

EPISTEMIC FAILURE IN HIGHER EDUCATION: A PHILOSOPHICAL CRITIQUE OF THE NONSENSE METHOD

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This manuscript introduces the concept of nonsense methods, a growing epistemic inadequacy in academic research, particularly within higher education. These methods masquerade as legitimate scientific inquiry but lack essential epistemic qualities such as coherence, falsifiability, and empirical grounding. Drawing on the works of Karl Popper, Thomas Kuhn, and Imre Lakatos, the manuscript critiques the persistence of these methods and their role in sustaining institutional pseudoscience. Nonsense methods often rely on conceptual ambiguity and logical fallacies, such as appeals to authority or robustness without proper validation, to evade critical scrutiny. This manuscript argues that the widespread use of nonsense methods is not merely an individual failure, but a systemic issue rooted in institutional incentives that prioritize publication metrics and academic performance over rigorous scientific inquiry. It emphasizes the need for epistemic reform through the application of virtue epistemology and ethical institutional practices to cultivate a culture of intellectual responsibility and epistemic accountability. By proposing these reforms, the manuscript calls for a shift in academic practices, where methods are critically evaluated, and intellectual integrity is upheld. This work contributes to ongoing discussions in the philosophy of science, educational theory, and academic ethics by defining nonsense methods, analyzing their impact, and offering concrete solutions for a more accountable academic system.

Keywords: Academic Integrity, Epistemic Failure, Higher Education, Institutional Critique, Nonsense Methods, Pseudoscience, Virtue Epistemology

INTRODUCTION

In recent years, higher education, particularly within the social sciences, has experienced a significant increase in research output. However, this surge has been accompanied by concerns regarding the epistemic credibility of some studies. For instance, a study by Babalola highlights thematic challenges confronting social science

research, including issues related to replication, theory, and applicability (Babalola and Nwanzu 2021). Similarly, Schoenegger and Pils discuss a structural crisis in the social sciences, proposing the elimination of the discussion section in research papers to address epistemic malfunctions and improve science communication (Schoenegger and Pils 2023). Amid mounting institutional pressures to publish, secure funding, and pursue rankings, there is a growing trend toward methodologies that prioritize superficial innovation over philosophical coherence. A study by Johann indicates that researchers' publication strategies are significantly influenced by perceived pressures to publish and obtain external funding, leading to potential misalignments between research goals and methodological rigor (Johann et al. 2024). Similarly, Meirmans discusses how competition for funding shapes scientific practices, often resulting in unintended negative consequences, including the adoption of methodologies that may lack philosophical coherence (Meirmans 2024).

Far from a rhetorical dismissal, the term *nonsense method* is deployed as a philosophical category that captures a deeper form of epistemic failure. These are not merely weak or flawed methods; they are simulations of inquiry, academic artifacts that adopt the aesthetics of science (hypotheses, data, citations) while evading the substance of scientific justification. They do not satisfy the foundational principles of falsifiability (Popper), puzzle-solving (Kuhn), or progressive theory-building (Lakatos), and yet they often pass peer review and are institutionalized within academic settings.

Traditionally, critiques of pseudoscience have focused on practices external to academia, such as astrology, quantum mysticism, or vaccine denialism (Cortiñas-Rovira et al. 2014; Lilienfeld, Lynn, and Ammirati 2015; ÖNal 2021). However, far less attention has been paid to the internal dynamics of academia that allow pseudoscientific logic to be produced under the guise of methodological legitimacy. In disciplines like education and management, where methodological pluralism is often embraced, the line between diversity and permissiveness becomes dangerously blurred. This Nonsense Method is characterized by its methodological inconsistency and epistemic inadequacy, often masquerading as legitimate scientific inquiry. While it lacks the rigorous foundations of scientific methods—such as falsifiability (Popper), puzzle-solving (Kuhn), and progressive theory-building (Lakatos)—it still manages to gain institutional legitimacy through its aesthetic simulation of scientific inquiry. These methods fail to engage with empirical data meaningfully, instead relying on rhetorical techniques and vague language that protects them from scrutiny, making them difficult to critically assess. Thus, the Nonsense Method is defined not only by what it lacks but also by how it exploits institutional norms to maintain its position, despite offering no substantive contribution to theory-building or problem-solving.

This issue recalls Karl Popper's demarcation criterion: the idea that a scientific theory must be falsifiable (Tukiran 2024; Pires 2018). Yet many academic studies today are carefully constructed to avoid empirical refutation. Using vague terminology, survey instruments without operational clarity, or interpretive frameworks that cannot be tested, these methods protect themselves from scrutiny by what Popper would call *pseudo-empirical shields* (Wettersten 2007). Thomas Kuhn's notion of paradigms further elucidates how such methods may gain acceptance. Rather than engaging in anomaly-driven puzzle-solving, many studies today conform to institutionalized templates and

discursive norms, even when their claims fail to advance any coherent scientific program (Fadilah et al. 2023; Hansson 2008). As anomalies are systematically normalized or conveniently ignored, such academic fields risk entering a phase of "paradigm drift" rather than genuine scientific progression. Imre Lakatos's sophisticated model of scientific research programs provides an even sharper, more incisive critique of traditional scientific methodologies. In his seminal work, *Criticism and the Methodology of Scientific Research Programmes*, Lakatos introduces the concept of research programmes, which consist of a 'hard core' of central assumptions and a 'protective belt' of auxiliary hypotheses. He argues that scientific progress occurs when a research programme demonstrates empirical and theoretical progress, rather than through the falsification of individual theories. This framework allows for a more nuanced understanding of scientific development, accommodating the complexities observed in actual scientific practice (Lakatos 1970). In stark contrast to progressive research programs that consistently yield novel predictions, nonsense methods function as degenerative programs that heavily rely on rhetorical inflation and superficial stylistic novelty to mask profound theoretical stagnation (Firmansyah, Rosmansyah, and Mahayana 2024).

