

SCIENTIFIC AUTHORITY IN CRISIS: A DIALOGICAL REFLECTION BETWEEN BRUNO LATOUR AND SYED MUHAMMAD NAQUIB AL-ATTAS IN THE POST-TRUTH ERA

KRISIS OTORITAS SAINS: REFLEKSI DIALOGIS ANTARA BRUNO LATOUR DAN SYED MUHAMMAD NAQUIB AL-ATTAS DALAM ERA POST-TRUTH

Rahmad Tri Hadi¹
UIN Imam Bonjol Padang

rahmadtrihadi@uinib.ac.id

Rido Putra²
Universitas Negeri Padang

ridoputra@fis.unp.ac.id

Zaim Rais³
UIN Imam Bonjol Padang

zaimrais@uinib.ac.id

ABSTRACT: In this article, the crisis of authority of science in the post-truth era is analyzed in a dialogical reflection between the science studies of Bruno Latour and the Islamic metaphysics of Syed Muhammad Naquib al-Attas. The context of the investigation is rooted in the challenge of public confidence in science, hoax information, as well as the rising impact of ideology rather than facts in decision-making. This article has a twofold purpose: first, to analyze with a comparative-hermeneutic dialogical approach the works of Latour and al-Attas, considering both philosophical backgrounds despite differences in scholarship, in relation to the challenge of science credibility; second, considering an in-depth review of both Latour's science studies and al-Attas' metaphysical thinking in an Islamic context. Articles in refereed journals, books, among other literature sources focusing on science education, science epistemology, as well as literature on Islamic thought, have been used in analyzing information in this article. The results of the analysis have shown commonalities between both Latour's perspectives and al-Attas' metaphysical thoughts in relation to a new vision emphasizing the reintegration of science into a metaphysical view. Latour requires a reassembly of science through the agency of a network model of socio-material actors, whereas al-Attas promotes the Islamization of knowledge on the basis of *ta'dib* and the Islamic worldview. In the conclusion, the current paper finds that there is a potential for a more nuanced and holistic approach through the dialogical encounter between the two models for addressing the problem of the crisis in the legitimization of science.

Keyword: Bruno Latour; Scientific Authority; Post-Truth; Dialogical Reflection; Syed Muhammad Naquib Al-Attas.

ABSTRAK: Artikel ini mengkaji krisis epistemologis otoritas sains di era post-truth melalui refleksi dialogis antara studi sains Bruno Latour dan metafisika Islam Syed Muhammad Naquib al-Attas. Latar belakang penelitian ini adalah merosotnya kepercayaan publik terhadap sains, maraknya misinformasi (hoax), serta meningkatnya pengaruh narasi ideologis dan emosional dibandingkan bukti empiris. Tujuan penelitian ini adalah untuk menelusuri bagaimana Latour dan al-Attas, meskipun berasal dari tradisi filsafat yang sangat berbeda, secara kritis merespons krisis kredibilitas sains dan menawarkan kerangka epistemologis alternatif. Dengan menggunakan metode hermeneutik-dialogis dan komparatif, kajian ini menganalisis karya-karya utama kedua pemikir tersebut yang dikontekstualisasikan melalui literatur kontemporer tentang pendidikan sains, epistemologi, dan

pemikiran Islam. Data penelitian diperoleh dari jurnal ilmiah, buku, dan literatur lainnya yang membahas pendidikan sains, krisis post-truth, dan Islamisasi ilmu. Temuan penelitian menunjukkan bahwa baik Latour maupun al-Attas sama-sama mengkritik modernitas dan menekankan pentingnya mengembalikan sains ke dalam kerangka etika dan metafisika yang lebih lucu. Latour menyerukan penyusunan ulang sains melalui jaringan aktor sosial-material, sementara al-Attas menggagas Islamisasi ilmu yang berlandaskan pada ta'dib dan pandangan hidup Islam. Artikel ini menyimpulkan bahwa pertemuan dialogis antara kedua kerangka ini dapat menawarkan respons yang lebih kaya dan holistik terhadap krisis legitimasi sains, serta mengarah pada epistemologi yang tidak hanya menekankan pengetahuan, tetapi juga kebijaksanaan dan makna.

Kata Kunci: Bruno Latour; Otoritas Ilmiah; Post-Truth; Refleksi Dialogis; Syed Muhammad Naquib al-Attas.

A. INTRODUCTION

Nowadays, science has been subject to intense criticism with regard to its authority. Science has long been hailed as the most trustworthy way towards truth, objectivity, and innovation, but these days science finds itself in the grip of a crisis of legitimacy. “Post-truth” has been extensively dealt with in literature concerning the current socio-political climate in which emotions, beliefs, and ideologies are more prominent in shaping public opinion rather than objective facts.¹ Science can no longer maintain its position as the sole authority in decision-making about truth as well as various policies in relation to the current post-truth era. This crisis is not only related to institutions but also has an influence on civilization itself.²

In addition to being understood as a phenomenon of communication, post-truth also marks a deeper epistemological shift, namely the weakening of the criteria of truth itself in the public sphere. In a post-truth condition, truth is no longer determined by the correspondence between claims and empirical reality, but rather by emotional resonance, identity affiliation, and political interests. Scientific facts lose their persuasive power not because they are proven false, but because they are no longer considered relevant to the narratives that shape collective identity. Thus, post-truth is not merely a matter of a lack of scientific literacy, but a reflection of a broader crisis of epistemic authority, in which science is treated as just one “opinion” among many other claims to truth.³

In this context, digital media and social networking platforms play a central role in accelerating the logic of post-truth. Algorithms designed to maximize user engagement tend to reinforce confirmation bias and create echo chambers, where information is not

¹ Ralph Keyes, *The Post-Truth Era: Dishonesty and Deception in Contemporary Life* (New York: St. Martin's Press, 2004).

² Lee McIntyre, *Post-Truth* (Cambridge, MA: MIT Press, 2018).

³ Jeffrey Friedman, “Post-Truth and the Epistemological Crisis,” *Critical Review: A Journal of Politics and Society* 35, no. 1–2 (2023): 1–21, <https://doi.org/10.1080/08913811.2023.2221502>.

tested against scientific epistemic standards, but against conformity with existing beliefs. As a result, the boundaries between knowledge, opinion, and propaganda become increasingly blurred. The authority of scientists and academic institutions is often questioned, while non-expert public figures gain legitimacy through popularity and emotional rhetoric. This condition further erodes public trust in science as a collective practice based on method, verification, and accountability.⁴

Furthermore, post-truth is also closely related to the politicization of knowledge. In many cases, science is not rejected outright, but is strategically selected to support a particular ideological agenda. Scientific facts that align with political interests are accepted, while those that contradict them are dismissed as elite manipulation or conspiracy. This phenomenon shows that the post-truth crisis is not a rational rejection of science, but rather a manifestation of conflicts of values and power that exploit epistemological language. Therefore, maintaining the authority of science in the post-truth era requires more than reaffirming its objectivity or neutrality; it demands critical reflection on how science is produced, communicated, and positioned within the social order.⁵

The post-truth condition, characterized by the spread of misinformation, narratives of conspiracy, and skepticism towards scientific authority, has led to a decline in public trust in scientific knowledge. As Lima et al.⁶ state, both modernist and postmodernist approaches have contributed to the emergence of post-truth by simplifying science and undermining social networks legitimating scientific knowledge. To this challenge, Bruno Latour's metaphysical reflections on science provide an alternative framework by offering a fresh epistemological grounding for science education. This perspective has been criticized by Flatscher and Seitz⁷, who both think that Latour's approach oversimplifies the role which epistemology, power, and subjectivity should play, and for which Foucault provided far more holistic explanations. Vernon⁸ also points out the weak position of science in the post-truth era and urgently asks to implement

⁴ Nuhdi Futuhal Arifin and A. Jauhar Fuad, "Dampak Post-Truth di Media Sosial," *Jurnal Intelektual: Jurnal Pendidikan dan Studi Keislaman* 10, no. 3 (2020): 376–378, <https://doi.org/10.33367/jji.v10i3.1430>.

⁵ Frank Fischer, "Knowledge Politics and Post-Truth in Climate Denial: On the Social Construction of Alternative Facts," *Critical Policy Studies* 13, no. 2 (2019): 133–152, <https://doi.org/10.1080/19460171.2019.1602067>.

⁶ Nathan Willig Lima et al., "Science Education in Post-Truth Age: Metaphysical Reflections from Bruno Latour's Science Studies," *Revista Brasileira de Pesquisa Em Educação Em Ciências* 19 (2019): 155–189, <https://doi.org/10.28976/1984-2686rbpec2019u191224>.

⁷ Matthias Flatscher and Sergej Seitz, "Latour, Foucault, and Post-Truth: The Role and Function of Critique in the Era of the Truth Crisis," *Le Foucaldien* 6, no. 1 (2020): 1–23, <https://doi.org/10.16995/lefou.83>.

⁸ Jamie Vernon, "Science in the Post-Truth Era," *American Scientist* 105, no. 1 (2017): 2, <https://doi.org/10.1511/2017.124.2>.

improvements in scientific communication to keep the authority of science alive amid mis/disinformation.

In the realm of higher education, Parker⁹ identifies the serious challenges faced by academic institutions in responding to populism and political polarization. He emphasizes the importance of building academic communities that foster “critical loyalty” to the truth. In line with this, Valladares¹⁰ proposes an interdisciplinary approach from *Science and Technology Studies* (STS) as an “epistemological vaccine” against post-truth. According to him, STS elucidate the processes through which scientific facts and societal understandings of science are produced, while simultaneously challenging and deconstructing the formation of so-called “alternative facts.” A similar view was raised by Benetka and Schor-Tschudnowskaja¹¹, who pointed out that science itself contributes to social contradictions that require scientists to be neutral but also to direct public policy. They criticized “politicking” in science, which leads to the delegitimization of scientific knowledge in the public eye.

