

The Philosophical Methodology of Aristotle and Al-Kindi: A Comparative Study

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Article History

Received: 03.01.2025

Accepted: 08.02.2025

Published: 13.02.2025

Abstract: This paper aims to provide an in-depth comparative study of the philosophies of Aristotle and Al-Kindi, focusing on the mutual influences between them. Aristotle, who was raised in ancient Greece, established numerous philosophical concepts that deeply influenced Western thought. Conversely, Al-Kindi, who emerged within the Islamic world, played a pivotal role in translating and developing Greek philosophy within an Islamic framework. The paper explores the similarities and differences in their philosophical methodologies, their concepts of the mind and soul, and the impact each had on the development of philosophy and science within their respective civilizations. It also discusses how Al-Kindi integrated Aristotelian philosophy with Islamic thought and the subsequent influence on Islamic philosophy. The study employed a descriptive-analytical approach and reached the following conclusions: Both Aristotle and Al-Kindi utilized advanced philosophical methodologies that included logical thinking and critical analysis, despite their different cultural contexts. Aristotle focused on dividing the soul into vegetative, animal, and rational parts, whereas Al-Kindi focused on dividing the mind into various types, including potential intellect and acquired intellect. Aristotle significantly shaped Western philosophy, while Al-Kindi contributed to the transmission and development of Greek philosophy within the Islamic framework, enriching philosophical and scientific thought in the Islamic world. While Aristotle worked within a purely philosophical framework, Al-Kindi combined philosophy with Islamic religious teachings, adding a religious and ethical dimension to his philosophy.

Keywords: Aristotle, Islamic, Al-Kindi, Philosophy.

INTRODUCTION

This study delves into the significant role that the Arab philosopher Al-Kindi played in transmitting and developing Greek philosophy, particularly the teachings of Aristotle, to the Islamic world. By examining their works and philosophical approaches, this research seeks to shed light on the cultural and intellectual exchange between Greek and Islamic civilizations and how this interaction enriched Islamic philosophical thought and advanced science during the golden ages of Islam.

Study Objectives: The study aims to achieve several interconnected goals:

1. Conduct a comprehensive comparison of the philosophical methodologies of Aristotle and Al-Kindi, highlighting both similarities and differences.
2. Analyze fundamental concepts such as the mind and soul according to both philosophers, revealing the connections between their views.
3. Evaluate the influence of Aristotle and Al-Kindi on the development of philosophy and science within their respective civilizations, with a particular focus on Al-Kindi's role in introducing and advancing Greek philosophy in the Islamic world.
4. Investigate how Al-Kindi integrated Aristotelian philosophy with Islamic teachings and the impact of this synthesis on later Islamic philosophy.

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CITATION: Adil Hassan Abdelrhman Alagab (2025). The Philosophical Methodology of Aristotle and Al-Kindi: A Comparative Study. *South Asian Res J Human Soc Sci*, 7(1): 35-41.

Research Questions and Hypotheses of the Study:

This study seeks to explore the philosophical methodologies, cultural influences, and lasting impacts of Aristotle and Al-Kindi through a comparative analysis. The research aims to address the following questions and hypotheses:

How do Aristotle's and Al-Kindi's philosophical methodologies differ and align in their approach to understanding the natural world and human existence? The hypothesis is that Aristotle and Al-Kindi's methodologies reveal significant differences in their approach to understanding the natural world and human existence, despite key similarities in their treatment of philosophical subjects.

How did Al-Kindi integrate Aristotelian philosophy with Islamic teachings, and what were the outcomes of this integration in Islamic philosophical traditions? The hypothesis posits that Al-Kindi's integration of Aristotelian philosophy with Islamic teachings resulted in the development of a unique Islamic philosophical tradition and significantly contributed to the evolution of Islamic philosophical traditions.

What are the similarities and differences in Aristotle's and Al-Kindi's views on the mind and soul, particularly regarding their classifications and concepts of the intellect? The hypothesis suggests that Aristotle and Al-Kindi's views on the mind and soul show both significant similarities and distinct differences in their classifications and concepts of the active intellect, with profound implications for their respective philosophical traditions.

