

David Hume's Empiricism and Its Contribution to The Integration of Science, Culture, Technology, and Religion

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Abstract

The integration of science with cultural, technological, and religious dimensions is an urgent discourse in contemporary thought, particularly in addressing epistemological fragmentation. David Hume's empiricism offers a critical contribution to this discussion through its emphasis on sensory impressions as the foundation of knowledge and its radical critique of causality and induction. This study aims to analyze the position of empiricism in the philosophy of science, examine Hume's role in advancing empiricism, and explain the relevance of his thought in integrating science with culture, technology, and religion. Using a qualitative, library-based approach, this research draws from books, articles, and previous studies, with descriptive analysis applied to interpret and contextualize Hume's ideas. The findings show that in the realm of culture, empiricism provides a methodological basis for studying social practices as products of lived experience, while simultaneously highlighting the need for ethical and normative reflection. In technology, Hume's insistence on observation and verification strengthens empirical testing, whereas his skepticism toward causality and induction fosters caution and repetition in innovation, laying the groundwork for logical empiricism. In religion, Hume's thought underscores the limits of empirical reasoning but allows religious experience to be studied phenomenologically, while its normative truth remains grounded in revelation and faith. The conclusion emphasizes that Hume's empiricism not only reinforces methodological rigor but also opens a dialogical epistemology in which experience, reason, and revelation coexist. Thus, integrating empiricism into contemporary scholarship contributes to the development of science that is empirically valid, ethically responsible, and culturally and spiritually meaningful.

Keywords: David Hume; Empiricism; Science; Culture; Technology; Religion; Integration

Abstrak

Integrasi ilmu pengetahuan dengan dimensi budaya, teknologi, dan agama merupakan wacana penting dalam pemikiran kontemporer, khususnya dalam menghadapi fragmentasi epistemologis. Empirisme David Hume memberikan kontribusi kritis terhadap diskusi ini melalui penekanannya pada impresi inderawi sebagai dasar pengetahuan serta kritik radikalnya terhadap kausalitas dan induksi. Penelitian ini bertujuan untuk menganalisis posisi empirisme dalam filsafat ilmu, mengkaji peran Hume dalam mengembangkan empirisme, serta menjelaskan relevansi pemikirannya dalam mengintegrasikan ilmu dengan budaya, teknologi, dan agama. Dengan menggunakan pendekatan kualitatif berbasis studi pustaka, penelitian ini merujuk pada buku, artikel, dan penelitian terdahulu, serta menerapkan analisis deskriptif untuk menginterpretasi dan mengontekstualisasikan gagasan Hume. Temuan penelitian menunjukkan bahwa dalam ranah budaya, empirisme memberikan dasar metodologis bagi kajian praktik sosial sebagai produk pengalaman hidup, sekaligus menekankan perlunya refleksi etis dan normatif. Dalam teknologi, penekanan Hume pada observasi

dan verifikasi memperkuat pengujian empiris, sementara skeptisisme terhadap kausalitas dan induksi mendorong kehati-hatian serta pengulangan dalam inovasi, yang menjadi landasan bagi empirisme logis. Dalam agama, pemikiran Hume menegaskan keterbatasan nalar empiris namun tetap memungkinkan pengalaman religius dikaji secara fenomenologis, sedangkan kebenaran normatifnya bersandar pada wahyu dan iman. Simpulan penelitian ini menegaskan bahwa empirisme Hume tidak hanya memperkuat ketelitian metodologis, tetapi juga membuka epistemologi dialogis di mana pengalaman, akal, dan wahyu dapat berdampingan. Dengan demikian, integrasi empirisme dalam keilmuan kontemporer berkontribusi pada pengembangan ilmu yang sah secara empiris, bertanggung jawab secara etis, serta bermakna secara kultural dan spiritual.

Kata Kunci: David Hume; Empirisme; Ilmu Pengetahuan; Budaya; Teknologi; Agama; Integrasi

Introduction

The development of science has never been detached from other dimensions of human life, including religion, ethics, and morality. From the very beginning, knowledge emerged from humanity's effort to understand the universe, moral values, and the spiritual experience embedded in human existence (Febriana and Astuti 2025). Within the contemporary era marked by rapid technological advancement, modernism, and postmodernism, the discourse on the integration of science and religion has become increasingly relevant. This integration is important because it addresses epistemological gaps and affirms that knowledge can come from multiple sources: experience, reason, and revelation (Farunik and Dharma, 2023).