In relation to the global south, Duarte et al.¹² look into how the state of responses to the pandemic in Brazil reflects the relationship between populist politics and scientific authority. The authors contest the charge that STS challenges the authority of science by stressing the need to better understand how scientific authority is constructed and contested. The decline of scientific authority results from a number of factors, such as the spread of misinformation or misconduct in the form of digital-platform-mediated fake news, rising polarization in politics, distrust of experts, and the emergence of an ethos of relativism that doubts the existence of objective truth. It is in this state of unstable epistemology that science comes to be characterized not by its value-free nature, but by virtue of it being human performance that finds itself situated in a social context that sometimes veers toward ideological position-taking.¹³ The COVID-19 pandemic, for instance, has exposed the growing gap between established scientific consensus and

⁹ Jonathan Parker, “The Role of Higher Education in the Post-Truth Era,” *Journal of Political Science Education* 20, no. 3 (2024): 391–404, <https://doi.org/10.1080/15512169.2024.2354972>.

¹⁰ Liliana Valladares, “Post-Truth and Education,” *Science & Education* 31 (2022): 1311–37, <https://doi.org/10.1007/s11191-021-00293-0>.

¹¹ Gerhard Benetka and Anna Schor-Tschudnowskaja, “Post-Truth and Scientific Authority,” *Cultura & Psyche: Journal of Cultural Psychology* 4 (2023): 133–144, <https://doi.org/10.1007/s43638-023-00076-0>.

¹² Daniel Edler Duarte, Pedro Rolo Benet, and Marcos Cesar Alvarez, “Reconsidering the ‘Post-Truth Critique’: Scientific Controversies and Pandemic Responses in Brazil,” *Social Studies of Science* 0, no. 0 (2025), <https://doi.org/10.1177/03063127251317718>.

¹³ Naomi Oreskes and Erik M. Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (New York: Bloomsbury Press, 2011).

public perceptions, as conspiracy theories and anti-scientific attitudes have proliferated worldwide.¹⁴

Meanwhile, in the context of Islam, the modern epistemological crisis has also received serious attention. Haidary et al.¹⁵ contend that Syed Muhammad Naquib al-Attas's concept of the Islamization of science emerges as a critique of the hegemony of Western secular science, which divorces knowledge from spiritual and metaphysical values. Al-Attas emphasizes that an Islamic epistemology should be developed upon an Islamic worldview in order to restore the coherence and authenticity of Muslim intellectual traditions. Additionally, Puspitasari and Ridlo¹⁶ associate al-Attas's notion of the Islamization of knowledge with the pressing need for reform in Islamic education, arguing that the dichotomy between religious and secular disciplines stems from secularization and ultimately weakens the integrative nature of Islamic educational systems. Through the integration of the values of *tawhīd*, *akhlak*, and *wahyu* in the curriculum, Islamic education can produce complete human beings who are whole in body and spirit. Huringin¹⁷ asserts that the Islamization of science is a sharp criticism of secularism, which is rapidly developing in various fields, and is a way to purify science from elements of Western secular culture. Nasution¹⁸ adds that al-Attas' idea arose from the collective consciousness of the Islamic world since the education conference in Mecca in 1977. Al-Attas proposed two main steps, including removing the concept of secularism in science and replacing it with Islamic values derived from revelation, so that Muslims can return to more authentic knowledge, namely that which comes from Allah SWT.

For the author, this situation raises urgent questions, namely, what is the role of science in an era when facts are flexible and truth is debated? Can science be restored as a reliable guide in shaping the collective future? What epistemological and ethical resources are available to restore the credibility of science without falling back into naive scientism or technocratic elitism? In response to these questions, a dialogical and

¹⁴ Stephan Lewandowsky and John Cook, *The Conspiracy Theory Handbook* (Virginia: George Mason University, 2020).

¹⁵ Abdullah Haq Al Haidary et al., "Islamic Worldview as a Basis for Islamization of Science Concept According to Syed Muhammad Naquib Al-Attas," *Kalam* 18, no. 1 (2024): 19–36, <https://doi.org/10.24042/kalam.v18i1.11457>.

¹⁶ Eka Puspitasari and Anas Tri Ridlo Dina Yuliana, "Syed Muhammad Naquib Al-Attas' Concept of Islamizing Science and Its Relevance to Islamic Education," *Al-Misbah (Jurnal Islamic Studies)* 10, no. 2 (2022): 91–108, <https://doi.org/10.26555/almisbah.v10i2.6484>.

¹⁷ Nabila Huringin, "Syed Muhammad Naquib Al-Attas' Critics Toward Secularism," *Akademika: Jurnal Pemikiran Islam* 27, no. 1 (2022): 89–100, <https://doi.org/10.32332/akademika.v27i1.4801>.

¹⁸ Anзор Nasution, "Syed Muhammad Naquib Al-Attas Syed Muhammad Naquib Al-Attas: Islamization of Knowledge by Developing Genuine Islamic Paradigm," *Jurnal ISLAMIKA: Islamic Studies Journal* 4, no. 2 (2021): 73–87, <https://doi.org/10.37859/jsi.v4i2.3077>.

comparative approach is needed between two prominent thinkers who view the crisis of knowledge from very different philosophical traditions, namely Latour, a French sociologist and philosopher known for his studies in science and technology (STS), and al-Attas, a Malaysian Muslim philosopher recognized as one of the most influential thinkers in Islamic metaphysics and the discourse on the Islamization of knowledge. While Latour dismantles the epistemological dominance of science within the paradigm of Western modernity, al-'Attas challenges the underlying premises through the lens of sacred metaphysics, based in Islamic philosophy.

What is significant about the dialogue between the two individuals is not solely because of the intellectual credentials of the two, but also because the two individuals embody two polar opposite approaches to the same global problem of the rift existing between knowledge and the realms of meaning, purpose, and ethics. In short, it would appear that Latour and al-Attas are two individuals whose articulation of the world seems to place them in positions where there does not appear to be any possible points of convergence between the two perspectives. Latour is the post-structuralist critic of the divide that separates nature and society in the modern era, while al-Attas is the metaphysical realist trying to recover the sacral quality of knowledge through the science of *tawhīd* and the medieval Islamic worldview.

Latour's work, particularly in *We Have Never Been Modern* (1993) and *Politics of Nature* (2004), challenges the Enlightenment legacy of separating scientific facts from social values. He argues that the separation between nature and society is a modern illusion, which obscures the complex networks in which scientific knowledge is produced. For Latour, facts are not simply discovered, but constructed through processes involving laboratories, instruments, institutions, and negotiations between actors. This does not mean that facts are false or arbitrary, but that they are embedded in social-material networks, a view he articulates through *Actor-Network Theory* (ANT).¹⁹ Latour's later works take a more urgent turn, particularly in the face of climate change denial and the deterioration of public discourse, where he seeks to rearrange the authority of science not by returning to objectivity, but by placing science in a political ecology that values collective deliberation and planetary responsibility.²⁰

¹⁹ Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2005).

²⁰ Bruno Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime* (Cambridge: Polity Press, 2017).

On the contrary, al-Attas offers a civilizational critique of modern science based on Islamic metaphysics. He argues that the crisis of knowledge is rooted in a secular worldview that has separated science from its ethical and spiritual foundations.²¹ According to him, modern science has become fragmented, value-neutral, and reductionistic because it stems from a worldview that rejects transcendence and places human autonomy above the divine order. “The Islamization of Science” project he began is more about the redirection of the epistemology of science rather than simply adding “Islamic” into current science fields; rather, it is the restoration of science to its proper position in the holy universe. “*Adab*” is the decisive factor in his vision of science, as it denotes the cultivation of the soul together with its proper positioning with regard to truth and justice.²² *Adab* is more about applying the order of reality in every facet of life according to al-Attas’ view, apart from good behavior; it comprises the recognition of knowledge, as well as every other thing in the order of reality, including God’s position in it.-Based on this view, science should have no authority apart from in conformity with another order in the realm of metaphysics.

Through this dialogical encounter, it is hoped that it will neither seek to harmonize differences nor to synthesize a solution, but to shed light on complementarity as well as to prompt critical reflection on our underlying assumptions about our framework for knowledge. Latour challenges us to understand that knowledge is relational, conditional, and a social process, while al-Attas also calls us to remember that ultimately, there has to be a transcendent referent that provides meaning to knowledge. Furthermore, another challenge that is met by adopting a dialogical approach also has to do, in a more general sense, with that of epistemic pluralism that has arisen from a world that is increasingly interconnected, particularly as a world-wide narrative, that of modernity, has lost its relevance, as well as as various traditions about knowledge re-emerged as being real.

Here, Latour proposes an approach to building a “Parliament of Things,” which means an approach to how things, as non-human entities, can also have any role or voice in politics. According to Latour, modernity tries to view subjects as distinct from objects, where objects also have agency and are very important for shaping the world, which

²¹ Syed Muhammad Naquib Al-Attas, *Islam and Secularism* (Malaysia: International Institute of Islamic Thought and Civilization (ISTAC), 1978).

²² Syed Muhammad Naquib Al-Attas, *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education* (Kuala Lumpur: ISTAC, 1980).

relates to al-Attas's view regarding science rooted in spirituality despite differing premises. Both imply science cannot be viewed as an objective entity separated from its cultural and societal roots. Instead, this dialogical approach can help regain its ethical depth despite its ambitions towards dogmatic or relativistic approaches regarding knowledge.

