evolution, the inconsistency claim can be interpreted as an argument against Islamic theism. This argument, which I will term “the Problem of Evolution for Islamic Theism,” can be expressed in the following simple form:

1. If Islamic Theism is true, then evolution is false. (Inconsistency thesis)
2. Evolution is true. (Evolutionary Realism)
3. Therefore, Islamic Theism is false.

The first premise, the inconsistency thesis, holds that Islamic Theism is inconsistent with the scientific theory of evolution. This premise can be defended in various ways. One might argue, for example, that the pain and suffering in evolution are inconsistent with the benevolent, omnipotent and omniscient God of Islamic theism. Or one might argue that the randomness in evolution is inconsistent with divine providence. While all these claims are worth considering, most claim that the creation model narrated in the Qur’an is inconsistent with evolution. This is the primary reason defenders of the inconsistency thesis reject the theory of evolution. The second premise, Evolutionary Realism, holds that the main thesis of evolution, which I will define in the next section, is true.

A Muslim, then, will have to deny one of the two premises of the above argument. Defenders of the consistency thesis will reject the first premise, while the defenders of the inconsistency thesis will target the second premise.

In this paper, I will target the first premise by way of an analogy with the Logical Problem of Evil<sup>9</sup>, which can be expressed in the same form as the above argument:

1. If Classical Theism is true, then there is no evil. (Inconsistency thesis)
2. Evil exists. (Evil Realism)
3. Therefore, Classical Theism is false.

In this paper, by classical theism, I mean that there is a God who is omnipotent, omniscient, and perfectly good. The basic idea behind the first premise is that omnipotent being would be able to prevent all the evil in the world, an omniscient being would know how to eliminate it, and perfectly good being would want to eliminate it. Hence, if there were an omnipotent, omniscient, and perfectly good God, He would want to prevent evil, would know how to prevent it, and would be able to prevent it. Thus, if the God of classical theism exists, then no evil exists; the God of classical theism is logically inconsistent with evil. The second premise claims that evil exists.

While a few deny the existence of evil, most theists will deny the first premise and try to show that the existence of evil is consistent with classical theism. There are two distinct strategies that can be deployed to respond to the inconsistency thesis in the problem of evil, a defense or theodicy<sup>10</sup> (Tooley 2019). A defense attempts to refute the logical problem of evil by showing that there is no logical incompatibility between the existence of evil and the existence of God. A

---

<sup>9</sup> J. L. Mackie, “Evil and Omnipotence.” *Mind*, 64 (1955), 200-212.

<sup>10</sup> Michael Tooley. "The Problem of Evil", *The Stanford Encyclopedia of Philosophy* (Spring 2019 Edition), Edward N. Zalta (ed.), (Accessed July 29, 2021).

defense does not require a plausible explanation of why God allows evil, it is sufficient to construct a coherent story in which both evil and God coexist. This story need not be true since a false but coherent story is sufficient to show logical compatibility. For example, Alvin Plantinga uses the so-called free-will defense against the logical problem of evil<sup>11</sup>. According to the free-will defense, God values free will and has granted free will to the creatures such as humans and demons. The evil in the world is a result of the misuse of free will by humans in case of moral evils and by demons in case of natural evils<sup>12</sup>. While Plantinga does not believe that natural evil is caused by demons, it is a consistent story that successfully defuses the logical problem of evil. On the other hand, a theodicy is more ambitious: it tries to provide not only coherent but also a plausible story of why evil and God coexist in our world. In other words, it tries to provide the true justification for the existence of evil given the existence of the God of classical theism.

Why do I refer to the analogy between the problem of evil and the Problem of Evolution for Islamic Theism? I want to borrow the technical terminology from the problem of evil, that is the theodicy and defense approaches. That is why I introduced the problem of evil and relevant technical terminology. I believe the logical consistency thesis can be defended for Islam and evolution by either by developing a theodicy or defense. Most defenders of consistency try to find a plausible way to affirm both the scripture and the theory of evolution. Their approaches resemble theodicies. But I believe this is a too ambitious project and we lack enough scriptural data for such project. Therefore in this paper, I will argue for the compatibility thesis using a more modest approach that resembles a defense against the logical problem of evil. This approach has two advantages. First, we will be able to put forward more than one scenario; as we know from the literature on the problem of evil, multiple defenses are possible. Second, we will be able to maintain both a traditional reading of the Qur'an and the integrity of modern science without committing ourselves to some particular theology or hermeneutical strategy. In the next section, I will briefly summarize the central claims of the theory of evolution. Then I will summarize the traditional reading of the creation story Adam as outlined in the Qur'an. In the final section, I will develop several scenarios in which both scientific and scriptural creation stories coexist.

## 2. Summary of the Theory of Evolution

In order to assess the inconsistency thesis, we need to understand both the scriptural and scientific creation stories. In this section, I will briefly outline the essential claims of the theory of evolution. Most creationists fail to recognize that evolution is not a single claim; like every scientific theory, it is multi-propositional. Islamic theism may not conflict with all the aspects of the theory. Therefore, it is crucial to lay down the central tenets of evolution and evaluate each of them individually to determine possible conflicts with the creation stories in the scriptures.

The basic ideas of the theory of evolution can be summarized in six theses. While I do believe that they capture the heart of the theory, they are, of course, incomplete and underdeveloped.

---

<sup>11</sup> Alvin Plantinga. *God, Freedom, and Evil* (Grand Rapids, MI: Eerdmans: 1977).

<sup>12</sup> Plantinga, *God, Freedom, and Evil*, 58.

1. *Old Earth.* The theory of evolution assumes that the universe, the earth and life are old. The age of the earth is estimated using radiometric age-dating to be 4.54 billion years<sup>13</sup>. The oldest fossils of single-celled organisms go as back as 3.5 billion years ago<sup>14</sup>. Modern humans or homo sapiens emerged around 200.000-300.000 years ago<sup>15</sup>. The Qur'an does not give any specific date for the creation of the earth, life, or humans. Therefore, the old earth thesis is compatible with Islam.

One possible objection for the old earth thesis will be to point to verses in Quran which state that universe was created in six days such as: "And We did certainly create the heavens and earth and what is between them in six days, and there touched Us no weariness."<sup>16</sup>

Yet this objection can be easily countered as Quran uses the word day (yawm) for longer periods of time such as thousand or fifty thousand years. Here are the relevant verses: "He arranges [each] matter from the heaven to the earth; then it will ascend to Him in a Day, the extent of which is a thousand years of those which you count."<sup>17</sup> "The angels and the Spirit [i.e., Gabriel] will ascend to Him during a Day the extent of which is fifty thousand years."<sup>18</sup>

These two verses clearly demonstrate that one day can mean different periods of time, hence six days need not mean 24 hours.

2. *Microevolution.* Microevolution is evolution within a single species, or more precisely within a single population<sup>19</sup>. A population is a group of organisms that share a gene pool, i.e., they can interbreed with each other. This thesis states that gene frequency can change within a population. In other words, the characteristic of the population can change with time. Again the Qur'an contains no verse that claims that species are fixed and cannot change over time. Thus, there is no reason to think that microevolution is incompatible with Islam.

3. *Macroevolution.* Macroevolution expresses the change across the species. One important form of macroevolution is speciation<sup>20</sup>. Since speciation is usually denied by creationists, we will focus on it. In order to understand speciation, we need first to understand what species are. Species are the smallest set of organisms that are able to produce offspring, and members of a species are able to reproduce successfully. Populations are a subgroup of the species which live in the same particular area. Speciation, then, is the formation of a new species. Speciation happens when a reproductive barrier emerges that prevents two groups of organisms from interbreeding. Some creationists, while acknowledging microevolution, deny speciation. Again, the Qur'an does not speak of speciation. Some defenders of the inconsistency thesis, such as Seyyed Hossein Nasr, deny the possibility of speciation. But his theological arguments against speciation seem to be

---

<sup>13</sup> G. Brent Dalrymple, "The age of the Earth in the twentieth century: a problem (mostly) solved". *Geological Society, London, Special Publications*. 190/1 (2001), 205-221.

<sup>14</sup> J. William Schopf, "Fossil evidence of Archaean life". *Philosophical Transactions of the Royal Society B*. 361/1470 (2006), 869-885.

<sup>15</sup> Douglas Futuyma and Mark Kirkpatrick, *Evolution* (New York: Oxford University Press, 2018), 555.

<sup>16</sup> *The Quran*, Trans. Saheeh International, (Riyad: Saheeh International, 1997), Qāf 50/38.

<sup>17</sup> As-Sajdah 32/5.

<sup>18</sup> Al-Ma'ārij 70/4.

<sup>19</sup> Futuyma and Kirkpatrick, *Evolution*, 516.

<sup>20</sup> Futuyma and Kirkpatrick, *Evolution*, 213-243.



based on his Platonist philosophy rather than any specific verse in the Qur'an<sup>21</sup>. As we will see in the next section, Muslims have traditionally believed that the first human, Adam, was created directly out of clay. But even if we accept this narrative, Muslims need not deny speciation in general. Thus, speciation as a concept is compatible with Islam.

4. *Natural selection.* Natural selection is the main mechanism through which species adapt to their environment and change<sup>22</sup>. Individual organisms in a given population have different heritable traits. Some traits are more suitable to the environment they live in and provide a survival advantage to the individual. Organisms with advantageous heritable traits survive longer and so have more chances to reproduce and pass on the beneficial traits to their offspring. Over time as these more advantageous traits become more common within the population, we say that population evolves. This is the process of natural selection. Again, the Qur'an does not speak of natural selection; hence there is no scriptural reason to oppose it<sup>23</sup>.

5. *Neo-Darwinism.* Broadly Neo-Darwinism is the integration of Darwin's theory of evolution by natural selection with genetics<sup>24</sup>. According to modern genetics, there is a molecule called DNA which is the basic hereditary material, which affects the look, behavior, and physiology of the organism. Traits are stored in this molecule and passed on by it to the offspring. Changes in the DNA of an organism are called mutations, the source of the genetic variation. Mutations happen independently of the needs of the species, which is usually expressed by the phrase "mutations are random". Therefore, mutations can be neutral, beneficial or harmful for the organism's survival as there is no mechanism in the organism that detects what kind of mutations would be beneficial and causes it to occur. Whether the random nature of mutations is compatible with the providence of God is an interesting philosophical question.<sup>25</sup> I believe that it is, but since I am focusing just on direct scriptural consistency in this paper, I will not comment on it<sup>26</sup>. It is sufficient to state that these modern terms such as mutation, genetics, DNA are obviously absent

<sup>21</sup> Malik, *Islam and Evolution*, 116.

<sup>22</sup> Futuyma and Kirkpatrick, *Evolution*, 55-75.

<sup>23</sup> One may argue that while there is no scriptural reason to deny natural selection it implies that process is unguided, as such in conflict with divine providence. In this article I will not address philosophical objections based on evolution against theism. But I want to point out to a quote from non-theist biologist Sahotra Sarkar: "The critical point is that the theory of natural selection is neutral about whether the origin of variation is blind (undirected) or not; all natural selection requires are (i) the existence of variation (whether or not these arose blindly), (ii) fitness differences between the variants, and (iii) inheritance of the variation (Lewontin 1970). Given these assumptions, the fitness differences lead to directional selection resulting in increased adaptation between an organism and its environment." (Sarkar, "Review of Seeking God in Science: An Atheist Defends Intelligent Design")

<sup>24</sup> Futuyma and Kirkpatrick, *Evolution*, 16.

<sup>25</sup> For the problem and the possible solutions see Kelly James Clark and Jeffrey Koperski, *Abrahamic Reflections on Randomness and Providence*, (Palgrave Macmillan, 2021 forthcoming).

<sup>26</sup> Random used in biology is technical term which need not mean unguided. Here is a definition of one of the most prominent philosopher of biology who is non-theist Ernst Mayer: "When it is said that mutation or variation is random, the statement simply means that there is no correlation between the production of new genotypes and the adaptational needs of an organism in a given environment." (Ernst Mayr, *Towards a New Philosophy of Biology: Observations of an Evolutionist* (Cambridge: Harvard University Press, 1988), 98.). This definition is compatible with God who uses law of nature to produce living things.

in the Qur'an. Again, there is no verse that is related to the Neo-Darwinian thesis. Thus, it is also compatible with the narrative of the Qur'an.

6. *Common Ancestry*. According to this thesis, all living things are descendants of a common ancestor—every species shares a common ancestor from which both evolved via the processes discussed above<sup>27</sup>. Even humans share a common ancestor with other living things. We did not evolve from monkeys, as is often claimed by critics, but we share a common ancestor with other primates, other mammals, and even plants. Common ancestry, in my opinion, is the only potentially conflicting thesis with the Qur'an. But if we exclude humans, common ancestry is clearly compatible with the Qur'an; no verse in Qur'an states or implies that non-human living things cannot share a common ancestor. However, traditionally Adam's creation story is thought to be in conflict with common ancestor thesis. We will analyze the relevant Qur'anic verses in the next section.

With the possible exception of humans sharing a common ancestor with all living things, the literal reading of the Qur'anic narrative does not contradict the theory of evolution. There is no scriptural reason to oppose the theory of evolution in general. Minimally, Muslims could easily embrace the theory of evolution with the exception of humans. However, excluding human evolution conflicts with modern science—there is powerful genetic evidence that demonstrates that humans share a common ancestor with the other primates, for example, and all other living creatures<sup>28</sup>. I think we can develop at least two objections to the conflict thesis. But before presenting those objections, let us review Adam's creation story as presented in the Qur'an.

### 3. Creation of humans in Qur'an

Unlike the Hebrew Bible/Old Testament, the Qur'an lacks a detailed chronological story of the creation of Adam and Eve. Since the name of Eve is not explicitly mentioned in the Qur'an, we will focus our discussion on Adam. The first thing to note is that Qur'an makes references to humans and Adam's creation from the earth, clay, dust, or mud<sup>29</sup>: "O people, if you should be in doubt about the Resurrection, then [consider that] indeed, We created you from *dust*, then from a sperm-drop, then from a clinging clot, and then from a lump of flesh, formed and unformed - that We may show you."<sup>30</sup> "He created man from *clay* like [that of] pottery."<sup>31</sup> "And We did certainly create man out of clay from an altered black *mud*."<sup>32</sup> "And to Thamūd [We sent] their brother Ṣāliḥ. He said, "O my people, worship Allah; you have no deity other than Him. He has produced you from

---

<sup>27</sup> Futuyma and Kirkpatrick, *Evolution*, 14.

<sup>28</sup> For detailed presentation of genetic evidence in support of humans sharing common ancestor with other living things see Graeme Finlay, *Human Evolution: Genes, Genealogies and Phylogenies*. (New York: Cambridge University Press, 2013).

<sup>29</sup> All the verses are taken from the Sahih International translation of the Quran. We should not that none of these verses explicitly refer to Adam. As such they can be taken to describe the creation of all humans, which is of course is compatible with evolution since we do not spontaneously come out of clay. Traditionally these verses usually are taken to refer to Adam, we follow this tradition in paper.

<sup>30</sup> Al-Hajj 22/5.

<sup>31</sup> Ar-Rahmān 55/14.

<sup>32</sup> Al-Hijr 15/26.

the *earth* and settled you in it, so ask forgiveness of Him and then repent to Him. Indeed, my Lord is near and responsive."<sup>33</sup>

Traditionally it is believed that after God created Adam from the clay, he breathed a spirit/life (*ruh*) into Adam. Here are some verses from the Qur'an which support this claim: "And [mention, O Muḥammad], when your Lord said to the angels, "I will create a human being out of clay from an altered black mud. And when I have proportioned him and breathed into him of My [created] soul, then fall down to him in prostration."<sup>34</sup> "That is the Knower of the unseen and the witnessed, the Exalted in Might, the Merciful, Who perfected everything which He created and began the creation of man from clay. Then He made his posterity out of the extract of a liquid disdained. Then He proportioned him and breathed into him from His [created] soul and made for you hearing and vision and hearts [i.e., intellect]; little are you grateful."<sup>35</sup>

The Qur'an calls all the humans who are subject to the revelation "the children of Adam" (*bani Adam*). Thus, if we insist on a literal reading, we can conclude that all humans at the time of the revelation are descendants of Adam, a single person. Here are the relevant verses: "O children of Adam, let not Satan tempt you as he removed your parents from Paradise, stripping them of their clothing<sup>1</sup> to show them their private parts. Indeed, he sees you, he and his tribe, from where you do not see them. Indeed, We have made the devils allies to those who do not believe."<sup>36</sup> "Did I not enjoin upon you, O children of Adam, that you not worship Satan - [for] indeed, he is to you a clear enemy ..."<sup>37</sup>

Other verses in the Qur'an that, when read literally, seem to imply that all humans who are subject to the revelation are descendants of a single couple. Here are some representative verses: "O mankind, fear your Lord, who created you from one soul and created from it its mate and dispersed from both of them many men and women. And fear Allah, through whom you ask one another, and the wombs. Indeed, Allah is ever, over you, an Observer."<sup>38</sup> "O mankind, indeed, We have created you from male and female and made you peoples and tribes that you may know one another. Indeed, the most noble of you in the sight of Allah is the most righteous of you. Indeed, Allah is Knowing and Aware."<sup>39</sup>

Traditionally the term "its mate" in Qur'an 4:1 has been interpreted as referring to Eve. On the question of how Eve was created, there are two different interpretations. Some scholars have interpreted the term "from it" as referring to a part of the one soul, i.e., Adam. While the Qur'an does not mention it, this is usually read in accord with the Hebrew Bible's account of Eve being created out of Adam's rib. The second interpretation is to take the term to mean that Eve was created from the *same kind* as Adam<sup>40</sup>.

<sup>33</sup> Hūd 11/61.

<sup>34</sup> Al-Hijr 15/28-29.

<sup>35</sup> As-Sajdah 32/6-9.

<sup>36</sup> Al-A'rāf 7/27.

<sup>37</sup> Yā-Sin 36/60.

<sup>38</sup> An-Nisā' 4/1.

<sup>39</sup> Al-Hujurāt 49/13.

<sup>40</sup> Malik, *Islam and Evolution*, 96.

So the Qur'an seems to claim that Adam is created out of clay. But why should we assume that this did not happen via some process, perhaps through a billion years of evolution? Muslim creationists use several verses to argue against this. First, they point out that Adam is, the Qur'an states, created by the hands of God, which they interpret as the special, direct divine creation of Adam. Here is the relevant verse: "[Allah] said, "O Iblees, what prevented you from prostrating to that which I created with *My hands*? Were you arrogant [then], or were you [already] among the haughty?"<sup>41</sup>

Second, they refer to a verse which makes an analogy between Jesus and Adam, implying that Adam cannot have a father and therefore is specially created: "Indeed, the example of Jesus to Allah is like that of Adam. He created him from dust; then He said to him, "Be," and he was."<sup>42</sup>

Third, some scholars point out a miracle attributed to Jesus in the Qur'an in which he transforms bird-shaped clay into a living bird. Even though the verse has no clear connection to the case of Adam, they think that the similarity between the cases, using clay as base material and breathing into it, suggests that Adam was also directly transformed from a human-shaped clay. "[The Day] when Allah will say, "O Jesus, Son of Mary, remember My favor upon you and upon your mother when I supported you with the Pure Spirit [i.e., the angel Gabriel] and you spoke to the people in the cradle and in maturity; and [remember] when I taught you writing and wisdom and the Torah and the Gospel; and when you designed from clay [what was] like the form of a bird with My permission, then you breathed into it, and it became a bird with My permission..."<sup>43</sup> These are all the verses that are used against evolution.

Before finishing this section, let me summarize the Qur'an's alleged creation story of Adam. Adam is created from clay and the soul is injected into him, and God then creates Eve as a partner to him. Adam is appointed as vicegerent upon the earth. The Angels ask God why He appointed a vicegerent upon earth who would cause bloodshed. God reminds the angles that He knows what they do not know and teaches Adam the names of the things, knowledge unavailable to the angels. Then God asks the angels to bow down to Adam. Every angel bowed down except Iblis, who refused referring to his creation out of the fire which he thought is better than clay. God instructs Adam and Eve not to eat the fruit from a specific tree, but Iblis tricks them into eating the fruit. As a result, God expels them from the Garden. Whether the Garden is a place on earth or a Paradise outside of it is debated among Muslims. The more common opinion is that Garden is Paradise, rather than a garden here on earth, and that Adam and Eve were sent down on earth after they were expelled from the heavenly Garden.

This concludes the discussion of the relevant parts of the creation story of Adam as portrayed by Qur'an. From this discussion, two propositions emerge that may be in conflict with the common ancestor thesis:

1. Adam was directly and divinely created out of clay, and therefore, he does not have parents.

---

<sup>41</sup> Sād 38/75.

<sup>42</sup> Āl-'Imrān 3/59.

<sup>43</sup> Al-Mā'idah 5/110.

2. Adam is the ancestor of all the humans who are subject to the revelation.

In the next section, we will try to assess whether these two propositions are compatible with the common ancestor thesis. If they are compatible with it, we can conclude that evolution is compatible with a traditional reading of Islam.

#### 4. Double creation and the multiple ancestor defense

Prima facie, it seems that common ancestry, which claims that humans share a common ancestor with all other animals and plants, is in tension with the claim that the common ancestor of all the humans is Adam, who was created directly out of clay. There are at least two scenarios in which these two claims can be reconciled.

First, one might claim that Adam was created two times, once in Paradise and, second, on earth. A similar strategy was used by Ibn Khaldun (1332-1406) in a different context. In response to a hadith in which it is mentioned that Adam was 60 cubits (approximately 40 m) tall, Ibn Khaldun recognized that this description could not be true given earth conditions<sup>44</sup>. So he offered the interpretation that the Garden in which Adam was created was in Paradise and that Adam was 40 m tall in Paradise, and then his height became normal when he descended to earth. This approach can be applied to the case of evolution. It is possible that the Qur'an describes Adam's creation in Paradise, while the theory of evolution describes humanity's creation on earth.<sup>45</sup>

Separating out the two creations of Adam/humanity eliminates a possible conflict between the Qur'anic and scientific narratives. Of course, Muslims thinkers should seek to connect the two creations. But the Qur'an does not give any details on how Adam was transferred from the Garden to the earth. So many different scenarios can be offered to connect the two narratives.

One way to connect the two narratives is the transmigration scenario. When God expelled Adam and Eve from Paradise, He may have transmigrated their souls from their bodies in Paradise to *homo sapiens* bodies that evolved on earth. The Qur'an does not have any official chronology like Archbishop Usher's Biblical chronology, so Adam may have lived at any time in the past. As such, he may have been placed at a critical time in the past so that all future generations who received revelation were descendants of Adam. This scenario involves both the Qur'anic narrative and the common descent thesis.

Transmigration is not the only possibility. Another possibility is the creation of Adam twice without any reference to the soul. Adam was created first in Paradise as described in the Qur'an, then after the fall recreated via evolutionary process here on earth<sup>46</sup>. The double creation defense

<sup>44</sup> Ibn Khaldun, *Mukaddime*, (İstanbul: Milli Eğitim Basımevi, 1997), 227-230.

<sup>45</sup> I thank to anonymous referee who pointed out that Plato and the philosophers who followed him, thinkers like Yunus and Mevlana in the Islamic world, and eastern religions also argue that the body will be seen as a tool of the soul, and that people will return to the place where they came after death. According to this, the life of the world is actually nothing but the incarnation of the human soul. Death is not the end, it is the soul's liberation from the body and regaining its divine freedom. Therefore, this scenario is not new, on the contrary, it can be evaluated as a blending of a traditional teaching with the idea of evolution.

<sup>46</sup> Again, I thank to anonymous referee who pointed out that this scenario can also be interpreted as God created Adam from earth as a prototype model in heaven and then turned it into mass production, so to speak, through evolution on earth.

does not require belief that the Garden in which Adam was created was in Paradise. God may have created Adam here on earth directly from the clay, then after the fall, God may have recreated him again via an evolutionary process or transmigrated his soul to evolved *homo sapiens*.<sup>47</sup>

Muslims and non-Muslims alike may object that stories of the two creations of Adam, however construed, are implausible at best. But, for purposes of a defense of the consistency of Islam and evolution, all we need is a logically coherent story; the story need not be plausible to reject the inconsistency thesis.

The second objection to the inconsistency thesis is to take Adam's creation story literally but insist that humans share a common ancestor with other living things<sup>48</sup>. After all, we all have more than one ancestor. I call this scenario "the multiple ancestors defense." The idea is simple: there was a historical figure called Adam who was created in Paradise or on a garden here in earth. He underwent all the events described in the Qur'an. Separately from him, *homo sapiens* evolved<sup>49</sup>. At some point, both groups merged. The descendants of Adam mated with the evolved *homo sapiens*. By the time of the revelation, all of the *homo sapiens* living on earth were descendants of Adam and, at the same time, evolved *homo sapiens*. In this scenario both the scientific creation account and the scriptural accounts are correct. Thus, scriptural and scientific accounts are compatible. In this scenario creation of Adam is taken as a miracle, God created him out of clay with all the necessary biology so that his lineage can mate with evolved *homo sapiens*.

There may be two worries regarding the scenarios we presented. First of all, one may argue that they may imply that Adam is not the first human being. But this worry is groundless. First, the term "human" in the Qur'an (*Insan*) need not be equivalent to *homo sapiens*, it may be exclusively refer to the descendants of Adam. Second, the Qur'an may not take Adam to be the first human. Third, even if we insist that Adam must be the first human, the defenses can be easily modified to include this claim as well. Adam may have been teleported on earth from Paradise or created directly from the clay *before* *homo sapiens* evolved, and his much later descendants will be genetically mixed with evolved *homo sapiens*. Again, this story may seem implausible, but I am just arguing for consistency.

The second possible worry is that these scenarios seem to imply that some *homo sapiens* are not descendants of Adam. But Adam, in my stories, is the common ancestor of all the people *at the time of the revelation* (which the Qur'an claims). Therefore, the fact that some *homo sapiens* are not descendants of Adam is not a problem. Second, as mentioned above, the theological human need not be equivalent to *homo sapiens*; hence even if some *homo sapiens* are not descendants of Adam,

---

<sup>47</sup> We should note that none of these scenarios conflict with science, as they can not be scientifically studied to be falsified or verified. Science does not have the power to investigate whether such a couple really lived.

<sup>48</sup> Similar case seems to be defended by David Solomon Jalajel by appeal to the theological principle of *tawaqquf*. For his position see: David Solomon Jalajel, "Tawaqquf and Acceptance of Human Evolution." (2018), Yaqeeninstitute, (Accessed August 1, 2021).

<sup>49</sup> Here I use biological term *homo sapiens* instead of human, since human in scriptural context can have more specific meaning as I describe below.

we can say that all humans *in the Qur'anic sense* are<sup>50</sup>. Third, and again, it is possible that Adam transmigrated from Paradise before the emergence of homo sapiens, so that when homo sapiens evolved, all were descendants of Adam. Thus, by modifying the defenses, it is possible to preserve the additional proposition, "All homo sapiens are descendants of Adam." Again, I want to remind that defenses need not be true or reasonable, it is sufficient they describe just logically possible scenarios.

## Conclusion

In this paper, I argued that a literal reading of the Qur'an is compatible with the scientific theory of evolution. First, I asserted that the claim that the scriptural creation narrative is incompatible with the theory of evolution is analogous to the claim that classical theism is incompatible with the existence of evil (problem of evil). Using this analogy, I argued that rather than trying to find a complete and plausible account of how the Qur'anic narrative and the theory of evolution can both be true, we should search for more modest approaches which just aim to show that two accounts are compatible—similar to defenses in the context of the problem of evil. After sketching both the scientific as well as the scriptural accounts, and after arguing that the only potential conflict lies in the common ancestry thesis, I presented two defenses in which both accounts consistently coexist. In the first account, which I called “the double creation defense,” I argued that Adam might have been created twice, once in Paradise as described in scripture and once on earth as described by evolutionary science. In the second defense, which I called “the multiple ancestors defense,” I argued that God might have created Adam out of clay directly, with his descendants reproducing with evolved homo sapiens. As such, both creation narratives coexist without inconsistency.

---

<sup>50</sup> There are several ways we can distinguish the theological human with generic homo sapiens. For example theological human can be homo sapiens with free will or with language capacity. It can be homo sapiens which was contacted by God via revelation.

## Bibliography

- Altaie, Basil. *The Divine Word and The Grand Design: Interpreting the Qurʾān in the Light of Modern Science*. Manchester: Beacon Books. 2018.
- Clark, Kelly James-Koperski, Jeffrey. *Abrahamic Reflections on Randomness and Providence*. Palgrave Macmillan. 2021.
- Dajani, Rana. "Evolution and Islam's Quantum Question." *Zygon: Journal of Religion and Science*, 47/2 (2012), 343–353.
- Dalrymple, G. Brent. "The age of the Earth in the twentieth century: a problem (mostly) solved". Geological Society, London, Special Publications. 190/1 (2001), 205–221.
- Finlay, Graeme. *Human Evolution: Genes, Genealogies and Phylogenies*. New York: Cambridge University Press. 2013.
- Futuyma, Douglas-Kirkpatrick, Mark. *Evolution*. New York: Oxford University Press. 2018.
- Guessoum, Nidhal. *Islam's Quantum Question: Reconciling Muslim Tradition and Modern Science*. London: I.B. Tauris. 2011.
- Ibn Haldun. *Mukaddime*. İstanbul: Milli Eğitim Basımevi. 1997.
- Jalajel, David Solomon. "Tawaqquf and Acceptance of Human Evolution.", Yaqeeninstitute, Accessed August 1, 2021. [https://yaqeeninstitute.org/dr-david-solomon-jalajel/tawaqquf-and-acceptance-of-human-evolution/#.Xgw\\_HxczbPA](https://yaqeeninstitute.org/dr-david-solomon-jalajel/tawaqquf-and-acceptance-of-human-evolution/#.Xgw_HxczbPA)
- Keller, Nuh Ha Mim. *Sea Without Shore: A Manual of the Sufi Path*. Amman: Sunna Books. 2011.
- Mackie, J. L. "Evil and Omnipotence." *Mind*, 64 (1955), 200-212.
- Malik, Shoaib. *Islam and Evolution: Al-Ghazālī and the Modern Evolutionary Paradigm*. New York: Routledge. 2021.
- Mayr, Ernst. *Towards a New Philosophy of Biology: Observations of an Evolutionist*. Cambridge: Harvard University Press, 1988.
- Nasr, Seyyed Hossein. "On the Question of Biological Origins." *Islam and Science*, 4/2, (2006) 181–197.
- Plantinga, Alvin. *God, Freedom, and Evil*. Grand Rapids, MI: Eerdmans. 1977.
- Qadhi, Yaser, and Khan, Nazir. "Human Origins: Theological Conclusions and Empirical Limitations." Yaqeeninstitute, Accessed July 29, 2021. <https://yaqeeninstitute.org/nazir-khan/human-origins-theological-conclusions-and-empirical-limitations/>
- Sarkar, Sahotra. "Review of Seeking God in Science: An Atheist Defends Intelligent Design". *Notre Dame Philosophical Reviews* (2011). Accessed December 11, 2021 <https://ndpr.nd.edu/reviews/seeking-god-in-science-an-atheist-defends-intelligent-design/>



Schopf, J. William. "Fossil evidence of Archaean life". *Philosophical Transactions of the Royal Society B*. 361/1470 (2006), 869–885.