Within the philosophy of science, the debate on the sources of knowledge has produced two major traditions: empiricism and rationalism (Thahar, 2023). Empiricism emphasizes experience as the primary source of knowledge, while rationalism places reason as the foundation of truth (Alim et al., 2024). The empiricist tradition was developed by Francis Bacon and further elaborated by John Locke, Thomas Hobbes, and George Berkeley (Wilhelm and Berkeley, 2025). However, the most critical and radical formulation came from David Hume (Sahib, 2025).

Hume argued that all ideas originate from sensory impressions and rejected any claim to knowledge that could not be verified empirically. He also questioned the rational basis of causality and induction, which had long been considered logical principles in scientific construction (Suyudi and Putra, 2020). Through this approach, Hume not only emphasized the dominance of experience but also opened space for criticism of the limitations of rationalism (Soemantri, 2022). Despite its influence, Hume's empiricism is often positioned only within Western secular science.

Few studies have examined Hume's empiricism in relation to the Islamic discourse of knowledge integration. Most existing studies either discuss Hume purely from a Western philosophical perspective (Pakpahan et al., 2024). Or discuss science-religion integration in Islam without engaging critically with Western epistemology. This article positions itself to fill that gap by analyzing Hume's empiricism and exploring its relevance for the project of integrating science and religion in the Islamic framework. The originality of this study lies in reading Hume not as an antagonist of religion, but as a critical mirror to reflect on how experience and reason can be harmonized with revelation.

Modern Western science, despite its achievements, is often criticized for reducing metaphysical and religious values into mere material calculations (Capra, 2022). This has widened the gap between science and religion and has contributed to moral and ecological

crises (Bakar, 2021). For Muslim scholars, integration is not about adapting to Western scientific hegemony, but about affirming that knowledge must be rooted in ethical, moral, and spiritual values (Mulkhan, 2024). In this context, studying Hume's empiricism becomes urgent.

Hume's strict emphasis on experience offers a methodological caution against excessive rationalism and metaphysical speculation (Sahib, 2025). At the same time, his critique of causality and induction opens space to re-evaluate the limits of human reason and the necessity of other sources of knowledge, including revelation (Anwar, 2023). By engaging Hume critically, Islamic scholarship can develop a more comprehensive epistemology that integrates empirical data, rational analysis, and divine guidance. This is particularly relevant for disciplines such as Islamic economics, education, and social sciences, which require both scientific rigor and spiritual values.

This study employs a philosophical and literature-based approach. The method used is descriptive-analytical and comparative (Kaelan, 2022). First, the study describes the position of empiricism within the map of philosophy of science and examines David Hume's main contributions. Second, it analyzes Hume's epistemology critically from an Islamic perspective. Third, it discusses the urgency and implications of Hume's empiricism for the integration of science and religion in the contemporary context. Data are collected from primary sources such as Hume's *A Treatise of Human Nature* and *An Enquiry Concerning Human Understanding*, as well as secondary sources including books and journal articles published between 2020-2025 (Hume, 2021).

Accordingly, this study aims to, 1) Analyze the position of empiricism within the map of philosophy of science, 2) Examine David Hume's contribution to the development of empiricism, 3) Explain the urgency of Hume's empiricism in the process of integrating science and religion in the contemporary Islamic context. It is expected that this study will contribute theoretically to strengthening the discourse on science-religion integration and provide a reflective foundation for the development of knowledge that is more comprehensive, ethical, and spiritually meaningful.

Method

This research uses a qualitative approach. The research only collects and analyzes data and does not perform statistical calculations. The research was conducted using a library method, namely a special exploration including a series of exercises related to information collected from libraries, reading and taking notes and how research materials are handled. This research is literature in nature where data sources are obtained by looking at sources of books, documents, articles and information from previous research. Descriptive analysis is used by the author in this study. This approach discusses the ideas, views and thoughts of figures related to the theme of radical analysis. In this study, a detailed picture is obtained with a systematic, factual and accurate presentation related to the script.