This paper engages in a dialogical and comparative presentation of the epistemological crisis of science in the post-truth era through Latour's and al-Attas's perspectives, aiming for developing a new understanding-without falling into scientism or relativism-that presents the possibility of integrating constructivist criticism and a metaphysical vision based on spiritual values. From this perspective, the article has the ambition to make a significant conceptual contribution to a fuller response to the problematic nature of scientific legitimacy within a global fragmented society through a hermeneutical framework.

B. METHODS

This work uses a descriptive-analytical methodology coupled with the historical-comparative approach. It employs the historical-comparative framework for the study of the evolution of epistemological thought and the philosophical underpinning of science through two major intellectual traditions, namely, Western postmodern constructivism as represented by Bruno Latour, and Islamic metaphysical realism propounded by Syed Muhammad Naquib al-Attas. By adopting this approach, one can follow how the ideas about science and knowledge, or social reality, have developed both historically and philosophically within the two traditions and how these differences in development reflect broader civilizational assumptions. Rather than favoring one tradition over another, such comparison seeks to make sense of each thinker within his own epistemological premise. This opens up space for more dialogical engagements that do not seek to establish who is more correct, but rather outlines the internal coherence, aims, and critiques each has vis-à-vis the current crisis of scientific authority.

The data collected is gathered from primary and secondary sources. Primary sources are the important works of the philosopher Bruno Latour, such as "We Have Never Been Modern" (1993), "Politics of Nature" (2004), "Reassembling the Social" (2005), and "Facing Gaia" (2017). Although written decades ago, the ideas presented are

still relevant and address the constructivist criticism of science and the reconstruction of knowledge that he proposes to be relevant to the postmodern, ecologically, and politically interwoven world. Primary sources from the Islamic tradition are presented through the ideas of the Islamic philosopher Syed Muhammad Naquib al-'Attas through the "Islam and Secularism" (1978), "The Concept of Education in Islam" (1980), and some essays that include the formulation of the ideas of the metaphysics of knowledge, the status of *tawhīd*, and the status of "*ta'dib (adab)*".

In addition, secondary sources were also employed in the current research. These sources take the form of documents such as articles and books that explore the concept of science and knowledge from the fields of the philosophy of science, social theory, and epistemology in the Islamic tradition. The sources have been employed in the context of gaining a contextualised background view that enables a recognition and understanding on how the concept of science and knowledge is perceived from the perspective of other philosophical and civilizational traditions. The sources were employed through the conduct of a literature review.

In analyzing the data, this research relies on two complimentary methods: qualitative analysis and descriptive-comparative analysis. In the qualitative analysis, the text is read in a deep and careful manner to select various primary and secondary sources with a focus on making sense of the philosophic ideas about knowledge, epistemology, and ontology embedded in the texts. Through the reading process, themes such as actor-network theory by Latour, the social and political nature of scientific truth, and the role of metaphysical ordering by Al-Attas are discerned to reconstruct how different philosophers link knowledge with truth, ethics, and reality. Qualitative analysis is most effective in this research to distill out philosophic ideas on how knowledge is related to various aspects of reality.

Concurrently, the use of descriptive and comparative analysis makes it possible to systematically examine the two traditions and highlight the similarities and differences in the two approaches to key questions of epistemology. In particular, the emphasis lies on the notion of the Islamization of knowledge as outlined by the author in his perception of the Islamization of knowledge, where the use of the constructivist notion of Latour is juxtaposed in terms of the fusion of facts and the network of the societal and the material as opposed to the Islamization of knowledge, where the dependence of the ontological

order of knowledge on the will of God forms the foundation of the notion of the constructivist as forms the foundation of the notion of the Islamization of knowledge based on the will of God relative to God's ethical commitment.

This research seeks to underline and emphasize, through bringing into dialogue these two saliently different yet critically central ways, their respective contributions toward a reformulation of knowledge and epistemic authority in the post-truth era. Merging Islamic normative values with Western critical-historical approaches shall provide this study with a richer framing of the current epistemic crisis, besides providing conceptual alternatives sensitive to the sacred and social dimensions of knowledge. This research does not aim merely at synthesizing or resolving the differences, but rather encouraging dialogical reflection that highlights the prospects of each tradition in critiquing, complementing, and deepening the philosophical discourse on science, truth, and authority amidst a fragmented and uncertain era.

C. RESULT DAN DISCUSSION

1. The Post-Truth Phenomenon and the Crisis of Scientific Authority

The post-truth phenomenon represents a profound epistemological rupture in contemporary society rather than merely a decline in factual accuracy within public discourse. It signals a transformation in how truth is produced, circulated, and legitimized, particularly in relation to scientific knowledge.²³ In a post-truth condition, factual claims increasingly compete on the basis of emotional appeal, ideological alignment, and identity politics, rather than on methodological rigor or empirical verification. This shift destabilizes the traditional authority of science, which historically derived its legitimacy from institutional credibility, peer validation, and claims to objectivity.²⁴

One of the central implications of post-truth is the erosion of epistemic trust. Scientific knowledge depends not only on empirical evidence, but also on social trust in experts, institutions, and procedures of validation. In the post-truth era, this trust is undermined by repeated exposure to misinformation, conspiracy narratives, and the politicization of expertise.²⁵ Digital media ecosystems intensify this condition by

²³ Henrik Enroth, "Crisis of Authority: The Truth of Post Truth," *International Journal of Politics, Culture, and Society* 36 (2023): 179–195, <https://doi.org/10.1007/s10767-021-09415-6>.

²⁴ Benetka and Schor-Tschudnowskaja, "Post-Truth and Scientific Authority."

²⁵ Friedman, "Post-Truth and the Epistemological Crisis."

privileging speed, virality, and affect over accuracy. As shown by Arifin and Fuad²⁶, social media plays a crucial role in amplifying post-truth dynamics by facilitating the rapid dissemination of emotionally charged content that bypasses critical scrutiny. As a result, scientific statements are frequently interpreted as political positions rather than as provisional conclusions grounded in systematic inquiry.

This dynamic was particularly evident during the COVID-19 pandemic, when scientific consensus was often contested by alternative narratives framed as expressions of “common sense,” freedom, or moral resistance. Duarte et al.²⁷ demonstrate that in the Brazilian context, scientific authority was not simply rejected but selectively appropriated within populist political strategies, resulting in heightened public confusion and declining trust. Their analysis underscores that post-truth does not eliminate science from public discourse, but reconfigures it as an instrument within ideological and political struggles.

From an epistemological standpoint, post-truth exposes the limitations of both naïve scientism and radical relativism. On the one hand, the assumption that facts speak for themselves ignores the social, cultural, and communicative conditions under which scientific knowledge gains public authority.²⁸ On the other hand, the relativization of truth into mere opinion risks dissolving any meaningful distinction between well-supported knowledge and unfounded belief.²⁹ The post-truth condition thus emerges not simply from the rejection of science, but from unresolved tensions within modern epistemology itself—particularly the failure to integrate knowledge, values, and meaning into a coherent framework.³⁰

In this regard, Science and Technology Studies (STS) offer important insights into how scientific facts are socially constructed without being arbitrary. STS scholars emphasize that scientific knowledge is produced through complex networks of human and non-human actors, including laboratories, instruments, institutions, and political contexts. However, as Benetka and Schor-Tschudnowska³¹ argue, post-truth discourse often misappropriates constructivist insights by equating social construction

²⁶ Arifin and Fuad, “Dampak Post-Truth di Media Sosial.”

²⁷ Duarte, Benett, and Alvarez, “Reconsidering the ‘Post-Truth Critique’: Scientific Controversies and Pandemic Responses in Brazil.”

²⁸ Vernon, “Science in the Post-Truth Era.”

²⁹ S. I Strong, “Alternative Facts and the Post-Truth Society: Meeting the Challenge,” *Penn Law Review Online* 165, no. 1 (2017), https://scholarship.law.upenn.edu/penn_law_review_online/vol165/iss1/14.

³⁰ Friedman, “Post-Truth and the Epistemological Crisis.”

³¹ Benetka and Schor-Tschudnowska, “Post-Truth and Scientific Authority.”

with epistemic relativism. This misinterpretation allows epistemological critique to be weaponized against science, while obscuring the rigorous practices that distinguish scientific knowledge from misinformation.

At the same time, post-truth can be interpreted as a moral and ethical crisis. The detachment of knowledge from ethical responsibility enables the strategic manipulation of facts for ideological ends, particularly in policy debates such as climate change. Fischer³² shows how “alternative facts” are socially constructed to challenge scientific consensus, revealing that post-truth is deeply embedded in knowledge politics rather than mere ignorance. When truth is reduced to utility or persuasion, science risks becoming a tool of power rather than a guide for collective well-being.

This condition highlights the need to reintroduce ethical accountability into epistemic practices, particularly in education and public communication. Universities and scientific institutions are therefore challenged not only to produce knowledge, but also to cultivate epistemic virtues such as intellectual humility, critical reasoning, and responsibility toward the common good.³³ Valladares³⁴ further argues that education can function as an “epistemological vaccine” against post-truth by enabling learners to critically understand how scientific knowledge is produced, validated, and contested.

Furthermore, the post-truth phenomenon has distinct implications for societies in the Global South, where scientific authority is often entangled with colonial histories, political instability, and unequal access to knowledge. In such contexts, skepticism toward science may reflect not only misinformation, but also historical experiences of exclusion and domination. Duarte et al.³⁵ caution that responses to post-truth must therefore move beyond universalistic assumptions and engage with local epistemologies and sociopolitical realities.

In response to these challenges, overcoming post-truth does not entail a simple return to Enlightenment notions of objectivity or technocratic authority. Instead, it calls for a plural yet principled epistemology that recognizes the social nature of

³² Fischer, “Knowledge Politics and Post-Truth in Climate Denial: On the Social Construction of Alternative Facts.”