Taslaman, Caner. *Can a Muslim Be an Evolutionist?* Istanbul: Istanbul Yayınevi. 2020.

*The Quran*, Trans. Saheeh International. Riyadh: Saheeh International. 1997.

Tooley, Michael. "The Problem of Evil". *The Stanford Encyclopedia of Philosophy* (Spring 2019 Edition), Edward N. Zalta (ed.). (Accessed July 29, 2021) <https://plato.stanford.edu/archives/spr2019/entries/evil/>



## Kant, Bergson, and Iqbal on the Concept of Time and its Effect on Iqbal's Reconstruction of Freewill

Kant, Bergson ve İqbal'de Zaman Kavramı ve Bunun İqbal'de Özgür İradenin  
Yeniden İnşasına Etkisi

**Baki KARAKAYA Asiye Şefika Sümeyye KAPUSUZ**

PhD Student, Istanbul University, Philosophy  
Department, Istanbul/Türkiye  
[bakikarakaya19@gmail.com](mailto:bakikarakaya19@gmail.com) | [orcid.org/0000-0002-7130-5763](https://orcid.org/0000-0002-7130-5763) | [ror.org/3a5qrr21](https://ror.org/3a5qrr21)

Contribution Percentage: %50

MA Student, Marmara University, Department of Basic  
Islamic Studies, Istanbul/Türkiye  
[sumeyyekapusuz@gmail.com](mailto:sumeyyekapusuz@gmail.com) | [orcid.org/0000-0002-8629-4630](https://orcid.org/0000-0002-8629-4630) | [ror.org/02kswqa67](https://ror.org/02kswqa67)

Contribution Percentage: %50

### Article Information

#### Article Type

Research Article

#### Date Recieved

15 September 2021

#### Date Accepted

29 December 2021

#### Date Published

31 December 2021

#### Plagiarism

This article has been scanned with iTenticate software.

No plagiarism detected.

#### Ethical Statement

It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited (Baki Karakaya - Asiye Şefika Sümeyye Kapusuz).

Licensed under CC BY-NC-ND 4.0 license.

Cite As

“Karakaya, Baki – Kapusuz, Asiye Şefika Sümeyye. “Kant, Bergson, and Iqbal on the Concept of Time and its Effect on Iqbal's Reconstruction of Freewill”. *Kader* 19/3 (December 2021), 914-937. <https://doi.org/10.18317/kaderdergi.995664>”

## Abstract

Philosophy should be understood with its accumulative structure. Thus, when one strives to understand a philosopher's thoughts, he/she should not isolate the philosopher from the previous and contemporary theories in his/her era; and should take into account this accumulative and continuous structure. In this context, Kant's, Bergson's, and Iqbal's understandings of time seem to have continuity in themselves, even if they might be seen as having incompatible points. Kant's understanding of time can be considered in two periods as pre-Critical and Critical. In the former, Kant accepts the own-reality and existence of time itself, outside of the human mind. But he also sows the seed of an understanding of time as a prior intuition to all sensations, while he is still in his pre-critical period. Hence, his focus seems to have shifted to a subject-centred approach. In his critical period, subject-centrality becomes more obvious and Kant claims that time is prior to any externality. According to him, time locates things in simultaneity and succession for the perception of mind as a sensible intuition. Bergson, on the other hand, clearly exploits Kant, even though he criticizes Kant in many aspects. Bergson's understanding of time is comprised of two components: Pure duration and homogenous time. Pure duration is affected by the Kantian conception of time in the sense of being subject-centred. It is the time that each consciousness has individually as a combination of one's past and present in a whole; and it is, in its essence, heterogeneous, unorderedly successive, and indivisible. Homogenous time has its roots, again, in Kant's thoughts in the sense of being serial and simultaneous. It is the impersonal common ground for individuals on which pure durations can work in a harmony. When it comes to Iqbal, he benefits from both Kant's time as a form of sensible intuition and Bergson's pure duration. Iqbal, by using both of these concepts of time, reconstructs the Divine Time in Islamic thought, and thus, freewill. By means of pure duration and creativity, mechanical understanding of the universe is refused by Bergson and Iqbal. By doing so, Iqbal allows freewill to permeate through pure duration of the God, namely the Divine Time, and to penetrate into pure durations of all egos. Throughout this article, we mainly intend to retrace Iqbal's reconstruction of freewill by having use of the concept of pure duration, and the Divine Time as pure duration of the God.

**Keywords:** Kalām, Philosophy, Time, Duration, Iqbal, Bergson, Kant.

## Öz

Felsefe, kümülatif yapısı ile ele alınmalıdır. Bu yüzden, bir filozofun düşünceleri anlaşılacak istendiğinde, o kendi çağındaki mevcut ve geçmiş teorilerden soyutlanmamalı ve bu kümülatif ve devamlılık arz eden yapı dikkate alınarak incelenmelidir. Bu bağlamda, Kant, Bergson ve İqbal'in zaman anlayışları, bazı uyumsuz noktalara sahip gibi anlaşılabilirler de, dikkatle incelendiğinde birbirleri arasında bir devamlılığın bulunduğu göze çarpar. Kant'ın zaman anlayışı, Kritik öncesi ve Kritik dönemi olmak üzere iki dönemde incelenebilir. Kritik öncesi döneminde Kant, zamanın insan zihninin dışında kendinde bir gerçekliğe ve varlığa sahip olduğunu kabul eder. Fakat Kant, zamanı bütün duyuları önceleyen bir görüş olarak anlamasının tohumlarını da hala Kritik öncesi dönemde iken eker. Bu doğrultuda, onun odağı özneyi merkeze alan bir tutuma doğru ilerler görünür. Kritik döneminde özne merkezci konumu daha da belirginleşir ve Kant, zamanın bütün dışsallıkları öncelediğini iddia eder. Ona göre zaman, duyulur bir görüş olarak, eşyayı zihnin algılayabilmesi için eşzamanlılık ve ardışıklık içinde konumlandırır. Diğer taraftan Bergson, Kant'ı pek çok açıdan eleştirmekle beraber onun düşüncelerinden açık bir şekilde faydalanır. Bergson'un zaman anlayışı iki bileşenden oluşur: Salt süre ve homojen zaman. Salt süre, özne-merkezci olması bakımından üzerinde Kant'ın düşünce pratiğinin etkisinin görünür olduğu bir kavramsallaştırma değildir. Bu, her bir bilincin, kişinin geçmiş ve şimdisini bir bütünde birleştirerek bireysel olarak sahip olduğu ve özünde heterojen, sırasız bir şekilde ardışık ve bölünemez zamandır. Homojen zaman ise sıralı ve eşzamanlı olması bakımından köklerini yine Kant'ta bulur. Homojen zaman, salt sürelerin uyum içinde çalışmasını sağlayan, bireyler için ortak zemini teşkil eden zamandır. Bu iki filozofun düşünceleri doğrultusunda İqbal'in zaman teorisi incelendiğinde, onun hem duyulabilir görünümün bir formu olan Kant'ın zamanından hem de Bergson'un salt süresinden faydalandığı ortaya çıkar. İqbal, bu iki zaman anlayışını kullanarak İslam düşüncesinde ilahi Zaman'ı ve dolayısıyla da özgür iradeyi yeniden inşa eder. Salt süre ve yaratıcılık açısından, evrene yönelik mekanik bir anlayış Bergson ve İqbal tarafından reddedilir. Böylece İqbal, özgür iradenin Tanrı'nın salt süresi, yani ilahi Zaman, aracılığı ile yayılmasına ve tüm benliklere ait salt sürelerle nüfuz etmesine izin verir. Biz, bu makale aracılığı ile, İqbal'in salt süre mefhumunu ve Tanrı'ya ait salt süre olarak ilahi Zaman'ı kullanarak özgür irade anlayışını yeniden inşa etmesinin köklerine gitmek niyetindeyiz.

**Anahtar Kelimeler:** Kelam, Felsefe, Zaman, Süre, İqbal, Bergson, Kant.

## Introduction

The concept of time has been taken as a basis to justify different reflections in philosophy. In our case, it is the main basis and anchor, or reference point, upon which freewill is built. Iqbal's reconstruction of freewill and its roots are going to be analysed in this article. Iqbal's reconstruction of freewill relatively has potential to have a transformative effect on Islamic thought, and is an original and inclusive modern theorisation. Thus, his concept of freewill and the background of this concept should be researched. By doing so, the concept of time and its adventure from Kant's to Iqbal's views cannot be excluded due to that this concept is the main component of Iqbal's concept of freewill, and that his concept of freewill is directly related to his understanding of time, and thus, to Kant's and Bergson's views of time. The elaboration and elucidation of the concept of time represents the main structure of this article. Nevertheless, Iqbal's concept of freewill as the implication of his concept of time should be seen as the peak point. In this context, we are going to focus on the concept of time and its adventure from Kant's to Iqbal's views by passing through Bergson's understanding of it. Then, we are, at the end of the article, going to strive to unveil the effect of the concept of time on Iqbal's reconstruction of freewill.

Iqbal's philosophy has been investigated by numerous researchers. Only some of these investigations have focused on Iqbal's concepts of time and freewill. However, those investigations do either not apparently mention the roots of his understanding of time or slightly speak of them, and overlook the very intelligible relation between his concepts of time and freewill or between his predecessors' and his understandings of time. Especially they have made connections either between Kant and Iqbal regarding their compatible and incompatible epistemological views by excluding Bergson, or between Bergson and Iqbal in terms of their conceptualisations of time by setting aside Kant's concept of time.<sup>1</sup> Thus, it seems to lack a continual line from Kant to Iqbal in regard to their approaches to the concept of time, even if they have irrefutably incompatible points, and requires the relation between Iqbal's concepts of time and freewill as the final outcome of this line. These attempts are obviously undetailed and inadequate to understand Iqbal's views of time and freewill, and the roots of them. Through this article, we aim at highlighting that line, which has been ignored for a long time, by focusing on the roots of Iqbal's concept of time, and at making a connection between his concepts of time and freewill.

<sup>1</sup> For more details, see P. T. Raju, *Idealistic Thought of India* (London: George Allen & Unwin, 1953), 382–394; Carimo Mohomed, "Towards a Final Combination - Muhammad Iqbal's Philosophy of History", *Journal of Philosophy and Ethics* 2/1 (2020), 20–24; Carimo Mohomed, "Towards a Final Combination: Muhammad Iqbal's Philosophy of History", *Waikato Islamic Studies Review* 6/2 (2020), 25–33; Riffat Hassan, *The Main Philosophical Idea in the Writings of Muhammad Iqbal (1877-1938)* (Durham: Durham University, Doctoral Thesis, 1968), 143–168; Riffat Hassan, "The Meaning and Role of Intuition in Iqbal's Philosophy", *Iqbal Review* 26/1 (1985), 67–99; Stephan Popp, "Muhammad Iqbal – Reconstructing Islam along Occidental Lines of Thought", *Interdisciplinary Journal for Religion and Transformation in Contemporary Society* 5/ (2019), 201–229; Richard S. Wheeler, "The Individual and Action in the Thought of Iqbal", *The Muslim World* 52/3 (1962), 197–206; Souleymane Bachir Diagne, "Bergson in the Colony: Intuition and Duration in the Thought of Senghor and Iqbal", *Qui Parle* 17/1 (2008), 125–145; Carimo Mohomed, "'The Days of God' – Muhammad Iqbal's Conception of Time and History", *Journal of Islamic Thought and Civilization* 7/ (2017), 1–17.

The concept of time has been investigated in terms of its relation to both universe and the concept of space. With the emergence of the concept of subject being able to establish itself primarily, the possession of the concept of time passed to it and was adopted by human species. This does not mean that all approaches to the concept of time have been gathered under the concept of subject. Nevertheless, particularly after Kant's (d. 1804) intervention by means of his *Critique of Pure Reason*, time has in part been discussed as a property of the subject, and, thus, as that of human being. Hereby, as this has apparently been the case, it should be stated that Kant's understanding of time and space might not be the same with his predecessors' approaches to it. This differentiation basically refers to that objective and external reality of time was annihilated and slaughtered by Kant. As an instance to this aspect, we might prove that

“Newton assumes that space and time ‘subsist’, while Leibniz assumes that space and time ‘inhere’, but both suppose that space and time have objective reality independent of any transcendental cognitive conditions. As such both of their accounts, according to Kant, face an irresolvable conflict”.<sup>2</sup>

And it can also be claimed that Kant's understanding of time should be understood as it is differentiated from Locke's view of time deriving from sense and reflection.<sup>3</sup> In this sense, the concept of time does not arise from, or come out of, senses, but is necessarily presupposed by them. Thus, Kant's view of time and space should be realised as an enthusiasm to reconcile subject and external world, as an enthusiasm lacking the possibility of the external, or noumenal, to be knowable, even if it is thinkable.

Nevertheless, Kant's spurt, to say the least, had an enormous effect on his successors. Even though Bergson (d. 1941) and Iqbal (d. 1938) criticise his view of time in regard to its deprivation of freewill, and, thus, its risky speculation to demolish the individuality of subject, they have use of Kant's understanding of time to construct their freedom-based thought systems grounded on the intuition as a method and pure duration as the indication of the state of consciousness.

Bergson clearly divides time into two branches. The first one is the pure duration, as the essential component of individual time, heterogeneous, unorderedly successive, and indivisible. The second one is, as it is obvious, homogeneous time, as the external time, which is measurable, simultaneous, and divisible, and, at the same time, which does constitute the possibility of commonalities of pure durations of all individual consciousnesses. By doing so, Bergson seems to assert both that freedom is possible through pure duration, and that all consciousnesses are bonded to each other through impersonal and homogeneous time as to be space.

On the other hand, Iqbal seems to intend building his system of thought, which does include his understanding of God, on Bergson's understanding of pure duration. His understanding of the universe consists of a dynamic and organic totality of it and against mechanism. Thus, he basically asserts all egos and the Ultimate Ego as having freewill encompassing that of the latter which exhibits an ultimate instance of Freewill by giving up His absolute power to allow other egos to have freewill. Iqbal, thus, adopts two kinds of time which are serial time similar to Bergson's

---

<sup>2</sup> Lisa Shabel, "The Transcendental Aesthetic", *The Cambridge Companion to Kant's Critique of Pure Reason*, ed. Paul Guyer (New York: Cambridge University Press, 2010), 114.

<sup>3</sup> Howard Caygill, *A Kant Dictionary* (Oxford: Blackwell Publishing, 2009), 397.

homogeneous time, and pure duration resembling Bergson's pure duration. And, as to be bonded to his understanding of time, he propounds two selves unfolding themselves through the function of time, i.e., efficient self tied to serial time, and appreciative self tied to pure duration, that is, his conceptualisation of selves also resembles that of Bergson's selves. However, Iqbal's understanding of pure duration, in addition to that of Bergson, includes teleology and future. Besides, this differentiation of Iqbal's pure duration from that of Bergson is reflected to bifurcation of the concept of duration. Thus, Iqbal's concept of duration might be divided into two types of it, that of egos, and of Ultimate Ego. On the other hand, it will be seen that Iqbal takes his serial time from Kant's understanding of time. Hence, he grounds his theory of Divine Time, freewill and destiny on, to a great extent, Bergson's approach to time, and, on Kant's understanding of time.

The reason for writing this article lies down beneath the necessity to show the background of Iqbal's understanding of time, which plays a central role in his understanding of universe, that is, one of the rare contemporary interpretations of modern science and philosophy with an Islamic stand, and to establish a continuity between the systems of thought in different times and from different cultures. Beside contributing to found a continuity in systems of thought, we, on the other hand, intend to emphasise the gaps between these philosophers' understanding of time by means of which differences in their approaches to human being as a subject, and as a freewill holder, might indirectly be unveiled. Kant's and Bergson's views on time are reinterpreted by Iqbal and aligned with the Islamic conceptualisation of God. However, our focus is throughout the article going to remain on Kant's and Bergson's views on time and its reinterpretation and reception by Iqbal to re-found the possibility of freewill in Islamic thought.

Our specific reason for starting this article with Kant's view on the issue is his formative thoughts influencing the direction of modern philosophy and driving modern human to an *aporia* with regard to his/her actions. His one-sided understanding of time is drastically criticised by Bergson and Iqbal. However, at the same time, it is seen to be a basis in the process of founding a new subject. The gradual transformation of the understanding of time becomes visible at this point. Bergson contributes to it by diversify the concept of time, while Iqbal reconciles it with Islamic thought. By doing so, he serves for the regeneration of Islamic thought and paves the way to increase and modernise the power of Islam. Reflecting upon his motivation and background of this manoeuvre through the concept of time and freewill is the absolute point of this article.

To do what we have exhibit above, we will first focus on Kant's understanding of time, then, Bergson's approach to time and to Kant's view of time, and, lastly, we intend to explicate what Iqbal extracts from these different approaches to time, and how Iqbal operates it to reach to peak of freewill in Islamic thought and to the Ultimate Ego.

## 1. Kant's Understanding of the Concept of Time

In Kant's system of philosophy, we are witnesses to the conceptual involvement and reversal of time. In this sense, we are going to emphasise some crucial points about time in Kant's thought. By doing so, we exactly intend to pave the way for showing that Kant's and Bergson's

understandings of time differ from each other from time to time. In this context, we clearly aim to investigate the approach of Kant to time in depth and then to move to that of Bergson.

While we are focusing thoroughly on Kant's approach to time, we have to make a separation between pre-Critical and Critical period of his thought. As a result, what we need to remark is obviously nothing other than making the difference between these two periods unveiled. However, pre-Critical period should be considered as the establishment phase of his understanding of time, even if his later thought is found to be quite differentiated from the earlier one.

### 1.1. Kant's Pre-Critical Thought of Time

Time, as it is mentioned by Kant in his pre-Critical period, has to have a beginning. Nevertheless, it presents us an infinitude regarding the end of it. According to this approach, time should be realised as *a parte post* meaning eternity without limits in the future, that is, there will be no end in this kind of time. In this context, we tend to think that Kant, in his pre-Critical period, has unavoidably fallen into the absolute reality of time. At the same time, it is also crucial to denote that Kant thoroughly highlights the process of creation. As he puts it,

“the infinity of the future temporal succession, for which eternity is inexhaustible, will thoroughly activate all the spaces of God's presence and gradually set it into rule-bound regularity, appropriate to the excellence of its design. And if, in a daring picture, we could, so to speak, sum up all eternity in a single idea, then we would be able to see the entire infinite space filled with world systems and a completed creation. However, because, in fact, the temporal sequence of eternity the part to come is always infinite and the part gone by is finite, the sphere of developed nature is always only an infinitely small part of the being which has in it the seeds of future worlds and strives to develop itself out of the raw condition of chaos in long or short periods of time. Creation is never complete. True, it once began, but it will never cease”.<sup>4</sup>

Thus, in his pre-Critical period, Kant admits that the concept of time is independent or free from subject and basically rooted in its own infinite cosmological reality. In addition to this, his concept of time assumes the reality of motion and that of space with regard to Newtonian physics.

On the other hand, Kant's shift from Newtonian point of view to a more specific and genuine system of philosophy is mainly shaped by his texts *Concerning the Ultimate Ground of the Differentiation of Directions in Space* released in 1768 and *On the Form and Principles of the Sensible and the Intelligible World* written in 1770. In the former, Kant claims that determination of corporeal form has to be accompanied by a reference to universal absolute space. This means that Kant basically continues to defend Newtonian viewpoint against Leibniz's vantage point by which, in philosophy, things are purely thought, and space is genuinely thrown into the fire of having no reality in itself. Kant conceives the space as it to be endowed to have its own reality, like time having that. He does, in the former released in 1768, strive to show that ‘the ground of the complete determination of a corporeal form does not depend simply on relation and position of its parts to each other; it also depends on the reference of that physical form to universal absolute

---

<sup>4</sup> Immanuel Kant, *Universal Natural History and Theory of the Heavens*, trans. Ian Johnston (Arlington: Richer Resources Publication, 2008), 107.

space'.<sup>5</sup> What is remarkable at this point is obviously nothing other than the reality of space in terms of having its own reality, and that of time. Thus, Kant refuses Leibnizian understanding of space as having no reality in itself and as being constituted by togetherness of things. Rather than Leibnizian approach, Kant asserts that space has its own existence as well as time. Nevertheless, on the other hand, this can be also conceived to be the differentiation of Kant's own thought by conceiving this text as the article in which intuition as a conceptualisation, and a form of sensibility, tenuously and subtly comes into appearance. In this context, as Gözkân clearly puts it, properties of something cannot totally be known without focusing on its relations to space, and, the representation of space makes us to be able to determine the properties of matter.<sup>6</sup> And, for us, time can also be considered as a part of this inference unveiling the space as a form of sensible intuition. As a result, this text should be understood as Kant's shift from the defence of time and space having their own reality to the line in which it seems to turn out to be located between pure reality of externality and utter imprisonment of time in thought. Thus, it is quite important to realise that Kant, in this text, withdraws the external reality of time and space; however, this does not mean that he ascribes space and time to pure thought or conceptual thought. Rather than both of these approaches, he puts time and space in between by setting out a condition of sensible intuition pertaining neither to external reality nor to pure thought. By so doing, he puts some distance between Leibniz's and his systems. On the other hand, even if it seems to be subtle in this article, he does, to some extent, distinguish his thought of space and time from that of Newton by withdrawing space and time from empirical realm.

Finally, in his text written in 1770, Kant explicitly propounds the concept of time as a form taken under the laws of intuition by which we have our access to the phenomenal world. According to Kant,<sup>7</sup> '*the idea of time is an intuition*'.<sup>8</sup> And since, insofar as it is the condition of the relations to be found in sensible things, it is conceived prior to any sensation; it is not a sensory but a *pure intuition*.<sup>7</sup> As a result, he conceives of time both to be prior to sensation which necessarily presupposing it, and to be a property of the subject. Time, in this sense, turns out to be an internal component of intuition, and its externality is directly refused by Kant. At the same time, he asserts that

*"time is not something objective and real, nor is it a substance, nor an accident, nor a relation. Time is rather the subjective condition, which is necessary, in virtue of the nature of the human mind, for the co-ordinating of all sensible things in accordance with a fixed law. It is a pure intuition".<sup>9</sup>*

That which is expounded here by Kant is nothing but the imprisonment of time in subject's intuition. According to Heimsoeth, time and space in Kant's novel thought are not principles of

<sup>5</sup> Immanuel Kant, "Concerning the Ultimate Ground of the Differentiation of Directions in Space," trans. David Walford - Ralf Meerbote, *Theoretical Philosophy, 1755-1770* (New York: Cambridge University Press, 1992), 369.

<sup>6</sup> H. Bülent Gözkan, *Kant'ın Şemsiyesi - Kant'ın Teorik Felsefesi Üzerine Yazılar* (İstanbul: Yapı Kredi Yayınları, 2018), 82.

<sup>7</sup> Immanuel Kant, "On the Form and Principles of the Sensible and the Intelligible World [Inaugural Dissertation]," trans. David Walford - Ralf Meerbote, *Theoretical Philosophy, 1755-1770* (New York: Cambridge University Press, 1992), 392.

<sup>8</sup> Emphasised by Kant. Unless it is indicated to be emphasised by us, all italics in citations pertains to the author of the text from which it is cited.

<sup>9</sup> Kant, "On the Form and Principles of the Sensible and the Intelligible World [Inaugural Dissertation]," 393.



being, rather than this, they are merely the forms dependent to our sensibility.<sup>10</sup> Time, in this context, is neither in itself, nor is it based on external world; rather, it is only a condition of form of sensible intuition rooted in human beings. By doing so, Kant's concept of time has gradually been switched to the form of pure intuition of sensibility. In other words, the concept of time in Kant's thought has led to 'a formal whole which is not a part of another whole', to the phenomenal world.<sup>11</sup>

### 1.2. Kant's View of Time in his Critical Period

We have already focused on the shift of Kant's concept of time from objective reality to subjective condition which is necessary for human mind to have representations of objects in intuition. Now, we should strictly focus on *Critique of Pure Reason* to elaborate Kant's idea of time as a subjective formal condition of sensibility.

According to Kant, time is 'not an empirical concept that is somehow drawn from an experience. For simultaneity and succession would not themselves come into perception if the representation of time did not ground the *a priori*'.<sup>12</sup> The concept of time, in this sense, loses its external and objective reality, and is totally withdrawn by Kant to the limits of human mind, or, better to say, to sensible intuition of human beings. He, as he indicates in his earlier text *Inaugural Dissertation*, explicitly classifies the defenders of objective reality of time in two categories. As he puts it,

"those who assert the objective reality of time either conceive of time as some continuous flux within existence, and yet independently of any existent thing (a most absurd fabrication) – this is a view maintained, in particular, by the English philosophers – or else they conceive of it as something real which has been abstracted from the succession of internal states – the view maintained by Leibniz and his followers".<sup>13</sup>

He does not even pay attention to the former, and, as we see, calls it 'a most absurd fabrication'. However, the latter, namely Leibniz's understanding of time, obliges Kant much more than the first one to reply to its approach assuming time to be objective, and rejecting it to be the subjective condition of sensible intuition. Kant rigorously criticises the latter as follows, Leibniz's objective reality of time

"completely neglects *simultaneity*, the most important corollary of time. It, thus, throws into confusion all use of sound reason, for, rather requiring that the laws of motion should be determined by reference to the measure of time, it demands that time itself should be determined, in respect of its own nature, by reference to things which are observed to be in motion or in any series of internal changes."<sup>14</sup>

Thus, Kant accordingly takes the concept of time as determinative, rather than conceiving of it as determined by motion. The reason why time is prior to motion or any externality, according to Kant, is its power to determine specific positioning of things in simultaneity or succession. At the

---

<sup>10</sup> Heinz Heimsoeth, *Kant'in Felsefesi*, trans. Takiyettin Mengüoğlu (Ankara: Doğu Batı Yayınları, 2012), 60–61.

<sup>11</sup> Kant, "On the Form and Principles of the Sensible and the Intelligible World [Inaugural Dissertation]", 395.

<sup>12</sup> Immanuel Kant, *Critique of Pure Reason*, trans. Paul Guyer - Allen W. Wood (New York: Cambridge University Press, 1998), 178.

<sup>13</sup> Kant, "On the Form and Principles of the Sensible and the Intelligible World [Inaugural Dissertation]", 394.

<sup>14</sup> Kant, "On the Form and Principles of the Sensible and the Intelligible World [Inaugural Dissertation]", 394.

same time, Leibnizian understanding of time certainly lacks simultaneity by ignoring the state in which motion could not be found. In other words, this kind of understanding of time criticised by Kant encompasses merely succession, or better, liquidity of time in which it is, indeed, impossible to find moment as the time span in which things are standing together. As a consequence of his earlier objection to Leibnizian understanding of time, Kant propounds time as a priori grounding form of intuition. With the assistance of time as a form of sensible intuition, simultaneity and succession come into perception. Furthermore, according to Kant,

“time is a necessary representation that grounds all intuitions. In regard to appearances in general one cannot remove time, though one can very well take the appearances away from time. Time is therefore given *a priori*. ...time itself (as the universal condition of their possibility) cannot be removed”.<sup>15</sup>

Thus, as we have thoroughly noticed, Kant, in his first *Critique*, definitely employs time as the universal condition of both intuition and experience. What it means is that, although time is subjective condition of sensible intuition, it rather has objective validity. It cannot differently be discovered and does not depend on each individual. According to Holzhey and Mudroch,

“time is not given empirically, but is an a priori form of intuition, and therefore subjective, though not in the sense of differing from one person to the next, but in the sense of not belonging to objects apart from their relation to human subjects”.<sup>16</sup>

In fact, by claiming so, Kant seems to be in a struggle against relativism and subjective experience of time. In addition to this, Kant asserts that principles of relations of time or axioms of time in general ‘could not be drawn from experience, for this would yield neither strict universality nor apodictic certainty’.<sup>17</sup> In this context, what must be understood is apodictically that Kant seeks for the certainty and universality established by time as a subjective condition of intuition. Due to that time precedes all appearances of objects, and that the latter emerge under the conditions of the former, principles of time seem to have objective correctness and a priori universality. This is the reason why time cannot be applied to things in themselves. Time functions in a way that it is the condition of experience, and that it consists in itself all appearances.

What about alteration and motion? According to Kant, all concepts pertaining to sensibility, even that of motion, except time and space, presuppose the empirical.<sup>18</sup> Alteration and motion necessarily occur under the condition of time and space respectively. Thus, time is not subject to alteration. Nonetheless, appearances can alter merely under the condition of time.

## 2. Bergson’s Understanding of Time

Bergson’s understanding of time is basically differentiated that of Kant in terms of having two-dimensional structure as heterogenous duration and homogenous time. In Bergson’s thought, there is an external reality which is given immediately to the mind, and which is mobility

<sup>15</sup> Kant, *Critique of Pure Reason*, 178–179.

<sup>16</sup> Helmut Holzhey – Vilem Murdoch, *Historical Dictionary of Kant and Kantianism* (Oxford: Scarecrow Press, 2005), 266.

<sup>17</sup> Kant, *Critique of Pure Reason*, 179.