Results and Discussion

1. Biography of David Hume

David Hume was born in Edinburgh on April 26, 1711. He was the youngest child of a respectable family, though not wealthy. After the death of his father during Hume's early childhood, he was raised by his mother in the family estate at Ninewells, Berwick. From a young age, Hume displayed a strong interest in philosophy and literature. In 1723, he entered the University of Edinburgh to study law as expected by his family, but his interest soon shifted to philosophy. Around 1729, he suffered from serious health problems, which led him to travel to France (La Flèche) for recovery. This period of

personal struggle and travel provided the background for his intellectual development. By 1737, Hume had nearly completed his first major work, *A Treatise of Human Nature*, though it initially received little recognition. Disappointed but undeterred, he went on to publish *Essays, Moral and Political* (1741-1742), and later revised parts of the *Treatise* into *An Enquiry concerning Human Understanding* and *An Enquiry concerning the Principles of Morals* (1751).

Hume's writings reflect his distinctive skeptical empiricism the belief that all ideas stem from sensory impressions, coupled with his critique of causality and inductive inference. His critical stance toward theological arguments is also evident in *Dialogues Concerning Natural Religion*, which, due to its controversial content, was published only after his death in 1779. His intellectual position was shaped not only by his personal experiences and rigorous study in libraries especially during his tenure as a librarian but also by the recognition he received among European intellectual circles, particularly in France. In summary, Hume's shift from law to philosophy, his personal experiences, his writing and revisions, and the intellectual environment of his time all directly contributed to the formation of his skeptical empiricism and his critical approach to the relationship between science and religion.

2. Empiricism And Integration of Science

Etymologically, the term empiricism is closely related to the word experience, derived from the Greek *empeiria* and the Latin *experientia*, both of which denote direct or lived experience. In the terminology of philosophy of science, empiricism is a doctrine which asserts that sensory experience mediated through the five senses is the primary and fundamental source of all knowledge. Ideas are regarded as abstractions or forms derived from such experiences; in other words, without sensory impressions, no valid idea can exist (Good, 2002).

Conceptually, empiricism stands in contrast to rationalism, which regards reason or intellect as the ultimate source of knowledge. Within empiricism, several thinkers have played major roles: Francis Bacon, who emphasized observation and experimentation; John Locke, who developed the notion of *tabula rasa*; George Berkeley, who asserted the primacy of experience in constituting reality; and Thomas Hobbes, who stressed materialist interpretations. These approaches provided the methodological foundation for modern experimental science, though they also brought limitations especially when questions of value, metaphysics, and normative truth are required (Good, 2002).

David Hume was a central figure who developed empiricism into a more critical and reflective form. He argued that all ideas originate from sensory impressions: ideas are but weaker copies of impressions. From this premise, Hume formulated two significant critiques: his critique of causality and of induction. Hume demonstrated that causal relations cannot be deduced with necessity from a single experience; what we call causality is, in fact, the result of habit or mental custom arising from repeated impressions, not a logically certain inference.

Similarly, induction the generalization from particular cases lacks rational justification, relying instead on psychological habit (Machmud, 2011; Good, 2002). The philosophical implications of Hume's work are twofold. First, he tightened the standards of empirical justification, demanding experiential verification before any claim to knowledge can be accepted. Second, he opened space for methodological skepticism against metaphysical and theological claims that cannot be empirically tested. Thus, Hume transformed empiricism from a mere observational method into a critical tool against unwarranted normative or speculative claims. Empiricism has made a substantial contribution to modern scientific methodology by emphasizing observation,

experimentation, and verification. However, when applied as the sole source of epistemic legitimacy, empiricism encounters difficulties in addressing questions of values, ethics, and meaning domains often informed by religious traditions and normative reflection. In this regard, the relevance of empiricism for the integration of science and religion can be understood in nuanced terms:

- a. As a strong methodological foundation, empiricism fosters verifiable and accountable scientific practices, essential for research integrity and technological advancement.
- b. As a limitation on metaphysical claims, Hume's critique of causality and induction reminds scholars not to impose universal metaphysical conclusions on the basis of limited data, thereby allowing constructive dialogue between science and religion without sacrificing evidentiary standards.
- c. As a complement to other epistemic sources, empiricism should not be seen as replacing but as coexisting with reason, intellectual traditions, and revelation where relevant. Integrated knowledge, therefore, is not a melting pot devoid of substance but rather a meaningful interconnection between different sources of knowledge that together produce a more holistic understanding.