³³ Parker, “The Role of Higher Education in the Post-Truth Era.”

³⁴ Valladares, “Post-Truth and Education.”

³⁵ Duarte, Benett, and Alvarez, “Reconsidering the ‘Post-Truth Critique’: Scientific Controversies and Pandemic Responses in Brazil.”

knowledge while affirming the possibility of truth grounded in ethical and normative commitments.³⁶ This opens space for dialogue between different intellectual traditions, including secular philosophy, STS, and religious epistemologies. Such dialogue can contribute to restoring the credibility of science by situating it within a broader horizon of meaning, responsibility, and human purpose.³⁷

So, the post-truth phenomenon reveals a deep crisis in the relationship between knowledge, society, and morality. It challenges scholars and institutions to rethink the foundations of scientific authority beyond mere factual correctness, toward a model of knowledge that is reflexive, ethically grounded, and socially accountable. Only through such a reorientation can science reclaim its role as a credible and meaningful guide in an increasingly fragmented and contested epistemic landscape.

2. Bruno Latour: Science, Society, and the Collapse of Certainty

Latour's scholarly contributions are an important change in the trend of ideas about science in the contemporary era, particularly regarding the relationship of science to society, politics, and truth. In the academic domain of *Science and Technology Studies* (STS), Latour questions the conceptual foundations of scientific practice in the modern era, particularly the notion of objective, neutral, and universal science. On the one hand, the intellectual trajectory of Bruno Latour reflects a transition from the deconstruction of the myth of scientific objectivity to the reconstruction of scientific practice as a political, ecological, and moral activity in the context of the post-truth and planetary crisis.³⁸ On the other hand, the intellectual journey of Bruno Latour reveals the persistent emphasis of Latour's ideas about science as an activity and practice that is not separated from "pure facts," but is rather blended into the web of broader societal and ethical networks.³⁹ This section reviews Latour's evolving epistemological project in three interconnected phases: his early critique of the modern constitution, his reflective response to post-truth conditions, and his ecological reorientation of science.

³⁶ Sebastian Schindler, "The Task of Critique in Times of Post-Truth Politics," *Review of International Studies* 46, no. 3 (2020): 376–394, <https://doi.org/10.1017/S0260210520000091>.

³⁷ Vernon, "Science in the Post-Truth Era."

³⁸ Duncan Kennedy, "Knowledge and The Political: Bruno Latour's Political Epistemology," *Classical Reception and the Political* Cultural C, no. 74 (2010): 83–97, <https://www.jstor.org/stable/40800628>.

³⁹ David Chandler, "Actor Network Theory and Sensing Governance: From Causation to Correlation," *Perspectives on Science* 31, no. 1 (2023): 139–158, https://doi.org/10.1162/posc_a_00584.

First, from objectivity to construction in networks. In his seminal work *We Have Never Been Modern*⁴⁰, Latour delivers a sharp critique of the modernist dichotomy between nature and society. He argues that the Enlightenment legacy of separating scientific facts, considered objective (such as the laws of nature), from human values, considered subjective (such as culture and morality), is an intellectual illusion. This separation, according to him, actually obscures the fact that the world we live in is in fact an inseparable mixture of natural and social elements.⁴¹ According to Latour, the modern condition is characterized by a “doubly asymmetrical” duality in the form of two simultaneous movements, namely purification and translation. On the one hand, science attempts to make a clear distinction between nature and culture, as if the two were unrelated. But at the same time, science creates new realities that are a combination of natural and social elements, such as technology, environmental policy, or laboratories, which cannot be rigidly categorized as purely natural or purely cultural.⁴² In fact, scientific knowledge does not emerge in a vacuum, but is constructed collectively through networks of human and non-human actors, such as laboratories, measuring instruments, regulatory agencies, funding agencies, and political interests.⁴³ This idea became the basis of what Latour and his collaborators later formalized as *Actor-Network Theory* (ANT), a methodology that traces how knowledge is produced through networks of interaction and association between heterogeneous agents.⁴⁴

The implications of this shift are profound. By challenging the idea that science is a reflection of nature, Latour reframes scientific knowledge as a process that is situated in a social context and materialized, rather than as the discovery of pre-existing truths. This does not render science arbitrary or false, but rather places its credibility in the robustness and resilience of the networks that support its claims.⁴⁵ Thus, the authority of science no longer stems from its separation from society, but from its success in integrating into complex systems of belief, verification, and accountability. Latour demonstrates that scientific facts are deeply embedded within

⁴⁰ Bruno Latour, *We Have Never Been Modern*, Trans. C. Porter (Cambridge, MA: Harvard University Press, 1993).

⁴¹ Bruno Latour, “Visualisation and Cognition: Drawing Things Together,” in *Knowledge and Society: Studies in the Sociology of Culture Past and Present: A Research Annual*, ed. Elizabeth Long and Henrika Kuklick, 6th ed. (Howard House: JAI Press, 1986), 1–40.

⁴² Latour, *We Have Never Been Modern*.

⁴³ Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory*.

⁴⁴ Sébastien Keiff, “Latour’s Discernment Tools in Action: Exploring and Solving Complex Social Problems Through Participatory Methods,” *International Journal of Qualitative Methods* 23 (2024), <https://doi.org/10.1177/16094069241286844>.

⁴⁵ Latour, “Visualisation and Cognition: Drawing Things Together.”

social and political contexts, a realization that is essential for understanding how science functions and how its authority is contested in the post-truth era.⁴⁶

Second, the issue of reflexivity becomes crucial in this context. Latour's early critiques of scientific objectivity were often associated with wider currents of relativism and skepticism, which were later appropriated in public discourse to challenge the legitimacy of science itself.⁴⁷ In response to the growing influence of climate change denial and anti-science populism, Latour subsequently expressed concern that his earlier analyses may have unintentionally contributed to the emergence of post-truth dynamics.⁴⁸ This reflexive reassessment is particularly evident in his work *Politics of Nature: How to Bring the Sciences into Democracy*⁴⁹, Latour offers a constructive response in the form of a new model of democratic deliberation and scientific engagement that he calls the "Parliament of Things." This concept reimagines science not as a separate arbiter of truth, but as a practice that is normatively involved and must be negotiated and evaluated in the public, political, and ecological spheres.⁵⁰

Within this framework, scientific propositions are treated as "matters of concern," not merely as "matters of fact." These propositions are not simply accepted or rejected based on authority, but are open to public deliberation, where their implications, uncertainties, and values are examined transparently. This model recognizes the legitimacy of public reason while affirming the importance of scientific expertise.⁵¹ Latour's reflective shift seeks to maintain the critical achievements of postmodernism, namely skepticism towards naive realism and authoritarian science, without falling into epistemic nihilism. By emphasizing the political ecology of knowledge, he calls for the birth of new institutions and discourses where science can be responsibly positioned amid plurality, conflict, and uncertainty.⁵²

⁴⁶ Strong, "Alternative Facts and the Post-Truth Society: Meeting the Challenge."

⁴⁷ Flatscher and Seitz, "Latour, Foucault, and Post-Truth: The Role and Function of Critique in the Era of the Truth Crisis."

⁴⁸ Schindler, "The Task of Critique in Times of Post-Truth Politics."

⁴⁹ Bruno Latour, *Politics of Nature: How to Bring the Sciences into Democracy*, Trans. C. Porter (Cambridge, MA: Harvard University Press, 2004).

⁵⁰ Joke Vandebaele and Katrien Van Poeck, "Participation and Sustainable Development: A Matter of Public Concern," in *Learning for Sustainability in Times of Accelerating Change*, ed. Arjen Wals and Peter Blaze Corcoran (Wageningen, Netherlands: Wageningen Academic Publishers, 2012), 49–62, https://doi.org/10.3920/978-90-8686-757-8_02.

⁵¹ Duarte, Benett, and Alvarez, "Reconsidering the 'Post-Truth Critique': Scientific Controversies and Pandemic Responses in Brazil."

⁵² Enroth, "Crisis of Authority: The Truth of Post Truth."

Third, the ecological shift. Latour's latest works, especially *Facing Gaia: Eight Lectures on the New Climatic Regime*⁵³, mark an important shift that can be called an “ecological turn.” Faced with the realities of climate change, mass extinction, and planetary instability, Latour repositions the issue of scientific authority within the framework of the vulnerability of the Earth system and ecological interdependence. He argues that the traditional image of science as a neutral observer of a separate nature is no longer tenable.⁵⁴ In the Anthropocene, human actions have emerged as a decisive geological force, dissolving the traditional distinctions between subject and object, observer and observed, as well as between fact and value.⁵⁵ The Earth is no longer a passive backdrop for human action; it is a true political actor, a “Terrestrial” that demands loyalty, care, and negotiation.⁵⁶

This awareness prompts Latour to call for a repoliticized science, based not on claims of transcendence or objectivity, but on shared planetary vulnerability and the urgency of collective response. In this context, science becomes a mediator of responsibility, not a prophet of truth detached from the world. The figure of “Gaia”, a living, self-regulating Earth system, replaces the static “Nature” of modern science and calls for the formation of a new cosmopolitan order, in which humans, non-humans, and Earth systems are recognized as agents in the same world.⁵⁷ The authority of science, thus, must be regained through practices of engagement, humility, and care, rather than imposed from above as an indisputable truth.⁵⁸

Latour's ecological turn culminates in his call to think “back to Earth,”⁵⁹ where political and scientific institutions must reorient themselves toward concrete realities such as climate change, migration, and planetary inequality.⁶⁰ This vision is not utopian, but grounded in the need for survival, coexistence, and ethical transformation. Thus, Latour's evolving thinking provides a rich source for reimagining science not as

⁵³ Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime*.