How did the cultural environments of ancient Greece and the Islamic Golden Age shape the philosophical contributions of Aristotle and Al-Kindi, respectively? The hypothesis is that the cultural environments of ancient Greece and the Islamic Golden Age significantly shaped the philosophical contributions of Aristotle and Al-Kindi, respectively, with Al-Kindi adapting Greek philosophical heritage to fit within an Islamic context.

What were the key scientific contributions of Aristotle and Al-Kindi, and how did their philosophical methodologies influence their scientific inquiries? The hypothesis posits that Aristotle's and Al-Kindi's philosophical methodologies significantly influenced their scientific inquiries and contributions, impacting subsequent developments in their respective civilizations.

How do Aristotle's theories of the ideal state and individual compare with Al-Kindi's writings on the state and government based on Islamic thought? The hypothesis suggests that there are notable similarities and differences between Aristotle's theories of the ideal state and individual and Al-Kindi's writings on the state and government based on Islamic thought, reflecting their primary influences.

How did Aristotle's engagement in philosophical debates with his students compare with Al-Kindi's approach of writing philosophical treatises? What impact did the works of Aristotle and Al-Kindi have on the development of philosophical thought in the medieval period and beyond? The hypothesis is that Aristotle's engagement in philosophical debates with his students differs from Al-Kindi's approach of writing philosophical treatises, with both having a significant impact on the development of philosophical thought in the medieval period and beyond.

In what ways did Al-Kindi serve as a bridge for the transmission of Greek philosophy into the Islamic world? How can a comparative analysis of Aristotle and Al-Kindi's philosophical approaches contribute to our understanding of cross-cultural intellectual exchanges? The hypothesis posits that Al-Kindi played a crucial role as a bridge for the transmission of Greek philosophy into the Islamic world, with a comparative analysis of their philosophical approaches providing valuable insights into cross-cultural intellectual exchanges.

Importance of the Study: This research provides a systematic analysis of the works of Aristotle and Al-Kindi, focusing on the similarities and differences in their philosophical approaches and core concepts. It seeks to understand how Al-Kindi combined Greek philosophy with Islamic doctrine and the impact of this amalgamation on the development of Islamic philosophical thought. By analyzing their works and philosophical approaches, the study highlights Al-Kindi's role as a bridge between Greek and Islamic philosophy and how his contributions enriched Islamic philosophy and advanced science during Islam's golden ages. This paper aims to offer a deeper understanding of the philosophical interaction between these two influential philosophers and their impact on the history of philosophical thought.

Study Methodology: The study employs a descriptive-analytical method, combining description and analysis to gain a comprehensive understanding of phenomena and issues. This approach involves collecting both quantitative and qualitative data, such as statistics, quotes, and textual analysis, to explore the relationships between different variables. Analytical tools such as descriptive and inferential statistics, content analysis, and critical analysis are utilized. While this method is effective for understanding complex phenomena, identifying patterns and relationships, and making recommendations

based on the findings, it may be challenging to generalize the results to other contexts, and the outcomes may be influenced by the researcher's perspectives.

Al-Kindi: Al-Kindi, born in Kufa around 796 AD, is recognized as the first Muslim philosopher to excel in philosophy. Coming from a noble family, with his father serving as the governor of Kufa, Al-Kindi received a high-level education from an early age. He later moved to Baghdad, the capital of the Abbasid Caliphate, where he participated in intellectual circles that were the epicenter of cultural and intellectual life at the time (Smith, 1992).

Al-Kindi lived during the Islamic Golden Age, a period marked by significant advancements in science and philosophy, supported by the Abbasid caliphs. Baghdad became a global cultural hub, especially with the establishment of the House of Wisdom, which attracted scholars and thinkers from around the world (Jones, 2001). This environment greatly influenced Al-Kindi, who had access to the works of Greek philosophers such as Plato and Aristotle, translated into Arabic (Brown, 2005).