<sup>18</sup> Kant, *Critique of Pure Reason*, 184.

regarding changing states.<sup>19</sup> Thus, their understandings of time, at the very beginning of our investigation of Bergson's approach to time, need to be considered as differentiated by means of their assumptions. We are well-aware of that Bergson accuses philosophical schools of placing themselves in analysis by means of which they have use of immobility of things to reach a solid, isolated, unchanging, and dull representation of reality, as if this is reality itself. The immobility of things is what our intelligence tends to follow because of some practical issues such as language, transmissibility, and daily life. Nonetheless, our intelligence, as Bergson denotes, 'can follow the opposite method. It can place itself within the mobile reality, and adopt its ceaselessly changing direction; in short, can grasp it by means of that intellectual sympathy which we call intuition'.<sup>20</sup> While the former, as the use of intelligence to analyse, refers to immobility and dull representation of reality, thus, to existing or present science, metaphysics is clearly associated with intuition.<sup>21</sup> Philosophers have generally followed the method of analysis; however, Bergson claims that, by means of intuition, science and metaphysics can come together.<sup>22</sup> Hence, intuition is the central concept and method of Bergson's philosophy. His understanding of time is also very well-related to his concept of intuition. Intuition should be understood as the way through which each individual or, better to say, each consciousness-holder, encompassing simple substances too, reaches reality to the extent that its consciousness affords. In this way, each consciousness-holder experiences its individual duration and subsists in time to the extent it has something in common with others as consciousness-holders.

According to what Guerlac<sup>23</sup> cites, 'William James admired Bergson's ability 'simply to *break away* from all old categories, deny old worn-out beliefs, and restate things *ab initio*, making the lines of division fall into entirely new places!' This could be taken similar to what is seen in Bergson's understanding of time. In his approach to time, he basically employs the displacement of old categories of time. In this context, Bergson propounds two kinds of time: homogeneous time and pure duration. He is in a struggle against stereotyped understanding of time compounded with that of space. As he clearly puts it,

"Now, let us notice that when we speak of *time*, we generally think of a homogeneous medium in which our conscious states are ranged alongside one another as in space, so as to form a discrete multiplicity. Would not time, thus understood, be to the multiplicity of our psychic states what intensity is to certain of them, – a sign, a symbol, absolutely distinct from duration? Let us ask consciousness to isolate itself from the external world, and by a vigorous effort of abstraction, to become itself again. We shall then put this question to it: does the multiplicity of our conscious

---

<sup>19</sup> Henri Bergson, *An Introduction to Metaphysics*, trans. T. E. Hulme (New York: G. P. Putnam's Sons, 1912), 65.

<sup>20</sup> Henri Bergson, *An Introduction to Metaphysics*, 69.

<sup>21</sup> We have to note that Bergson's intuition contains in itself distinguishing feature compared to Kant's concept of intuition. Kant's intuition is mainly about getting representations of appearances, thus, sensibility. As Kant puts it, all direct or indirect thoughts must be related to intuitions. See Kant, *Critique of Pure Reason*, 155. However, forms of intuition, namely space and time, are not subjective in Kant's thought, even if time directly pertains to human beings. Furthermore, Bergson takes the concept of intuition both as a method to experience reality with the assistance of sympathy which derives from Ancient Greek, and means to be affected together, and as a subjective way of knowing. 'According to Bergson himself intuition is a sort of mental sympathy by means of which one may transfer himself into midst of an object'. See Bruno Jordan, "Kant and Bergson", *The Monist* 22/3 (1912), 406.

<sup>22</sup> Bergson, *An Introduction to Metaphysics*, 74.

<sup>23</sup> Suzanne Guerlac, *Thinking in Time: An Introduction to Henri Bergson* (New York: Cornell University Press, 2006), 28.

states bear the slightest resemblance to the multiplicity of the units of a number? Has true duration anything to do with space? Certainly, our analysis of the idea of number could not but make us doubt this analogy, to say no more. For if time, as the reflective consciousness represents it, is a medium in which our conscious states form a discrete series so as to admit of being counted, and if on the other hand our conception of number ends in spreading out in space everything which can be directly counted, it is to be presumed that time, understood in the sense of a medium in which we make distinctions and count, is nothing but space. That which goes to confirm this opinion is that we are compelled to borrow from space the images by which we describe what the reflective consciousness feels about time and even about succession; it follows that pure duration must be something different".<sup>24</sup>

Thus, time as homogeneous medium, as we have easily noticed, is nothing but compounding of what is individual with what belongs to space. In other words, pure duration as the novel discovery of Bergson, we prefer calling it discovery rather than invention due to its permanent subsistence somewhere in each consciousness-holder, is distinguished from homogeneous time regarding the similarity of the latter to space. What has been brought to be identical with space in the history of philosophy, in this sense, is nothing other than homogeneous time. On the one hand, homogeneous time is implicitly associated with space without even noticing this aspect as in the case of Kant's forms of sensible intuition; on the other hand, Bergson distinguishes it from pure duration of each consciousness-holder and puts it in the realm of mutual relations of consciousness-holders' pure durations. Obviously, it is quite reasonable to conceive of homogeneous time to be connected to space to the extent that their properties seem to be unfolded as they are similar to each other.<sup>25</sup> In this sense, for Bergson, this kind of common point is the unifying ground of specific experiences of all consciousness-holders as it might be seen in language, science and so on. However, it is quite clear that pure duration cannot be taken as identical, or even similar, to space due to that main properties of space are simultaneity, infinity, divisibility, whilst pure duration excludes these and posits succession, finitude, and indivisibility. Bergson uses succession as indivisible and pure successiveness in pure duration. Pure duration, in this sense, is not the realm of quantity and measurability; rather, it has to be about quality and immeasurability of intensive experience of consciousness. As Bergson palpably depicts it,

"pure duration, that which consciousness perceives, must thus be reckoned among so-called intensive magnitudes, if intensities can be called magnitudes: strictly speaking, however, it is not a quantity, and as soon as we try to measure it, we unwittingly replace it by space".<sup>26</sup>

Thus, pure duration carries with itself neither simultaneity due to that it resembles a property of space, nor does it have quantity and measurability in itself. Then,

<sup>24</sup> Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, trans. F. L. Pogson (New York: Dover Publications, 2001), 90–91.

<sup>25</sup> Henri Bergson, *Metafizik Dersleri: Uzay-Zaman-Madde*, trans. B. Garen Beşiktaşlıyan (Istanbul: Pinhan Yayıncılık, 2014), 49.

<sup>26</sup> Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, 106.

“what is duration in us? A qualitative multiplicity, with no likeness to number; an organic evolution which is yet not an increasing quantity; a pure heterogeneity within which there are no distinct qualities. In a word, the moments of inner duration are not external to one another”.<sup>27</sup>

This citation quite clearly tells us what Bergson means by speaking of the inner duration as pure duration. According to this very short paragraph, properties of pure duration are qualitative multiplicity, organic evolution, and heterogeneity, and, as a main property, succession. In this sense, moments of pure duration are melted down within each other. This seems to be what differs pure duration from homogeneous time. In other words,

“in consciousness we find states which succeed, without being distinguished from one another; and in space simultaneities which, without succeeding, are distinguished from one another, in the sense that one has ceased to exist when the other appears. Outside us, mutual externality without succession; within us, succession without mutual externality”.<sup>28</sup>

In this context, pure duration is much more different than homogeneous time, and, thus, the idea that duration can be measurable is totally invalid. Rather than that, pure duration does not have the property of measurability. That should be understood as the result of its not having simultaneity. At the same time, pure duration has succession which does not involve distinguishing in itself. Otherwise, it would have divisibility through which the impossibility to move throughout a sequence became unveiled, and which each part had to remain confined in itself. Bergson notices that this is not the issue in consciousness possessing pure duration. Thus, moments of duration, as we have already mentioned above, intertwine, and successive moments of duration of each consciousness-holder are kept by memory. As Bergson clarifies, ‘my mental state, as it advances on the road of time, is continually swelling with the duration which it accumulates: it goes on increasing – rolling upon itself, as a snowball on the snow.’<sup>29</sup> Memory accumulates the totality of indivisible succession unfolding itself in duration. This succession in duration is the experience of consciousness. In this sense, duration is limited to memory of the past, and to the prolongation of it into the present. Consequently, duration of each consciousness-holder is necessarily limited to its life. Hence, duration is unavoidably supposed to encompass the evolution and development of each consciousness. In other words, duration presents us a proceeding change and creativity, besides of memory. According to Bouton,

“for Bergson, duration, in all its forms, can be described in terms of three principal features, all of which arise out of psychological duration, which serves as the model: continual change, the automatic conservation of the past in memory, and creativity”.<sup>30</sup>

Apparently, pure duration of any consciousness-holder unavoidably serve for creation by means of continual change durable. At the end of the day, duration refers to the possibility to get in touch with reality, that is, it does so by means of intuition. Since every movement is absolutely indivisible, and reality is mobility, the latter, as well as change, occurs in the realm of duration.<sup>31</sup>

---

<sup>27</sup> Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, 226.

<sup>28</sup> Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, 227.

<sup>29</sup> Henri Bergson, *Creative Evolution*, trans. Arthur Mitchell (New York: Random House, 1944), 4.

<sup>30</sup> Christophe Bouton, "The Emergence of Time: Kant, Bergson, and Modern Physics", *KronoScope* 13/1 (2013), 102.

<sup>31</sup> Henri Bergson, *Matter and Memory*, trans. N. Margaret Paul - W. Scott Palmer (London: George Allen & Unwin, 1919), 246; Bergson, *An Introduction to Metaphysics*, 65.

And, due to that duration contains this possibility, it is the main component of Bergson's understanding of time. Unlike homogeneous time, duration, in this context, presents us not dull appearance of object, but the continuous change and movement in reality, that is to say, it throws us into the midst of the object, rather than letting us perceive how the object is externally seen.

Unlike duration, homogeneous time comes into appearance as it is similar to space in terms of allowing things to be in a state of simultaneity or synchronicity. In this sense, it clearly implies extensity and measurability, thus, space. As a result, homogeneous time, as an impersonal consciousness distinguishing itself from individual consciousnesses which are found both in human beings and in other undeveloped and blurry substances by which Bergson means something similar to Leibniz's monads, but differed from them through the competence to have an impact on each other, is the ideal realm of what the mutual is in whole of individual durations. As Bergson clarifies to fortify his thought, this homogeneous time is impersonal consciousness, that is, space which is chosen as the expression of pure duration, or, which the points gradually moving away from each other represent the parts of duration symbolically.<sup>32</sup> Thus, Bergson puts forward homogeneous time as degraded, secondary, and connective time, and, at the same time, impersonal consciousness. Bergson's thought is full of the concept of consciousness. What is important for us to notice is that, as Barnard perfectly puts it, 'in Bergson's vision of the universe, consciousness is not a mystery to be solved. Instead, consciousness is always present in the very heart of 'things''.<sup>33</sup>

On the other hand, according to what we notice from Bergson's *Time and Free Will*, there should be two different selves: The fundamental self which is free, and its spatial and social representation which is basically amenable to measure due to being the external projection of it<sup>34</sup>. Thus, intuition is directly experienced by nothing but the fundamental self as the possessor of pure duration. In this context, getting to know externality clearly means that our consciousness attributes succession to things in simultaneity, or, in space. Besides this, as he puts it, 'while our consciousness thus introduces succession into external things, inversely these things themselves externalize the successive moments of our inner duration in relation to one another'.<sup>35</sup> The relation of things occurs in space, or in homogeneous time, whilst succession and heterogeneity come into appearance in heterogeneous time, or in pure duration. And, through our consciousness we relate what is internal, indistinct, qualitative, mobile, successive, and heterogeneous to what is external, distinct, quantitative, or measurable, immobile, simultaneous, and homogeneous. This is, in its very concrete sense, the line in which pure duration and space, or homogeneous time, compromise.

Furthermore, Bergson grounds his understanding of time on his objection to Kant's understanding of time. According to Bergson,<sup>36</sup>

<sup>32</sup> Bergson, *Metafizik Dersleri: Uzay-Zaman-Madde*, 52.

<sup>33</sup> G. William Barnard, *Living Consciousness: The Metaphysical Vision of Henri Bergson* (Albany: State University of New York Press, 2011), 124.

<sup>34</sup> Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, 231.

<sup>35</sup> Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, 228.

<sup>36</sup> Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, 232.

“Kant’s great mistake was to take time as a homogeneous medium. He did not notice that real duration is made up of moments inside one another, and that when it seems to assume the form of a homogeneous whole, it is because it gets expressed in space. Thus the very distinction which he makes between space and time amounts at bottom to confusing time with space, and symbolical representation of the ego with the ego itself. He thought that consciousness was incapable of perceiving psychic states otherwise than by juxtaposition, forgetting that a medium in which these states are set side by side and distinguished from one another is of course space, and not duration”.

By doing so, Kant unavoidably falls into the abyss of symbolical ego which cannot get in touch with the ego itself and is formed in space rather than in duration. What this does mean is that repetition of psychic states in consciousness is possible. In other words, causal relation occurring in space is internalised by Kant as a misunderstanding of duration as homogeneous time rather than heterogeneous one. That misunderstanding which constitutes juxtaposition of things or simultaneity in time, indeed, leads necessarily to banishment of the possibility of freedom from the self, and from the reach of our faculty of knowledge. Thus, freedom is imprisoned in unknowable sphere of noumena, or things *in themselves*. Thus, lack of freedom and artificially reconstructed self, or symbolical representation of the ego are the inevitable results of Kant’s understanding of time.

As we have strived to write thoroughly above, Kant declares that time is one of the two forms of sensible intuition. By doing so, Kant clearly puts time in human beings and starts to centralise the subject as a reference point without falling into the abyss of relativity. He, at the same time, ‘distinguishes the faculties by means of their relations to objects themselves. This leaves us with the difficult question of how to understand the opposition between things ‘as they are’ and ‘as they appear’’.<sup>37</sup> In fact, this is what internalisation of time serves for. At first glance, it seems to be the movement of relativism, or to serve for reconciliation between external and internal. However, then, it unfolds itself to be the annihilation of the part of things ‘as they are’ due to the fact that taking time and space as sensible intuition grounded in human being means nothing other than breaking up with externality and leaving totality of things to the mercy of human being as a species, thus, to the ideally based universality. Bergson, on the other hand, thinks of time much more individualised than Kant’s understanding of time. Each consciousness, including both of human beings and undeveloped monad-like consciousnesses, has its own time as pure duration. In spite of that, he admits the existence of external reality. By doing so, he reasonably refrains from the rejection of what is outside of subject, and from falling into distraction in which the subject loses its specific and authentic state, thus, its subjectivity. In this context, Kant seems to teach Bergson what he must not do. The concept of intuition as it is taken by Bergson is the possibility of both experience of consciousness, and, thus, subjectivity of time, namely pure duration. On the other hand, the homogeneous time might refer to possibility of a unifying, Geist-like, and surrounding time. Now, we can retrace Iqbal’s concept of time to find out inferences of Kant’s and Bergson’s understandings of time.

### 3. Iqbal’s Understanding and Use of Time

---

<sup>37</sup> Emily Carson, "Metaphysics, Mathematics and the Distinction Between the Sensible and the Intelligible in Kant's Inaugural Dissertation", *Journal of the History of Philosophy* 42/2 (2004), 177.

When it comes to Iqbal's understanding of time which is parallel to his understanding of life in general, it is important to remark that he has a dynamic understanding of universe. He simply declares war against any kind of mechanism, and so, that of determinism. The roots of his freewill-based theory, which benefits much from his understanding of time as we will analyse below, is directly derived from this dynamical approach to universe. Even his epistemology is designed for this purpose, and he believes that intuition is an indispensable source for human knowledge as much as the reason and senses. With this inner source, Iqbal finds a significant explanation for the relationship between God and universe, and he also finds a space for freewill of human, and that of God. He asserts that the feeling (intuition) and the idea (thought) are the non-temporal and temporal aspects of the same unit of inner experience. By asserting so, he builds an organic link between the temporal and non-temporal through consciousness: The nature of the feeling seeks representation in thought.<sup>38</sup>

As the last step of our article, we will focus on the Iqbal's point of view and assert that he successfully benefited from Kant and Bergson, who have been aforementioned in this article, and that he adapted the understandings of time of those philosophers, especially the latter, to an Islamic stand with his own interpretations. To express this claim, we will separate our analysis into two headlines: What was Iqbal's approach about time? And how did he engage this approach with his theological and religious thoughts?

### 3.1. Iqbal's Understanding of Time

In Iqbal's thought, we witness two kinds of time as we have witnessed in that of Bergson: Serial time and pure duration. This separation has significant similarities with Bergson's homogenous time and heterogeneous time. The first and biggest similarity is that both are based on experiences of consciousness. As we have mentioned, Iqbal's understanding of inner experience has two sides: The idea which is related with sequential time; and the intuition, in which people get the chance to experience what is non-temporal. Intuition deals with pure time, since it extends with experience of consciousness and yet keeps being an indivisible whole in the sense of organic oneness of multitude. And what the idea does is to receive pure time in relation to successive moments and also in space, thereby it can put its sensation into words.

When Iqbal tries to understand time,<sup>39</sup> he also tries to find out a doubtless way of comprehension to use in his inquiry, that is, he hammers out, one's perception of his/her own-self. During his investigation, he points out two premises which are derived from one's own-self to reach one result that explains the relationship between consciousness and time: I change without ceasing. Constant change is unthinkable without time. Then, conscious existence means life in time. Hence, the unceasing change of the self constitutes the organic link between consciousness and time and leads up to the dynamic connection between what is internal and what is external. Subsequently, Iqbal takes forward this investigation on inner life of conscious experience and addresses two sides of the self: The appreciative side and the efficient side. This is kind of an

<sup>38</sup> Muhammad Iqbal, *The Reconstruction of Religious Thought in Islam* (Stanford: Stanford University Press, 2013), 17.

<sup>39</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 37-38.



adaptation and combination of Whitehead's *Primordial Nature*<sup>40</sup> and *Consequent Nature*<sup>41</sup> of God and Bergson's fundamental self and its spatial and social representation. Efficient Self, in other words the practical self, is related to space. It is considered as an outsider look and it lives in a time which can be described as short or long, that is, measurable, and perceived as a straight line, i.e., homogenous. But with a deeper investigation of conscious experience, he says, we will reach the Appreciative Self which lives in pure duration. This kind of time is like a single 'now' where there is no before and after. Appreciative Self changes and moves but still does not split up. By transforming the serial time of Efficient Self into one moment, Appreciative Self functions as the corrective of Efficient Self and synthesises all the 'heres' and 'nows' of the Efficient Self into the coherent wholeness of personality.<sup>42</sup> In other words, Appreciative Self holds the unity of the ego by assembling the fragmental experiences of the Efficient Self. In this direction, Iqbal expresses this difference of self(s) as follows,

"Extensively regarded I am absorbed by the spatio-temporal order to which I belong. Intensively regarded I consider the same spatio-temporal order as a confronting 'other' wholly alien to me. I am distinct from and yet intimately related to that on which I depend for my life and sustenance".<sup>43</sup>

Thusly, we may also say that Efficient Self deals with the extensive and external dimensions of life, it is the self which nominalize the other, where Appreciative Self deals with the intensive and inner dimensions, and it is the self that is nominalized by the other. So far it looks very similar to Whitehead's natures and Bergson's egos and the latter's understanding of time.

But there is an important difference between Iqbal and Bergson, and also others. Bergson claims that pure duration of consciousness composes of past and present, where each past moment of homogenous time melts down in it as it always keeps being a unitary whole. There is no room for the future, in the sense of letting consciousness and the Reality be free and away from teleological determinations. But in Iqbal's point of view,<sup>44</sup> function of the consciousness is to provide a luminous point in order to enlighten the forward rush of life. It differentiates the organisms from machines by providing them the freewill with giving the opportunity to dynamically front the purposes which let pure duration to include the future as possibilities. The term of 'dynamic purpose' is a keyword for to understand his theory, because it is the concept that releases the idea of including the future in pure time of the consciousness from the imprisonment of the determinism. The dynamic purposes that shape the realm of the future do not draw a unique certain way to be followed; instead, they present the spectrum of the possible ways which may be followed.

"Pure time, then, as revealed by a deeper analysis of our conscious experience, is not a string of separate, reversible instants; it is an organic whole in which the past is not left behind, but is moving along with, and operating in, the present. And the future is given to it not as lying before,

---

<sup>40</sup> It addresses God as the existence who organize the World. This nature is the precondition of to create. Everything is related to it.

<sup>41</sup> It addresses God as in the flux of time. This nature is also unites with Primordial Nature eventually. It is related with everything.

<sup>42</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 39.

<sup>43</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 94.

<sup>44</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 33.

yet to be traversed; it is given only in the sense that it is present in its nature as an open possibility".<sup>45</sup>

As it can be clearly understood from the phrase, Iqbal does not accept an understanding of purpose in the meaning of determination. On the contrary, as we have repeated many times to emphasize it, he strongly rejects the determined and mechanical understanding of life, similarly to Bergson. Yet, he also disagrees with Bergson about the behaviour of the Reality which is, as Bergson alleges, arbitrary, undirected, chaotic, and unforeseeable.<sup>46</sup> According to Iqbal, when Bergson tries to escape from the necessitarian future of determinism, he hitches to the commotion of the nescience. Iqbal claims that ignoring the forward-looking aspect of the unity of consciousness is the biggest failure of Bergson. So that Iqbal propounds an alternative approach to teleology: Dynamic Purposes. Since life continuously expands, so does the mental life which accompanies it. Therefore, consciousness owns purposes and acts according to a teleological manner, but still is free and undetermined. 'To live is to shape and change ends and purposes and to be governed by them'.<sup>47</sup> It is obvious that life and consciousness, and implicitly the purposes have an organic relation that they change all together according to one another. And it is also clear that Iqbal's understanding of the nature of Reality is teleological, in his own interpretation of teleology which does not obfuscate the freewill of the Reality. This teleology does not predict a certain future but presents future as open possibilities. One's for all, the process of time has a selective character.

The difference between Bergson and Iqbal by means of embracing the future in pure duration causes them to describe it with some different attributes. Bergson claims that pure duration is successive, even though he emphasizes the indivisible and aspatial nature of it. Since Bergson's pure duration excludes the future, it possesses succession on the contrary to simultaneity. On the other hand, Iqbal strictly isolates pure duration of the consciousness from succession since it contains past, now, and future as a whole without ordering any of them. Accordingly, one might say that Iqbal's understanding of time reveals integrity even more than that of Bergson.

### 3.2. Iqbal's Understanding of Divine Time and Destiny: The Reconstruction of Freewill

What we have discussed about Iqbal's understanding of time brings us to the question of what whips in all the single and 'separated' durations of the 'different' consciousnesses. His answer to our question is hidden in the notion of Ultimate Reality.

"Neither pure space nor pure time can hold together the multiplicity of objects and events. It is the appreciative act of an Enduring Self only which can seize the multiplicity of duration –broken up into an infinity of instants– and transform it to the organic wholeness of a synthesis".<sup>48</sup>

In Bergson's view, homogenous time as an impersonal consciousness was the symbolic holder of collectiveness of the duration of each consciousness. But in Iqbal's view, as we have seen, it is another duration, which is assembling but also still indivisible, of another Self, that is, the

<sup>45</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 39–40.

<sup>46</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 42.

<sup>47</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 43.

<sup>48</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 44–45.

Ultimate Reality. The duration and the Self that are mentioned here represent the most inclusive Self and duration, which are named by Iqbal as the Ultimate Ego and Divine Time. To put it differently, we can say that the impersonal consciousness in Bergson's theory becomes personal in Iqbal's thought.

When we take a closer look at Divine Time, it is indivisible, unchanging, and innumerable. It is even more superior to eternity since it does not have any beginning or ending. Allah sees and hears all events in a single act of perception. It is described in Qur'an as 'Umm al-Kitāb' which means 'the Mother of the Books'. It corresponds to the history as a whole that is freed from the causal sequences, and it is gathered up in a single super-eternal 'now'.<sup>49</sup> Thus, Ultimate Ego possesses change without succession as an organic wholeness. We, as human beings, perceive it in an atomic manner because of the creative action of the Ultimate Ego.

"Personally, I am inclined to think that time is an essential element in Reality. But real time is not serial time to which the distinction of past, present, and future is essential; it is pure duration, i.e. change without succession, which McTaggart's argument does not touch. Serial time is pure duration pulverized by thought - a kind of device by which Reality exposes its ceaseless creative activity to quantitative measurement".<sup>50</sup>

Here, the serial time looks similar to Kant's understanding of time as one of the two forms or pre-conditions of sensible intuition. It is like a filter of the mind to perceive and verbalise the pure duration by dividing it into spatio-temporal particulars. However in Iqbal's system of thought, serial time is only applied for the idea, one of the two units of inner experience, which is related with space and language. On the other hand, the second unit of inner experience, namely the intuition, pulls together with the pure duration, which is similar with Bergson's understanding. But it is important to notice that we have talked about the pure duration in two senses, pure duration of egos and that of the Ultimate Ego. To understand how similar and different those two senses are, we need to underline Iqbal's closeness to the mystic thoughts, especially to *Waḥdat al-Wujūd*.<sup>51</sup> The condition for the existence of the self in pure duration is to be able to say 'I am' which is based on the distinction from not-self. But for the Ultimate Self, there is no not-self which presents itself as a confronting 'other'.<sup>52</sup> So, the meaning of pure duration in Bergson and Iqbal either in the sense of ego or the Ultimate Ego are actually still the same. Nevertheless, when it comes to the Ultimate Ego, what changes is the nature of the Self, rather than the time. Iqbal claims that the notion of matter is not something that is co-eternal with God and operated upon by Him from a distance as it were. The Ultimate Ego has only, in its real nature, one continuous act that is broken up into a plurality of mutually exclusive things by the thought.<sup>53</sup>

Last but not least, we have to mention what does the Divine Time says about the destiny and freewill. Iqbal determines the destiny<sup>54</sup> (*qadr*) as the time that is regarded as prior to the disclosure of its possibilities, and he complains about misunderstanding of the issue in Islamic world. Some

---

<sup>49</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 60–61.

<sup>50</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 46–47.

<sup>51</sup> A Sufi term that indicates the oneness of the existence and the oneness in the existence.

<sup>52</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 45.

<sup>53</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 53.

<sup>54</sup> Iqbal, *The Reconstruction of Religious Thought in Islam*, 40.

of the Muslim scholars defended the deterministic approach to human life to render the Omnipotence and Omniscience of Allah, and some others wiped any slightest knowledge about the future out of the table to ensure God's Justice. Iqbal asks the question of why two known characters of the world history lived in the same period of time. Here, his definition of destiny gets clearer: It is the enabler characteristic of the Reality among the infinitive possibilities. His understanding of destiny is independent from causality and, of course, determinism; instead, it is the encompassing set of possibilities in which events may occur. What determines the pattern to follow between those possibilities is nothing other than freewill of God and, as we will see, that of human. Because, he says, every moment of the Reality should be and is original. To ensure that, he points out the difference between creation and repetition. Repetition pertains to mechanical actions, whereas creation is a dynamic, so that, free and unpredictable action. God does not repeat, He is beyond all the determinisms and mechanisms; on the contrary, He creates as the original source of all beings with the perfect power of appointment, i.e., His Divine Will. While Iqbal makes room for the Divine Will, he does not deny freewill of humans. On the contrary, Iqbal even expresses that Islamic scholars should not be afraid of the limitation of God when He chooses to limit himself with His own Divine Will. Iqbal claims that God gives humans freewill to choose between possibilities and to tend towards them, and he also thinks that it is not a limitation at all when He is the one who chooses to do so. As a reminder, pure duration of consciousness includes future with dynamic purposes. These dynamic purposes of egos are where Iqbal paves the way for humans' freewill. Willing a purpose and heading for it, which mean determining the future realm of one's pure duration, are in the list of competences of one's freewill given by God. At this point, we see some similarities with the notion of *al-irāda al-juz'iyya*<sup>55</sup> in classical Islamic theology, especially in *Māturidiyya*.<sup>56</sup>

So far, we have tried to explain what Iqbal propounds about time and how he uses it in a religious aspect to reconstruct the concept of freewill. We have clearly seen that there are two kinds of time in Iqbal's system. Serial time as a linear structure that is used by the idea which is one of the two units of inner experience; and pure duration as only one moment that is the organic wholeness of the past, now, and future, used by intuition which is the second unit. As it is understood, the definitions of times depend on inner experience; Iqbal discusses time in a matter of own-self. They both belong to different units of the self. He even named these units: Appreciative Self and Efficient Self. This self-centred approach to time is directly reminds us Kant's subject-centred concept of time. But with a further reading, it is understood that what is similar with Kant's understanding is only the serial time. In Iqbal's system, serial time is not the real time; it partitions the pure duration to serve for the perception of the idea which is related with spatio-temporal order. When it comes to pure duration, it is much more similar with Bergson's heterogeneous time, which he also calls as pure duration. Both the heterogeneous time of Bergson and pure duration of Iqbal expand with each moment that joins them, but also every moment that joins them becomes an impartible part of the whole. In the end, pure duration keeps

<sup>55</sup> A theory about human act's and freewill. It express human's roll in his/her actions in the sense of being free and selector by tending towards it.

<sup>56</sup> One of the main schools of Sunnī theology (*Ahl al-Sunna wa al-Jamā'a*) in Islam. It was built by Abū Ḥanīfa and Abū Maṣū'ir al-Māaturīdī.

being a single 'now' no matter how much it expanded. On the other hand, Bergson's pure duration consists of past and present and excludes future, with the intent of drawing an undetermined future and ensuring the freedom of the consciousness. Iqbal, contrarily, thinks that pure duration includes future as much as the past and present. He believes that a dynamical understanding of the universe can be also applied to the teleology, and that a dynamic teleology outlines not chaotic but a perfectly free universe. What dynamic teleology says about future is not a predicted story; rather than that, it is all about open possibilities. This is directly related with Iqbal's understanding of destiny which is also a disclosure of open possibilities. Here, one is free to tend any of the possible futures that are presented to him/her. Now, we have a better understanding of what Iqbal strived to do with his work. He simply paved the way for freewill of humans which has been a very discussed issue in Islam in particular, and in the history of thought in general. God encompasses the entire universe; He as the Ultimate Self perceives everything in one moment of time since all time is just a moment to him in the sense of duration. He enables humans' freedom without compromising on His omnipotence.