⁵⁴ *Ibid.*

⁵⁵ Timothy M. Lenton, Sébastien Dutreuil, and Bruno Latour, “Gaia as Seen from Within,” *Theory, Culture & Society* 41, no. 5 (2024): 69–90, <https://doi.org/10.1177/02632764241275574>.

⁵⁶ Thomas Hylland Eriksen, “Reviewed Work: Down to Earth: Politics in the New Climatic Regime Bruno Latour,” *Anthropological Quarterly* 93, no. 2 (2020): 243–248, <https://www.jstor.org/stable/48742636>.

⁵⁷ Isabelle Stengers, *Cosmopolitics I*, Trans. R. Bononno (Minneapolis: University of Minnesota Press, 2010).

⁵⁸ Ricarda Winkelmann et al., “Social Tipping Processes for Sustainability: An Analytical Framework,” *Earth System Dynamics* 11 (2020): 771–795, <https://doi.org/10.5194/esd-11-771-2020>.

⁵⁹ Bruno Latour, *Down to Earth: Politics in the New Climatic Regime* (Cambridge: Polity Press, 2018).

⁶⁰ François-Xavier de Vaujany and Nathalie Mitev, “Introduction Au Tournant Matériel En Théories Des Organisations,” *Les Théories Des Organisations, Economica*, 2015, 01215557, <https://hal.science/hal-01215557>.

a source of certainty, but as a relational and moral endeavor in a world marked by epistemic crisis and ecological vulnerability.⁶¹

3. Syed Muhammad Naquib al-Attas: Islam, Knowledge, and the Sacred Order

Al-Attas is among the most influential contemporary Muslim intellectuals who offers a systematic critique of modern secular epistemology while proposing comprehensive alternatives grounded in Islamic metaphysical principles. His intellectual project, particularly his formulation of the Islamization of knowledge, is deeply rooted in a metaphysical vision of reality based on Qur`anic cosmology, classical Islamic philosophy, and Sufi spirituality. Al-Attas maintains that the crisis of modern knowledge extends beyond inaccuracies or ideological distortions alone, but rather the result of epistemological and civilizational disorientation, thus a consequence of the separation of science from its ethical, spiritual, and ontological foundations. This section presents al-Attas' main ideas in three interrelated parts, namely the theory of Islamization, the crisis of *adab*, and the metaphysical concept of epistemic justice.

First, the Islamization of knowledge. Central to al-Attas's intellectual legacy is his articulation of the Islamization of contemporary knowledge, which he conceives as a process of emancipating knowledge from secular paradigms and reorienting it toward the Islamic worldview grounded in *tawhīd*.⁶² Unlike approaches that view Islamization merely as the insertion of Islamic content into Western academic disciplines, al-Attas' model is ontological and metaphysical. He starts from the premise that all knowledge must reflect and be in line with *tawhīd*, the basic Islamic doctrine of the oneness of God, which functions not only as a theological principle but also as the ontological foundation of all existence and meaning.

Al-Attas' approach offers a fundamental shift in the epistemology of education. Islamization as proposed by al-Attas involves a comprehensive Islamic paradigm, not merely the insertion of theology into a secular framework.⁶³ The Islamization of language and culture in the Malay world became an important instrument in directing

⁶¹ Bruno Latour, "Can We Get Our Materialism Back, Please?", *Isis* 98, no. 1 (2007): 138–142, <https://www.journals.uchicago.edu/doi/10.1086/512837>.

⁶² Al-Attas, *Islam and Secularism*, 1978.

⁶³ Nasution, "Syed Muhammad Naquib Al-Attas Syed Muhammad Naquib Al-Attas: Islamization of Knowledge by Developing Genuine Islamic Paradigm."

society towards divine meaning, a concrete example of al-Attas' vision of metaphysical realignment.⁶⁴

Al-Attas criticized modern Western epistemology for reducing knowledge to value-neutral empirical data disconnected from ethics and metaphysics. In such a framework, knowledge becomes fragmented, utilitarian, and ultimately degrades humanity. Conversely, in the Islamic worldview, knowledge (*'ilm*) is understood as a sacred trust, a means to recognize the signs of God in creation and fulfill humanity's role as *khalifah* on earth.⁶⁵ Therefore, Islamization is a restoration of metaphysical consciousness, that is, a redirection of all fields of knowledge towards divine reality and ethical goals.⁶⁶ The goal is not merely to Islamize information, but to restore meaning and coherence to science as an integrated and meaningful endeavor.

Second, the loss of manners and the shifting of meaning. One of al-Attas' most profound thoughts is his identification of the crisis of knowledge as a crisis of manners, a term that means not only politeness, but also discipline, order, and the correct placement of everything in accordance with the truth. For al-Attas, *adab* refers to the intellectual, spiritual, and ethical attitudes necessary for true understanding. The loss of *adab*, according to him, will lead to *zulm*, which is the act of placing something out of its proper place, including the misplacement of knowledge itself.⁶⁷ In this perspective, the secularization of education and science is not a neutral development, but a form of *zulm*, in which the hierarchy and purpose of science have been reversed, resulting in widespread confusion and moral relativism.

This shift is evident in modern education systems that have lost their ethical orientation, contributing to alienation and fragmentation.⁶⁸ The restoration of *adab* must be central to the reconstruction of the Islamic education system, in order to ensure not only intellectual acuity but also spiritual depth and moral nobility.⁶⁹

⁶⁴ Azrul Kiromil Enri Auni and Hermanto Hermanto, "Islamization of Melayu-Nusantara Society Through Language Approach According to Syed Muhammad Naquib Al-Attas," *Khalifa: Journal of Islamic Education* 4, no. 1 (2020): 49–62, <https://doi.org/10.24036/kjie.v4i1.41>.

⁶⁵ Syed Muhammad Naquib Al-Attas, *Prolegomena to the Metaphysics of Islam: An Exposition of the Fundamental Elements of the Worldview of Islam* (Kuala Lumpur: ISTAC, 1995).

⁶⁶ Muh Hanif and Hani Prasetianingtyas, "Islamization of Science in the Era of Society 5.0: Study of Al-Attas' Thought," *International Journal of Social Science and Religion* 4, no. 1 (2023): 1–22, <https://doi.org/10.53639/ijssr.v4i1.127>.

⁶⁷ Al-Attas, *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education*.

⁶⁸ Miftahul Jannah, "The Islamization Process by Syed Muhammad Naquib Al-Attas and Its Relevance on Islamic Science," *KJIMS: Kawanua International Journal of Multicultural Studies* 3, no. 2 (2022): 57–65, <https://doi.org/10.30984/kijms.v3i2.61>.

⁶⁹ Yudril Basith, "Gagasan Islamisasi Ilmu Pengetahuan Sebagai Pondasi Pendidikan Islam Menurut Syed Muhammad Naquib Al-Attas," *Turats: Jurnal Pendidikan Islam* 17, no. 1 (2024): 19–29, <https://doi.org/10.33558/turats.v17i1.9632>.

The loss of *adab* is evident in various dimensions, such as the fragmentation of disciplines, the rise of nihilistic or purely instrumental thinking, and the inability of modern education to produce individuals who are ethical and spiritually mature. According to the author, the restoration of *adab* for al-Attas is an important condition, not only for intellectual clarity, but also for the integrity of civilization. Science, if separated from metaphysical awareness and ethical foundations, will be vulnerable to exploitation, environmental destruction, and dehumanization. The solution is not to reject science itself, but to return it to its rightful place in the divine cosmic order, where knowledge serves not merely power or utility, but truth, justice, and spiritual realization.

Third, ontological foundations and epistemic justice. Al-Attas' vision of true knowledge is ultimately ontological: knowledge must conform to *haqīqah*, the highest reality that underlies all contingent phenomena. This conformity is not only theoretical, but also practical and moral, as it involves the purification and harmonization of the soul through the pursuit of wisdom, ethical behavior, and spiritual perfection.⁷⁰ Within this framework, science becomes legitimate and authoritative only if it is rooted in the divine order and contributes to what al-Attas calls *ta‘dīl*, namely, the harmonization of human beings and society in accordance with the structure of reality as disclosed in the Qur`an and embodied in the exemplary life of the Prophet Muhammad (SAW).

This ontological foundation is even more important in the context of Society 5.0 and digital disruption, where the authority of science must be redirected towards metaphysical truth, not merely technical capability. Their work extends al-Attas' ideas into the modern epistemic context, asserting that true knowledge cannot be separated from moral purpose and ontological foundations.⁷¹ This metaphysical vision led al-Attas to formulate epistemic justice, which contrasts sharply with the concept of value-neutral knowledge in modern secular epistemology. For him, epistemic justice requires that knowledge be taught, transmitted, and applied in accordance with its truth and moral purpose. This includes not only an appropriate curriculum and pedagogy, but also the formation of the soul, namely the development of discernment, sincerity, and

⁷⁰ Al-Attas, *Prolegomena to the Metaphysics of Islam: An Exposition of the Fundamental Elements of the Worldview of Islam*.

⁷¹ Hanif and Prasetyaningtyas, "Islamization of Science in the Era of Society 5.0: Study of Al-Attas' Thought."

humility.⁷² It also implies a critique of epistemology that denies the spiritual dimension of reality, reduces the sacred, and gives birth to individuals who are spiritually alienated or fragmented. In this sense, in the author's opinion, al-Attas' philosophy calls for a "re-purification" of knowledge, not through myths or dogmas, but through a rigorous and coherent metaphysical vision, in which the pursuit of knowledge itself becomes a form of worship and responsibility.