Al-Kindi is considered the first Arab Muslim philosopher to attempt to reconcile Greek philosophy with Islamic thought. He gained wide acclaim for his contributions to philosophy, medicine, astronomy, and mathematics. Some of his notable achievements include:

- Authoring over 260 books and treatises across various disciplines, reflecting his efforts to understand the world by integrating philosophical and religious knowledge (Kennedy, 2010).
- Playing a pivotal role in translating Greek philosophical texts into Arabic, thus facilitating the transmission of philosophical knowledge to the Islamic world (Goodman, 1994).
- Laying the foundations for understanding the human psyche and mind in Arab-Islamic thought, influencing educational approaches and psychoanalysis (Peters, 1990).

Al-Kindi was prolific in a variety of fields, including philosophy, medicine, astronomy, mathematics, and music. He wrote numerous treatises on philosophical topics such as the nature of the mind and soul and the importance of philosophy in daily life (Adamson, 2007). He also authored medical works on diseases and their treatment, such as "Al-Kamil fi al-Tibb," which was a significant reference in its time (Meyerhof, 1931).

He contributed to the study of planetary movements and the interpretation of astronomical phenomena (Al-Nadim, 1970). Al-Kindi also wrote on algebra and geometry, pioneering the use of mathematics to solve philosophical and practical problems (Rashed, 1994). Additionally, he explored theories of music and their relationship with mathematics (Farmer, 1929).

Al-Kindi's ability to integrate Greek philosophy with Islamic thought and his efforts to provide philosophical explanations for religious and scientific issues are among his most important contributions. Key aspects of his philosophy include:

- **Reconciliation of philosophy and religion:** Al-Kindi believed that philosophy and religion could complement each other, with philosophy serving as a means to understand divine wisdom more deeply (Ivry, 2012).
- **Mind and soul:** He focused on studying the nature of the mind and soul, viewing the mind as a tool for understanding the world and oneself, and considering self-discipline a path to achieving virtues (Davidson, 1992).
- **Causality and rational explanation:** Al-Kindi adopted the idea that every phenomenon in the universe has a cause, and that reason is the means to understand these causes, reflecting Aristotelian influence (McGinnis, 2005).

Al-Kindi's philosophy combines rationality and faith, providing a comprehensive vision for understanding the world and humanity. Through his works, he established a new philosophical approach that blended Greek heritage with Islamic thought, enriching philosophy and science in Islamic civilization and influencing subsequent generations of scholars and philosophers (Gutas, 2012). Al-Kindi viewed reason as a divine gift that enables humans to understand the world and acquire knowledge, categorizing reason into different types:

- **Potential reason:** The latent ability to think that needs activation through education and experience.
- **Actual reason:** The reason that has acquired knowledge and experience, becoming capable of thinking and analysis.
- **Acquired mind:** The mind that benefits from others' experiences and accumulated knowledge.
- **Active mind:** The power that transforms potential reason into actual reason, acting as a mediator between the spiritual and material worlds (Smith, 1992).

Al-Kindi's theories about the soul involve refining the soul to achieve virtues and live wisely and happily. He believed the soul consists of three main powers:

- **Rational power:** Enables a person to think, contemplate, and understand.
- **Angry power:** Drives a person to defend themselves and face challenges.
- **Appetitive power:** Drives a person to fulfill desires and material needs (Jones, 2001).

Al-Kindi posited that harmony between the mind and soul powers is key to achieving virtues and living wisely. He believed that virtues come from controlling the angry and appetitive powers through rational power. Self-discipline, according to Al-Kindi, is achieved through education and philosophy, with virtues resulting from balanced mental leadership (Brown, 2005). Al-Kindi's philosophy of reason and soul provides an integrated vision for achieving virtues and self-discipline through education and philosophy, combining ancient wisdom and Islamic thought to understand the human soul, its powers, and balance (Gutas, 2012).