The analyses of Hardiman (2004); and Machmud (2011) support this view. Hardiman emphasizes the importance of separating scientific practice from untested spiritual speculation an insistence that philosophy and methodology remain critical and evidence-based yet this must be balanced by acknowledging that value-laden knowledge cannot be wholly excluded from contemporary scientific practice. Machmud (2011) highlighting Hume's claim that perception and impression form the basis of ideas, provides a theoretical foundation for understanding that empirical experience does indeed constitute knowledge, but that interpretation of experience is itself influenced by conceptual frameworks, including religious and ethical perspectives.

Moreover, modern education and the specialization of knowledge often cause disciplinary fragmentation, leading to the loss of interconnections among fields of study a phenomenon observed by (Saifullah and Fuad, 2016; Daulay and Salminawati, 2022). Within this context, empiricism can serve as a unifying methodological platform (shared method), provided it is complemented by value-oriented dialogue and theoretical integration that bridges religious and general sciences. Put differently, empiricism addresses the how of knowledge (method, verification), while religion and value-based traditions help answer the why (purpose, ethics, meaning).

A reformulation of empiricism in the contemporary discourse must be reflective: it should recognize both the methodological contributions of Hume and the empiricist tradition, while also acknowledging the inductive and causal limitations that Hume himself exposed. Meaningful integration of science and religion requires a dialogical rather than hegemonical model of epistemology, in which empiricism functions as a methodological pillar, complemented by value and revelation, to yield knowledge that is both empirically valid and ethically and religiously meaningful.

3. The Contribution of Empiricism To The Integration of Science and Culture

Empiricism has made an important contribution to bridging science and culture. The integration of the two is not merely a formal combination but rather a dialectical process in which scientific methods and cultural values mutually enrich one another (Trirahmayati et al., 2025). Such integration requires methodological coherence an agreement on how to obtain truth through observation, verification, and proof as well as value compatibility that situates the aims of science within a moral and socio-cultural framework. In this way, science can maintain its objective standards while also respecting culture as a source of meaning, ethical orientation, and social identity (Dini and Abi,

2022). David Hume, as one of the leading figures of empiricism, emphasized that all human ideas are rooted in sensory impressions perceptions derived from experience. According to him, experience is the raw material of knowledge, since ideas are merely copies or abstractions of what is captured by the senses. From this perspective, Hume contributed two fundamental insights to modern scientific methodology.

First, he stressed the importance of sensory verification, arguing that knowledge claims are only valid if they can be traced back to concrete experience. Second, he offered a sharp critique of causality and induction, showing that neither causal relations nor generalizations can be established with logical certainty, but instead rely on human habits of thought (Munir 2024). This critique enriched science by encouraging the need for repeated, consistent, and verifiable data collection. Thus, Hume's empiricism not only provided a methodological foundation but also highlighted the limits of scientific claims, ensuring that knowledge remains critical and cautious (Sari and Sirait, 2021).

This empirical approach is also relevant for understanding culture. Culture can be seen as a collection of norms, practices, artifacts, and symbols born from everyday social experience (Suyudi and Putra, 2020). Through empirical methods such as observation, ethnography, or field surveys cultural studies become evidence-based, allowing scholars to explain how collective habits generate values and meanings within society. Such an approach also prevents cultural studies from falling into excessive speculation, since every conclusion must be supported by empirical data.

Moreover, empiricism enables culture to be understood dynamically not as a static entity, but as a historical process that continually evolves with human experience (Erfans et al., 2024). Nevertheless, empiricism does not fully answer normative questions about why certain values should be upheld. Therefore, meaningful integration of science and culture requires a balance between empirical evidence and value-based reflection. Empirical methods are necessary to map cultural realities factually, while value frameworks including religion and tradition serve as guides to evaluate the meaning and purpose of scientific findings. In this way, science is not only methodologically valid but also socially and culturally relevant.