Through a conceptual synthesis of Islamic metaphysics, ethics, and the philosophy of education, al-Attas offers a powerful alternative to both scientific positivism and relativistic postmodernism. His thinking offers a civilizational critique of secular modernity, while laying the foundations for a critical and constructive Islamic intellectual revival. In the context of the post-truth crisis, al-Attas' framework allows for a reassessment of scientific authority that is not only based on technocratic expertise, but on a moral and ontological vision that places knowledge in a sacred, ethical, and cosmological relationship.

4. Comparative Mapping: Latour and al-Attas' Dialogical Hermeneutics

This section presents a comparison of dialogical hermeneutics between the epistemological frameworks of Latour, as one of the leading figures in Western constructivism, and al-Attas, as one of the leading Muslim philosophers representing Islamic metaphysical realism. By mapping their responses to the crisis of scientific authority through key philosophical dimensions, this study reveals both profound contrasts and potential points of connection. The purpose of this comparison is not to synthesize the two frameworks, but rather to understand how each offers a distinctive yet critical lens on science, truth, and authority in the post-truth era. This hermeneutic dialogue invites a cross-civilizational encounter that respects the internal coherence of each tradition while opening up space for mutual criticism and enlightenment.

First, the ontology of science. According to Latour, the ontology of science is based on a constructivist paradigm, in which scientific facts are not found as objective truths, but are constructed through social-material networks involving laboratories, instruments, scientists, institutions, and non-human entities.⁷³ In his view, science

⁷² Rido Putra et al., "Strengthening Religious Moderation through the Merdeka Student Exchange Program (PMM) at Padang State University," *Indonesian Journal of Islamic Religious Education (INJIRE)* 2, no. 2 (2024): 189–202, <https://doi.org/10.63243/ckxxm790>.

⁷³ Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory*.

gains legitimacy not because of its correspondence with an independent reality, but through the stabilization of facts within a complex network of actors. Scientific knowledge is relational, contingent, and always mediated.⁷⁴

In contrast, al-Attas asserts that true knowledge must correspond to *haqīqah*, the metaphysical reality that underpins all existence. Science, therefore, is not merely a human construct, but a means of accessing signs of the Divine order embedded in the cosmos. The legitimacy of science depends on its alignment with the ontological hierarchy of being, which is rooted in the Islamic concept of *tawhīd*.⁷⁵ Knowledge is declared valid if it reflects this order, not merely because it functions successfully in the material world.⁷⁶

Second, the diagnosis of an epistemic crisis. Latour interprets the crisis of knowledge as stemming from the breakdown of the modern dichotomy, especially the rigid division between nature and society, as well as the increasing politicization of scientific facts.⁷⁷ For him, the post-truth era is not a rejection of science itself, but a symptom of public distrust of institutions that have failed to explain the complexity and interconnectedness of the world.⁷⁸

On the other hand, al-Attas views this crisis as a crisis of civilization and spirituality. He identifies the fundamental problem as the erosion of *adab*, understood as the rightful ordering of knowledge, conduct, and ethical principles. This loss results in *zulm*, or the misplacement of things, including knowledge, which becomes desacralized and loses its meaning when separated from its metaphysical roots.⁷⁹ For al-Attas, the post-truth condition reflects the process of desacralization and fragmentation of knowledge in secular modernity.⁸⁰

Third, the source of scientific authority. For Latour, scientific authority is dispersed and negotiated among many actors. Authority does not come from an external or transcendent source, but from the credibility of networks, the strength of

⁷⁴ Lima et al., "Science Education in Post-Truth Age: Metaphysical Reflections from Bruno Latour's Science Studies."

⁷⁵ Sholeh, "Islamisasi Ilmu Pengetahuan (Konsep Pemikiran Ismail Raji Al-Faruqi Dan Syed Muhammad Naquib Al-Attas)," *Al-Hikmah: Jurnal Agama dan Ilmu Pengetahuan* 14, no. 2 (2017): 209–221, [https://doi.org/10.25299/al-hikmah;jaip.2017.vol14\(2\).1029](https://doi.org/10.25299/al-hikmah;jaip.2017.vol14(2).1029).

⁷⁶ Nazar Khan, "Shades of Structural Realism in Post-Classical Islamic Thought," *Theology and Science* 21, no. 3 (2023): 376–389, doi:<https://doi.org/10.1080/14746700.2023.2230427>.

⁷⁷ Latour, *We Have Never Been Modern; Latour, Politics of Nature: How to Bring the Sciences into Democracy*.

⁷⁸ Flatscher and Seitz, "Latour, Foucault, and Post-Truth: The Role and Function of Critique in the Era of the Truth Crisis."

⁷⁹ Al-Attas, *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education*.

⁸⁰ Khalina Mohammed Khalili, "Criticisms on Ontological Relativism of Modern Science by Syed Muhammad Naquib Al-Attas and Seyyed Hossein Nasr," *Al-Shajarah: Journal of the International Institute of Islamic Thought and Civilisation (ISTAC)* 29, no. 1 (2024): 127–152, <https://doi.org/10.31436/shajarah.v29i1.1832>.

enduring claims, and the ability to persuade and mobilize others.⁸¹ Knowledge is valid when it succeeds in integrating and when its propositions are able to endure in the public and political spheres.⁸² By contrast, al-Attas asserts that the authority of science rests on three principal foundations: revelation (*wahyu*), reason (*'aql*), and the prophetic legacy.⁸³ These three sources form the epistemic foundation that ensures that science is not detached from truth and ethics.⁸⁴ Revelation provides the highest criteria of truth, while reason and tradition guide its application in various fields of science.⁸⁵

Fourth, ethical foundations. Latour's ethical framework is built on reflexivity and ecological responsibility. He calls on scientists and institutions to recognize their interconnectedness with the world and to act with care, accountability, and humility.⁸⁶ Ethics, in this view, is not a fixed set of codes, but rather an emergent property of contextually situated interactions and ongoing negotiations in an interconnected world.⁸⁷ Meanwhile, al-Attas offers a moral-spiritual hierarchy rooted in *tawhīd*, which shapes the ethical dimension of knowledge and behavior. Ethics is not constructed, but rather revealed and shaped, growing from an awareness of the Divine order and the pursuit of moral perfection (*ihsān*).⁸⁸ The acquisition of knowledge is a spiritual discipline that must be in harmony with the goals of purification, justice (*'adl*), and harmony (*ta'dīl*).⁸⁹

Fifth, the response to the post-truth crisis. Latour addresses the post-truth condition by advocating a reconfiguration of science grounded in democratic deliberation and situated forms of knowledge.⁹⁰ He proposes the concept of a “Parliament of Things,” in which both human and non-human actors are involved in the co-production of meaning and policy, thereby enabling science to become politicized in a constructive and inclusive way.⁹¹ Meanwhile, al-Attas responds by emphasizing the importance of redirecting knowledge towards divine goals, by

⁸¹ Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory*.

⁸² Lima et al., “Science Education in Post-Truth Age: Metaphysical Reflections from Bruno Latour’s Science Studies.”

⁸³ Wan Mohammad Nor Wan Daud, *The Educational Philosophy and Practice of Syed Muhammad Naquib Al-Attas: An Exposition of the Original Concept of Islamization* (Kuala Lumpur: ISTAC, 1998).

⁸⁴ Rahmad Yulianto and Achmad Bahak, “Islamisasi Ilmu Pengetahuan dalam Perspektif Syed Muhammad Naquib al-Attas,” *Al-Hikmah: Jurnal Studi Agama-agama* 4, no. 1 (2018), <https://doi.org/10.30651/ah.v4i1.2335>.

⁸⁵ Khalili, “Criticisms on Ontological Relativism of Modern Science by Syed Muhammad Naquib Al-Attas and Seyyed Hossein Nasr.”

⁸⁶ Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime*.

⁸⁷ Flatscher and Seitz, “Latour, Foucault, and Post-Truth: The Role and Function of Critique in the Era of the Truth Crisis.”

⁸⁸ Al-Attas, *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education*.

⁸⁹ Khan, “Shades of Structural Realism in Post-Classical Islamic Thought.”

⁹⁰ Latour, *Politics of Nature: How to Bring the Sciences into Democracy*.

⁹¹ Lima et al., “Science Education in Post-Truth Age: Metaphysical Reflections from Bruno Latour’s Science Studies.”

restoring its metaphysical and spiritual foundations. Instead of expanding negotiations, he calls for the re-grounding of education and science in a *tawhīdic* worldview that connects truth, ethics, and cosmology. The solution to post-truth is not pluralism alone, but epistemological restoration.⁹²

Sixth, the purpose of knowledge. Ultimately, Latour views the purpose of knowledge as ensuring the survival of humanity and the planet through recognition of interconnectedness and shared concern.⁹³ In his later works, he advocates a “terrestrial” epistemology that prioritizes living well on earth in the face of ecological collapse.⁹⁴ In contrast, al-Attas envisions the purpose of knowledge as the harmonization of the soul, society, and the cosmos, achieved through wisdom and justice.⁹⁵ Knowledge is a means to achieve ontological balance, ethical integrity, and spiritual enlightenment. Science is not merely for utility or survival, but to realize humanity as moral, rational, and spiritual beings.⁹⁶

Table 1. Latour and al-Attas' Dialogical Hermeneutics

Dimensions	Bruno Latour (Western Constructivism)	Syed Muhammad Naquib al-Attas (Islamic Metaphysical Realism)
Ontology of Science	Constructed through social-material networks	Rooted in metaphysical reality (<i>haqīqah</i>)
Diagnosis of Epistemic Crisis	The collapse of modern dichotomies; the politicization of facts	The loss of manners; the desacralization of knowledge
Sources of Scientific Authority	Negotiations spread across human and non-human actors	Revelation, reason, and the prophetic heritage
Ethical Foundations	Reflexivity and ecological responsibility	A moral-spiritual hierarchy rooted in <i>tawhīd</i>

⁹² Al-Attas, *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education*.