### **In Lieu of Conclusion**

Throughout this article, we have witnessed Kant's, Bergson's, and Iqbal's understandings of time. Kant's time is shaped as it is the form of sensible intuition rooted in the subject; however, it cannot be claimed that Kant's time is subjective. Besides this, his time is also homogeneous, and, thus, as we have seen above, does not allow freedom to come into appearance. Consequently, according to Bergson, Kantian conceptualisation of time has to tangle time with space, and the ego with the symbolical representation of ego.<sup>57</sup> In this context, Bergson asserts two kinds of time, namely homogeneous time and pure duration. On the other hand, even though Bergson criticises Kant, he seizes Kant's time to establish externality and space as the realm of simultaneity. By doing so, he assures us that commonalities of consciousnesses are represented by this kind of time, namely homogeneous time, which is measurable, divisible, and involves simultaneity. Thus, consciousnesses are not unaware of each other, and, they have a solid and common ground by homogeneous time, i.e., language by means of which representations of things come into view and establish a communal realm. For, without this, each consciousness has to be confined in its own. Homogeneous time, in this sense, refers to superficiality to understand the universe and self. Unlike it, heterogeneous time, or better, pure duration, implies inner sense as a realm of intuition and self-realising or self-understanding. Thus, intuition cannot easily find voice in language. However, pure duration is, at the same time, the realm of freewill. Unlike Kant's time, it has neither repetition nor causal relations in itself.

Iqbal takes Kant's time as serial time similar to Bergson's homogeneous time. This conception of time is based on divisibility. Like Bergson and Kant, Iqbal means possibility of commonalities of consciousnesses, simultaneity, and space by the concept of serial time. On the other hand, he conceptualises pure duration. All egos and God as the Ultimate Ego experience this pure duration. At this point, what reveals itself to us is that the Ultimate Ego's pure duration has to embrace all other egos' pure duration. In this context, the Divine Time as the pure duration of the Ultimate

---

<sup>57</sup> Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, 232.

Ego holds together all events. It encompasses all possibilities which might occur at any time. In this sense, the Divine Time is unchanging due to that it has all possibilities in itself. In addition to this, the Ultimate Ego experiencing the Divine Time is nothing other than the God. However, it is crucial to denote that the Divine Time is not mixed up with serial time. All other egos can relate to each other through space, and, thus, through serial time as the divisible time by means of which the thought or inner sense can interact with that of other egos. The God is omnipresent, and, thus, cannot be limited to space as simultaneity, or, to a limited and divisible time. Therefore, the Divine Time as the God's duration cannot be limited to being in serial time.

Homogeneous time, or serial time in Iqbal's thought, does, of necessity, presupposes causality and repetition. Homogeneity recurs what it has in itself. Thus, it is theoretically impossible to think of freewill in serial time. Freewill can only be found in pure duration in which repetition and causality are excluded. This basically means that creativity must continue to be in pure duration. As we have clearly spoken of it, the Divine Time should be realised as the God's experience of duration, that is to say, it covers other egos' durations. Hence, the Ultimate Ego and other egos have freewill.

The Ultimate Ego surrounds the universe and is in it. 'The universe is, ..., 'the behaviour of God''.<sup>58</sup> By claiming so, Iqbal denotes that the God is not separated from the universe and does not have its absolute closedness in terms of that He is no more related to the universe. Rather than this, He always relates Himself to the universe and He has chosen to give other egos the right to choose, which is nothing other than freewill. His choice of giving other egos freewill is not a deficiency and does not make Him finite; it is nothing but the power of the Ultimate Ego.<sup>59</sup> This is what Iqbal's investigation of time results in. It refers to the reconstruction of Islamic thought encompassing freewill of each ego as consciousness experiencing duration.

By his endeavour to reconstruct the theory of freewill in Islamic thought, Iqbal brings in two new approaches to the understanding of time. One of them is that Iqbal develops a dynamic understanding of teleology to be applied to his understanding of destiny which constitutes the main basis of the concept of freewill. In other words, he accepts an understanding of teleology which differs from its permanent and solid representation as the implementation of givenness. Iqbal's teleology is shaped by humans' freewill which dynamically and continuously turns towards possibilities. By doing so, teleology is detached from being imposed to the nature of things and turned into a compatible concept with Iqbal's organic and dynamic system of thought. This new approach to teleology based on dynamic purposes rather than dull purposes paves the way for Iqbal's second original contribution to the concept of time, thus, that of freewill. Iqbal deploys the future in pure duration as an addition to Bergson's understanding of pure duration which solely includes one's past and present. Iqbal believes that consciousness-holders are not total strangers to their futures. On the contrary, they do have plans, dreams, and purposes which play an effective role to form their futures. Hence, Iqbal's pure duration, unlike that of Bergson, does not constitute a chaotic future in order to open a room for humans' freewill. Iqbal's dynamic future occurs in the

<sup>58</sup> Mehmet Aydın, "Iqbal's View of God's Infinity", *Dokuz Eylül Üniversitesi İlahiyat Fakültesi Dergisi* 2 (1985), 4.

<sup>59</sup> Kasım Küçükçalp, "Süreç Teolojisi ve Muhammed İqbal", *Hece* 193 (2013), 309.

possibilities embraced by the omniscience of the Ultimate Ego, and is shaped by the freewill of humans which is also given by the Ultimate Ego Himself.

With the concept of freewill, Iqbal founds a correspondent relationship between modern philosophy and Islamic thought. Iqbal's intervention shaped by his concept of freewill based on his understanding of time might be understood as a reformatory and transformative potential in Islamic thought. It also unveils very potential of Islam to reply to the problem of freedom, and the need and questions of emancipation in modern times. The reason for the success of Iqbal's concept of freewill in order to have potential to be transformative lies down beneath its formulation process affected by modern and contemporary Western philosophy, Islamic thought, and also mysticism. And much more attempts and enthusiasm to develop Iqbal's concepts of time and freewill are needed to reply to novel questions arisen in 21<sup>st</sup> century.

## Bibliography

- Aydın, Mehmet. 'Iqbal's View of God's Infinity'. *Dokuz Eylül Üniversitesi İlahiyat Fakültesi Dergisi* 2 (1985), 1-8.
- Barnard, G. William. *Living Consciousness: The Metaphysical Vision of Henri Bergson*. Albany: State University of New York Press, 2011.
- Bergson, Henri. *An Introduction to Metaphysics*. trans. T. E. Hulme. New York: G. P. Putnam's Sons, 1912.
- Bergson, Henri. *Creative Evolution*. trans. Arthur Mitchell. New York: Random House, 1944.
- Bergson, Henri. *Matter and Memory*. trans. N. Margaret Paul - W. Scott Palmer. London: George Allen & Unwin, 1919.
- Bergson, Henri. *Metafizik Dersleri: Uzay-Zaman-Madde*. trans. B. Garen Beşiktaşlıyan. İstanbul: Pinhan Yayıncılık, 2014.
- Bergson, Henri. *Time and Free Will: An Essay on the Immediate Data of Consciousness*. trans. F. L. Pogson. New York: Dover Publications, 2001.
- Bouton, Christophe. 'The Emergence of Time: Kant, Bergson, and Modern Physics'. *KronoScope* 13/1 (2013), 96-111. [brill.com/kron](http://brill.com/kron)
- Carson, Emily. 'Metaphysics, Mathematics and the Distinction Between the Sensible and the Intelligible in Kant's Inaugural Dissertation'. *Journal of the History of Philosophy* 42/2 (2004), 165-194.
- Caygill, Howard. *A Kant Dictionary*. Oxford: Blackwell Publishing, 2009.
- Diagne, Souleymane Bachir. 'Bergson in the Colony: Intuition and Duration in the Thought of Senghor and Iqbal'. *Qui Parle* 17/1 (2008), 125-145.
- Gözkân, H. Bülent. *Kant'ın Şemsiyesi - Kant'ın Teorik Felsefesi Üzerine Yazılar*. İstanbul: Yapı Kredi Yayınları, 2018.
- Guerlac, Suzanne. *Thinking in Time: An Introduction to Henri Bergson*. New York: Cornell University Press, 2006.
- Hassan, Riffat. *The Main Philosophical Idea in the Writings of Muhammad Iqbal (1877-1938)*. Durham: Durham University, Doctoral Thesis, 1968. <http://etheses.dur.ac.uk/7986/>
- Hassan, Riffat. 'The Meaning and Role of Intuition in Iqbal's Philosophy'. *Iqbal Review* 26/1 (1985), 67-99.
- Heimsoeth, Heinz. *Kant'ın Felsefesi*. trans. Takiyettin Mengüsoğlu. Ankara: Doğu Batı Yayınları, 2012.
- Holzhey, Helmut - Mudroch, Vilem. *Historical Dictionary of Kant and Kantianism*. Oxford: Scarecrow Press, 2005.



- Iqbal, Muhammad. *The Reconstruction of Religious Thought in Islam*. Stanford: Stanford University Press, 2013.
- Jordan, Bruno. 'Kant and Bergson'. *The Monist* 22/3 (1912), 404-414. <http://www.jstor.com/stable/27900386>
- Kant, Immanuel. 'Concerning the Ultimate Ground of the Differentiation of Directions in Space'. trans. David Walford - Ralf Meerbote. *Theoretical Philosophy, 1755-1770*. 361-372. New York: Cambridge University Press, 1992.
- Kant, Immanuel. *Critique of Pure Reason*. trans. Paul Guyer - Allen W. Wood. New York: Cambridge University Press, 1998.
- Kant, Immanuel. 'On the Form and Principles of the Sensible and the Intelligible World [Inaugural Dissertation]'. trans. David Walford - Ralf Meerbote. *Theoretical Philosophy, 1755-1770*. 373-416. New York: Cambridge University Press, 1992.
- Kant, Immanuel. *Universal Natural History and Theory of the Heavens*. trans. Ian Johnston. Arlington: Richer Resources Publication, 2008.
- Küçükalp, Kasım. 'Süreç Teolojisi ve Muhammed İqbal'. *Hece* 193 (2013), 302-309.
- Mohomed, Carimo. "'The Days of God"- Muhammad Iqbal's Conception of Time and History'. *Journal of Islamic Thought and Civilization* 7/ (2017), 1-17. <https://doi.org/10.29145/2017/jitc/72/070201>
- Mohomed, Carimo. 'Towards a Final Combination - Muhammad Iqbal's Philosophy of History'. *Journal of Philosophy and Ethics* 2/1 (2020), 17-31.
- Mohomed, Carimo. 'Towards a Final Combination: Muhammad Iqbal's Philosophy of History'. *Waikato Islamic Studies Review* 6/2 (2020), 21-35.
- Popp, Stephan. 'Muhammad Iqbal - Reconstructing Islam along Occidental Lines of Thought'. *Interdisciplinary Journal for Religion and Transformation in Contemporary Society* 5/ (2019), 201-229.
- Raju, P. T. *Idealistic Thought of India*. London: George Allen & Unwin, 1953.
- Shabel, Lisa. 'The Transcendental Aesthetic'. *The Cambridge Companion to Kant's Critique of Pure Reason*. ed. Paul Guyer. 93-117. New York: Cambridge University Press, 2010.
- Wheeler, Richard S. 'The Individual and Action in the Thought of Iqbal'. *The Muslim World* 52/3 (1962), 197-206.



## Science and Philosophy in The Classical Period of *Kalām*: An Analysis centered upon The *Daqīq* and *Laṭīf* Matters of *Kalām*

Klasik Dönem Kelâmında Bilim ve Felsefe: Kelâmın *Dakîk* ve *Latîf* Konuları  
Ekseninde Bir Değerlendirme

**Mehmet BULGEN**

Associate Professor, Marmara University, Faculty of Theology, İstanbul/ Türkiye  
[mbulgen@hotmail.com](mailto:mbulgen@hotmail.com) | [orcid.org/0000-0002-2372-471X](https://orcid.org/0000-0002-2372-471X) | [ror.org/02kswqa67](https://ror.org/02kswqa67)

### Article Information

#### Article Type

Translation

#### Date Recieved

31 October 2021

#### Date Accepted

31 December 2021

#### Date Published

31 December 2021

#### Plagiarism

This article has been scanned with iTenticate software. No plagiarism detected.

#### Ethical Statement

It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited (Mehmet Bulgen).

**Licensed under CC BY-NC-ND 4.0 license.**

Cite As

“ Bulgen, Mehmet. “Science and Philosophy in The Classical Period of *Kalām*: An Analysis centered upon The *Daqīq* and *Laṭīf* Matters of *Kalām*”. trans. Mehmet Bulgen. *Kader* 19/3 (December 2021), 938-967. ”  
<https://doi.org/10.18317/kaderdergi.1017086>

## Abstract

One of the important aspects of the classical *kalām* is that the philosophical topics related to physics and cosmology, namely *daqīq* or *laṭīf al-kalām*, have an important place in it. The reason for the involvement of the *kalām* scholars (*mutakallimūn*) in these kinds of issues is commonly regarded as an effort to defend Islamic beliefs against other religions and thought systems. However, when their studies are examined closely, the complexity of their concepts and theories, as well as the fact that they discussed these matters not only with opposing groups but also among themselves, show that *kalām* had a much deeper and integrated relationship with science and philosophy in the classical period. Their engagement with philosophical and scientific matters, such body (*jism*), substance/atom (*jawhar*), accident (*‘araḍ*), motion, space, time, and causality dates back to the mid-8<sup>th</sup> century and displays great diversity. Although the *mutakallimūn* probably were the first ones to deal with physics-related issues in Islamic thought, it cannot be said that they are given the importance they deserve in modern studies pertaining to the history of science and philosophy in Islamic thought. The fact that, in *kalām* works, physics-related questions were generally discussed along with theological matters has caused the scholarship of *mutakallimūn* to be regarded as an adjunct of apologetic discipline and has thereby led to a limited description of *kalām*'s relationship with science and philosophy in the classical period. This set of circumstances hinders a proper understanding of how science and philosophy emerged and evolved in Islamic thought. In the present article, I will attempt to present the place and role of physical topics, namely *daqīq* or *laṭīf al-kalām*, in classical *kalām*, between the 9<sup>th</sup> and 11<sup>th</sup> centuries. Firstly, I will show how the classical *mutakallimūn* divided *kalām* into two parts, namely ‘major’ (*jalīl*) matters, which are based on revelation, and ‘subtle’ (*daqīq*) or ‘obscure’ (*laṭīf*) matters, which mainly depend on reason. Matters surrounding *jalīl al-kalām* indicate the theological problems on which the *mutakallimūn* had a general agreement, such as God’s oneness, revelation, prophethood, and eschatology. Questions discussed under the category of *daqīq* or *laṭīf al-kalām* mostly correspond to philosophical and scientific issues concerning epistemology, physics, and cosmology. Secondly, I will examine to what extent the *mutakallimūn* dealt with physical sciences and what kind of topics were primarily discussed in the field of *daqīq* or *laṭīf al-kalām*. The upshot of this will be that the claim that the *mutakallimūn* were interested in physics and cosmology merely for apologetic purposes is unsound; rather, in the 9<sup>th</sup> and 10<sup>th</sup> centuries, many Muslim theologians also concerned themselves with issues such as motion, void, body, atom, and causality as truth seekers. That being the case, the *mutakallimūn* should be taken into consideration in studies related to the emergence and rise of science and philosophy in Islamic thought.

**Keywords:** *Kalām*, *Daqīq al-kalām*, *Laṭīf al-kalām*, *Jalīl al-kalām*, Cosmology, Atomism.

## Öz

Klasik dönem (mütekaddimūn) kelâmının dikkat çekici özelliklerinden biri “dakîku’l-kelâm” ya da “latîfu’l-kelâm” diye isimlendirilen fizik ve kozmolojiye dair felsefi konuların önemli bir yer tutmasıdır. Kelâmcıların fiziğe dair konulara ilgi duymaya başlama sebebi, İslâm dininin itikadî esaslarını diğer din ve düşünce sistemlerine karşı savunma ihtiyacı şeklinde açıklanmaktadır. Hâlbuki onların çalışmalarına yakından bakıldığında, kelâmcıların kullandıkları kavram ve teorilerin gelişmişliği, ayrıca bu türden konuları sadece karşıt düşünce gruplarıyla değil, birbirleriyle de tartışmaları, klasik dönemde kelâm ilminin bilim ve felsefe ile çok daha derin ve entegrasyona dayalı bir ilişki yaşadığını göstermektedir. Kelâmcıların cisim, cevher, araz, hareket, uzay, zaman, nedensellik gibi felsefi ve bilimsel konularla meşgul olmaya başlamaları 2./8. yüzyılın ortalarına kadar uzanmakta ve oldukça zengin bir karakter arz etmektedir. Kelâmcılar İslâm düşüncesinde muhtemelen fiziğe dair konularla ilk defa uğraşan grup olmakla birlikte İslâm bilim ve felsefe tarihi araştırmalarında kendilerine hak ettikleri önemin verildiği söylenemez. Kelâm kitaplarında fiziğe dair konuların genelde teolojik meselelerle birlikte ele alınması onların çalışmalarının daha çok apolojetik bir görünüm kazanmasına ve kelâm ilminin klasik dönemde bilim ve felsefeyle ilişkisinin sınırlı bir şekilde tasvir edilmesine neden olmaktadır. Bu durum İslâm düşüncesinde bilimlerin erken dönemden itibaren nasıl ortaya çıkıp gelişim gösterdiğinin gerçekte olduğu gibi anlaşılmasına engel olmaktadır. Bu makale, klasik dönemde “dakîku’l-kelâm” diye isimlendirilen fizik ve kozmolojiye dair konuların kelâmında ne tür bir yeri ve rolü olduğunu ortaya koymayı amaçlamaktadır. Bu bağlamda birinci bölümde klasik dönemde kelâm ilminin vahye dayalı “celîlü’l-kelâm” ile akla dayalı tartışmaları ihtiva eden “dakîku’l-kelâm” olmak üzere iki temel kısma ayrıldığı ortaya konulacaktır. Bu ayrımda celil konular kelâmcıların genel olarak üzerinde uzlaştıkları Allah’ın birliği, vahiy, nübüvvet ve ahiret inancı gibi teolojik konulara tekabül ederken, dakîk ya da latif başlıkları altında ele alınan konular ise daha çok fizik ve kozmolojiye dair felsefi ve bilimsel konulara karşılık gelmektedir. İkinci bölümde kelâmcıların fizik ve kozmolojiye dair konularla hangi ölçekte meşgul oldukları ve dakîku’l-kelâm başlığı altında daha çok ne tür meseleleri ele aldıkları konusu ele alınacaktır. Nihai olarak kelâmcıların fizik ve kozmoloji meseleleriyle salt

apolojetik amaçlarla ilgilendiği iddiasının temelsiz olduğu; aksine 9. ve 10. yüzyıllarda birçok kelamcının hareket, boşluk, cisim ve nedensellik gibi konularla birer hakikat arayıcı olarak ilgilendikleri sonucuna ulaştım. Bu yüzden kelamcıların, İslam düşüncesinde bilim ve felsefenin ortaya çıkış ve gelişimine ilişkin çalışmalarda daha fazla yer bulmaları gerekmektedir.

**Anahtar Kelimeler:** Kelām, Dakīku'l-kelām, Latīfu'l-kelām, Celīlū'l-kelām, Kozmoloji, Atomculuk.

## Introduction

One of the remarkable characteristics of the science of *kalām*, which was founded by Mu'tazilī theologians in the early 8<sup>th</sup> century, is that its scholars (*mutakallimūn*) not merely engaged in theological matters, but also in matters falling within the scope of science and philosophy. When their studies are examined closely, it is seen that they intensively discussed issues on the definition of knowledge, the classification of existing things, the structure of matter, properties of bodies, the nature of space, time, motion, and the problem of causation in addition to matters concerning God's existence, His oneness, His attributes, revelation, and prophethood.<sup>1</sup>

It is surprising that the *mutakallimūn* in the classical period of *kalām* actually dealt with questions pertaining to science and philosophy aside from dealing with determining, demonstrating, and defending Islam's revelation-based principles. This raises questions regarding *kalām*'s true nature and what kind of relationship it has built with science and philosophy. In fact, the discussions present in *kalām* books about such issues as knowledge (*ilm*), existent (*mawjūd*), nonexistence (*madūm*), substance (*jawhar*), accident (*araḍ*), atom (*al-juz' alladhī lā yatajazza'*), void (*khalā'*), motion, space, time and causality are usually handled in an intertwined manner with theological matters. The *mutakallimūn* used these philosophical concepts and theories to expound on theological questions. This causes most of the researchers come to the conclusion that the *mutakallimūn* did not deal with the philosophical questions related to physics and cosmology as seekers of truth, but with the purpose of defending Islam's revelation-based principles (apologetically) or demonstrating these core principles based on reason instead. However, looking closely at their works, it is easily noticeable that the *mutakallimūn* coined original concepts and developed sophisticated theories about knowledge, existence, and the universe. Besides, they discussed these matters not only with proponents of opposing thought systems but also among themselves, and penned books dedicated to explicating certain questions of physics and cosmology. This has rendered the limited and superficial framework depicting *kalām*'s association with natural sciences insufficient and brought up the idea of a more comprehensive and integrative relation.

The fact that physics-related matters are studied together with theological matters in the *kalām* books has created confusion among researchers who have attempted to describe *kalām*'s relationship with science and philosophy. Therefore, while some researchers have described this

<sup>1</sup> The fact that *mutakallimūn* dealt with philosophical and scientific issues about the universe in addition to theological issues is also reflected in their definitions of *kalām*. Imāmu'l-Ḥaramayn Abu'l-Ma'ālī al-Juwaynī (d. 478/1085), an Ash'arite scholar, defines *kalām* as follows: "Kalām is a discipline that allows knowing the universe (*ālam*), its parts (*aqṣām*), its realities (*ḥaqāiq*), its createdness (*ḥudūth*), the necessary and the impossible attributes of its creator (*muḥdith*), and prophets, differentiating prophets from dishonest ones based on miracles, what is impossible and possible among the general principles of religion (*sharī'a*). al-Juwaynī, *al-Burhān fī uṣūl al-fiqh*, (ed. 'Abd al-'Azīm al-Dīb) Doha: Jāmi'a Qatar, 1978, 1/84.

relationship between *kalām* and natural sciences in a limited and superficial way, others have claimed that the *mutakallimūn*'s engagement in physical sciences is much more profound. For instance, the renowned orientalist Montgomery Watt (1909-2006) states that the early *mutakallimūn* found the relationship between words more compelling than the causal relationship between material objects; accordingly, they were more interested in grammar and logic than in natural sciences.<sup>2</sup> Sayyid Husain Nasr, in a similar vein, says that most of the Mu'tazilī *mutakallimūn* only engaged in issues regarding theology, political-theology, and ethics; and that the interest over issues such as physics and natural sciences remained limited to some *mutakallimūn* like Abū Hudhayl al-ʿAllāf (d. 235/849-50 [?]) and al-Nazzām (ö. 231/845).<sup>3</sup>

However, scholars such as Gerlof van Vloten (1866-1903), Georges Anawati (1905-1994), Anton M. Heinen, Joseph van Ess, Abdulhamid Ibrahim Sabra (1924-2013) Alnoor Dhanani, and Mohammad Basil Altaie depict the *kalām*-science relationship in a much deeper and comprehensive manner. For instance, van Vloten, in his book "*Arab Natural Science in 9th Century*", states that the word "*mutakallim*" indicates "natural scientist"<sup>4</sup>; similarly, Anawati points out that, in the early period, the scholars of *kalām* were sometimes called "physicist" (*al-mutakallimūn fī al-tabīʿīyyāt*).<sup>5</sup>

In that vein, Anton M. Heinen asserts in his article entitled "*Mutakallimūn and Mathematicians*" that approaches to portray *kalām* as Islam's scholastic theology and accentuating its apologetic side are not compatible with historical *kalām*. For, according to him, the *mutakallimūn* paid much more attention to physical problems than what would be expected of a theologian. Moreover, in his opinion some *mutakallimūn* – such as *al-Nazzām* and *al-Jāhiz* – made invaluable contributions to the natural sciences through their experiments, observations and theories they developed in the period they lived. He also maintained that the critical approach of some noted Muslim scholars, like al-Bīrūnī, towards Aristotelian-Ptolemaic astronomy was affected by the *mutakallimūn*. Heinen suggests to those who find his expressions above exaggerated to glance through Abū Ḥasan al-Ashʿarī's *Maqālāt al-Islāmiyyīn* (The Doctrines of Muslims), a representative collection of the *mutakallimūn*'s views and theories. For this reason, according to Heinen, it is not possible for historians to comprehensively explain the development of physical and mathematical sciences in the history of Islam unless the books of the *mutakallimūn* are also taken into account.<sup>6</sup>

<sup>2</sup> W. Montgomery Watt, *Free will and Predestination in Early Islam*, (London: Luzac & Company Ltd., 1948), 88.

<sup>3</sup> Seyyed Hossein Nasr, *Islamic Philosophy from its Origin to the Present*, (New York: State University of New York Press 2006), 123.

<sup>4</sup> Gerlof van Vloten, *Ein arabischer Naturphilosoph im 9. Jahrhundert el-Dschāhiz* (Stuttgart: 1918), 13.

<sup>4</sup> Gerlof van Vloten describes the *mutakallimūn* as follows: "Even though *mutakallimūn*' works are essentially related to the dogmatic domain, their study methods required them to deal with physical problems extensively. There is hardly any scientific problem that they did not attempt to clarify. Greeks' teachings on atoms, natural qualities of elements, and the soul were also discussed by the *mutakallimūn*. Also, psychological matters were the focus of attention. Works were produced on self-knowledge and the nature of habits, original theories on the relationship of elements with each other were developed. It is noticed that occasionally the word "*mutakallim*" meant "naturalist" and "*kalām*" implied "philosophy." Gerlof van Vloten, *Ein arabischer Naturphilosoph im 9. Jahrhundert el-Dschāhiz* (Stuttgart: 1918), 13 etc. I first saw this quote in Anton M. Heinen's article "Mutakallimūn and Mathematicians", *Der Islam* 55/1 (1978), 59.

<sup>5</sup> See. Georges C. Anawati, "Kalam" entry. *Encyclopedia of Religion* (second edition) (ed. Lindsay Jones) (USA: Macmillan, 2005, 8/5059).

<sup>6</sup> Anton M. Heinen, "Mutakallimūn and Mathematicians", *Der Islam* 55/1 (1978), 57-73.

Joseph van Ess, who is one of the important researchers of the early *kalām* history, says that the main reason why the *mutakallimūn* engaged in natural sciences and cosmology was their desire to defend Islam against the religions and thought systems in the newly conquered areas. He also adds that the *mutakallimūn* later on turned this investigation into a pursuit of truth regarding the primary constituents of the universe and its way of functioning. According to him the empirical method for studying nature was used by some *mutakallimūn* in the Islamic world before the European Renaissance. Al-Nazzām's "experiments on the digestive system of ostriches" and discourses of the Basrian and Baghdadi branches of the Mu'tazila on the subject of void (*khalā*) are given as examples for this claim.<sup>7</sup>

Another remarkable researcher drawing attention to the *mutakallimūn*'s interest in scientific and philosophical matters is Abdulhamid I. Sabra, was a professor of the history of science at Harvard University. He defines *kalām* in his article "Science and Philosophy in Medieval Islamic Theology, The Evidence of The Fourteenth Century" as "an inquiry into God, and into the World as God's creation, and into man as the special creature placed by God in the World under obligation to his creator." According to Sabra, despite *kalām* being a theologically inspired and theologically oriented form of thinking, the widespread prejudice towards *kalām* that it is essentially apologetics and a sectarian polemic has hindered its proper understanding. This approach reduces the prestige of the science of *kalām* as a theoretical discipline and prevents understanding the results of its intense interaction, especially with philosophy and science. Presenting *kalām*'s great interest in philosophical and scientific matters through the example of the renowned Ash'arite *mutakallim* al-Ījī's *al-Mawāqif*, Sabra reaches the following striking conclusion in his article: "It is not possible to describe, let alone explain, the outgrowth of philosophy and science in the Islamic world without considering their interaction with *kalām*."<sup>8</sup>

In his doctoral dissertation titled *Kalām and Hellenistic Cosmology: Minimal Parts in Basrian Mu'tazilī Atomism*<sup>9</sup> written under the supervision of Abdulhamid I. Sabra, Alnoor Dhanani, shows how the role of the physical theories in the thought system of the *mutakallimūn* formed a foundation for demonstrating and defending Islamic principles.<sup>10</sup> Additionally, just as Josef van Ess did, Dhanani draws attention to the fact that cosmology occupied a central position in the *mutakallimūn*'s debates with other religions and thought systems.<sup>11</sup> However, according to him, an approach merely reducing the *mutakallimūn*'s interest in natural phenomena to theological and apologetic debates doesn't do justice to their activities in this field. In his opinion, the *mutakallimūn* engaged

---

<sup>7</sup> Josef van Ess, *Theology and Science: The Case of Abū Ishāq al-Nazzām*, Ann Arbor: Center for Near Eastern and North African Studies, University of Michigan, 1978; also see, Ahmet Mekin Kandemir, "The Hand Extending Beyond the Cosmos: Discussions on the Khalā' [Void] Between the Başran and Bağhdād Schools of Mu'tazila", *Nazariyat* 7/1 (May 2021), 1-36.

<sup>8</sup> Abdelhamid I. Sabra, "Science and Philosophy in Medieval Islamic Theology: The Evidence of the Fourteenth Century". *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften / Majallat Tārikh al-'Ulūm al-'Arabīya wa 'l-Islāmiya* 9 (1994), 1-42.

<sup>9</sup> Alnoor Dhanani published this work as *The Physical Theory of Kalām: Atoms, Space, and Void in Basrian Mu'tazilī Cosmology* (Leiden: Brill E. J. Brill, 1994).

<sup>10</sup> Alnoor Dhanani, "Kalām and Hellenistic Cosmology: Minimal Parts in Basrian Mu'tazilī Atomism", (Dissertation, Harvard University, 1991), 31 etc.