The implication is that education and scientific development strategies must take cultural dimensions seriously. A culturally sensitive science curriculum, for instance, can uphold the standards of scientific verification while also acknowledging the local values embedded in society. Such integration ultimately prevents the dichotomy between secular and religious knowledge, restoring science to its true function: a means of understanding the real world without severing its roots from cultural and moral foundations. Thus, Hume's empiricism can be regarded as the foundation of a scientific worldview that not only builds knowledge based on experience but also provides direction for integrating science and culture in facing the challenges of contemporary life.

4. The Contribution of Empiricism To The Integration of Science And Technology

In Technology is often understood in relation to science, yet the two cannot be equated directly. In the literature, there are three main perspectives. First, technology is viewed as the application of science (applied science), focusing on the utilization of scientific theories to solve practical problems (Sativa, 2020). Second, technology is seen as an independent discipline that combines external aspects, such as industry and social needs, with internal aspects related to the material objects of science and the application of its theories.

Third, technology is understood as practical skills (techne) that are closely tied to everyday life (Saifullah and Fuad, 2016). Thus, the statement that technology is not science should not be interpreted as a total separation between the two, but rather as a

clarification that technology does not primarily aim at theoretical truth but at developing practical solutions while remaining grounded in scientific methodology (Saumantri, 2022). The principles of empiricism observation, experience, and verification form the methodological foundation that underpins not only science but also technology.

In modern scientific practice, these principles are embodied in the empirical cycle: observing phenomena, formulating hypotheses, conducting experiments, analyzing data, and replicating results for verification. A similar process applies in technological development, such as designing prototypes, conducting field trials, measuring performance, and iterating designs. This demonstrates that technological progress is inseparable from the principles of empiricism, as the reliability of technology depends on repeated and verifiable testing.

David Hume, as a key figure in empiricism, made foundational contributions that later influenced the modern scientific outlook. He argued that all ideas are derived from sensory impressions, making concrete experience the source of knowledge. Furthermore, his critique of causality and induction emphasized the limitations of logic in guaranteeing cause-and-effect relationships (Palada et al., 2021). This view reinforced the need for repeated and consistent data collection as the basis of scientific validation. Hume's intellectual legacy subsequently influenced the emergence of logical empiricism in the 20th century.

The Vienna Circle, for instance, combined Hume's empiricist spirit with modern logical analysis, emphasizing empirical verification as a condition for meaningful scientific propositions and employing formal language to clarify scientific arguments. Thus, Hume can be regarded as a precursor who laid the critical groundwork for the development of logical empiricism (Amin, 2020). The relevance of empiricism in modern technological development lies in two main aspects. First, empirical principles ensure that every technological innovation must be tested in measurable, data-based, and replicable ways.

This process of verification guarantees technological reliability. Second, the awareness of the limits of empiricism, as highlighted by Hume, underscores the necessity of integrating normative and cultural frameworks. Empiricism addresses the how of technology, while value reflection addresses the why and for whom it is developed. Therefore, education and research in technology must combine empirical methods with ethical and cultural sensitivity, ensuring that innovations are not only efficient but also socially meaningful. In conclusion, the contribution of empiricism to the integration of science and technology lies in providing a strong methodological foundation while also offering philosophical caution regarding the limits of scientific claims. Through his critique of induction, Hume paved the way for logical empiricism, which further reinforced the importance of verification in science and technology. This integration enables science and technology to develop not only with objectivity but also in harmony with human and cultural values.

5. Contribution of Empiricism to Religion

Religion functions as a moral compass and a guide for both individuals and society. Harun Nasution (1986) emphasized that human happiness and well-being in this world and the hereafter can only be achieved through the practice of Islam, which is based on divine revelation from Allah and His Messenger. In this context, religious experience can be understood as a real phenomenon that may be observed, described, and analyzed. However, it is important to distinguish clearly between religious experience as a subject of empirical study and doctrinal claims that are theological in nature. Religious experiences can be examined empirically through anthropology of religion, psychology

of religion, or phenomenology, but the theological validity of religious doctrines cannot be reduced merely to sensory data (Haq, 2024). Human beings are essentially truth-seekers. Each individual takes different paths toward truth, generally through three main approaches: science, philosophy, and religion (Saifullah and Fuad, 2016).