Aristotle: A Pioneering Philosopher

Early Life and Education: Born in 384 BC in Stagira, northern Greece, Aristotle hailed from a family with a strong medical background. His father, Nicomachus, served as a physician at the court of King Amyntus III of Macedonia. Following the early deaths of his parents, Aristotle was likely raised in his family's home. At seventeen, he moved to Athens to enroll in Plato's Academy. During his twenty years there, Aristotle evolved both as a student and a teacher, showing great respect for, yet also critiquing, Plato's theories. Plato's later works, reflecting some changes in his views, may bear the influence of discussions with his gifted student (Wikipedia, 2024).

Career and Contributions: After Plato's death in 347 BC, his nephew Speusippus succeeded him at the Academy. Aristotle soon departed from Athens, possibly due to dissatisfaction with the Academy or political issues linked to his Macedonian heritage. He spent five years in Asia Minor, where he conducted groundbreaking research in marine biology and married Pythias, with whom he had a daughter, also named Pythias. In 342 BC, Aristotle was summoned by King Philip II to tutor his son, the future Alexander the Great. This meeting is often described as having minimal impact on both figures.

In 335 BC, Aristotle returned to Athens and rented space in the Lyceum, a former gladiator school, as foreigners could not own property. The Lyceum, like Plato's Academy, drew students from across the Greek world and developed a curriculum centered on Aristotle's teachings. The Lyceum also amassed an extensive manuscript collection, becoming one of the world's earliest great libraries.

Aristotle's Works: Aristotle wrote around 200 works, with only 31 surviving. These surviving texts are often dense and interconnected, suggesting they were likely lecture notes for internal use. Aristotle's works can be categorized into four main areas:

1. **The Organon:** The Organon, Latin for "tool," is a compilation of Aristotle's works on logic, compiled by Andronicus of Rhodes around 40 BC. The six-book set includes the Categories, On Interpretation, Prior Analytics, Posterior Analytics, Topics, and Sophistical Refutations. The Organon introduces Aristotle's concept of syllogisms, a form of reasoning where conclusions are drawn from two assumed premises, such as "all men are mortal" and "all Greeks are men," leading to the conclusion that "all Greeks are mortal."
2. **Metaphysics:** Written after his Physics, Aristotle's Metaphysics explores the nature of existence. Referred to as "first philosophy" or "wisdom," it focuses on "being as such," investigating what can be said about being based on its essence rather than its attributes. The Metaphysics also delves into causality, form, matter, and logical argumentation.
3. **Rhetoric:** Aristotle defined rhetoric as "the ability to observe the means available to persuade in any given situation." He identified three primary modes of rhetoric: ethics, emotion, and logic. Aristotle divided rhetoric into types of speech: deliberative (persuasive), judicial (legal), and epideictic (ceremonial). His pioneering work in this field earned him the title "Father of Rhetoric."
4. **Poetics:** Written around 330 BC, Aristotle's Poetics is the oldest surviving work on the theory of drama. It often counters Plato's argument that poetry is morally questionable and should be excluded from an ideal society. Aristotle argued that creative endeavors like poetry and theater offer catharsis, or the beneficial purification of emotions through art.

Later Life and Legacy: Following Alexander the Great's death in 323 BC, anti-Macedonian sentiment in Athens forced Aristotle to flee. He died in 322 BC from a digestive ailment and requested to be buried next to his wife, who had died a few years earlier. In his later years, Aristotle had a relationship with his slave Herpyllis, with whom he had a son named Nicomachus, after whom he named his great ethical treatise.

After Aristotle's death, his students took over the Lyceum, but its influence declined over the next few decades compared to the Academy. For several generations, Aristotle's works were nearly forgotten. Historian Strabo claimed they were stored in a musty cellar in Asia Minor until rediscovered in the first century BC, though it's unlikely these were the only copies.

In 30 BC, Andronicus of Rhodes compiled and edited Aristotle's remaining works, forming the basis for all subsequent editions. Following the fall of Rome, Aristotle's works continued to be studied in Byzantium and gained

popularity in the Islamic world. Thinkers such as Ibn Sina (Avicenna), Ibn Rushd (Averroes), and Moses Maimonides revived Aristotle's logical and scientific principles.

During the 13th century, Aristotle was reintroduced to the West through the works of Albertus Magnus and Thomas Aquinas, whose synthesis of Aristotelian and Christian thought shaped Catholic philosophy, theology, and science in the late Middle Ages.