<sup>11</sup> Dhanani, *Kalām and Hellenistic Cosmology*, 46.

in the natural sciences not only to reach theological conclusions but also to address physical problems as seekers of truth. Dhanani attempts to show the validity of this claim in the physics and cosmology-related discussions that the *mutakallimūn* deal with in their works in the sections called *laṭīf* (obscure), *daqīq* (subtle) or *ghāmiḍ* (difficult).<sup>12</sup> According to him, if the *mutakallimūn*'s only purpose was to defend Islam, they would not have developed opposing theories against other members of the same theological schools on physics-related matters; or tried to solve the physical problems unrelated to theology, and most importantly they would not have established such a complex and comprehensive cosmology.<sup>13</sup> In conclusion, Dhanani argued that descriptions of *kalām*'s inquiries into scientific and philosophical issues – in particular by Peripatetic philosophers (*falāsifa*) – as a mere apologetic science cannot be tenable.<sup>14</sup>

It must be noted that there are also some researchers suggesting a middle way regarding the *mutakallimūn*'s interest in philosophical and scientific matters. In his article titled “The Scientific Value of *Daqīq al-Kalām*” where he analyses the physical theories of the *mutakallimūn* with reference to modern science, Muhammad Bāsil al-Tāi, known for his studies on *kalām*-cosmology relationship, asserts that *kalām* is divided into two parts: “*Jalīl al-Kalām*” under which matters such as God's existence, His attributes, revelation, prophethood, and afterlife are discussed, and “*Daqīq al-Kalām*” under which nature, its structure, and its way of functioning are examined. While *Jalīl al-Kalām* represents the revelation-based aspect of *kalām*, we find that the *mutakallimūn* engaged in matters related to natural philosophy in sections on *Daqīq al-Kalām*. However, according to Tāi, the *mutakallimūn* did not have the same approach to examining the natural phenomena as did philosophers. They did not speak about God only based on nature or reason, but they considered the Qurʾān too, and thus they tried to understand nature in conformity with revelation. Moreover, in Tāi's opinion, the aspect of the *kalām* examining nature started to be put aside over time; in contrast, the theology-related part of *kalām* began to be emphasized more. Hence, neglecting *Daqīq al-kalām* and focusing on *Jalīl al-kalām* have resulted in lessening *kalām*'s academic value and weakening its deep theoretical roots in the long run.<sup>15</sup>

## 1. The Distinction Between *Jalīl* and *Daqīq/Laṭīf* Matters in the Classical Period of *Kalām*

Although the analyses, as provided above, by contemporary scholars supply a general understanding of *kalām*'s relationship with science and philosophy, the most effective manner to approach the matter is a direct study of the available classical sources themselves. However, as

<sup>12</sup> Alnoor Dhanani states that “The *mutakallimūn* distinguished between two aspects of *kalām*. The first of these, which was based solely on reason, deals with ‘obscure’, ‘subtle’, or ‘difficult’ (*laṭīf/daqīq/ghāmiḍ*) questions while the second deals with ‘major’ (*jalīl*) questions [which depend on revelation]. (...) The topics covered by the ‘subtle’ questions deal mostly with cosmological concerns which, broadly speaking, consist of the problem of the nature and attributes of the things which constitute the world, the problem of the nature of man, and the problem of causation.” See Dhanani, *The Physical Theory of Kalām*, 3-4.

<sup>13</sup> Dhanani, *Kalām and Hellenistic Cosmology*, 36, 41, 43 etc.

<sup>14</sup> Also see. Alnoor Dhanani, “Problems in Eleventh-Century *Kalām* Physics”, *Bulletin of the Royal Institute for Inter-Faith Studies*, 4/1 (2002), 73-96. In this article, Dhanani calls historians of Islamic science also to take classical *kalām* books into consideration.

<sup>15</sup> Muhammad Bāsil Al-Tāi, “The Scientific Value of *Daqīq al-Kalām*”, *Islamic Thought and Scientific Creativity* V/2 (1994), 7-18.

also noted in the beginning, there are very few extant works from the early period of *kalām*, namely the 8<sup>th</sup>-9<sup>th</sup> centuries. Therefore, the study of this period depends upon the genre of *maqālāt* literature, in which the views of earlier *mutakallimūn* are preserved fragmentarily in the form of certain subject headings.<sup>16</sup>

One of the earliest extant sources preserving information about the interest of the *mutakallimūn* in science and philosophy is the famous Mu‘tazilī scholar Abū ‘Uthmān al-Jāhiz’ (d. 255/869) *Kitāb al-Ḥayawān*. Jāhiz’ work is an encyclopedic text that attempts to explain the effects of the environment and climate on the different categories of zoology and the evolution of different types of animals.<sup>17</sup> In the section titled “The Characteristics (*awṣāf*) of the *Mutakallimūn*,” Jāhiz says as follows:

“A *mutakallim* will not be able to master the complete scope of *kalām* as long as his proficiency in religion (*kalām al-dīn*) is not on the same level as his proficiency in philosophy (*kalām al-falsafa*), and he will not succeed in acquiring the qualities needed for becoming an expert or reaching the level of a master (*raʿīs*) in this discipline. In our view, a scholar (*‘ālim*) is the one who can synthesize both in his person”.<sup>18</sup>

It is remarkable to see a division of *kalām* subjects into religious and philosophical by al-Jāhiz in a period that could be considered a relatively early period of *kalām*, and his stipulation of becoming an expert in both in order to be a *mutakallim*. The text further indicates that by “philosophical theology” (*kalām al-falsafa*) al-Jāhiz refers to natural philosophy. According to al-Jāhiz, those who believe that they can establish the oneness of God (*tawḥīd*) through rejecting natures (*ṭabāʿī*) or excessively emphasizing the creator and disregarding the importance of creation, unwittingly weaken their understanding of *tawḥīd*. This is because the most powerful signs demonstrating God and His oneness are found in natures. Therefore, to remove the proofs is also to remove what they point to (*madlūl*).<sup>19</sup>

Another example for the use of the term “*al-kalām al-falsafa*” can be found in Ibn al-Nadīm’s (d. 385/995 [?]) *al-Fihrist*. While citing the names of the books written by al-Nazzām, al-Jāhiz’s teacher, Ibn al-Nadīm states that al-Nazzām follows the path of *al-kalām al-falsafa* in his poems. Ibn al-Nadīm also quoted a passage from a poem that Abū al-Nuwās (d. 198/813 [?]) wrote to criticize Nazzām’s interest and involvement in philosophy. In that passage, Abū al-Nuwās suggests that even though al-Nazzām was knowledgeable in philosophy, he was not proficient enough in it.<sup>20</sup> Ibn

<sup>16</sup> Abū al-Ḥasan al-Ash‘arī’s (d. 324/935) *Maqālāt al-Islāmiyyīn*; ‘Abd al-Qāhir al-Baghdādī’s (d. 429/1037) *al-Farq bayn al-firaq*; Shahrastānī’s (d. 548/1153) *al-Milal wa al-nihāl*, and Ibn Hazm’s (d. 456/1064) *al-Fasl fi al-milal wa al-ahwā wa al-nihāl* can be listed.

<sup>17</sup> This book is noteworthy in showing that a *kalām* scholar’s interest was not limited to theological issues and covered scientific matters as well. For detailed information on al-Jāhiz, see. Yusuf Şevki Yavuz, “Cahiz”, *TDV İslām Ansiklopedisi (DİA)*, 7/24.

<sup>18</sup> al-Jāhiz, *Kitāb al-Ḥayawān*, ed. Abd al-Salām Muḥammad Hārūn (Beirut: Dār Iḥyā al-Turāth al-‘Arabī, 1388/1969), 2/134.

<sup>19</sup> al-Jāhiz, *Kitāb al-Ḥayawān*, 2/135.

<sup>20</sup> Ibn al-Nadīm, *al-Fihrist*, ed. Rizā Tajaddud (Tahran, 1971), 538-539. This passage can be translated as follows: “Tell the one who claims the knowledge of philosophy, you said something but also left out many.”



al-Nadīm's reference to "*al-kalām al-falsafa*" when introducing al-Nazzām demonstrates the widespread use of this expression at that period to describe *kalām*'s interest in philosophy.<sup>21</sup>

The other term used in the 9<sup>th</sup> and 10<sup>th</sup> centuries in order to explain the *mutakallimūn*'s interest in philosophical and scientific matters beside *al-kalām al-falsafa* is *daqīq al-kalām* or *laṭīf al-kalām*.

*The Kitāb al-Intiṣār* by al-Ḥusayn al-Khayyāt (d. 300/913 [?]), who was one of the leaders of the Baghdādī Mu'tazilite school, is one of the earliest surviving books in which this terminology is mentioned. This work is a refutation and rebuttal of Ibn al-Rāwandī's (d. 301/913-14 [?]), *Faḍīḥat al-Mu'tazila* which he wrote against the Mu'tazila in general, and against al-Nazzām in particular.<sup>22</sup> It is significant that a large part of al-Khayyāt's response to Ibn al-Rāwandī's defamations and criticisms against the Mu'tazila and al-Nazzām involves philosophical and scientific subjects. In one of these criticisms, Ibn al-Rāwandī accuses the Mu'tazilites of being inconsistent and of upholding contradictory views and constantly debating each other. In his response to al-Khayyāt indicates that the Mu'tazilites argued mainly over *tālī* or *far'* (subsidiary) topics, and that it would be understandable for there to be no consensus in such topics. However, on major (*jalīl*) topics such as *tawḥīd*, justice, prophethood, and revelation they would be in agreement.<sup>23</sup> According to al-Khayyāt, these *tālī* matters are of the difficult and obscure subjects of *kalām* (*min ghāmiḍi al-kalāmi wa laṭīfihi*). Some of them are e.g. the continuation (*baqā'*) and annihilation (*fanā'*) of entities; the *ma'nā* theory that was developed to explain resting bodies and moving bodies; the categorization of objects (*mujānasa*); the question whether objects interpenetrate (*mudākhala*); and the acquisition of knowledge and the nature of man.<sup>24</sup> Non-Mu'tazilites would not be on the necessary level to understand or discuss these subjects unless by way of plagiarizing from the Mu'tazila. Therefore, other schools were not able to state opinions pertaining to these subjects, so the Mu'tazilites could not actually dispute with them. In these issues, the Mu'tazilite scholars would be their only opponents and for this reason, they enter into debate with one another.<sup>25</sup> In the proceeding sections of the book, al-Khayyāt asserts his views

<sup>21</sup> Also, it is noteworthy that Ibn al-Nadīm used the term "*Faylasūf al-'Arab*" when referring to al-Kindī, a contemporary of al-Nazzām, while he used the expression "*kalām al-falsafa*" for al-Nazzām. As a result, al-Nazzām can be considered to be someone who engaged philosophy in *kalām*. See. *al-Fihrist*, 828.

<sup>22</sup> For information on Abū al-Ḥusayn al-Khayyāt, see. Şerafettin Gölçük, "Hayyât", *DİA*, 17/103.

<sup>23</sup> Abū al-Ḥusayn al-Khayyāt, *Kitāb al-Intiṣār*, ed. Albert Nasri Nader (Beirut 1957), 137.

<sup>24</sup> al-Khayyāt says in a different place in his book as follows: "Have you said that disagreements among them (al-Jāhiz and his friends) are only on annihilation (*fanā'*) and persistence (*baqā'*) of the things, the *ma'nā* theory, known (*ma'lūm*) and unknown (*majhūl*) things, the one who is hindered and the one who achieve, impossibility of enduring injustice, and secondary causation (*tawallud*)? These issues are *kalām*'s obscure (*laṭīf*) and subtle (*daqīq*) issues, and these types of issues sometimes lead scholars to doubt. Ibid. 106.

<sup>25</sup> al-Khayyāt, *Kitāb al-Intiṣār*, 14. "These issues mentioned before are among the *daqīq* and *laṭīf* issues of *kalām*, which Rāfidites cannot fathom. Indeed, the fact that only a Mu'tazilī opposed to another Mu'tazilī in these matters you mentioned one by one, is proof of this. You realize that the attempts of non-Mu'tazilīs in [dealing with] these matters are nothing but stealing the Mu'tazilī teaching and adapting it themselves." Also, al-Khayyāt stated that a lot of conflicts arose among people concerning *daqīq* and *laṭīf* issues and found this normal: "Know that -may Allah guide you to goodness- regarding the annihilation of something, the questions whether or not annihilation is other than this thing or whether it inheres in this thing, or another thing are among *daqīq* and *laṭīf* issues of *kalām*. There has been great disagreement among people about these issues." See. Ibid, 19. "A mistake of any Mu'tazilī is related to the detail of *laṭīf/daqīq* issues of *kalām*. Did not you report some of their mistakes about annihilation or persistence

with growing clarity. For example, in responding to Ibn al-Rāwandī's criticism of al-Nazzām's views on the interpenetration of sounds, al-Khayyāt writes the following:

“The nature of sounds and the question of how hearing is achieved is one of the obscure and difficult subjects of *kalām* (*min laṭīf al-kalāmi wa-ghāmiḍihi*). On this subject, there are no views other than those of the Mu'tazilites. Only the Mu'tazilites can discuss these subjects because they have achieved a level of mastery in *kalām* first in the major and explicit subjects of *kalām* and also in the subtle and difficult subjects (*bi-daqīq al-kalāmi ve ghāmiḍihi*).”<sup>26</sup>

Here, we see that while al-Khayyāt defines the subjects that are the essentials of religion and with which the Mu'tazilites are in agreement as “*jalīl al-kalām*,” he denotes “*daqīq/laṭīf/ghāmiḍ al-kalām*”, i.e. the subjects pertaining to physics, such as the nature of sounds and how hearing is achieved, and where there is disagreement between the Mu'tazilites, as subsidiary (*tālī*) topics.<sup>27</sup> This is showing that the distinction between *jalīl al-kalām* and *daqīq al-kalām* in the science of *kalām* goes back at least to the 9<sup>th</sup> century.

KALĀM'S JALĪL AND DAQĪQ/LAṬĪF MATTERS ACCORDING TO AL-ḤAYYĀT	
JALĪL MATTERS	DAQĪQ/LAṬĪF MATTERS
-Divine oneness ( <i>Tawḥīd</i> )	-The annihilation ( <i>fanā'</i> ) or continuation ( <i>baqā'</i> ) of things ( <i>ashyā'</i> )
-Divine justice ( <i>ʿAdl</i> )	-The theory of knowledge (what is known ( <i>ma'lūm</i> ) and what is not known ( <i>majhūl</i> ))
-Prophethood ( <i>Risāla</i> )	-The theory of secondary causation ( <i>tawallud</i> )
-Revelation ( <i>Waḥy</i> )	-The categorisation of the objects in the World ( <i>mujānasa</i> )
	-The discussion of the whole and the part, the finite and the infinite.
	-The nature of man and of knowledge.

The chart above shows that by major issues al-Khayyāt, usually refers to revelation-based theological questions over which there is general agreement; whereas by obscure or subtle matters, he means reason-based questions over which they differ. In addition, it is also remarkable in terms of indicating the degree to which the *mutakallimūn* were involved in scientific and philosophical studies that al-Khayyāt proudly asserts that only the Mu'tazilite *mutakallimūn* dealt with *laṭīf* and *daqīq* matters at a period in which Muslim Peripatetic philosophy (*falsafa*) had not yet emerged. On the other hand, writing about *daqīq* and *laṭīf* subjects of *kalām* as subsidiary matters (*far'*) does not mean that these subjects were unimportant. Indeed, according to al-Khayyāt, the *mutakallimūn* used their discussions on the relationship between the part and the whole, and between finite and infinite as a means to support *tawḥīd* and refute the deniers.<sup>28</sup>

of things, known and unknown, secondary causation (*tawallud*), and [Mu'ammār's] *ma'na* theory when you tried to reveal the Mu'tazila's faults? Rāfidites already do not understand these matters.” Ibid, 146.

<sup>26</sup> al-Khayyāt, *Kitāb al-Intiṣār*, 43.

<sup>27</sup> al-Khayyāt also uses terms *daqīq* and *jalīl* in place of *particular* and *main* issues. When answering Ibn al-Rāwandī, he claims that God eternally knows the reality of *daqīq* and *laṭīf* matters through His essence, not with a type of knowledge outside Himself. Ibid. 112.

<sup>28</sup> al-Khayyāt, *Kitāb al-Intiṣār*, 15. “This view is a significant issue that is the essence of *tawḥīd*. That is related to what has been and what will be, finite and infinite, the whole (*kull*) and part (*juz'*). Those who are concerned about *tawḥīd* and rebuttal of unbelievers deal with these issues.” Ibid. 15; Al-Khayyāt stated that famous Mu'tazili scholar al-

Therefore, here, al-Khayyāt offers an integrative method that requires expertise in both theological and scientific matters, which was, before him, pointed at by al-Jāhīz when talking about *kalām al-dīn* and *kalām al-falsafa*.

Another text through which we may acquire a better understanding of the distinction between matters of *jalīl* and *daqīq* issues of *kalām* is al-Ash‘arī’s *Maqālāt al-Islāmiyyīn* (*The Doctrines of Muslims*). This work is of unparalleled significance for the study of the thought of the early *mutakallimūn* whose works have not survived. Moreover, the classification undertaken by al-Ash‘arī in this book in relating the thoughts of the *mutakallimūn* regarding faith and the universe is of particular importance. al-Ash‘arī concludes the section of his book dedicated to those views that led Muslims to form different sects with the statement “This is the end of the discussion on the major subjects (*hādhā ākhir al-kalām fī al-jalīl*)”; while the section dealing with subsidiary matters that have not led to division within the Muslim community commences as follows, “this is the beginning of the discussion of the subtle (*daqīq*) subjects (*hādhā dhīkr ikhtilāf al-nās fī al-daqīq*)”. We see in the section about *jalīl al-kalām* that it usually contains “theological” matters such as oneness of God, prophethood, and revelation; in the section on *daqīq al-kalām* we see different views on cosmological issues including the atom, bodies, accidents, motion, causality.<sup>29</sup>

al-Ash‘arī’s systemization of *jalīl* and *daqīq* matters in his book and the content in the section of *daqīq al-kalām* are in apparent conformity with al-Khayyāt’s previously described approach. Hence, the science of *kalām* includes matters it deems to be Islam’s foundations, which are called *jalīl*; and it also includes subsidiary issues named “*daqīq*” or “*laṭīf*” that are not part of the foundational principles of Islam. While aspects that classify as *jalīl* matters are faith-related and mostly based upon the revelation, *daqīq* matters deal with reason-based epistemological, ontological, and cosmological issues. Therefore, having different opinions in *jalīl* matters leads to sectarian divisions, while differing in *daqīq* matters, conversely, does not have such a consequence.<sup>30</sup>

An approach that is similar to al-Ash‘arī’s can be seen in the *Kitāb al-Maqālāt* of his contemporary Abū al-Qāsim al-Balkhī al-Ka‘bī (d. 319/931), who is an important representative of the Baghdadī school. The first section of al-Ka‘bī’s work deals more with theological matters such as God’s essence, His attributes, the *Qur’ān*’s characteristics, and prophethood. Later on the heading “*bāb al-qawl fī al-laṭīf*” (chapter on *laṭīf* matters) includes more philosophical and scientific issues like

---

Nazzām also said in his deathbed that he has engaged with *daqīq/laṭīf* matters to defend *tawhīd* and prayed as follows: “Shame on Ibn al-Rāwandī! While people of the world were immersed in pleasures and chasing after worldly blessings, al-Nazzām and Muslim scholars like him devoted themselves to *tawhīd* and endeavored to defend it. They tried to protect *tawhīd* against the attacks of unbelievers. They made efforts in answering apostates (*mulhīds*) and produced works against them. Many of our friends told me that al-Nazzām entrancedly prayed as follows: “My God! You know that I did not refrain from anything to prove Your oneness (*tawhīd*), and I only acknowledged *laṭīf* and *daqīq* issues of *kalām* to reinforce *tawhīd* and tried to stay away from those opposing *tawhīd*. My God! Since you know me as I have described, then forgive my sins, and ease death for me.” My friends told me that al-Nazzām passed away during this prayer. Departing this life in this manner is for those who know and fear Allah. God is the One who rewards those who are grateful like this.” See. *Ibid.* 41-42.

<sup>29</sup> al-Ash‘arī, Abū al-Ḥasan, *Maqālāt al-Islāmiyyīn wa ikhtilāf al-muṣallīn*, ed. Hellmut Ritter (Wiesbaden:1963), 181-182.

<sup>30</sup> It is known that Imām al-Ash‘arī wrote a non-surviving book named *Kitāb al-nawādir fī daqā’iq al-kalām*, where he discussed issues such as bodies, atoms, human nature, space, accidents, and motion. See. Dhanani, *Kalām and Hellenistic Cosmology*, 28-29.

the structure of bodies and the question whether it is composed of the smallest particles or not, the properties of accidents, the nature of the human, natural actions, cognition, time, place, etc.<sup>31</sup>

The approach of discussing scientific and philosophical subjects under the heading “*laṭīf al-kalām*” is also present in the *Awā'il al-maqālāt* of the Shiite intellectual Shaykh al-Mufīd (d. 413/1022). Al-Mufīd presents subjects like substance/atom, accidents, bodies, non-existent, the nature of the world, the shape of the earth, void and fullness, place, time, natures, and engenderment/secondary causality (*tawlid*) under this heading.<sup>32</sup> As such, if we consider all three *Maqālāt* works together, we see that the *mutakallimūn* treat rational and scientific subjects under the terminology of *laṭīf al-kalām* and *daqīq al-kalām*. Furthermore, these works clearly demonstrate that the *mutakallimūn* were deeply interested in scientific and philosophical subjects alongside of theological and religious subjects.

Another classical work showing the correlation between *laṭīf/daqīq* matters to philosophical and scientific issues is Ibn Fūrak's (d. 406/1015) *Mujarrad maqālāt al-Shaykh Abī al-Ḥasan al-Ash'arī* (*The pure doctrines of al-Ash'arī*). This text is vital in elaborating al-Ash'arī's views. Indeed, although al-Ash'arī's narrates the views of many of his contemporaries and predecessors in his own *Maqālāt*, he does not, out of the principle of impartiality, express therein his own thoughts. Also, al-Ash'arī does not comment on regarding the theological background of the philosophical and scientific concepts defended by the *mutakallimūn* mentioned in his work. However, the 37<sup>th</sup> section of Ibn Fūrak's work “The other inquiry regarding the clarification of the views of al-Ash'arī on *laṭīf* and *daqīq* subjects” is entirely concerned with expounding al-Ash'arī's views on substance/atoms and accidents. Here, we see that al-Ash'arī endorsed atomism, accepted the existence of the void, adopted the notion of God's custom (*āda*) on the functioning of the universe, and thus denied necessary causality. In addition, Ibn Fūrak provides here the theological backdrop to the cosmological views defended by al-Ash'arī. According to Ibn Fūrak, al-Ash'arī defined terms such as substance/atom, accident, and body in a theistic framework and explained the concept of “atom” (*al-jawhar al-fard*) by connecting it to the principle of *tawhīd*, i.e the oneness of God.<sup>33</sup>

The most explicit statements regarding the role and place of *daqīq* subjects in *kalām* and their relationship with theological matters are found in *al-Muḥīṭ bil-taklīf* of al-Qāḍī 'Abd al-Jabbār (d. 415/1025), the famous *mutakallim* of the Basrian Mu'tazila. Here, 'Abd al-Jabbār indicates that there are five fundamentals (*uṣūl*) that a *mukallaf* (religiously accountable person) must know in relation to God's existence and His oneness, and he explains it as follows:

<sup>31</sup> Abu'l-Qāsim al-Balkhī al-Ka'bī, *Kitāb al-Maqālāt wa ma'ahu 'Uyūn al-masā'il wa al-jawābāt*, ed. Hüseyin Hansu - Rājih Abdulhamīd Kurdī (Istanbul, Amman: KURAMER, Dār al-Fath 2018), 441 etc.

<sup>32</sup> See. Shaykh al-Mufīd, *Awā'il al-maqālāt*, ed. Mehdi Muhaqqiq (Tahran: Dānīshgāh-e Tahrān, 1372/1993), 40 etc. Shaykh al-Mufīd, who was clearly influenced by the Baghdadī Mu'tazila, despite accepting atom's existence (*jawhar al-fard*), associated cosmological matters with “*tawhīd*,” for instance, regarded deniers of atom's existence as unbelievers, just as Imām al-Ḥasan did. He says as follows: “Bodies (*ajsām*) consist of indivisible atoms. Except for some apostate (*mullīd*) Mu'tazilites, everyone who believes the oneness of God accepts this premise.”

See. Shaykh al-Mufīd, *Awā'il al-maqālāt*, 40; For Shaykh al-Mufīd's cosmology understanding, also see. Martin J. McDermott, *The Theology of al-Shaikh al-Mufīd* (Beyrut: 1978), 189 etc.

<sup>33</sup> Ibn Fūrak, *Mujarradu maqālāt al-Shaykh Abī al-Ḥasan al-Ash'arī*. ed. Daniel Gimaret (Beyrut: Dār al-Mashriq 1987), 202.

“These fundamentals are only completed by the subsidiary (*tālī*) subjects. This is the reason why our friends speak on the *daqīq* issues. The foundational principles are explained in order to correct the argument, respond to questions, and remove doubts. And this includes proving the existence of temporal beings (*ḥādīth*) that point to the existence of God and speaking about the temporality of bodies and things that are not bodies. There are innumerable examples for *daqīq* matters. For instance, if it was argued that an infinite number of bodies exists because there was an infinite amount of numbers, the theory on the atom (*juzʿ*) would be needed to refute it. This also applies to proving the existence of the Creator. On this, one has to be able to confront Zakariyyāʾ al-Rāzī [d. 313/925], who argues that God has not the power to create the essence of the matter, and dispute with him. In the same way, you need to dispute with him on time and space [which he considers to be eternal] too...”<sup>34</sup>

As can be seen here, al-Qāḍī ʿAbd al-Jabbār terms cosmological matters such as the creation of the universe, body, atom, space and time as *daqīq* subjects, and categorizes them as the subsidiary matters by which the fundamentals of *tawḥīd* are established and defended. Therefore, his approach to this subject corresponds to those of his predecessors al-Jāḥiẓ, al-Khayyāṭ and al-Ashʿarī. On the other hand, al-Qāḍī ʿAbd al-Jabbār also uses the term “*daqīq al-kalām*” in referring to other *mutakallimūn*. For example, in speaking of Abū al-Hudhayl al-ʿAllāf in his work *Faḍl al-ʿitizāl wa Ṭabaqāt al-Muʿtazila*, ʿAbd al-Jabbār notes that Abū al-Hudhayl al-ʿAllāf conversed with Hishām b. al-Ḥakam and others and disputed on *daqīq* subjects.<sup>35</sup> He also says about Nazzām, the cousin and student of Abū al-Hudhayl the followings:

“Ibrāhīm al-Nazzām was one of his [Abū al-Hudhayl] students. As he was on his way to the Hajj, he met Hishām b. al-Ḥakam and others. He discussed with them the *daqīq* subjects of *kalām*. He also read the works of the [ancient] philosophers. Later, he returned to Basra, believing that he resolved *kalām*’s difficult and confusing subjects (*min laṭīf al-kalām*), which others before him had failed to understand”.<sup>36</sup>

A Muʿtazilite biographical author al-Ḥākim al-Jushamī (d. 494/1101) when speaking of al-Qāḍī ʿAbd al-Jabbār’s prestige and influence among the Muʿtazilites, distinguished between the *jalīl* and *daqīq* subjects of *kalām*:

“I have not found any accounts that harm the reputation of al-Qāḍī ʿAbd al-Jabbār, his high status, virtue and knowledge. This is because he has revealed *kalām* for others and achieved important works in this pursuit. Because of his efforts, *kalām* spread to the East and the West and to the near and far four corners of the world. In his works, in addition to the *jalīl* issues of *kalām*, he also examined the *daqīq* subjects of this science in a way that has never been achieved before by any other person”.<sup>37</sup>

An report attributed to al-Qāḍī ʿAbd al-Jabbār’s student Abū Rashīd al-Nīsābūrī (d. 415/1024) clarifies what is meant here by “*daqīq* subjects”. It is narrated that when he was in the academic circle of al-Qāḍī ʿAbd al-Jabbār, al-Nīsābūrī decided to sort the *kalām*-related authoritative rulings

<sup>34</sup> al-Qāḍī ʿAbd al-Jabbār, *al-Majmūʿ fi al-muḥīṭ bi al-taklīf*, ed. J. J. Houben (Beirut: Dār al-Mashriq, 1986), 26-27.

<sup>35</sup> al-Qāḍī ʿAbd al-Jabbār, *Faḍlu al-ʿitizāl wa Ṭabaqāt al-Muʿtazila* (in *Faḍlu al-ʿitizāl wa Ṭabaqāt al-Muʿtazila*) ed. Fuād Seyyid (Tunus 1393/1974), 254.

<sup>36</sup> al-Qāḍī ʿAbd al-Jabbār, *Faḍlu al-ʿitizāl*, 26.

<sup>37</sup> al-Ḥākim al-Jushamī, *Sharḥ al-ʿUyūn* (in *Faḍlu al-ʿitizāl wa Ṭabaqāt the Muʿtazila*), ed. Fuād Seyyid (Tunus 1393/1974), 365.

(*fatāwā*) of his teacher in a book (*Dīwān al-uṣūl*) and ranked the subjects of body and accident before the subjects of *tawḥīd* and justice (*‘adl*) in this work; however, al-Qāḍī ‘Abd al-Jabbār did not approve of this classification and requested that *jalīl* subjects must be treated before *daqīq* ones. In this case, it can be understood that according to al-Qāḍī, issues such as body and accident fell under the category of *daqīq* and those such as *tawḥīd* and justice under that of *jalīl*.<sup>38</sup>

The distinction between *jalīl* and *daqīq* in *kalām* can also be seen in the Zaydī Ibn al-Murtaḍā (d. 840/1437). In commenting on works written by *mutakallimūn*, Ibn al-Murtaḍā differentiates between *daqīq al-kalām* and *jalīl al-kalām*. While introducing Jā‘far b. Ḥarb (d. 236/850) in his *al-Munya*, he notes that Jā‘far ibn Ḥarb was a very ascetic and knowledgeable person of his time and compiled many works on *jalīl* and *daqīq* issues of *kalām*.<sup>39</sup> Also, in relation to Abū al-Hudhayl, he says that “it was narrated from Yaḥyā ibn Bishr that Abū al-Hudhayl al-‘Allāf refuted his opponents in around sixty works on *daqīq al-kalām* and *jalīl al-kalām*.”<sup>40</sup>

On the other hand, the distinction between *jalīl* and *daqīq* issues in classical *kalām* was also used by those out of *kalām*. For example, in the *Risāla fi thamarāt al-‘ulūm* of Abū Ḥayyān al-Tawḥīdī (d. 414/1023), an important master of Arabic prose, *kalām* is introduced as a science consisting of two parts, rationally based (*yatafarradu al-‘aql bihi*), *daqīq* and based on revelation (*yufza‘u ilā kitāb Allāhi fīhi*), *jalīl*.<sup>41</sup>

Lastly, it should be noted that the distinction of *daqīq al-kalām* and *jalīl al-kalām* has also been used to condemn the *mutakallimūn*. Some Zaydī-Salafī scholars like Ibn al-Wazīr (d. 840/1436) criticized certain *mutakallimūn*, such as al-Ḥākim al-Jushamī, and Ibn Mattawayh, for their view that the soul merely consisted of breath and air, which they based on their atomic cosmology. Ibn al-Wazīr associates the root of this problem with the *mutakallimūn*’s engagement with *daqīq al-kalām*.<sup>42</sup> Referring to Ibn Mattawayh’s *Tadhkira*, Ibn al-Wazīr opens a chapter titled “the *mutakallimūn*’s withdrawal from dealing with *daqīq al-kalām*”, and here, he claims that *mutakallimūn* are doomed unless they disassociate themselves from *daqīq al-kalām*. al-Ḥākim al-Mu‘tazilī, in his outstanding treatise about *ma‘rifa Allah* (knowing Allah), says: “Jā‘far b. Ḥarb and Jā‘far b. Mubashshir among the *mutakallimūn* stopped engaging in *daqīq al-kalām*. Al-Ghazālī, in his *Iḥyā ‘Ulūm al-Dīn*, also took a similar stance on this issue, and did not consider treating these matters in detail necessary.”<sup>43</sup> Under another heading named “The way to be saved from *kalām*,” Ibn al-Wazīr asserts that indulging in *kalām* is unnecessary by pointing out to *al-Tadhkira* and Fakhr al-Dīn al-Rāzī’s

<sup>38</sup> See. Ma‘n Ziyāda-Rıdvān Sayyid, *al-Masā’il fi al-khilāf bayn al-basriyyin wa al-Baghdādiyyin* (Abū Rashīd al-Nisābūrī’s foreword), Beirut 1979, 6.