⁹³ Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime*.

⁹⁴ Graham Harman, “Retroactivity in Science: Latour, Žižek, Kuhn,” *Open Philosophy* 7, no. 1 (2024): 20240036, <https://doi.org/10.1515/oppil-2024-0036>.

⁹⁵ Al-Attas, *Prolegomena to the Metaphysics of Islam: An Exposition of the Fundamental Elements of the Worldview of Islam*.

⁹⁶ Khan, “Shades of Structural Realism in Post-Classical Islamic Thought.”

Response to Post-Truth	→	Redefining science through democratic dialogue and contextual knowledge	The redirection of knowledge towards divine purposes and the metaphysical order
The Purpose of Knowledge	→	Survival through planetary interconnectedness and mutual care	The harmonization of the soul, society, and the cosmos (<i>hikmah & 'adl</i>)

5. Dialogical-Pluralistic Epistemology: Manifestations of Reflective-Sacralistic Science Integration

Instead of imposing synthesis or reducing different paradigms into a single framework, the dialogical mapping between Latour and al-Attas reveals the possibility of complementary engagement. Each thinker offers important insights in responding to the contemporary crisis of scientific authority and its separation from ethical, metaphysical, and social foundations.

On the one hand, Latour offers a sharp critique of modern science through his actor-network theory and constructivist epistemology. He dismantles the idea of objective and value-free knowledge, showing how scientific facts are co-produced in a network of interrelated human and non-human actors.⁹⁷ This approach enables a reflective stance toward science, exposing the hidden power relations, institutional dynamics, and socio-political interests embedded in the production of knowledge. Especially in his later works, Latour calls for a recontextualization of science in light of the ecological crisis, in which humans are no longer seen as detached observers, but as agents involved in the fragile fabric of *Gaia*.⁹⁸

On the other hand, al-Attas provides a teleological and metaphysical correction to the modern scientific view. His project of Islamizing knowledge criticizes secular epistemology for having severed knowledge from its ethical and spiritual roots. Al-Attas contends that authentic knowledge must be oriented by an awareness of *tawhīd*, directing it not merely toward practical usefulness but also toward moral self-cultivation and the realization of justice, order, and meaning within the cosmos.⁹⁹ He emphasizes the importance of *adab*, or the proper disposition towards knowledge,

⁹⁷ Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory*.

⁹⁸ Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime*.

⁹⁹ Syed Muhammad Naquib Al-Attas, *Islam and Secularism* (Kuala Lumpur: Muslim Youth Movement of Malaysia (ABIM), 1978).

existence, and authority, as the foundation for sacred and responsible intellectual endeavor.¹⁰⁰ Al-Attas provides a much-needed axial and metaphysical correction to the disenchanted structure of modern science, especially in the context of Islamic education.¹⁰¹

Within this framework, reflective and post-secular science can benefit from integrating these two complementary dimensions. From Latour's perspective, science is encouraged to become more attentive to the networks, interrelations, and performative dimensions through which scientific knowledge is produced and sustained, namely by developing an epistemology that is contextual, humble, and aware of its own constructive nature. From al-Attas, science can restore the sacred and hierarchical ontological order and ethical purpose of knowledge, namely by returning to a metaphysical orientation and moral responsibility in scientific inquiry. Such integration is crucial in constructing knowledge that is axially rooted and capable of rejecting the hegemony of secular utilitarianism.

This integrative model does not aim to create a universal synthesis, but rather to build a pluralistic and dialogical epistemology, namely an approach that is contextually responsible, epistemically humble, and metaphysically rooted. Such a vision can offer a way out of the traps of scientism and relativism, towards a way of knowing that is reflective of its own limitations, yet remains committed to a higher moral and cosmic order.

D. CONCLUSION

This article demonstrates that the crisis of scientific authority in the post-truth era cannot be effectively resolved through technocratic strategies alone, such as fact-checking or strengthening scientific communication. What is needed is a fundamental reimagining of the epistemology of science: what is considered knowledge, who has the authority to produce it, and what values underlie it. Employing a hermeneutic–dialogical approach, this article undertakes a comparative analysis of the perspectives of Bruno Latour and Syed Muhammad Naquib al-Attas, two thinkers from different intellectual

¹⁰⁰ Al Haidary et al., "Islamic Worldview as a Basis for Islamization of Science Concept According to Syed Muhammad Naquib Al-Attas."

¹⁰¹ Wina Arsita, Eva Dewi, and Selsa Ihza Febriza, "Islamization of Science and the Application of Axiology Related to the Science of Naquib Al-Attas Perspective," *International Journal of Education, Social Studies, and Management (IJESSM)* 4, no. 3 (2025): 1340–1350, <https://doi.org/10.52121/ijessm.v4i3.578>.

traditions, but both critical of modernity and seeking to restore the ethical and ontological dimensions of science. The main finding of this article shows that Latour, through *Actor-Network Theory* and his critique of the nature-society dichotomy, proposes a renewed relationship that foregrounds interdependence and shared responsibility in the production of knowledge. Conversely, al-Attas advances a project for the Islamization of science grounded in the Islamic worldview, with the concept of *adab* as an epistemological foundation that unites science, ethics, and spirituality. When read dialogically, these two perspectives produce complementary insights, namely the critique of modern neutral objectivity and the importance of a transcendent basis in interpreting scientific truth. Thus, the future of sustainable science is not only determined by political or technological forces, but by its ability to negotiate values, meanings, and responsibilities across civilizational boundaries.

Further research can expand this dialogue in a more practical direction, such as exploring the application of the idea of “*adab (ta'dib)*” al-Attas and Latour's ecological politics in the development of scientific studies in the contemporary Muslim context, comparative studies of forms of “alternative scientific authority” in various non-Western scientific traditions, and investigations into the possibility of forming a “transcivilizational epistemology” that integrates spiritual values with deliberative principles in the production of scientific knowledge. Through such an approach, epistemological discourse moves beyond purely theoretical reflection, but also a real contribution to social and educational transformation in an increasingly plural and complex world.

REFERENCES

- Al-Attas, Syed Muhammad Naquib. *Islam and Secularism*. Malaysia: International Institute of Islamic Thought and Civilization (ISTAC), 1978.
- . *Islam and Secularism*. Kuala Lumpur: Muslim Youth Movement of Malaysia (ABIM), 1978.
- . *Prolegomena to the Metaphysics of Islam: An Exposition of the Fundamental Elements of the Worldview of Islam*. Kuala Lumpur: ISTAC, 1995.
- . *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education*. Kuala Lumpur: ISTAC, 1980.

- Arifin, Nuhdi Futuhal, and A. Jauhar Fuad. "Dampak Post-Truth di Media Sosial." *Jurnal Intelektual: Jurnal Pendidikan dan Studi Keislaman* 10, no. 3 (2020): 376–378. <https://doi.org/10.33367/ji.v10i3.1430>.
- Arsita, Wina, Eva Dewi, and Selsa Ihza Febriza. "Islamization of Science and the Application of Axiology Related to the Science of Naquib Al-Attas Perspective." *International Journal of Education, Social Studies, and Management (IJESSM)* 4, no. 3 (2025): 1340–1350. <https://doi.org/10.52121/ijessm.v4i3.578>.
- Auni, Azrul Kiromil Enri, and Hermanto Hermanto. "Islamization of Melayu-Nusantara Society Through Language Approach According to Syed Muhammad Naquib Al-Attas." *Khalifa: Journal of Islamic Education* 4, no. 1 (2020): 49–62. <https://doi.org/10.24036/kjie.v4i1.41>.
- Basith, Yudril. "Gagasan Islamisasi Ilmu Pengetahuan Sebagai Pondasi Pendidikan Islam Menurut Syed Muhammad Naquib Al-Attas." *Turats: Jurnal Pendidikan Islam* 17, no. 1 (2024): 19–29. <https://doi.org/10.33558/turats.v17i1.9632>.
- Benetka, Gerhard, and Anna Schor-Tschudnowskaja. "Post-Truth and Scientific Authority." *Cultura & Psyche: Journal of Cultural Psychology* 4 (2023): 133–144. <https://doi.org/10.1007/s43638-023-00076-0>.
- Chandler, David. "Actor Network Theory and Sensing Governance: From Causation to Correlation." *Perspectives on Science* 31, no. 1 (2023): 139–158. https://doi.org/10.1162/posc_a_00584.
- Daud, Wan Mohammad Nor Wan. *The Educational Philosophy and Practice of Syed Muhammad Naquib Al-Attas: An Exposition of the Original Concept of Islamization*. Kuala Lumpur: ISTAC, 1998.
- Duarte, Daniel Edler, Pedro Rolo Benett, and Marcos Cesar Alvarez. "Reconsidering the 'Post-Truth Critique': Scientific Controversies and Pandemic Responses in Brazil." *Social Studies of Science* 0, no. 0 (2025). <https://doi.org/10.1177/03063127251317718>.
- Enroth, Henrik. "Crisis of Authority: The Truth of Post Truth." *International Journal of Politics, Culture, and Society* 36 (2023): 179–195. <https://doi.org/10.1007/s10767-021-09415-6>.