Religion, as a system of beliefs, rituals, and norms, regulates the relationship between humans and God, between humans themselves, and with the universe. Through its nature, religion provides answers to fundamental questions that cannot be fully addressed by empirical science. Nevertheless, David Hume's position as an empiricist must be clarified carefully. Hume argued that all ideas originate from sensory impressions and questioned the justification of causality and induction. He highlighted the limitations of human rationality in establishing universal truths (Daulay et al., 2022). This, however, does not imply that Hume supported religion.

On the contrary, he remained skeptical toward traditional theological arguments, including claims of miracles. Thus, relating Hume to religion must be done within a methodological framework: sensory experience may serve as the source of knowledge, yet Hume remained doubtful of metaphysical claims that cannot be verified empirically (Muslih, 2024). In modern discussions of empiricism, William James introduced the concept of radical empiricism, which emphasizes that experience consists not only of sensory data but also of the relations among those experiences. These relations are regarded as equally real as the direct data of experience.

This is distinct from empirio-criticism (as advanced by Mach and Avenarius), which tends to reduce knowledge solely to sensory data while rejecting any form of metaphysics. For this reason, academic writing must carefully distinguish between these schools to avoid conceptual confusion. The notion that empirical experience provides absolute certainty also requires correction. Most traditions within empiricism embrace the principle of fallibilism, which views empirical knowledge as tentative and open to revision when new evidence emerges. Thus, religious experience can indeed be regarded as a source of knowledge about the phenomenological dimension of religion, but its normative or theological truth must be grounded in faith and religious hermeneutics.

From this perspective, religious experience can be seen as an empirical phenomenon that plays a significant role in shaping human awareness of transcendence. However, the normative justification of religious truth ultimately belongs to the domain of theology. Integration between empiricism and religion can therefore be achieved by employing empirical methods (observation, verification, description of experience) to analyze the phenomenological aspects of religion, while preserving normative aspects within the framework of revelation and faith. In this way, empiricism does not replace religion but enriches human understanding of religious experience in both scientific and philosophical terms.

Conclusion

This study concludes that David Hume's empiricism occupies a central position in the map of philosophy of science as a tradition that grounds knowledge in sensory experience and subjects causality and induction to critical scrutiny. Hume's main contribution lies in demonstrating both the strength and limits of experience as an epistemic source, thereby providing a methodological caution against dogmatic rationalism while also exposing the boundaries of empirical reasoning. In the contemporary context of integrating science and religion, Hume's empiricism is urgent because it offers a reflective framework for Muslim scholarship: by recognizing the role of experience and reason without negating revelation, a more dialogical epistemology can be built that is empirically accountable, ethically grounded, and spiritually meaningful.

Thus, integrating Hume's empiricism does not secularize Islamic knowledge, but instead enriches it by producing a holistic science that serves humanity with critical rigor and moral responsibility.