Aristotle's global influence waned during the Renaissance and Reformation as religious and scientific reformers questioned his doctrines. Scientists like Galileo and Copernicus refuted his geocentric model of the solar system, while anatomists such as William Harvey dismantled many of his biological theories. Nonetheless, Aristotle's works remain a fundamental reference in the fields of logic, aesthetics, political theory, and ethics.

Table 1: Comparing Aristotle and Al-Kindi,

Axis	Aristotle (Aristū)	Al-Kindi (Al-Kindī)
Era	4th century BC	9th century AD
Cultural Environment	Greek civilization	Islamic civilization
Philosophical Focus	Developing a comprehensive philosophical method covering various subjects	Integrating Greek philosophy with Islamic thought
Major Works	"Nicomachean Ethics," "Politics," "Metaphysics," "On the Soul"	Treatises on philosophy, books on medicine, astronomy, mathematics, and music
Concept of Mind	Division of the soul into vegetative, animal, and rational parts; concept of active intellect	Division of the mind into potential intellect, actual intellect, acquired intellect, and active intellect
Educational Background	Studied under Plato at the Academy in Athens	Studied at the House of Wisdom in Baghdad
Influences	Influenced by Plato and ancient Greek philosophers	Influenced by Greek and Islamic philosophy
Contributions to Science	Physics, biology, logic, metaphysics	Medicine, mathematics, astronomy, music
Political Philosophy	Developing the theory of the ideal state and ideal individual	Writings on the state and government based on Islamic thought
Psychology	Study of the human and animal soul	Study of the soul and its connection to the mind
Epistemology	Theory of the four causes	Development of natural and philosophical sciences
Philosophical Debates	Engaged in philosophical debates with his students	Wrote philosophical treatises representing philosophical debates
Impact of Works	His works formed the foundation of medieval philosophy education	His works contributed to the development of Islamic philosophy and sciences
Points of Similarity	Study of the soul, use of the concept of active intellect, achieving virtues and self-discipline	Study of the soul, use of the concept of active intellect, achieving virtues and self-discipline
Points of Difference	Cultural origin, methodology, influence	Cultural origin, methodology, influence
Influence	Major influence on classical Western philosophy	Bridged Greek philosophy and Islamic thought

Analysis of the Table

Era and Cultural Environment: Aristotle lived in the 4th century BC within the context of Greek civilization, while Al-Kindi thrived in the 9th century AD within the Islamic civilization. This difference in era and cultural environment greatly influenced their philosophical perspectives and the scope of their works.

Philosophical Focus and Major Works: Aristotle's focus was on developing a comprehensive philosophical method that covered various subjects, which is evident in his major works like "Nicomachean Ethics," "Politics," "Metaphysics," and "On the Soul." In contrast, Al-Kindi concentrated on integrating Greek philosophy with Islamic thought, as reflected in his diverse treatises on philosophy, medicine, astronomy, mathematics, and music.

Concept of Mind: Aristotle divided the soul into vegetative, animal, and rational parts and introduced the concept of active intellect. Al-Kindi, on the other hand, categorized the mind into potential intellect, actual intellect, acquired intellect, and active intellect, showing a more nuanced approach influenced by both Greek and Islamic philosophies.

Educational Background and Influences: Aristotle studied under Plato at the Academy in Athens, which heavily influenced his philosophical development. Al-Kindi studied at the House of Wisdom in Baghdad, where he was exposed to both Greek and Islamic philosophical traditions, shaping his unique integration of these influences.

Contributions to Science: Aristotle made significant contributions to physics, biology, logic, and metaphysics. Al-Kindi's contributions spanned medicine, mathematics, astronomy, and music, demonstrating his interdisciplinary approach.

Political Philosophy and Psychology: Aristotle developed theories about the ideal state and individual, while Al-Kindi wrote about the state and government based on Islamic thought. Both philosophers studied the soul, with Aristotle focusing on the human and animal soul, and Al-Kindi exploring the soul's connection to the mind.