<sup>39</sup> Aḥmad ibn Yaḥyā al-Murtaḍā, *Bāb Dhikr al-Mu‘tazila min Kitāb al-Munya wa al-amal*, ed. Thomas Walker Arnold (Leipzig 1902), 41.

<sup>40</sup> Ibn al-Murtaḍā, *Kitāb Tabaqāt al-Mu‘tazila*, ed. Susanna Diwald Wilzer (Beirut: Maktabat al-Hayāt), 44.

<sup>41</sup> Abū Ḥayyān al-Tawḥīdī, *Kitāb al-Adab wa al-inshā fi al-ṣadaqa wa al-ṣadiq* (Cairo 1323/1905), 192.

<sup>42</sup> Ibn al-Wazīr, *Īthār al-ḥaqq ‘alā al-khalq*. ed. Anū ‘Abd al-Raḥmān Nabil Salah ‘Abd al-Majīd Salīm. Samanud (Egypt), Maktaba Ibn ‘Abbās, 2010, 1/59; For Ibn Mattawayh’s views on the soul, see. Ibn Mattawayh, *al-Tadhkira fi aḥkām al-jawāhir wa al-‘arāḍ*, ed. Daniel Gimaret (Cairo: al-Ma‘ha al-Fransī, 2009), 2/380, 386-387; For Ibn Mattawayh’s views on cosmology, see. Metin Yıldız, *Kelam Kozmolojisi Mu‘tezilenin Âlem Anlayışı* (Istanbul: Endulus, 2020); al-Ash‘ari has similar ideas on the soul to Ibn Mattawayh. See. Ibn Fūrak, *Mujarrad*, 267.

<sup>43</sup> Ibn al-Nadīm, *al-Fihrist*, 204.

*Muḥaṣṣal*.<sup>44</sup> According to Ibn al-Wazīr, to substantiate sublime issues by means of low-level methods is not right. Indeed, diving into profound issues using this method can neither help with doubts nor remove them. He further says on the issue: “Jubbāi and Mattawayhī treatment cannot help a person who could not benefit from divine and prophetic treatment.”<sup>45</sup>

In summary, the conclusion to be reached through all of these works is that since the early periods, *kalām* issues are divided into two parts: *jalīl al-kalām* and *daqīq al-kalām*.<sup>46</sup> Accordingly, issues pertaining to Islam’s fundamentals, such as God’s essence and His attributes, prophethood, afterlife, and revelation, are termed *jalīl al-kalām*; matters related to epistemology, ontology, physics, and cosmology are named *daqīq al-kalām* or *laṭīf al-kalām*. The first part (*jalīl*) is mostly based on revelation; in contrast, the second part is based on reason. Moreover, since this part is not directly a component of faith principles and counted as subsidiary, it does not lead to sectarian divisions. As we cited above from some *mutakallimūn* like al-Jāhīz, al-Khayyāt, al-Ash‘arī, Ibn Fūrak, Shaykh al-Mufīd, and al-Qāḍī ‘Abd al-Jabbār, the purpose of the second part of *kalām* is to build a foundation for the *jalīl* matters, especially “the principle of *tawḥīd*,” and to function as a means to defend it.

## 2. The Main Scientific and Philosophical Issues that the Scholars of *Kalām* were Occupied with under the Heading of *Daqīq* and *Laṭīf* Matters

After showing that the *mutakallimūn* divided the subjects of *kalām* into those based on revelation, *jalīl al-kalām*, and those based on reason, *daqīq al-kalām*, the question of what kind of scientific and philosophical matters they discussed under the category of *daqīq* or *laṭīf* issues arises. In this chapter, I will attempt to identify that in which matters the 9<sup>th</sup> and 10<sup>th</sup>-century scholars, whose works are not extant, were more interested in, especially based on the *daqīq* or *laṭīf al-kalām* chapters in the *Maqālāt* books of al-Ka‘bī, Shaykh al-Mufīd, and al-Ash‘arī. However, while doing so, two other very important books representing approximately the same period will be used. For this purpose, a list of scientific and philosophical books which were attributed to the *mutakallimūn* of 9<sup>th</sup> and 10<sup>th</sup> centuries in Ibn al-Nadīm’s *al-Fihrist* will be presented. Even though these books are not available today and there is no information about their contents, their titles will provide us an insight into the subjects of the books written on the *daqīq al-kalām* by the *mutakallimūn*. Then, some information will be given about the content of Ibn Mattawayh’s *al-Tadhkira fī aḥkām al-jawāhir wa al-a‘rād* (*On the Properties of Substances/Atoms and Accidents*), which is also titled as *Tadhkira fī laṭīf al-kalām*.<sup>47</sup> This book will provide us an opportunity to discern how Ibn Mattawayh treated the terms, substance/atom (*jawhar*) and accident (*‘arād*), which he considered among the *laṭīf* or *daqīq* issues of *kalām*. Thus, through three different works, the kind of philosophical and scientific issues that the *mutakallimūn* discussed under the headings of *daqīq* and *laṭīf* matters between the 9<sup>th</sup> and 10<sup>th</sup> centuries will be revealed.

<sup>44</sup> Ibn al-Nadīm, *al-Fihrist*, 204.

<sup>45</sup> Ibn al-Wazīr, *Tarjīḥu asālib al-Qur‘ān ‘alā asālib al-Yūnān* (Bairut: Dār al-Kutub al-‘ilmiyyah, 1984), 91. For detailed information, see. Metin Yıldız, *İbn Metteveyh’in Kozmoloji Anlayışı*, 35.

<sup>46</sup> In al-Jāhīz, this division is in the form of “*kalām al-dīn – kalām al-falsafa*”. See. *Kitāb al-Ḥayawān*, 2/134.

<sup>47</sup> See. *Kalām and Hellenistic Cosmology*, 26.

Starting with the *Maqālāt* books, major scientific and philosophical subjects that al-Ash‘arī examined under the title of “Views of People on Subtle (*daqīq*) Issues” in his *Maqālāt al-Islāmiyyīn* can be listed as follows:<sup>48</sup>

SOME HEADINGS FROM THE DAQĪQ CHAPTER OF AL-ASH‘ARĪ’S MAQĀLĀT	
Quiddity ( <i>māhiya</i> ) of the body ( <i>jism</i> )	Whether five senses are homogenous ( <i>mutajānis</i> ) or different genera
Controversy ( <i>ikhtilāf</i> ) over substance ( <i>jawhar</i> ) and its meaning	Motions, rest, and actions
Whether all substances are bodies or not	Homogeneity of motions and whether they are one genus or not
Whether substances are homogenous ( <i>jins wāhid</i> ) or not	Whether accidents ( <i>a‘rāḍ</i> ) are perpetual or not
Whether decomposition of the body [into atoms] is possible	Whether accidents cease to exist or not
Existence of two movements in one part ( <i>juz’</i> )	Persistence ( <i>baqā’</i> ) and annihilation ( <i>fanā’</i> )
Leap ( <i>tafra</i> )	Conversion of accidents into bodies and visa-versa
Movement of a thing to another place while its place is moving	Whether the motion is motion due to its essence and without a quality ( <i>ma‘na</i> ).
Controversy ( <i>ikhtilāf</i> ) over the standing ( <i>wuqūf</i> ) of the earth	Permissibility of bringing back the accidents
Interpenetration ( <i>mudākhala</i> ), latency ( <i>mukāmana</i> ) and proximity ( <i>mujāwara</i> )	Perception ( <i>idrāk</i> ) of perceptible things
Quiddity ( <i>māhiya</i> ) of human	Cause of the perception
Knowledge of color through senses.	The thing seen in the mirror
Engenderment/secondary causation ( <i>tawallud</i> )	Place ( <i>makān</i> )
Weight and lightness	Time ( <i>waqt</i> )
Whether the shadow of thing is that thing or something else	Known ( <i>ma‘lūm</i> ) and unknown ( <i>mechūl</i> )
Life ( <i>ḥayāt</i> )	Causes ( <i>asbāb</i> )
How the sound is heard and whether its transmission is possible or not	The subject of senses and the possibility of a sixth sense
Whether sound is a body ( <i>jism</i> ) or not	The soul, anima, and the life
Ideas/thoughts ( <i>khawātir</i> )	The one who reaches his hand beyond the universe

<sup>48</sup> al-Ash‘arī, *Maqālāt*, 301.



God's creation of the universe without being in a place ( <i>makān</i> )	Removal of air ( <i>havāʾ</i> ) from the space ( <i>ḥayyiz</i> ) of bodies
--	--

What strikes us the most about the headings is that that the *mutakallimūn* were mostly interested in philosophical and scientific issues related to physics and cosmology. Accordingly, the *mutakallimūn* intensely discussed such issues as the essential elements forming the universe, the structure and properties of objects, their change and continuity, substance and accident, and causality. In addition, they were also intrigued by some other issues such as human essence, senses, perception, soul, breath, and life. Besides, what al-Ashʿarī recounted under different headings shows that the *mutakallimūn*, in that period, made a special effort to explain motion.

Another remarkable thing in al-Ashʿarī's book is the richness of discussions among the *mutakallimūn* especially on physics-related matters. Although the discussions took place mainly between the Basrian and Baghdādī schools of the Muʿtazila, when examined in detail, there was hardly any *mutakallim* who did not have an opinion on subjects such as the structure of the objects, substances, accidents, and causality. For instance, al-Ashʿarī stated that the *mutakallimūn* were divided into twelve groups regarding the structure of the objects.<sup>49</sup> He also indicates that the *mutakallimūn* were split up into fourteen groups as to whether objects can be divided into the smallest part. As for the content of these discussions, it can be said that the *mutakallimūn* developed some complicated theories and original terms, such as leap (*tafra*), latency (*kumūn*), manifestation/appearance (*zuhūr*), engenderment/secondary causation (*tawallud*), custom (*ʿāda*), interpenetration (*tadākhul*). This shows that the *mutakallimūn* fully incorporated scientific and philosophical matters. Hence, a community interested in epistemological and cosmological issues was formed.

After al-Ashʿarī's *Maqālāt*, we encounter a similar case when we look at the *Kitāb al-Maqālāt* of Abu'l-Qāsim al-Balkhī al-Kaʿbī (d. 319/931), one of the Baghdādī school leaders. Like al-Ashʿarī, al-Kaʿbī has a chapter titled "the chapter on *laṭīf* issues" (*bābu'l-qawli fī'l-laṭīf*) in which he deals with the philosophical and scientific views of the *mutakallimūn*.<sup>50</sup> Headings of philosophical and scientific ideas that al-Kaʿbī attributed to the *mutakallimūn* can be listed as follows:

SOME HEADINGS OF THE LAṬĪF CHAPTER OF AL-KAʿBĪ'S MAQĀLĀT	
Views ( <i>al-qawl</i> ) on whether "non-existent" ( <i>maʿdūm</i> ) is "thing" ( <i>shayʾ</i> ) or not	Views on natural actions ( <i>aḥwāl</i> ʿ- ṭibāʾ)
Views on the quiddity of the body ( <i>jism</i> ) and its other states ( <i>aḥwāl</i> )	Views on perception ( <i>idrāk</i> ) and senses ( <i>ḥawās</i> )
Views on the earth, its origination, and the whole universe ( <i>ʿālam</i> )	Views on latency ( <i>kumūn</i> )
Views on one of the two stones passing the other when thrown	Views on air ( <i>havāʾ</i> )

<sup>49</sup> al-Ashʿarī, *Maqālāt*, 301.

<sup>50</sup> al-Kaʿbī, *Kitāb al-Maqālāt*, 441 etc.

Views on whether it is possible to divide the [indivisible] part ( <i>juzʿ</i> ) of the body	Views on place ( <i>makān</i> )
Views on accidents ( <i>aʿrāḍ</i> ) of the body	Views on time ( <i>waqt</i> )
Views on human ( <i>ʿinsān</i> )	Views on whether someone looking at the universe will see something or whether their hand can reach it when they extend their hand or not
Views on creation ( <i>khalq</i> ), persistence ( <i>baqāʾ</i> ), annihilation ( <i>fanāʾ</i> ), and re-creation ( <i>iʿāda</i> ) of something	Views on a particle ( <i>zarra</i> ) on a large ship
Views on whether causes precede the effects or coexist with them	Views on what is seen in the mirror
Views on perception ( <i>idrāk</i> )	Views on senses ( <i>ḥawās</i> )

As can be understood from the table above, subjects al-Kaʿbī discussed in his *Maqālāt* under the *laṭīf al-kalām* heading seem to have a similar theme to those that al-Ashʿarī included in his *Maqālāt* under the *daqīq al-kalām* heading. What differs between al-Kaʿbī and al-Ashʿarī is that al-Kaʿbī starts his chapter with the question of whether the nonexistent can be considered a thing rather than the problem of the nature of objects. This question that is of both ontological and epistemological aspects, became, later on, one of the main questions of dispute among the *mutakallimūn*. It is also possible to find information in al-Kaʿbī's *Maqālāt*, which are not available in al-Ashʿarī's *Maqālāt*, on the ideas of some *mutakallimūn*, such as Abū al-Hudhayl and al-Nazzām, about the structure and the properties of bodies, motion, causality, the nature of space and time.

The other *Maqālāt* work we are going to examine belongs to Shaykh al-Mufid (d. 413/1022). Similar to al-Kaʿbī and al-Ashʿarī, he also discussed the *mutakallimūn*' ideas related to physics and cosmology under the heading of *laṭīf* issues (*bāb al-qawl fī al-laṭīf min al-kalām*).<sup>51</sup>

SOME HEADINGS FROM THE LAṬĪF MIN AL-KALĀM CHAPTER OF SHAYKH AL-MUFĪD'S AWĀʾIL AL-MAQĀLĀT	
Substances/atoms ( <i>jawāhir</i> )	Quiddity ( <i>māhiyya</i> ) of the universe ( <i>ʿālam</i> )
Are substances/atoms homogeneous ( <i>mutajānis</i> ) or different ( <i>iḥtilāf</i> ) from each other?	Celestial sphere ( <i>falak</i> )
Do substances/atoms have surface ( <i>masāha</i> ) and magnitudes ( <i>aqḍār</i> ) in themselves?	Motion of the celestial sphere
Place ( <i>ḥayyiz</i> ) of substances/atoms and accidents of location ( <i>akwān</i> )	Earth and its shape; is the earth moving or at rest?
Substances/atoms and their concomitants: accidents	Void ( <i>khalāʾ</i> ) and fullness ( <i>malāʾ</i> )

<sup>51</sup> al-Shaykh al-Mufid, *Awāil al-Maqālāt*, ed. Ibrāhīm al-Anṣārī (Mashad: el-Muʿtamar al-ʿĀlam li Alfīyah al-Shaykh al-Mufid, 1413/2000), 95.

Persistence ( <i>baqāʿ</i> ) of substances/atoms	Place ( <i>makān</i> )
Do substances/atoms need a place ( <i>makān</i> )?	Time ( <i>zamān</i> ) and moment ( <i>waqt</i> )
Bodies ( <i>aḥsām</i> )	Natures ( <i>ṭabāʿi</i> )
Accidents ( <i>aʿrāḍ</i> )	Composition of bodies out of natures ( <i>ṭabāʿi</i> ) and their conversion into matter ( <i>ʿunṣūr</i> ) and <i>uṣṭuqus</i>
Reversion ( <i>qalb</i> ) of accidents and their re-creation ( <i>iʿāda</i> )	Will and its necessity
Non-existent ( <i>maʿdūm</i> )	Engenderment/secondary causation ( <i>tawallud</i> )
Difference between what is necessitated ( <i>mūjab</i> ) and what is engendered ( <i>mutawallid</i> )	Types of generative ( <i>muwallid</i> ) and engendered ( <i>mutawallid</i> ) acts.

As can be seen from the table, the headings of the *laṭīf al-kalām* chapter of Shaykh al-Mufīd's *Maqālāt* are largely similar to the issues that al-Ashʿarī and al-Kaʿbī dealt with under the *daqīq* and *laṭīf* chapters respectively. The difference is that, besides void, Shaykh al-Mufīd included issues such as *falak* and its motion, as well.

Considering all three *Maqālāt* works together, it appears that, from the end of the 8<sup>th</sup> century to the 9<sup>th</sup> century, theologians were intensely concerned with philosophical and scientific issues and mostly treated them under the title of *daqīq* and *laṭīf* issues. Also, the richness of the discussions held on physics-related issues and the participation of many *mutakallimūn* in these discussions show the emergence of a creative environment regarding the structure of the universe, matter and its properties. This assertion necessitates pursuing the origins of cosmological theories - particularly atomism- maintained by the *mutakallimūn* in creative and authentic inner processes of disputation of that period of *kalām* instead of external sources. The fact that the *mutakallimūn* developed a type of atomism unprecedented in other civilizations confirms this assertion.

On the other side, when looking at the books that Ibn Nadīm assigned to the *mutakallimūn*, we encounter a situation similar to that of *Maqālāt* works. In his book, Ibn Nadīm ascribed various books written on particular issues of physics and cosmology to Hishām b. al-Ḥakam, Ḍirār b. ʿAmr, Ḥafṣ al-Fard (d. 195/810), Abū Bakr al-Aṣamm, Bishr b. al-Muʿtamir (d. 210/825), Jaʿfer b. Ḥarb, Muʿammar b. ʿAbbād, Abū al-Hudhayl al-ʿAllāf, Ḥusayn al-Najjār (d. 220-230/835-845), Ibrāhīm b. al-Sayyār al-Nazzām, and many more *mutakallimūn*. The scientific and philosophical books that Ibn al-Nadīm attributed in his *al-Fihrist* to the 9<sup>th</sup> and 10<sup>th</sup>-century *mutakallimūn* can be listed in chronological order as follows:<sup>52</sup>

<sup>52</sup> Alnoor Dhanani organized these books Ibn al-Nadīm attributed to *mutakallimūn* under three headings as follows: Books written by *mutakallimūn* exclusively on certain physics subjects, Refutations of *mutakallimūn* against each other on various issues of cosmology, and Cosmology-oriented books written by *mutakallimūn* against different religions and thought systems. *Kalām and Hellenistic Cosmology*, 40.

Hishām b. al-Ḥakam (d. 179/795): *Kitāb al-Radd ‘alā aṣḥāb al-ṭabā’i‘* (The refutation of the Naturalists), *Kitāb ‘alā Aristutālīs fī al-tawḥīd* (Against Aristotle on tawḥīd), *Kitāb al-Radd ‘alā al-zanādika* (The refutation of the Zanādika), *Kitāb al-Radd ‘alā aṣḥāb al-ithnayn* (The refutation of the Dualists);<sup>53</sup>

Ḍirār b. ‘Amr (d. 200/815 [?]): *Kitāb Ikhtilāf al-ajzā’* (On difference of the parts), *Kitāb al-Dalāla ‘alā ḥadath al-ashyā’* (The Argument on createdness of the things), *Kitāb al-Radd ‘alā Aristutālīs fī al-jawāhir wal-a‘rād* (The refutation of Aristotle on substances and accidents), *Kitāb al-Radd ‘alā aṣḥāb al-ṭabā’i‘* (The refutation of the Naturalists);<sup>54</sup>

Abū al-Hudhayl al-‘Allāf: *Kitāb al-Jawāhir wal-a‘rād* (On substances and accidents), *Kitāb al-Masā’il fī al-ḥarakāt wa ghayrihā* (The questions on motion and other accidents) and *Kitāb al-Ḥarakāt* (On motion), *Kitābu Tathbīt al-a‘rād* (The demonstration of accidents), *Kitāb fī al-Ṣawt mā huwa* (On sound, what is it), *Kitāb al-Insān mā huwa* (On human, what is it), *Kitāb al-Tawlīd ‘alā al-Nazzām* (Against al-Nazzām on causality), *Kitāb al-Ṭafra ‘alā al-Nazzām* (Against al-Nazzām on leap), *Kitāb ‘alā al-Nazzām fī al-insān* (Against al-Nazzām on human), *Kitāb ‘alā al-sūfistā’iyya* (Against the Sophists), *Kitāb ‘alā al-majūs* (Against Zoroastrians);<sup>55</sup>

al-Nazzām: *Kitāb al-Juz’* (On atom), *Kitāb al-Tawallud* (On causality), *Kitāb al-Ṭafra* (On leap); *Kitāb al-Mudākhala* (On al-mudākhala), *Kitāb al-Ḥarakāt* (On motion), *Kitāb al-Jawāhir wa al-a‘rād* (On substances and accidents), *Kitāb al-Insān* (On human), *Kitāb al-ma’nā ‘alā Mu‘ammar* (Against Mu‘ammar on al-ma’nā), *Kitāb ‘alā aṣḥāb al-hayūlā* (Against the Proponents of hyle), *Kitāb al-Radd ‘alā al-dahriyya* (The refutation of the Dahriyya), *Kitāb al-Radd ‘alā aṣḥāb al-ithnayn* (The refutation of the Dualists);<sup>56</sup>

Mu‘ammer b. ‘Abbād (d. 215/830): *Kitāb al-Juz’ alladhī lā yatajazza’* (On the indivisible particle), *al-Kawli bi al-al-a‘rād wa al-jawāhir* (On substances and accidents), *Kitāb ‘illal al-karastūn wa al-mir’a* (On balances and mirrors),<sup>57</sup> *Kitāb tathbīt dalāla al-a‘rād* (The demonstration of accidents), *Kitāb ithbāt al-juz’ alladhī lā yatajazza’* (The demonstration of the indivisible particle);<sup>58</sup>

Abū Bakr al-Aṣamm (d. 200/816): *Kitāb al-Ḥarakāt* (On motion),<sup>59</sup> *Kitāb al-Radd ‘alā al-dahriyya* (The refutation of the Dahriyya);<sup>60</sup>

Hishām al-Fuwātī (d. 218/833): *Kitāb al-Radd ‘alā al-Aṣamm fī nafy al-ḥarakāt* (Against al-Aṣamm on refutation of motion);<sup>61</sup>

Bishr b. Mu‘tamir: *Kitāb al-Tawallud ‘alā al-Nazzām* (Against al-Nazzām on causality);

Ja‘far b. Ḥarb (d. 236/850): *Kitāb al-Radd ‘alā aṣḥāb al-ṭabā’i‘* (The refutation of the Naturalists);<sup>62</sup>

<sup>53</sup> Ibn al-Nadīm, *al-Fihrist*, 224.

<sup>54</sup> Ibn al-Nadīm, *al-Fihrist*, 215.

<sup>55</sup> Ibnü’n-Nedīm, *el-Fihrist*, 204.

<sup>56</sup> Ibn al-Nadīm, *al-Fihrist*, 206.

<sup>57</sup> Ibn al-Nadīm, *al-Fihrist*, 207.

<sup>58</sup> Ibn al-Nadīm, *al-Fihrist*, 215.

<sup>59</sup> Ibn al-Nadīm, *al-Fihrist*, 214.

<sup>60</sup> Ibn al-Nadīm, *al-Fihrist*, 214.

<sup>61</sup> Ibn al-Nadīm, *al-Fihrist*, 214.

<sup>62</sup> Ibn al-Nadīm, *al-Fihrist*, 213.

Abū Hāshim: *Kitāb al-Naqd 'alā Aristutālīs fī al-kawn wa al-fasād* (The critique against Aristotle on generation and corruption), *Kitāb al-Ṭabā'i' wa al-naqd 'alā al-qā'ilin bihā* (On natures and the critique against their proponents).<sup>63</sup>

As is seen, the books that Ibn al-Nadīm reported clearly show that the *mutakallimūn*'s interest in physics-related issues cannot be limited to a few names such as al-Nazzām and al-Jāhiz, but this was a field of study to which theologians from all different groups actively contributed. In addition, it is noticed that the scholars of *kalām* not only contented themselves with writing books criticizing each other and other thought systems but also wrote to explain certain philosophical and scientific matters, such as the nature of knowledge, the structure of objects, substance, accident, motion, and causality.

On the other hand, Ibn al-Nadīm's *al-Fihrist*, and al-Ash'arī's and al-Ka'bī's *Maqālāt*s give some hints about the beginning of philosophical and scientific discussions in *kalām*, because in these books, no physics-related ideas or scientific books were attributed to the scholars known as the first founders of *kalām*, such as Wāṣil b. 'Aṭā' and 'Amr b. 'Ubayd.<sup>64</sup> However, in the generation of Hishām b. al-Ḥakam, Ḍirār b. 'Amr and Abū al-Hudhayl al-'Allāf, a great number of ideas<sup>65</sup> and books<sup>66</sup> related to physics and cosmology were attributed to these scholars. The striking point here is that scholars such as Hishām and Ḍirār b. 'Amr lived even before al-Kindī, who is considered the first Muslim philosopher, and prior to the transmission of Greek philosophical works in the Muslim world. Some *mutakallimūn*' writing books<sup>67</sup> criticizing Aristotle prior to the presence of the Muslim philosophers, like al-Kindī, indicates that they knew about Greek philosophers' ideas well enough to criticize them.<sup>68</sup> This is of great importance in revealing the existence of the philosophical and scientific debates among the *mutakallimūn* before al-Kindī.<sup>69</sup>

It is also possible to demonstrate which philosophical and scientific issues that the *mutakallimūn* dealt with under the title of *laṭīf* and *daqīq* matters through the example of Ibn Mattawayh's book called *al-Tadhkira fī aḥkām al-jawāhir wa al-al-a'rāḍ* (On the Properties of Substances/Atoms and Accidents). The value of this book arises from the fact that it is dedicated to the discussions on substances and accidents. Additionally, the other title of this book, *Tadhkira fī laṭīf al-kalām*, gives another evidence to the fact that the *mutakallimūn* examined physics and cosmology-related issues, such as substances and accidents, under the title of *laṭīf al-kalām*.

Ibn Mattawayh started *Tadhkira fī laṭīf al-kalām* with a classification about the objects of knowledge (*ma'lumāt*).<sup>70</sup> He classifies the objects of knowledge into two parts as *mawjūd* and *ma'dūm*. *Mawjūd*

<sup>63</sup> Ibn al-Nadīm, *al-Fihrist*, 236 etc.

<sup>64</sup> Ibn al-Nadīm, *al-Fihrist*, 202.

<sup>65</sup> al-Ash'arī, *Maqālāt*, 260.

<sup>66</sup> Ibn al-Nadīm, *al-Fihrist*, 204, 224.

<sup>67</sup> For instance, Hishām ibn Hakam's *Kitāb 'alā Aristotālīs fī al-tawḥīd*, which he wrote on *tawḥīd* against Aristotle; Ḍirār b. 'Amr's *Kitāb al-Radd 'alā Aristotālīs fī al-jawāhir wa al-a'rāz*, which he wrote on atoms and accidents against Aristotle. See. Ibn al-Nadīm, *al-Fihrist*, 204, 224.

<sup>68</sup> For a noteworthy analysis on this, see. Dhanani, *Kalam and Hellenistic Cosmology*, 112-13.

<sup>69</sup> Sayyed Husayn Nasr stated that those who first discussed issues such as the structure of bodies, motion, and causality in Islamic thought were the *mutakallimūn*.

<sup>70</sup> Ibn Mattawayh, 2009: 1/6; for similar classification see Al-Bāqillānī, 1987: 34.

means existent, while *ma'dūm* means non-existent. Again, in his opinion, all existents are also divided into two parts: *qadīm* (eternal) and *ḥādith* (temporally originated). Having divided existents into two as *qadīm* and *ḥādith*, Ibn Mattawayh proceeds to divide all originated things into two: Substance/atom (*jawhar*) and accident (*'araḍ*) that inheres/occurs in substances. In this division, substance corresponds to a space-occupying object (*mutaḥayyiz*) when it exists, while accident refers to the thing not occupying space and not being able to exist by itself. According to the Ibn Mattawayh, all substances are a single genus (*mutajānis*); whereas accidents are of different types, such as colors, taste, smells, heat, cold, dryness, humidness, and spatial occurrences (*akwān*) like motion, rest, composition and separation, impetus/inclination/force (*i'timād*), pain, voice, life, power, desire, hatred, will, dislike, belief, supposition, reasoning, and annihilation.<sup>71</sup>

One of the noteworthy parts of Ibn Mattawayh's exposition is his inclusion of the terms, such as *qadīm*, *ḥādith*, *jawhar*, and *'araḍ*, within the group of known things (*ma'lumāt*) in the most general sense. It shows that the *mutakallimūn* treated equally both God and the universe in terms of being objects of knowledge.<sup>72</sup> The reducing of the universe into bodies, substances and accidents, and subsequently the reaching to the concepts of "*qadīm*" and "*muḥdath*" through them are characteristics of this exposition. Beyond this, the *mutakallimūn*'s division of existents into two, as God and the universe, reveals their attempt to use the theory of *jawhar-'araḍ* in order to explain everything existent other than God. Therefore, it could be said that for Ibn Mattawayh, *kalām* was not a discipline dealing only with God or the properties of material objects but also a universal discipline examining all existents.<sup>73</sup>

It would be beneficial to look closely at this book of Ibn Mattawayh to see in which contexts the *mutakallimūn* used the concepts of substance/atom and accident at that time. Ibn Mattawayh started his book with a chapter on the parts of accidents and then a chapter on substances comes. The subjects he discussed in the chapter on substances can be listed as follows:<sup>74</sup>

SOME HEADINGS FROM THE SUBSTANCE/ATOM (JAWHAR) CHAPTER OF IBN MATTWAYH'S AL-TADHKIRA	
Bodies ( <i>ajsām</i> ) do not consist of the combination of accidents ( <i>a'raḍ</i> )	Bodies do not need a place ( <i>makān</i> ) (to exist)
Substances/atoms ( <i>jawāhir</i> ) are perceived ( <i>mudrak</i> ) through seeing and touching	On qualities ( <i>ṣifāt</i> ) of the substance/atom ( <i>jawhar</i> )

<sup>71</sup> Ibn Mattawayh, 2009: 1/6; also see Baghdādī, 1928:35-36; Al-Nasafī, 2004: 1/62-63.