References

- Alim, M., Rahman, F., & Zaki, A. (2024). Perdebatan Rasionalisme Dan Empirisme Dalam Filsafat Modern. *Jurnal Filsafat Indonesia*, 7(1), 12-30.
- Amin, R. (2020). Dari Hume ke Lingkaran Wina: Akar Empirisme Logis Dalam Sains Modern. *Jurnal Filsafat Sains*, 3(2), 88-105.
- Anwar, S. (2023). Epistemologi Sains Dalam Perspektif Al-Qur'an. *Jurnal Studia Islamika*, 30(2), 123-145.
- Bakar, O. (2021). *Islamic Civilisation And The Modern World*. Bandar: UBD Press.
- Capra, F. (2022). *The Turning Point: Science, Society, And The Rising Culture*. New York: Bantam Books.
- Daulay, A. R., & Salminawati, S. (2022). Fragmentasi Keilmuan Dan Integrasi Sains Dalam Pendidikan Islam. *Jurnal Pendidikan Islam*, 11(1), 45-62.
- Dini, A., & Abi, M. (2022). Integrasi Nilai Budaya Dalam Metodologi Penelitian Sosial. *Jurnal Antropologi Indonesia*, 46(2), 112-128.
- Erfans, T., Sari, N., & Putra, D. (2024). Dinamika Budaya Dan Metode Empiris Dalam Studi Etnografi. *Jurnal Sosiologi Reflektif*, 18(1), 77-95.
- Farunik, A., & Dharma, R. (2023). Epistemologi Islam Kontemporer: Wahyu, Akal Dan Indera. *Jurnal Studia Islamika*, 30(1), 45-67.
- Febriana, D., & Astuti, S. (2025). *Integrasi Sains Dan Agama Dalam Peradaban Islam*. Jakarta: Kencana.
- Good, R. (2002). Empiricism And The Foundations Of Scientific Knowledge. *Journal of Philosophy of Science*, 69(3), 411-432.
- Hardiman, F. B. (2004). *Filsafat Ilmu: Sebuah Pengantar*. Jakarta: Gramedia Pustaka Utama.
- Hume, D. (2021). *An Enquiry Concerning Human Understanding*. Oxford: Oxford University Press.
- Hume, D. (2021). *A Treatise Of Human Nature*. Oxford: Oxford University Press.
- Kaelan, K. (2022). *Metode Penelitian Filsafat*. Tangerang: Paradigma.
- Machmud, S. (2011). Kritik Hume Terhadap Kausalitas Dan Induksi. *Jurnal Filsafat UGM*, 21(2), 134-150.
- Mulkhan, A. M. (2024). Islamisasi Ilmu Pengetahuan Dan Tantangan Sains Modern. *Jurnal Filsafat UGM*, 34(1), 1-18.
- Munir, M. (2024). Verifikasi Indrawi Dan Batas-Batas Klaim Ilmiah Menurut David Hume. *Jurnal Epistemologi*, 5(1), 33-50.
- Muslih, M. (2024). Filsafat Ilmu Imre Lakatos Dan Metodologi Pengembangan Sains Islam. *TASFIYAH; Jurnal Pemikiran Islam*, 4(1), 46-90.
- Pakpahan, R., Siregar, M., & Lubis, A. (2024). Integrasi Sains Dan Agama Di Era Postmodernisme. *Jurnal Islamica*, 18(2), 201-220.
- Palada, S., et al. (2021). Kausalitas Dan Induksi Dalam Kerangka Empirisme Hume. *Jurnal Logika dan Filsafat*, 9(2), 60-75.
- Sari, L., & Sirait, B. (2021). Metode Empiris Dalam Kajian Budaya Kontemporer. *Jurnal Kebudayaan*, 16(3), 201-218.
- Saifullah, S., & Fuad, M. (2016). Integrasi Ilmu Dan Agama Dalam Perspektif Pendidikan Tinggi Islam. *Jurnal Pendidikan Agama Islam*, 13(2), 145-160.
- Sativa, E. (2020). Teknologi Sebagai Applied Science: Tinjauan Filsafat Ilmu. *Jurnal Teknologi dan Masyarakat*, 8(1), 22-35.

- Suyudi, B., & Putra, A. (2020). Problem Induksi Dalam Epistemologi Hume. *Jurnal Filsafat Sains*, 3(2), 110-125.
- Soemantri, T. (2022). *Kritik Rasionalisme Dan Kebangkitan Empirisme*. Bandung, Indonesia: Mizan.
- Sahib, M. (2025). David Hume Dan Kritik Terhadap Kausalitas. *Jurnal Filsafat UGM*, 35(1), 88-102.
- Thahar, H. (2023). *Filsafat Ilmu: Ontologi, Epistemologi, Aksiologi*. Yogyakarta: Pustaka Pelajar.
- Trirahmayati, M., et al. (2025). Dialektika Sains Dan Budaya: Menuju Integrasi Epistemik. *Jurnal Ilmu Budaya*, 12(1), 55-73.
- Wilhelm, T., & Berkeley, G. (2025). *Modern Empiricism: From Bacon To Berkeley*. London: Routledge.