- Eriksen, Thomas Hylland. "Reviewed Work: Down to Earth: Politics in the New Climatic Regime Bruno Latour." *Anthropological Quarterly* 93, no. 2 (2020): 243–248. <https://www.jstor.org/stable/48742636>.
- Fischer, Frank. "Knowledge Politics and Post-Truth in Climate Denial: On the Social Construction of Alternative Facts." *Critical Policy Studies* 13, no. 2 (2019): 133–152. <https://doi.org/10.1080/19460171.2019.1602067>.
- Flatscher, Matthias, and Sergej Seitz. "Latour, Foucault, and Post-Truth: The Role and Function of Critique in the Era of the Truth Crisis." *Le Foucauldien* 6, no. 1 (2020): 1–23. <https://doi.org/10.16995/lefou.83>.
- Friedman, Jeffrey. "Post-Truth and the Epistemological Crisis." Critical Review: A *Journal of Politics and Society* 35, no. 1–2 (2023): 1–21. <https://doi.org/10.1080/08913811.2023.2221502>.
- Haidary, Abdullah Haq Al, Achmad Reza Hutama Al Faruqi, Abbas Shofwan MF, and Rif'at Husnul Maafi. "Islamic Worldview as a Basis for Islamization of Science Concept According to Syed Muhammad Naquib Al-Attas." *Kalam* 18, no. 1 (2024): 19–36. <https://doi.org/10.24042/kalam.v18i1.11457>.
- Hanif, Muh, and Hani Prasetyaningtiyas. "Islamization of Science in the Era of Society 5.0: Study of Al-Attas' Thought." *International Journal of Social Science and Religion* 4, no. 1 (2023): 1–22. <https://doi.org/10.53639/ijssr.v4i1.127>.
- Harman, Graham. "Retroactivity in Science: Latour, Žižek, Kuhn." *Open Philosophy* 7, no. 1 (2024): 20240036. <https://doi.org/10.1515/oppphil-2024-0036>.
- Huringiin, Nabila. "Syed Muhammad Naquib Al-Attas' Critics Toward Secularism." *Akademika: Jurnal Pemikiran Islam* 27, no. 1 (2022): 89–100. <https://doi.org/10.32332/akademika.v27i1.4801>.
- Jannah, Miftahul. "The Islamization Process by Syed Muhammad Naquib Al-Attas and Its Relevance on Islamic Science." *KJIMS: Kawanua International Journal of Multicultural Studies* 3, no. 2 (2022): 57–65. <https://doi.org/10.30984/kijms.v3i2.61>.
- Keiff, Sebastien. "Latour's Discernment Tools in Action: Exploring and Solving Complex Social Problems Through Participatory Methods." *International Journal of Qualitative Methods* 23 (2024). <https://doi.org/10.1177/16094069241286844>.

- Kennedy, Duncan. "Knowledge and The Political: Bruno Latour's Political Epistemology." *Classical Reception and the Political Cultural C*, no. 74 (2010): 83–97. <https://www.jstor.org/stable/40800628>.
- Keyes, Ralph. *The Post-Truth Era: Dishonesty and Deception in Contemporary Life*. New York: St. Martin's Press, 2004.
- Khalili, Khalina Mohammed. "Criticisms on Ontological Relativism of Modern Science by Syed Muhammad Naquib Al-Attas and Seyyed Hossein Nasr." *Al-Shajarah: Journal of the International Institute of Islamic Thought and Civilisation (ISTAC)* 29, no. 1 (2024): 127–152. <https://doi.org/10.31436/shajarah.v29i1.1832>.
- Khan, Nazar. "Shades of Structural Realism in Post-Classical Islamic Thought." *Theology and Science* 21, no. 3 (2023): 376–389. <https://doi.org/10.1080/14746700.2023.2230427>.
- Latour, Bruno. "Can We Get Our Materialism Back, Please?" *Isis* 98, no. 1 (2007): 138–142. <https://www.journals.uchicago.edu/doi/10.1086/512837>.
- . *Down to Earth: Politics in the New Climatic Regime*. Cambridge: Polity Press, 2018.
- . *Facing Gaia: Eight Lectures on the New Climatic Regime*. Cambridge: Polity Press, 2017.
- . *Politics of Nature: How to Bring the Sciences into Democracy*. Trans. C. Porter. Cambridge, MA: Harvard University Press, 2004.
- . *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press, 2005.
- . "Visualisation and Cognition: Drawing Things Together." In *Knowledge and Society: Studies in the Sociology of Culture Past and Present: A Research Annual*, edited by Elizabeth Long and Henrika Kuklick, 6th ed., 1–40. Howard House: JAI Press, 1986.
- . *We Have Never Been Modern*. Trans. C. Porter. Cambridge, MA: Harvard University Press, 1993.
- Lenton, Timothy M., Sébastien Dutreuil, and Bruno Latour. "Gaia as Seen from Within." *Theory, Culture & Society* 41, no. 5 (2024): 69–90. <https://doi.org/10.1177/02632764241275574>.

- Lewandowsky, Stephan, and John Cook. *The Conspiracy Theory Handbook*. Virginia: George Mason University, 2020.
- Lima, Nathan Willig, Pedro Antônio Viana Vazata, Fernanda Ostermann, Claudio José de Holanda Cavalcanti, and Andreia Guerra. “Science Education in Post-Truth Age: Metaphysical Reflections from Bruno Latour’s Science Studies.” *Revista Brasileira de Pesquisa Em Educação Em Ciências* 19 (2019): 155–189. <https://doi.org/10.28976/1984-2686rbpec2019u191224>.
- McIntyre, Lee. *Post-Truth*. Cambridge, MA: MIT Press, 2018.
- Nasution, Ansor. “Syed Muhammad Naquib Al-Attas Syed Muhammad Naquib Al-Attas: Islamization of Knowledge by Developing Genuine Islamic Paradigm.” *Jurnal ISLAMIKA: Islamic Studies Journal* 4, no. 2 (2021): 73–87. <https://doi.org/10.37859/jsi.v4i2.3077>.
- Oreskes, Naomi, and Erik M. Conway. *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*. New York: Bloomsbury Press, 2011.
- Parker, Jonathan. “The Role of Higher Education in the Post-Truth Era.” *Journal of Political Science Education* 20, no. 3 (2024): 391–404. <https://doi.org/10.1080/15512169.2024.2354972>.
- Puspitasari, Eka, and Anas Tri Ridlo Dina Yuliana. “Syed Muhammad Naquib Al-Attas’ Concept of Islamizing Science and Its Relevance to Islamic Education.” *Al-Misbah (Jurnal Islamic Studies)* 10, no. 2 (2022): 91–108. <https://doi.org/10.26555/almisbah.v10i2.6484>.
- Putra, Rido, Ahmad Rivauzi, Nafsan Nafsan, Indil Setiawan, and Lailatul Chomariah. “Strengthening Religious Moderation through the Merdeka Student Exchange Program (PMM) at Padang State University.” *Indonesian Journal of Islamic Religious Education (INJIRE)* 2, no. 2 (2024): 189–202. <https://doi.org/https://doi.org/10.63243/ckxxm790>.
- Schindler, Sebastian. “The Task of Critique in Times of Post-Truth Politics.” *Review of International Studies* 46, no. 3 (2020): 376–394. <https://doi.org/10.1017/S0260210520000091>.
- Sholeh. “Islamisasi Ilmu Pengetahuan (Konsep Pemikiran Ismail Raji Al-Faruqi dan Syed Muhammad Naquib Al-Attas).” *Al-Hikmah: Jurnal Agama dan Ilmu Pengetahuan*

- 14, no. 2 (2017): 209–221. [https://doi.org/10.25299/ahl-hikmah:jaip.2017.vol14\(2\).1029](https://doi.org/10.25299/ahl-hikmah:jaip.2017.vol14(2).1029).
- Stengers, Isabelle. *Cosmopolitics I*. Trans. R. Bononno. Minneapolis: University of Minnesota Press, 2010.
- Strong, S. I. “Alternative Facts and the Post-Truth Society: Meeting the Challenge.” *Penn Law Review Online* 165, no. 1 (2017). https://scholarship.law.upenn.edu/penn_law_review_online/vol165/iss1/14.
- Valladares, Liliana. “Post-Truth and Education.” *Science & Education* 31 (2022): 1311–1337. <https://doi.org/10.1007/s11191-021-00293-0>.
- Vandenabeele, Joke, and Katrien Van Poeck. “Participation and Sustainable Development: A Matter of Public Concern.” In *Learning for Sustainability in Times of Accelerating Change*, edited by Arjen Wals and Peter Blaze Corcoran, 49–62. Wageningen, Netherlands: Wageningen Academic Publishers, 2012. https://doi.org/10.3920/978-90-8686-757-8_02.
- Vaujany, François-Xavier de, and Nathalie Mitev. “Introduction Au Tournant Matériel En Théories Des Organisations.” *Les Théories Des Organisations, Economica*, 2015, 01215557. <https://hal.science/hal-01215557>.
- Vernon, Jamie. “Science in the Post-Truth Era.” *American Scientist* 105, no. 1 (2017): 2. <https://doi.org/10.1511/2017.124.2>.
- Winkelmann, Ricarda, Jonathan F. Donges, E. Keith Smith, Manjana Milkoreit, Christina Eder, Jobst Heitzig, Alexia Katsanidou, Marc Wiedermann, Nico Wunderling, and Timothy M. Lenton. “Social Tipping Processes for Sustainability: An Analytical Framework.” *Earth System Dynamics* 11 (2020): 771–795. <https://doi.org/10.5194/esd-11-771-2020>.
- Yulianto, Rahmad, and Achmad Baihaki. “Islamisasi Ilmu Pengetahuan dalam Perspektif Syed Muhammad Naquib al-Attas.” *Al-Hikmah: Jurnal Studi Agama-agama* 4, no. 1 (2018). <https://doi.org/10.30651/ah.v4i1.2335>.