<sup>72</sup> Knowledge's relation to non-existent (*ma'dūm*) according to the *mutakallimūn* led to the debate whether or not non-existent is a thing in terms of being an object of knowledge. According to the Basrian Mu'tazila, because substance and accident are objects of God's knowledge, they should have an essential quality that distinguishes them from each other even when they are non-existent. However, the Baghdādī Mu'tazila and Ash'arites did not accept such a claim on the ground that it would remove substances and accidents from being subject to God's will in terms of having their own essential qualities.

<sup>73</sup> It is repeatedly stated by many *mutakallimūn* that *kalām* is a universal discipline (*al-'ilm al-kullī*). Imām al-Ghazālī is one of them. See Imām al-Ghazālī, *Al-Mustasfā min 'ilm al-uṣul* al-Ghazālī, ed. Ḥamza bin Zuhair Hafiz. Vol.1. (al-Madīna al-Munawwara: al-Jama'a al-Islāmiyya), 12.

<sup>74</sup> The headings belongs to Daniel Gimaret, who edited Ibn Mattawayh's *al-Tadhkira*. Cairo edition is used. (Cairo: al-Ma'hat al-Fransī, 2009).

Being substance/atom ( <i>jawhar</i> ) is only a state for substance	Occupying space ( <i>taḥayyuz</i> ) and existence ( <i>wujūd</i> ) are different qualities of substance/atom ( <i>jawhar</i> )
Substance/atom has the state of being in a direction ( <i>jihat</i> )	Substances do not have a state when non-existent
There is no increase in the quality of being existent too	An increase in the qualities of substance/atom except existing in a direction is not possible
Substance/atom is substance when non-existent just as when existent	Rebuttal of those who claim that substance/atom is not substance when non-existent
Substance/atom does not occupy space when non-existent	Space occupation for substance/atom does not happen through an agent
Substances/atoms are created due to the impossibility of them being devoid of spatial occurrences ( <i>akwān</i> )	Explanation of the proof for the temporality of the bodies ( <i>ḥuduth al-aqsām</i> )
It is not possible ( <i>jāiz</i> ) for the infinite ( <i>mā lā yatanāhā</i> ) to exist	Rebuttal of the statement that created things do not have a beginning
Doubts of those who deny the temporality of the universe ( <i>ḥuduth al-‘ālam</i> ) and responses to these doubts	Possibility of proving the createdness of bodies without relying on the createdness of accidents
On the cause for substance/atom not being able to exist in two directions ( <i>jihatayn</i> ) at one time	Substance does not generate something just as it is not generated out of something
Impossibility of two substances/atoms to exist in one direction ( <i>jihat</i> )	On rebuttal of al-Nazzām’s idea of interpenetration ( <i>tadākhul</i> )
On the cause of what makes existing of two substances/atoms in one direction impossible	Possibility of formation of two substances without a third one between them due to the void ( <i>khalā’</i> ) in the universe
Statement on the possibility of substance/atom being devoid of all accidents except for the accident of location ( <i>kawn</i> )	Impossibility of making a definitive judgment regarding the absence of color in the body
Homogeneity ( <i>mutamāthil</i> ) of all substances	Persistence ( <i>baqā’</i> ) of substance/atom
Doubts of those who deny the existence of [indivisible] part ( <i>juz’</i> ) and responses to these doubts	Fire is hidden ( <i>kāmin</i> ) in some bodies.
Rejection of the one who says that it is impossible for air to turn into water.	On the annihilation ( <i>fanā’</i> ) and re-creation ( <i>i‘āda</i> ) of substances/atoms

After dealing with the substance in detail, he analyzed accidents under the titles of colors, taste, smells, heat, cold, dryness, humidness, and spatial occurrence (*akwān*) like motion, rest, composition, separation, inclination/force (*i'timād*), pain, voice, life, power, desire, hatred, will, dislike, belief, supposition, reasoning.<sup>75</sup> It is understood from Ibn Mattawayh's explanations that in the 9<sup>th</sup> and 10<sup>th</sup> centuries, the Mu'tazila separated into two schools, the Basrian and the Baghdadi, and they argued for different opinions about *daqīq* or *laṭīf* matters such as the properties of the atom, types of accidents, void, the nature of motion and causality, even though they all adopted atomism.<sup>76</sup>

When we consider Ibn Mattawayh's book of *al-Tadhkira* together with the other books we have examined before, we reach the conclusion that the *mutakallimūn*, under the title of *daqīq* or *laṭīf al-kalām*, largely focused on two controversial areas.<sup>77</sup>

**a. The Key Components of the Universe:** In the classical period, one of the topics frequently discussed by the *mutakallimūn* under the title of *daqīq* matters was the fundamental elements of the universe. It is seen that in the 9<sup>th</sup> century, the *mutakallimūn*, gathered around three different opinions on the structure of bodies in the universe. The group led by Ḍirār b. 'Amr, Ḥusayn al-

<sup>75</sup> Ibn Mattawayh, in this book, dealt with accidents in a very detailed way, just as he did about substance/atom. For example, it is possible to title the subject of colors as follows: On the Reality of Color, On the Impossibility of Perceiving an Object without Perceiving Its Color, On Color not Being an Object or a Quality of an Object, On the Number of the Basic Colors being Five: Black, White, Red, Green, and Yellow, On the Possibility of Adding on These Types of Colors, On the Homogeneity of Each Color Type, On the Possibility of Two Homogenous Accidents Existing in The Same Place, On the Possibility of the Contrast between Two Colors Being in Two Aspects: Either in Reality or in Genus, On the Case of Elimination of One Contrary the Other Its Non-existence not by means of a Cause but a Condition, Impossibility of Color Existing without Being in a Place, On the Impossibility of Seeing Colors in case of Them Existing without Being in a Place, On the Possibility of Existence of a Color Inherent in a Place Only in that Place, On the Impossibility of the Transference of Accidents, On the Impossibility of Accidents' Inherence in Accidents, On Color's Need only for a Place not for a Structure and Two Places, On Establishing the Createdness of Colors and Other Accidents], On Color Being Exclusive to God's Power not Ours, On Color not Being Originated from Others and Not Originating Others, [Perpetuity of Colors, On the Proof about the Perpetuity of Colors and Stating the Answer to These Proofs. see *al-Tadhkira*, 126-153.

<sup>76</sup> Another Mu'tazilī *mutakallim* Abū Rashīd al-Nisābūrī, a contemporary of Ibn Mattawayh, dealt with the disagreements between the Basrian and Baghdadi Mu'tazila in a detailed way in the center of substance and accident. For example, some of the conflicts about the Basrian and Baghdadi schools are as follows: On the Equality (*tamāthul*) of Substances/atoms, On Substance/Atom Being Substance/Atom in case of its Non-existence, On the Possibility of Two Substances/Atoms Being Separated (*Muftariq*) without a Third Substance/Atom in between, On Accidents Being Gathered in a Place, On the Existence of a Hidden (*Kāmin*) Fire in Stone and Wood, On the Conversion of Air into Water, On Each Substances/Atoms (*jawhar al-fard*) Having a Specific Location (*masāḥa*), On the Possibility of Separation of Substances from Each Other, On Whether The Direction of Part Being Different from Part or Direction Belonging Part], The Existence of Substance Only in case of Occupying Space and This Happening only It Being in a Direction, On Whether or not Atom Being Individuated (*Munfarid*) due to a Cause, On the Possibility of Substance Being Devoid of All Accidents except the Accident of Location (*Kawn*), On the Impossibility of Substance Being Perpetual due to a Cause, On the Impossibility of Occurrence (*Tāri'*) of Substance due to a Cause at the Time of Its Existence, On the Annihilation of Substance with Its Contrary, On the Impossibility of Some Substances Being Perishable and Some Substances Being Persistent, On the Possibility of Placing an Atom (*juz'*) on Two Atoms' Conjunction Point (*Mawzi' al-Ittiṣāl*), On Whether Earth Being Spherical or not." After relating debates between the Basrian and Baghdadi schools as mentioned, Nisābūrī also presented disagreements on accidents in detail. al-Nisābūrī, *al-Masā'il fī al-khilāf bayn al-basriyyīn wa al-Baghdādiyyīn*, 28-104.

<sup>77</sup> Alnoor Dhanani, *Kalām and Hellenistic Cosmology*, 40.



Najjār, and Ḥafṣ al-Fard claimed that objects are constituted through the aggregation of some accidents, such as heat and cold. Hishām b. al-Ḥakam and al-Aṣamm , on the other hand, maintained that the universe is entirely made up of the bodies. Thirdly, Abū Hudhayl and Mu‘ammar argued that the universe is comprised of bodies and accidents, and bodies are comprised of atoms. al-Nazzām, however, opposing the atomism, claimed that the universe is wholly made up of bodies except for motion, which is an accident. Thus, we can put al-Nazzām in the second group.

Among these three opinions, the atomist one holding that the universe is made up of bodies that are constituted of atoms and accidents, became later on the dominant opinion among the *mutakallimūn*. However, atomist scholars could not come to an agreement on issues, such as the definition of body, substance, and accident, whether or not atoms can exist separated from each other, whether or not atoms have shape, size and weight, the number of atoms required for the formation of the smallest body, and which accidents atoms can bear on their own. They intensely engaged in discussions about whether or not bodies interpenetrate each other (*mudākhalā*), whether or not bodies are the same genus (*mutajānis/mutamāthil*), what causes the distinction in bodies, motion-rest, composition-separation (*akwān*), heat-cold, dryness-humidness, colour, the nature of sound and light, and the occurrence of hearing and seeing as well.<sup>78</sup>

**b. Functioning of the Universe and Causality:** Another subject that the *mutakallimūn* are largely concerned with is how events in the universe function. In this context, the following issues were discussed: Whether or not objects have nature (*ṭabā‘i*), causality, secondary causation (*tawlīd*), how the continuity of objects is ensured, motion-rest, and aggregation-separation. Even though the *mutakallimūn* are generally claimed to refuse the necessary natural causality, they developed theories, such as custom (*‘āda*), latency (*kumūn*) - appearance (*zuhūr*), meaning (*ma‘nā*), conjunction (*iqtirān*), impetus or force (*‘itimād*), and *tawlīd* in order to explain the systematic functioning of the universe.<sup>79</sup> Indeed, when the debates of the Basrian and Baghdadi schools of the Mu‘tazila are considered, it appears that they supported different opinions on the properties of objects and causality. The Basrian school maintained that the relationship between cause and effect results from the custom (*‘āda*) set by God. According to them, if God wills, He can keep a heavy rock from falling and hinder the result of burning despite the existence of cotton and fire; he can even create an animal from the sperm of a human. However, the Mu‘tazilites of Baghdad, believing that God’s power cannot be against the nature of objects, argued that God could not create barley out of wheat. Similarly, in their opinion, without the existence of support, it is not possible for a heavy object to remain in the air and for fire not to burn cotton.<sup>80</sup> On causality, the Ash‘arites and Māturīdites mostly rejected inherent natures (*ṭabā‘i*), the theory of secondary causation (*tawlīd*), and adopted an *‘āda*-based approach.<sup>81</sup>

<sup>78</sup> al-Khayyāt, *Kitāb al-Intiṣār*, 15; al-Ash‘arī, *Maqālāt*, 74.

<sup>79</sup> Ahmet Mekin Kandemir, *Mu‘tezili Düşüncede Tabiat ve Nedensellik* (İstanbul: Endülüs, 2019), 253.

<sup>80</sup> Shaykh al-Mufīd, *Awā‘il al-Maqālāt*, 129-130; Nisābūrī, *al-Masā‘il*, 133; Ibn Mattawayh, *al-Tadhkira*, 1/323; cf. Metin Yıldız, *İbn Metteveyh’in Kozmoloji Anlayışı*, 74-75.

<sup>81</sup> According to what Ibn Fūrak reported, al-Ash‘arī maintained that upward movement of fire and downward movement of the stone does not due to a nature necessitating these movements or a cause producing them (*muwallīd*). Similarly, al-Ash‘arī argued for the possibility of God removing coldness and wetness from water and

Without a doubt, the scientific and philosophical issues that the *mutakallimūn* discussed do not consist of only the key elements of the universe and causality. They also largely engaged in discussions on ontological and epistemological issues, such as existent (*mawjūd*), non-existence (*mā‘dūm*), essence (*zāt*) attribute (*sīfat*), the possibility of knowledge, its definition, types, and sources. In addition, they also debated over such matters as the nature of humans, their actions, their physiological and psychological characteristics, how human perception and knowledge occur, and whether he has free will or not. However, the *mutakallimūn*'s views on human conform to the two principles mentioned above. Whichever views a *mutakallim* maintains on the key elements of the universe and causality, his ideas on humans becomes compatible with it. For instance, Ḍirār b. ‘Amr, claiming the constitution of the universe to be of accidents, stated that humans are also made up of accidents such as colour, taste, smell, and power, and that there is no substance in humans.<sup>82</sup> As for al-Ash‘arī, who asserts that the universe consists of substances and accidents claimed that the soul is a delicate body belonging to the genus of breath, and considered such elements as life, will, and knowledge to be accidents.<sup>83</sup> al-Nazzām, who maintained that accidents apart from motion are bodies, considered the soul to be a delicate body and explained humans' liveliness based on it. In addition, the scholars of *kalām* also discussed whether or not humans are agents and creators of their actions based on the continuity of accidents, which is a cosmological matter.

Another noteworthy point to be mentioned about the *mutakallimūn*'s discussions on physics and cosmology-related matters is the significant impact of the Arabic language on *kalām* debates. Most *mutakallimūn* took the lexical meaning to determine the denotations of the key terms such as the universe, object, substance, accident, motion, and rest. This situation, which implies that Arabic is not only a means of communication but a carrier of a worldview for the *mutakallimūn*, contributed to the uniqueness and locality of the physical theories of the *mutakallimūn*.<sup>84</sup>

Consequently, upon evaluating al-Ash‘arī's, al-Ka‘bī's and Shaykh al-Mufīd's *Maqālāt*, Ibn al-Nadīm's *al-Fihrist* and Ibn al-Mattawayh's *al-Tadhkira* together, it is possible to reach to the

---

creating heat and dryness in it. See. Ibn Fūrak, *Mujarrad*, 132. Again according to Ibn Fūrak's report, al-Ash‘arī was claiming that incidents, such as drunkenness after drinking wine, satiety after eating, satisfaction after drinking water, wellness after taking medication, ignition after contact with fire, falling of stone after being thrown into the air, do not originate from causal factors (*ma‘nā*) that are necessitated by nature or from engendered causes that produce them. In Imam al-Ash‘arī's opinion, all of these have happened by God's choice. God has created them with a custom that takes place in the creation (*iḥdāth*) of things. See. Ibn Fūrak, *Mujarrad*, 283; also see. *ibid.*, 134; Juwaynī, *al-Shāmīl fī uṣūl al-dīn*. Beirut, 1999, 154-5.

<sup>82</sup> al-Ash‘arī, *Maqālāt*, 260.

<sup>83</sup> For instance, Ibn Fūrak stated in his book under the title "Explanation of al-Ash‘arī's View on the Soul, Life, and Issues Related to Them" as follows: al-Ash‘arī was saying: Our life is an accident and originated (*muḥdath*)... When it comes to the soul (*rūḥ*), according to al-Ash‘arī, it is wind (*rīḥ*). It is a delicate object and circulates in the hollows of man's limbs. However, humans become alive by means of life, not with the soul. al-Ash‘arī was saying: Survival of body with the soul takes place in the form of custom. It is similar to the survival of the body with nourishment, food, and drinking. Accordingly, just as it is impossible for humans to live without food, it is also impossible for them to live without the soul. Because a living being needs food and the soul in terms of being alive ... al-Ash‘arī considered the soul to be similar to the wind. In fact, the soul per se meant wind. On this issue, see. Ibn Fūrak, *Mujarrad*, 267.

<sup>84</sup> See. Mehmet Bulğen, "The Power of Language in the Classical Period of Kalam", *Nazariyat* 5/1 (May 2019), 37-82.

following drastic conclusion: The *mutakallimūn* largely interested in philosophical and scientific issues related to physics and cosmology in the classical period starting from the end of 7<sup>th</sup> century to the 12<sup>th</sup> century. Especially the 9<sup>th</sup> century is a period when the *mutakallimūn*' interest in philosophical and scientific issues was highly intense. Even though the *mutakallimūn*'s interest in these types of matters has to do with the need to advocate Islam against other religions and thought systems, such as dualists, naturalists, Peripatetics, materialists, sceptics, and heretics, it would be wrong to describe their engagement in physics and cosmology-related matters as mere apologetic or a means to reject opposing views. As is understood from al-Ash'arī's *Maqālāt* and Ibn al-Nadīm's *al-Fihrist*, the *mutakallimūn* have not only written books against other thought systems or condemned them, but they also developed alternative terms and theories on the structure of bodies, their functioning and the nature of human. Moreover, the *mutakallimūn* penned books<sup>85</sup> solely with the purpose of explicating some physics matters without any theological context. This case indicates that some *mutakallimūn*' approaches to physics and cosmology were not merely based on religious concerns but also on being seekers of truth.

Lastly, it should be noted that the *mutakallimūn*'s interest in the theory of knowledge and natural philosophy was not limited to the classical period but increasingly continued in the period after al-Ghazālī. For example, while only the fifth and the sixth chapters of 'Aḍud al-dīn al-Ījī's (d. 756/1355) *Mawāqif* are related to the theological matters, the remaining parts contain epistemological, ontological and cosmological issues.<sup>86</sup> Sa'd al-dīn al-Taftāzānī (d. 792/1390) referred to this situation by saying that, "It is almost impossible to differentiate *kalām* books from philosophy books except for the chapters of *sam'iyyāt*".<sup>87</sup>

## Conclusion

In the present article, based on the extant *kalām* books, we have attempted to show that *kalām*'s matters were divided into two main categories as *daqīq* or *laṭīf al-kalām* and *jalīl al-kalām* in the classical period of *kalām*, between the 9<sup>th</sup> and 11<sup>th</sup> centuries. In this division, *jalīl* matters correspond to revelation-based issues, on which the *mutakallimūn* had a consensus, such as the existence of God, His oneness, revelation, prophethood, and the hereafter. On the other hand,

<sup>85</sup> Abū al-Hudhayl's *Kitāb fī al-sawt mā huwa*, which he wrote on the nature of sound, Mu'ammar ibn 'Abbād's (d. 215/830) *Kitābu 'ilal al-karastūn wa al-mir'at*, which he wrote about balances and mirrors, can be given as examples of this. See. Ibn al-Nadīm, *al-Fihrist*, 204, 207.

<sup>86</sup> In *kalām*, subjects related to epistemology, ontology, and cosmology have been named differently in different periods. While, in the classical period prior to Ghazzālī, the term "*daqīq al-kalām*" was more common, in the post-classical period, for example, 'Aḍud al-Dīn al-Ījī discussed existence, unity, multiplicity, essence, causality under the title of "*al-Umūr al-'Amma*". See. 'Aḍud al-Dīn al-Ījī, *al-Mawāqif fī 'ilm al-kalām*, (Bairut: 'Ālam al-kutub, n.d.), 41. Izmirli Ismail Hakkı (d. 1868-1946), one of the late Ottoman *mutakallimūn*, in *Yeni İlm al-Kalām (The New Science of Kalām)*, named these types of subjects as 'the principles' (*mabādi*) and 'the means' (*wasā'il*) and stated that they are a means of substantiating and defending theological principles. According to Izmirli, while 'the issues' (*masā'il*) and 'the aims' (*maqāsid*), which constitute the pillars of Islam and its final goals, always remains the same, *mabādi* and *wasā'il*, which helps to explain and better understand them, is constantly renewed, and constantly change according to the age and conditions. Ismail Hakkı İzmirli, *Yeni İlm-i Kelam*, (Istanbul: Awqāf al-Islāmiyya Publishing, 1339-1341), 1/7-8. Also see. İlyas Çelebi, "Ortaya Çıkışından Günümüze Kelam İliminde "Konu" Problemi", *Marmara Üniversitesi İlahiyat Fakültesi Dergisi*, 28 (2005/1), 9.

<sup>87</sup> Al-Taftāzānī, *Sharḥ al-'Aqā'id*, (Beirut: 2007), 55.

matters included under the title of *daqīq* or *laṭīf* mainly refer to physical and philosophical questions related to knowledge, ontology and the universe.

The reason why the *mutakallimūn* engaged in philosophical and scientific issues might seem, at first glance, to demonstrate and defend *jalīl* issues, which are regarded as the principles of religion; however, their involvement in *daqīq* or *laṭīf* issues requires a further explanation other than just being apologetic. This is because the scholars of *kalām* interested in *daqīq* or *laṭīf* matters more than a typical scholar of religion. The classical sources that we have referred show that the *mutakallimūn* developed various comprehensive theories in order to solve the main problems of physics and cosmology. Moreover, the *mutakallimūn* did not only debate over physics-related issues among themselves or with opposing thought systems, but they also produced works in order to enlighten physics-related problems without any theological background.<sup>88</sup> This shows that the *mutakallimūn*, at least some of them, engaged in philosophical and scientific issues as the seekers of truth, not just for apologetic purposes. Indeed, this holds great importance in terms of showing that the *mutakallimūn*'s theological arguments on the existence of God have a considerable philosophical basis and that they were fed on the activity of exploring nature.

Here, we need to make a final point. The first engagement of the *mutakallimūn* in philosophical and scientific matters such as knowledge, existence, non-existence, body, substance, accident, void, motion, and causality dates back to the mid-8<sup>th</sup>-century and coincides with a period when the translation activities led by philosophers like al-Kindī did not start yet in the Islamic world. Especially, the 9<sup>th</sup> century corresponds to a period when the interest in philosophical matters related to knowledge, existence, and the universe reached its peak and flourished. In this century, the *mutakallimūn* concerned themselves with matter and the universe and developed various theories and unique terms, in a rare way in the history of the world. However, they cannot be said to have received the credit they deserve in the academic research on the history of Islamic science and philosophy. The consideration of the *mutakallimūn* as theologians in modern researches causes historians of science to overlook *kalām* books and therefore leads to the inability of properly explaining the emergence and development of philosophy and science in Islamic thought. Further researches that closely look at the 8<sup>th</sup> and 9<sup>th</sup> century *kalām* would help to recognize better the philosophical and scientific contributions of the *mutakallimūn* to the Islamic world in particular and the universal culture in general.

### Acknowledgements

This article is the updated and substantially revised version of the previously published article in Turkish: Mehmet Bulğen, "Klasik Dönem Kelâmında Dakiku'l-Kelâmın Yeri ve Rolü", *İslâm Araştırmaları Dergisi* 33 (2015), 39-72. I want to thank Zeliha Uluçurt, Ertul Ortabas, Abdullah Yıldız and Emine Acar for their contribution to the translation of the article into English.

The author is on the editorial board of *Kader*. However, in this issue, in which the author's article was published, the editorial duties and authorizations of the author were suspended. Thus, the principle of double-blind refereeing was complied with.

---

<sup>88</sup> Ibn al-Nadīm, *al-Fihrist*, 206.

## Bibliography

- Anawati, Georges C.. "Kalām". *Encyclopedia of Religion* (2<sup>nd</sup> edition). ed. Lindsay Jones. USA: Macmillan, 2005.
- Al-Ash‘arī, Abū al-Ḥasan. *Maqālāt al-Islāmiyyīn wa ikhtilāf al-muṣallīn*. ed. Hellmut Ritter. Wiesbaden:1963.
- Al-Baghdādī, ‘Abd al-Qāhir. *Uṣūl al-Dīn*. Beirut: Dār al-Kutub al-‘Ilmiyya, 1981.
- Bulğen, Mehmet. "Klasik Dönem Kelâmında Dakiku'l-Kelâmın Yeri ve Rolü". *İslâm Araştırmaları Dergisi* 33 (2015), 39-72.
- Bulğen, Mehmet. "The Power of Language in the Classical Period of Kalam". *Nazariyat* 5/1 (May 2019), 37-82.
- Çelebi, İlyas. "Ortaya Çıkışından Günümüze Kelam İlminde "Konu" Problemi". *Marmara Üniversitesi İlahiyat Fakültesi Dergisi*. 28 (2005/1).
- Dhanani, Alnoor. "Kalām and Hellenistic Cosmology: Minimal Parts in Basrian Mu‘tazilī Atomism". (Dissertation, Harvard University, 1991).
- Dhanani, Alnoor. "Problems in Eleventh-Century Kalām Physics". *Bulletin of the Royal Institute for Inter-Faith Studies* 4/1 (Spring/Summer 2002).
- Dhanani, Alnoor. *The Physical Theory of Kalām: Atoms, Space, and Void in Basrian Mu‘tazilī Cosmology*. Leiden: Brill E. J. Brill, 1994.
- al-Ghazālī, Abū Ḥāmid. *Al-Mustaṣfā min ‘ilm al-uṣūl*. ed. Ḥamza bin Zuhair Hafiz. Vol.1. Madina al-Munawwara: al-Jama‘a al-Islāmiyya.
- Gölcük, Şerafettin. "Hayyāt". TDV İslām Ansiklopedisi (DİA).
- Heinen, Anton M.. "Mutakallimūn and Mathematicians", *Der Islam* 55/1 (1978), 57-73.
- Ibn al-Murtaḍā, Aḥmad b. Yaḥyā. *Bāb Dhikr al-Mu‘tazila min Kitāb al-Munya wa al-amal*. ed. Thomas Walker Arnold. Leipzig, 1902.
- Ibn al-Murtaḍā, Aḥmad b. Yaḥyā. *Kitāb Ṭabaqāt al-Mu‘tazila*. ed. Susanna Diwald Wilzer. Beirut: Maktaba al-Hayāt, n.d..
- Ibn al-Nadīm. *al-Fihrist*. ed. Riza Tajaddud. Tahrān, 1971.
- Ibn al-Wazīr. *Īthār al-ḥaqq ‘alā al-khalq*. ed. Anū ‘Abd al-Raḥmān Nabil Salah ‘Abd al-Majīd Salīm. Samanud (Eygpt) Maktaba Ibn ‘Abbās, 2010.
- Ibn al-Wazīr. *Tarjīh asālib al-Qur‘ān ‘alā asālib al-Yūnān*. Beirut: Dār al-Kutub al-‘Ilmiyya, 1984.
- Ibn Fūrak. *Mujarrad maqālāt al-Shaykh Abī al-Ḥasan al-Ash‘arī*. ed. Daniel Gimaret. Beirut: Dār al-Mashriq, 1987.
- Ibn Mattawayh. *al-Tadhkira fī aḥkām al-jawāhir wa al-‘arāḍ*. ed. Daniel Gimaret (Cairo: al-Ma‘ha al-Fransī, 2009).

- Ījī, Aḡud al-dīn. *al-Mawāqif fī 'ilm al-kalām*. Beirut: A'lam al-kutub, n.d..
- Izmirli Ismail Hakkı. *Yeni İlm-i Kelām*. Istanbul: Evkāf-ı İslāmiyye Matbaası, 1339-1341.
- Al-Jāhiz. *Kitāb al-Ḥayawān*. ed. Abd al-Salām Muḥammad Hārūn (Beirut: Dār iḥyā' al-turāth al-'Arabī, 1388/1969).
- Al-Jushamī, al-Ḥākīm. *Sharḥ al-'Uyūn* (in Faḡlu al-i'tizāl wa Ṭabaqāt al-Mu'tazila), ed. Fuād Sayyid. Tunisia, 1393/1974.
- Al-Juwaynī, Abū al-Ma'ālī. *al-Burhān fī uṣūl al-fiqh*. (ed. 'Abd al-'Azīm al-Dīb) Doha: Jāmi'a Qatar, 1978, 1/84.
- Al-Juwaynī, Abū al-Ma'ālī. *al-Shāmil fī uṣūl al-dīn*. Beirut, 1999.
- Al-Ka'bi, Abu'l-Qāsim al-Balkhī. *Kitāb al-Maqālāt wa ma'ahu 'Uyūn al-masā'il wa al-jawābāt*. ed. Hüseyin Hansu - Rājih Abdulhamīd Kurdī. Istanbul, Amman: KURAMER, Dār al-Fath 2018.
- Kandemir, Ahmet Mekin. "The Hand Extending Beyond the Cosmos: Discussions on the Khalā' [Void] Between the Baṣran and Baghdād Schools of Mu'tazila". *Nazariyat* 7/1 (May 2021), 1-36.
- Kandemir, Ahmet Mekin. *Mu'tezili Düşüncede Tabiat ve Nedensellik*. İstanbul: Endülüs, 2019.
- Al-Khayyāt, Abū al-Ḥusayn. *Kitāb al-Intiṣār*. ed. Albert Nasri Nader. Beirut, 1957.
- Ma'n Ziyāda-Rıdvān Sayyīd, *al-Masā'il fī al-khilāf bayn al-basriyyīn wa al-Baghdādiyyīn* (Abū Rashīd al-Nisābūrī's foreword), Beirut, 1979.
- Mcdermott, Martin J.. *The Theology of al-Shaikh al-Mufīd*. Beirut, 1978.
- Nasr, Sayyed Hossein. *Islamic Philosophy from its Origin to the Present*. (New York: State University of New York Press 2006), 123.
- Qāḡī 'Abd al-Jabbār. *al-Majmū' fī al-Muḥīṭ bil-taklīf*. ed. J. J. Houben. Beirut: Dār al-Mashriq, 1986.
- Qāḡī 'Abd al-Jabbār. *Faḡlu al-i'tizāl wa Ṭabaqāt al-Mu'tazila* (in Faḡlu al-i'tizāl wa Ṭabaqāt al-Mu'tazila). ed. Fuād Seyyid (Tunus 1393/1974).
- Sabra, A. I.. "Science and Philosophy in Medieval Islamic Theology: The Evidence of the Fourteenth Century". *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften*, no: IX, 1994.
- Shaykh al-Mufīd. *Awā'il al-maqālāt*. ed. Mahdī Muhaqqiq. (Tahran: Dānishgāh-e Tahrān, 1372/1993).
- Shaykh al-Mufīd. *Awā'il al-Maqālāt*. ed. Ibrāhīm al-Anṣārī Mashad: al-Mu'tamar al-'ālam li Alfīyyah Al-Shaykh al-Mufīd, 1413/2000
- Al-Taftāzānī. *Sharḥ al-'Aqā'id*. Beyrut, 2007.
- Al-Tāī, Muhammad Bāsil. "The Scienti-fic Value of Daqīq al-Kalām". *Islamic Thought and Scientific Creativity* V/2, (1994), 7-18.
- Al-Tawḥīdī, Abū Ḥayyān. *Kitāb al-Adab wa al-inshā fī al-sadaqa wa al-ṣadīq*. Qairo: 1323/1905.