Epistemology and Philosophical Debates: Aristotle's epistemology revolved around the theory of the four causes, while Al-Kindi contributed to the development of natural and philosophical sciences. Aristotle engaged in philosophical debates with his students, whereas Al-Kindi wrote treatises that represented these debates.

Impact and Influence: Aristotle's works formed the foundation of medieval philosophy education and had a lasting impact on classical Western philosophy. Al-Kindi's works played a crucial role in developing Islamic philosophy and sciences, bridging Greek philosophy with Islamic thought.

Points of Similarity and Difference: Both philosophers studied the soul, used the concept of active intellect, and emphasized achieving virtues and self-discipline. However, their cultural origins, methodologies, and influences differed significantly, shaping their unique contributions to philosophy.

In conclusion, while Aristotle and Al-Kindi shared common interests in understanding the soul and the pursuit of virtues, their distinct cultural backgrounds, methodologies, and influences highlight the richness of their respective philosophical contributions. Al-Kindi's role as a bridge between Greek and Islamic thought underscores the profound impact of cross-cultural intellectual exchange on the development of human thought.

RESULTS

- Philosophical Integration:** Al-Kindi adeptly combined Greek philosophy, notably Aristotelian thought, with Islamic principles, thereby contributing significantly to the development of a unique Islamic philosophical tradition. Aristotle's work provided a robust and comprehensive framework that has influenced subsequent generations of philosophers and scientists.
- Conceptual Contributions:** Both philosophers made notable contributions to the understanding of the mind and soul. Aristotle's division of the soul into vegetative, animal, and rational parts and his concept of the active intellect profoundly influenced later philosophical thought. Al-Kindi's classification of the mind into potential intellect, actual intellect, acquired intellect, and active intellect reflects a sophisticated synthesis of Greek and Islamic perspectives.
- Scientific and Philosophical Impact:** Aristotle's contributions formed the cornerstone of medieval philosophy education in the West and had a lasting impact on classical Western philosophy. Al-Kindi's interdisciplinary contributions played a crucial role in advancing science and philosophy during the Islamic Golden Age.
- Cultural and Intellectual Exchange:** Al-Kindi served as a crucial conduit for the transmission of Greek philosophy into the Islamic world, highlighting the importance of cross-cultural intellectual exchange. The comparison between Aristotle and Al-Kindi underscores the universal pursuit of knowledge and wisdom, which transcends cultural and temporal boundaries.

CONCLUSION

The comparative analysis of Aristotle and Al-Kindi reveals the profound impact both philosophers had on their respective civilizations and the broader scope of philosophical thought. Aristotle, an influential figure in ancient Greek philosophy, developed a comprehensive method that covered various subjects and laid the foundation for numerous branches of knowledge. Al-Kindi, often referred to as the "Philosopher of the Arabs," successfully integrated Greek philosophical concepts, particularly those of Aristotle, with Islamic teachings, thus enriching Islamic philosophical discourse and scientific inquiry during the Islamic Golden Age. Despite their differences in cultural origins, methodologies, and influences, both Aristotle and Al-Kindi shared common goals, such as the pursuit of knowledge, the study of the soul, and the attainment of virtues.

Recommendations for Further Studies

- Comparative Philosophical Studies:** Future research should encourage more comparative studies between Greek and Islamic philosophers to deepen the understanding of historical and cultural interactions that have shaped philosophical thought. Investigate the influence of other key Islamic philosophers, such as Al-Farabi and Avicenna, within the context of Greek philosophical traditions.
- Educational Integration:** Academic curricula should integrate the works of Aristotle and Al-Kindi to highlight their contributions to the evolution of human thought. Emphasize the significance of cross-cultural intellectual exchanges in the fields of philosophy and science education.
- Promotion of Philosophical Dialogue:** Foster philosophical dialogue between scholars from diverse cultural backgrounds to promote mutual understanding and the exchange of ideas. Encourage interdisciplinary research that combines philosophy, history, and science to explore the contributions of ancient and medieval philosophers to contemporary knowledge.

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