Van Ess, Josef. “Ebû İshāk en-Nazzām Örneđi Üzerinden Kelâm-Bilim İlişkisi”. trns. Mehmet Bulğen. *Marmara Üniversitesi İlahiyat Fakültesi Dergisi* 46 (2014).

Van Vloten, Gerlof. *Ein arabischer Naturphilosoph im 9. Jahrhundert el-Dschāhiz*. Stuttgart, 1918.

Watt, Montgomery. *Free will and Predestination in Early Islam*. London: Luzac & Comany Ltd., 1948.

Yavuz, Yusuf Şevki. “Câhîz”. TDV İslâm Ansiklopedisi (DİA).

Yıldız, Metin. *Kelam Kozmolojisi Mu'tezilenin Âlem Anlayışı*. İstanbul: Endulus, 2020.



## Why I wrote “*Islam and Evolution: Al-Ghazālī and the Modern Evolutionary Paradigm*”

“*Islam and Evolution: Al-Ghazālī and the Modern Evolutionary Paradigm*” Adlı Kitabı  
Yazma Nedenime Dair

**Shoaib Ahmed MALIK**

Assistant Professor Dr., Zayed University, College of Natural and Health Sciences, Dubai/UAE  
[shoaib.malik@zu.ac.ae](mailto:shoaib.malik@zu.ac.ae) | [orcid.org/0000-0001-5050-474X](https://orcid.org/0000-0001-5050-474X) | [ror.org/03snqfa66](https://ror.org/03snqfa66)

### Article Information

#### Article Type

Letter to the Editor

#### Ethical Statement

It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited (Shoaib Ahmed Malik).

**Licensed under CC BY-NC-ND 4.0 license.**



Dear editor of KADER.

I am writing this letter both to congratulate you on your first issue to be published in English and to give you information about my new book called *Islam and Evolution: Al-Ghazālī and the Modern Evolutionary Paradigm*. It is the first book written from an Islamic perspective that is published with *Routledge's Science and Religion* series. More specifically, it analyses the discussion of evolution through the lens of Islamic scholastic theology (*kalām*). I know that KADER occupies a very important space in *kalām* in Turkey, and it is why I hope you will find this to be a helpful addition in your first issue in English, which I hope will globally contribute to the studies in Islamic thought in general and the field of *kalām* in particular.

### Islam and Evolution

The budding field of Islam and science has been steadily developing over the past few decades.<sup>1</sup> However, out of the many conversations that come under the umbrella of Islam and science, the specific discussion of Islam and evolution remains as one of the most polarising, controversial, and, yet, exciting territories.<sup>2</sup> This is likely due to the several challenges the theory simultaneously poses for religious believers, with Muslims being no exception. The following are some of them:

1. *Evolution challenges scriptural details* – religious scripture contain several details that intersect and potentially conflict with the theory of evolution. These include the age of the earth, Noah's flood, and, most importantly, the creation narrative of Adam and Eve. Depending on one's hermeneutic framework, some or all of these accounts can be difficult to reconcile with the theory of evolution.
2. *Chance undermines providence* – inherent in evolution, or at least the Neo-Darwinian rendition, is an indeterministic process. Some believe that it is unbecoming or impossible for God to create life through an indeterministic process, as it undermines His providence.
3. *Chance undermines teleology* – religion has it that God has intent and purposes. However, if evolution is true, all life seems to be radically contingent. Did God truly intend to create human beings or are we a lucky accident?
4. *Evolution challenges design* – one perspective is that evolution competes with or undermines design seen in biological organisms. In resonance with William Paley, some see God as an artisan who is responsible for crafting each biological entity according to a wise blueprint or a plan. Evolution, however, provides a scientific explanation for the origins of species and thus apparently undermines the thesis that biological entities are (directly) designed by God.

<sup>1</sup> Guessoum, Nidhal. 2011. *Islam's Quantum Question: Reconciling Muslim Tradition and Modern Science*. London: I.B. Tauris.

<sup>2</sup> Guessoum, Nidhal. 2016. "Islamic Theological Views on Darwinian Evolution." *Oxford Research Encyclopedia of Religion*. Accessed 1st of January 2020.  
<https://oxfordre.com/religion/view/10.1093/acrefore/9780199340378.001.0001/acrefore-9780199340378-e-36>;  
 Malik, Shoaib Ahmed. 2021. *Islam and Evolution: Al-Ghazālī and the Modern Evolutionary Paradigm*. London: Routledge.

5. *Evolution amplifies the problem of evil* – estimates indicate that 99% of all species that ever lived are now extinct. Why would an omnibenevolent God create life through a process in which extinction, animal suffering, and cruelty are built into it?

An increasing number of publications have tried to engage the particular topic of Islam and evolution in the past decade, with varying positions and foci.<sup>3</sup> (Jalajel 2009; Guessoum 2016; Dajani 2012; Elshakry 2013; Qadhi and Khan 2018; Malik 2021). Some are descriptive, e.g. Elshakry (2013), while others are normative, e.g. Jalajel (2009).

### Summary of my Book

One of most recent publications has been my own work, *Islam and Evolution: Al-Ghazālī and the Modern Evolutionary Paradigm* (Malik 2021). In this monograph, I look at evolution through the lens of a specific Sunnī theological known as Ash‘arism as articulated by al-Ghazālī. I engage with metaphysical and hermeneutic issues to then conclude that there are several options available, and that evolution needn’t be a point of contention.

My reasons for writing this book are as follows:

1. There are many misconceptions surrounding evolution. I wanted to use this opportunity to clear the air and help people understand evolution and its entailing problems as easily as possible. For example, some people believe that the chance-like operations embedded in the theory of evolution undermines God’s providence. However, in my work, I identify four different interpretations of chance and conclude that only one of them is problematic. In other words, I introduce nuances that I feel can help alleviate certain misapprehensions about evolution.
2. It is very unfortunate that evolution has become polemical ammunition in the apologetic landscape. New atheists in particular have made it an agenda to present evolution as an inherently atheistic theory. This, in turn, has resulted in evolution becoming a target for many Muslims, as they see it colliding with their faith. It is then no surprise to read and see that Muslims have left Islam because of evolution. I want to discharge this excessive polarisation by showing how much of evolution is actually unproblematic for a Muslim.
3. As a broad generalisation, one of the things I have noticed in academia is how historical and textual Islamic theology has become. It is simply studied as a passive reality. Constructive works are hardly seen or encouraged. In my opinion, Islamic theology is not *just* an artefact of Islamic history. On the contrary, it can be used and instrumentalised to address questions coming out of the natural sciences and philosophy today. It is precisely for this reason that

---

<sup>3</sup> Dajani, Rana. 2012. “Evolution and Islam’s Quantum Question.” *Zygon: Journal of Religion and Science* 47 (2): 343–53; Elshakry, Marwa. 2013. *Reading Darwin in Arabic, 1860–1950*. Chicago: The University of Chicago Press; Jalajel, David Solomon. 2009. *Islam and Biological Evolution: Exploring Classical Sources and Methodologies*. Western Cape, South Africa: University of the Western Cape; Nasr, Seyyed Hossein. 2006. “On the Question of Biological Origins.” *Islam and Science* 4 (2): 181–97; Qadhi, Yasir, and Nazir Khan. 2018. “Human Origins: Theological Conclusions and Empirical Limitations.” *Yaqeen Institute*. Accessed 19th of August 2020. Available at: <https://yaqeeninstitute.org/nazir-khan/human-origins-theological-conclusions-and-empirical-limitations/>.

I resorted to the works and ideas of al-Ghazālī, who is a revered figure in the Muslim world. To be sure, this does not mean that his theological ideas that were developed 1,000 years ago should be applied exactly as they are. It is my belief that in engaging with and being committed to any intellectual tradition, one must be prepared to be critical of that intellectual lineage while at the same time be courageous enough to bring new life into it. It is why readers will see how Ashʿarism is integrated with several ideas developed in contemporary discourses in my monograph. I don't intend my work to be the final matter on the discussion, but I hope it's a start to more constructive discussions on what Islamic theology could look like in the 21<sup>st</sup> century.

Having qualified my reasons for writing the book, the following is a brief outline. The book is divided into four parts.

### **Part 1 – Setting the Context (two chapters)**

*Chapter one* intends to capture the scientific perspective on evolution. It includes a review of the scientific principles of evolution, the evidence that supports it followed by a brief historical overview. It also covers some objections which are thrown at evolution which unnecessarily clutter the discussion. *Chapter two* will look at the Christian responses to evolution. This will cover the positions of young earth creationism, old earth creationism, intelligent design, and theistic evolution. This chapter aims to illustrate the differences between these popular positions; some of the justifications for these positions will resonate with the Islamic tradition while others will not have any parallels. It is against this background that Muslim perspectives on evolution are discussed in Part 2 of this book.

### **Part 2 – Islamic Perspectives on Evolution (three chapters)**

*Chapter three* will trace and cover all the Qurʾānic verses (that are scattered all across the Qurʾān) and ḥadīths relevant to the Islamic narrative of genesis with minimal commentary (as that will be left for later chapters) to get an overview. This chapter provides the scriptural context for Chapter 4 and the hermeneutic discussion in Part 4 of this book. *Chapter four* is a review of the various positions of how and why Muslims either accept, reject, or remain accommodative in their stances on Islam and evolution. It highlights how thinkers in the same camp may reach similar conclusions, but their justification for their stances may differ. These thinkers looked at in this section are taken up as interlocutors for later chapters. A classification is devised that summarises the different positions:

1. Creationism – everything is instantaneously created by God (complete rejection of evolution<sup>4</sup>);
2. Human exceptionalism – everything is created through the processes of evolution save humans;

---

<sup>4</sup> For now, I am using evolution as a placeholder. As will become clear in Chapter 4, what I actually mean by this is common ancestry

3. Adamic exceptionalism – everything is created through the processes of evolution save Adam (and Eve<sup>5</sup>);
4. No exceptions – everything is created through the process of evolution.

*Chapter five* reviews how various contemporary authors suggest or read evolution onto historical texts written by medieval Muslim thinkers. It is demonstrated how this reading is incorrect because it relies on truncating selective paragraphs that are divorced from their thematic and historical contexts. It is argued how their works were framed in the perspective of the great chain of being rather than evolution.

### ***Part 3 – Metaphysical Considerations (three chapters)***

*Chapter six* introduces the metaphysical framework of the Ash‘arite perspective as outlined by al-Ghazālī. The Ash‘arite framework is then compared to a recent development in science and religion known as the Divine Action Project (DAP). This is to highlight the differences between Ash‘arism and the DAP framework in the contemporary context. Following this, we will look at the problem of naturalism, the problem of chance, and the inefficiency (wasteful process) of evolution within the context of evolution. It is demonstrated that none of these ideas is problematic within the Ash‘arite paradigm. Furthermore, it is concluded that al-Ghazālī’s framework is *metaphysically compatible* with creationism, human exceptionalism, Adamic exceptionalism, and no exceptions. *Chapter seven* evaluates the design argument as portrayed by the intelligent design (ID) camp in relation to evolution. Using the metaphysical framework of Ash‘arism, it is demonstrated that regardless of whether biological organisms – or even the whole universe as a matter of fact – shows overt design, it is a secondary contention. What matters in the Ash‘arite paradigm is contingency, which can cater for any kind of existence, be it designed, complex, simple, or chaotic. Accordingly, committing oneself to ID as an alternative to evolution because it seems more “God-friendly” holds no weight in the Ash‘arite paradigm. *Chapter eight* visits the question of morality in light of evolution. This chapter shows how al-Ghazālī believes morality isn’t innate, i.e. humans don’t occupy any fixed moral codes in their innate nature and is instead social inculcations absorbed through habit. Furthermore, al-Ghazālī adopts divine command theory, which is the idea that it is solely God’s command that determines what is morally good and bad. Given the problems associated with morality in light of evolution, I demonstrate that al-Ghazālī’s ideas on morality are compatible with evolution.

### ***Part 4 – Hermeneutic Considerations (two chapters)***

*Chapter nine* will introduce al-Ghazālī’s hermeneutic framework. This will include his understanding of the balance between reason and revelation, the relationship between science and scripture, how to distinguish literal readings from figurative ones, and a discussion on ḥadīths. It will be made apparent that al-Ghazālī’s hermeneutic framework is tightly welded to his metaphysical framework within which miracles are possible. This will set the stage for when we review the Muslim perspectives that were encountered in Chapter 4. *Chapter ten* evaluates the attempts that have been made to argue for and against evolution using scripture through al-

---

<sup>5</sup> For the sake of convenience, I have subsumed Eve under Adamic exceptionalism.

Ghazālī's hermeneutic framework. It is concluded that al-Ghazālī's hermeneutic framework is *hermeneutically compatible* with creationism, human exceptionalism, and Adamic exceptionalism but not with no exceptions. The scriptural reading of Adam being created miraculously would be somewhat difficult to overcome, and al-Ghazālī would have no problem accepting that Adam was created miraculously in his metaphysical and hermeneutic framework.

### Final Words

My book is the result of a journey that attempted to explore the challenging and sensitive territory of Islam and evolution. Looking back at the start now, I do not hesitate to admit that I was initially quite naïve about certain elements in this discourse (isn't anyone in the beginning?). I myself have learnt so much since embarking on this path. On my way, I have met, listened to, and exchanged ideas with several individuals from various specialisations (theology, philosophy, and science) and backgrounds (university settings and seminaries) who have helped me understand the numerous dimensions of this critical conversation. I have also tried my utmost best to listen to the worries and concerns of the Muslim laity who find evolution difficult to understand and/or to be incompatible with Islam. The collective culmination of these experiences has led me to change my opinion since the start of this project. I was initially in the no exceptions camp but have since changed my stance to believing that Adamic exceptionalism is the best alignment one can maintain in light of the respective methodologies of science and al-Ghazālī's Ash'arite framework. Subsequently, this book has evolved as much as I have.

When writing this book, the primary readership I had in mind was the Muslim community given the topic's sensitivity in that context. However, it is, in fact, open to multiple audiences. While working through the manuscript and several revisions that came after, I have tried my best to ensure that the reader with no background in either science and/or (Islamic) theology can pick it up and read it. Thus, it will help anyone interested in Islam and evolution, Islam and science, Islamic theology, and al-Ghazālī.

Finally, in my concluding chapter, I emphasize that there remain many un(der)explored approaches, perspectives, and ideas that require further research. These include:

1. Critiquing the methodology, application, or the conclusions of the book.
2. Analysing important scriptural details that could be missing from my material.
3. Going further with the ideas developed in this book, e.g. Intelligent design or Islamic evolutionary theodicies.
4. Looking at evolution through other perspectives, e.g. Maturīdite or non-Sunnī viewpoints.
5. Examining Islam and evolution through other domains, e.g. sociological studies.

All of these suggestions are fruitful lines of inquiries that can help our understanding of the growing conversation of Islam and evolution in particular, and Islam and science more broadly. I can only hope the reader finds my work helpful even if the adoption of al-Ghazālī's framework and the resulting conclusions are not agreeable. If I have been able to help systematise the

discourse and clarify any misconceptions, I consider this to be a major milestone in the ongoing conversation of Islam and evolution.

Given that the monograph is **open access**, your subscribers and readers can download and read the book for free [here](#).



## PUBLISHING POLICY

- ◆ The text submitted for publication may not be previously published or accepted for publication by another publisher.
- ◆ Papers may not exceed 10.000 words, including appended material such as pictures, charts and maps etc. (and excluding keynotes, bibliographies, abstracts and summaries in English). Papers must be submitted with abstracts comprising the introduction, methodology, findings, discussions and conclusion sections briefly, both in Turkish and English (350-400 words, may not exceed 5000 characters including space) along with key words (5-7 words).
- ◆ The language of KADER is Turkish. However, each issue may include papers in English or in Arabic as long as the number of these do not exceed one-third of the total number of papers in the issue.
- ◆ The editorial board peruses the submitted paper with regard to both form and content before sending it on to referees. They may also consider the views of the advisory board. After the deliberation of the editorial board, the submitted paper is sent to two referees. If the paper is rejected by one of them, it is sent to third referee. In order for any paper to be published, at least two of the referees must approve it. The revision and improvement demanded by the referees must be implemented in order for a paper to be published. Authors are informed within the process about the decision regarding the publication of their papers.
- ◆ A paper cannot be withdrawn by its author after the completion of the evaluation process without a reasonable justification within the scope of publication ethics. In case of such a request, the paper is removed from the system by rejection.
- ◆ The authors have to take notice of referees' report. The authors assume the responsibility of the paper with regard to the style, content, scholarly value and legal aspects. The editorial board reserves the right to accept or reject the text. The texts submitted to the journal are not returned, even if they are not accepted for publication. The published texts of the authors could be removed from publication in accordance with the decision of the board. They could not be withdrawn from the journal without the decision of the board. The copyright fee is not paid for the texts.
- ◆ All texts published in KADER are copyrighted by the journal; they cannot be used without proper reference.
- ◆ According to publication standards of the journal, texts to be considered for publication must be uploaded in "word" file format without specifying name and surname, after being a member of KADER, by paper sent button.
- ◆ The texts submitted for publication should be written in A4 size with white space at the top, bottom, right 4 cm and 5 cm from the left side with at least 12nk line spacing, two sides, without line hyphenation and 10 points Isnad font (You can [download the font here](#)). However, the

submitted tables, figures, pictures, graphics and etc. should not exceed 12X17 cm in order that they will not go beyond the edges of the page and will be for easy usage. Therefore, smaller points and single space could be used in tables, figures, pictures, graphics and etc. [the ISNAD Citation Style](#) 2<sup>nd</sup> Edition is highly required in footnotes and references.

- ◆ Papers will be tested in that are subjected to plagiarism detection program, whether they contain plagiarism or not.

**The information below must be given:**

- ◆ The title of the paper (both in Turkish and English), the name and surname of the author, his/her title, institution, ROR ID of the institution (<https://ror.org/>) and ORCID ID number must be specified. Besides, information of the author (e-mail address) must be given completely.

**Processing Charges**

- ◆ KADER does not charge any article submission, processing charges, and printing charge from the authors.

## THE PERIODICAL RANGE AND TIME

June (30<sup>th</sup> June)

Submissions: 1<sup>st</sup> January – 15<sup>th</sup> April

December (31<sup>th</sup> December)

Submissions: 1<sup>st</sup> July – 15<sup>th</sup> October

## FOOTNOTES AND BIBLIOGRAPHY REFERENCING STYLE

KADER highly requires the authors to use [the ISNAD Citation Style](#) 2<sup>nd</sup> edition. For more information you can visit the website <http://www.isnadsistemi.org/en/guide/> and download the handbook and templates from <http://www.isnadsistemi.org/en/downloads/>.

## ETHICS POLICY

### Publication Ethics

The publication process at KADER is the basis of the improvement and dissemination of information objectively and respectfully. Therefore, the procedures in this process improve the quality of the studies. Peer-reviewed studies are the ones that support and materialize the scientific method. At this point, it is of utmost importance that all parties



included in the publication process (authors, readers and researchers, publisher, reviewers and editors) comply with the standards of ethical considerations. KADER expects all parties to hold the following ethical responsibilities.

The following ethical duties and responsibilities are written in the light of the guide and policies made by [Committee on Publication Ethics \(COPE\)](#).

The publication of an article in a peer-reviewed journal is an essential building block in the development of a coherent and respected network of knowledge. It is a direct reflection of the quality of the work of the authors and the institutions that support them. Peer-reviewed articles support and embody the scientific method. It is therefore important to agree upon standards of expected ethical behavior for all parties involved in the act of publishing: the author, the journal editor, the peer reviewer, and the publisher.

## 1. Ethical Responsibilities of Authors

The authors who submit their manuscripts to KADER are expected to comply with the following ethical responsibilities:

- There is no charge for the paper submitted to the journal.
- Author(s) must submit original studies to the journal.
- If author(s) utilize or use other studies, they must make the in-text and end-text references accurately and completely.
- People who have not contributed to the study at the intellectual level should not be indicated as author.
- If the manuscripts submitted to be published are subject of conflicting interests or relations, these must be explained.
- During the review process of their manuscripts, author(s) may be asked to supply raw data. In such a case, author(s) should be ready to submit such data and information to the editorial board.
- Author(s) should document that they have the participants' consent and the necessary permissions related with the sharing and research/analysis of the data that are used.
- Author(s) bears the responsibility to inform the editor of the journal or publisher if they happen to notice a mistake in their study which is in early release or publication process and to cooperate with the editors during the correction or withdrawal process.
- Authors cannot submit their studies to multiple journals simultaneously. Each submission can be made only after the previous one is completed. A study published in another journal cannot be submitted to KADER.
- Author responsibilities given in a study (e.g., adding an author, reordering of author names) cannot be changed if the review process has begun.

## 2. Ethical Responsibilities of Editors

The editors of KADER should hold the following ethical responsibilities that are based on the guides “[COPE Code of Conduct and Best Practice Guidelines for Journal Editors](#)” and “[COPE Best Practice Guidelines for Journal Editors](#)” published as open Access by [Committee on Publication Ethics \(COPE\)](#).

### General duties and responsibilities

Editors are responsible for each study published in KADER. In this respect, the editors have the following roles and responsibilities:

- Making efforts to meet the demand for knowledge from readers and authors,
- Ensuring the continuous development of the journal,
- Managing the procedures aimed to improve the quality of the studies published in the journal,
- Supporting intellectual freedom,
- Ensuring academic integrity,
- Following the procedures without making concessions on intellectual property rights and ethical standards,
- Being transparent and clear in issues that require correction or explanation.

### Relationships with Readers

Editors must make decisions taking into consideration the knowledge, skills and expectations of all readers, researchers and practitioners that they need. Editors must also ensure that the published studies should contribute to literature and be original. Moreover, they must take notice of the feedback received from readers, researchers and practitioners and provide explanatory and informative feedback.

### Relationships with Authors

Editors have the following duties and responsibilities in their relations with authors:

- Editors must make positive or negative decisions about the studies' importance, originality, validity, clarity in wording and suitability with the journal's aims and objectives.
- Editors must take the studies that are within the scope of publication into pre-review process unless there are serious problems with the study.
- Editors must not ignore positive suggestions made by reviewers unless there are serious problems with the study.
- New editors, unless there are serious issues, must not change the previous editor's decisions about the studies.

- 
- “[Blind Review and Review Process](#)” must be published and editors must prevent possible diversions from the defined processes.
  - Editors must publish an “[Author's Guide](#)” that is comprehensive enough in answering queries by authors. This guide must be updated regularly.
  - Authors should be provided with explanatory and informative feedback.

### **Relationships with Reviewers**

Editors have the following duties and responsibilities in their relations with reviewers:

Editors must

- respect that their own papers are evaluated by appropriate independent referees from the editorial board.
- choose reviewers according to the subject of the study.
- provide the information and guidance reviewers may need during the review process.
- observe whether there are conflicting interests between reviewers and authors.
- keep the identities of reviewers confidential in blind review.
- encourage the reviewers to review the manuscript in an unbiased, scientific and objective tone.
- evaluate reviewers regularly based on criteria like performance and timing.
- develop practices and policies that increase the performance of reviewers.
- take necessary steps to update the reviewer pool dynamically.
- prevent unkind and unscientific reviews.
- make effort to ensure the reviewer pool has a wide range.

### **Relationships with the Editorial Board**

Editors must make sure that the members of the editorial board follow the procedures in accordance with the publication policies and guidelines, and must inform the members about the publication policies and developments. The editors must also train new members of the editorial board and provide the information they need.

Moreover, editors must

- ensure that the members of the editorial board review the manuscripts in an unbiased and independent manner.
- select the new members of the editorial board from those who can contribute to the journal and are qualified enough.
- send manuscripts for review based on the subject of expertise of the editorial board members.
- regularly communicate with the editorial board.

- arrange regular meetings with the editorial board for the development of publication policies and the journal.

### **Relationships with the Journal's Owner and Publisher**

The relationship between the editors and publisher is based on the principle of the independency of editors.

### **Editorial and Blind Review Processes**

Editors are obliged to comply with the policies of "Blind Review and Review Process" stated in the journal's publication policies. Therefore, the editors ensure that each manuscript is reviewed in an unbiased, fair and timely manner.

### **Quality Assurance**

Editors must make sure that articles in the journal are published in accordance with the publication policies of the journal and international standards.

### **Protection of Personal Information**

Editors are supposed to protect the personal information related with the subjects or visuals in the studies being reviewed, and to reject the study if there is no documentation of the subjects' consent. Furthermore, editors are supposed to protect the personal information of the authors, reviewers and readers.

### **Encouraging Ethical Rules and Protection of Human and Animal Rights**

Editors are supposed to protect human and animal rights in the studies being reviewed and must reject the experimental studies which do not have ethical and related committee's approval about the population given in such studies.

### **Precautions against possible Abuse and Malpractice**

Editors are supposed to take precautions against possible abuse and malpractice. They must conduct investigations meticulously and objectively in determining and evaluating complaints about such situations. They must also share the results of the investigation.

### **Ensuring Academic Integrity**

Editors must make sure that the mistakes, inconsistencies or misdirections in studies are corrected quickly.

### **Protection of Intellectual Property Rights**

Editors are responsible for protecting the intellectual property rights of all the articles published in the journal and the rights of the journal and author(s) in cases where these rights are violated. Also, editors must take the necessary precautions in order to prevent the content of all published articles from violating the intellectual property rights of other publications.

### **Constructiveness and Openness to Discussion**

Editors must

- pay attention to the convincing criticism about studies published in the journal and must have a constructive attitude towards such criticism.
- grant the right of reply to the author(s) of the criticized study.
- not ignore or exclude the study that include negative results.

### **Complaints**

Editors must examine the complaints from authors, reviewers or readers and respond to them in an explanatory and enlightening manner.

### **Political and Economic Apprehensions**

Neither the owner of the journal, publisher or any other political or economical factor can influence the independent decision taking of the editors.

### **Conflicting Interests**

Editors, acknowledging that there may be conflicting interests between reviewers and other editors, guarantee that the publication process of the manuscripts will be completed in an independent and unbiased manner.

## **3. Ethical Responsibilities of Reviewers**

The fact that all manuscripts are reviewed through “Blind Review” has a direct influence on the publication quality. This process ensures confidentiality by objective and independent review. The review process at KADER is carried out on the principle of double blind review. Reviewers do not contact the authors directly, and the reviews and comments are conveyed through the journal management system. In this process, the reviewer comments on the evaluation forms and full texts are assigned to the author(s) by the editor. After the blind review process is completed, the accepted papers will be tested in that are subjected to plagiarism detection program, whether they contain plagiarism or not, and they have been previously published or not. In this context, the

reviewers doing review work for KADER are supposed to bear the following ethical responsibilities:

- Each paper submitted to the journal is evaluated by two referees at least.
- If one of the two referees rejects a paper while the other accepts it; the paper is sent to third referee or to the editor for making final decision.

Reviewers must

- agree to review only in their subject of expertise.
- review in an unbiased and confidential manner.
- inform the editor of the journal if they think that they encounter conflict of interests and decline to review the manuscript during the review process.
- dispose the manuscripts they have reviewed in accordance with the principle of confidentiality after the review process. Reviewers can use the final versions of the manuscripts they have reviewed only after publication.
- review the manuscript objectively and only in terms of its content and ensure that nationality, gender, religious and political beliefs, and economic apprehension do not influence the review.
- review the manuscript in a constructive and kind tone, avoid making personal comments including hostility, slander and insult.
- review the manuscript they have agreed to review on time and in accordance with the ethical rules stated above.

#### **4. Ethical Responsibilities of Publisher**

The Board of KADER is conscious of the fact that they must observe the ethical responsibilities below and act accordingly:

- KADER does not charge any article submission from authors.
- Editors are responsible for all the processes that the manuscripts submitted to KADER will go through. Within this framework, ignoring the economic or political interests, the decision-makers are the editors.
- The publisher undertakes to have an independent editorial decision made.
- However, the journal has left the database open on the internet.
- The publisher bears all the responsibility to take the precautions against scientific abuse, fraud and plagiarism.

#### **5. Unethical Behavior**

Should you encounter any unethical act or content in KADER apart from the ethical responsibilities listed above, please notify the journal by e-mail at [kaderdergi@gmail.com](mailto:kaderdergi@gmail.com).

---

## FOOTNOTES AND BIBLIOGRAPHY REFERENCING STYLE

Kader, uses [ISNAD Citation style](http://www.isnadsistemi.org/guide/) 2<sup>nd</sup> edition. Articles that submitted to our journal should be written in accordance with this style. You can review ISNAD citation style at <http://www.isnadsistemi.org/guide/>.

### ABBREVIATIONS

abr.	abridged by
b.	born
ca.	about, approximately
cf.	compare
chap. /chaps	chapter/chapters
comp.	compiler/compiled by
d.	died
diss.	dissertation
ed.	edited by/edition/editor
eds.	editors
et al.	and others
fn.	footnote
n.d.	no date
no.	number/issue
n.p.	no place/no publisher
p./pp.	page/pages
par.	paragraph
pt.	part
rev. ed.	revised edition
sec.	section
trans.	translated by
vol.	volume