In addition to the traditional ideas of epistemology, recent philosophical research has looked closely at how postmodern relativism unintentionally supports the use of nonsensical methods. Postmodernism is important for critiquing how power works and how knowledge is made, but it can also turn into a kind of epistemic permissiveness when it completely rejects objective standards (Andrade 2019). These kinds of views may unintentionally make it easier for methods that are methodologically inconsistent to rise to the top, as they can easily hide behind the broad idea of cultural or ideological pluralism. For instance, qualitative research methods that prioritize subjective interpretation without clear operational definitions, such as narrative inquiry or autoethnography, can often be seen as more 'inclusive' but may lack the rigorous epistemic grounding that other methods, such as experimental research or quantitative surveys, provide. Similarly, postmodern approaches that reject empirical validation, such as some strands of deconstructionist theory or critical theory, may flourish within academic discourse by invoking ideological pluralism and cultural relativism, but they risk undermining the methodological coherence required for genuine scientific inquiry. Broadbent's important work on medical epistemology makes it very clear that there is a significant distinction between genuine scientific inquiry and pseudoscientific belief systems. In his book *Philosophy of Medicine*, Broadbent argues that medicine is fundamentally an inquiry into the nature and causes of health and disease, aimed at cure and prevention. He emphasizes that practices like 'quantum healing'—which misapply concepts from quantum mechanics to health claims—lack empirical support and do not adhere to the rigorous standards of scientific methodology. Broadbent's critique highlights the necessity for medical practices to be grounded in evidence and to contribute meaningfully to our understanding of health and disease (Mebius 2020). This difference must be carefully drawn, not just based on the content but also on the way the inquiry is set up. Broadbent builds on human skepticism to stress the need for evidence-based reasoning to tell the difference between rational criticism and unfounded faith. In the same way, we need to draw a line between critical, pluralistic inquiry and practices in academia that completely ignore empirical standards (Mebius 2020). For example, the

use of autoethnography in educational research often emphasizes personal narrative over empirical data, leading to concerns about its scientific rigor. Similarly, certain postmodern critiques in management studies, while valuable for exploring power dynamics, sometimes de-emphasize empirical validation, raising questions about their methodological consistency.

Carnap and Wittgenstein, as discussed by Werner, further complicate this picture. For them, *nonsense* may at times be revelatory, forcing philosophy to confront the limits of language and representation (Werner 2020). However, such engagements with nonsense are philosophically disciplined and contextually grounded, unlike the academic hyperreality produced by many institutionalized nonsense methods today (Baudrillard and Glaser 1994). For instance, some interdisciplinary approaches in educational research, while attempting to integrate various fields, may become overly abstract, offering little practical or empirical insight. Similarly, the use of big data analytics in management studies sometimes results in methodological inflation, where the sheer volume of data obscures the lack of a clear theoretical framework, leading to conclusions that are not grounded in rigorous scientific analysis. Wittgenstein's emphasis on language games and the social construction of meaning suggests that even nonsensical-seeming practices may possess contextual intelligibility (Lawson-Frost 2017). Yet this does not mean all practices are epistemically valid. We must be able to distinguish between contextual meaning and scientific justification, lest we reduce all claims to mere linguistic performances.

This study seeks to address the following core questions:

1. What constitutes a nonsense method as distinct from weak research or legitimate methodological diversity?
2. How do these methods relate to major philosophical models of scientific knowledge?
3. What institutional and ethical structures sustain such methods in contemporary academia?
4. How has relativist philosophy enabled their rise?
5. What strategies can we adopt to restore epistemic integrity in academic practices while avoiding the extremes of scientism or dogmatism?

By exploring the nonsense method as a philosophical and institutional phenomenon, this paper advances a novel typology of institutionalized pseudoscience. It builds on the legacy of Popper, Kuhn, and Lakatos, while integrating insights from postmodern critique, epistemic virtue theory, and language philosophy. The ultimate goal is to propose a reformative epistemology that affirms methodological diversity while restoring the norms of coherence, falsifiability, and public accountability.

DEFINING NONSENSE METHODS

A nonsense method is an approach that simulates scientific rigor by using formal academic structures, such as data presentation, terminology, and models, but lacks epistemic commitment to the core principles of scientific inquiry. It avoids genuine empirical scrutiny by relying on rhetorical strategies that mask its lack of substantive contribution to knowledge. These methods often evade critical evaluation by

presenting themselves as robust or universally applicable, despite lacking empirical or theoretical justification.

The delineation of what constitutes a nonsense method requires conceptual precision. Unlike pseudoscience, which is often characterized by its rejection of empirical evidence or uncritical reliance on supernatural claims, the nonsense method operates within the aesthetic structure of science, employing its terminologies, formats, and rhetorical strategies without adhering to its epistemic commitments. For example, methodologies like 'quantum healing' or spiritual therapies often adopt scientific language, such as references to 'energy fields' or 'quantum states', but lack empirical evidence and testability. Similarly, some management studies that use complexity theory or systems thinking may employ sophisticated terminology like 'emergent behavior' or 'nonlinear dynamics', but often fail to ground these concepts in rigorous empirical research, thus simulating scientific inquiry without contributing to real knowledge. In this part, we use ideas from classical epistemology, linguistic analysis, and modern thoughts on the legitimacy of methods to come up with a philosophical definition of nonsense methods.

From our point of view, a nonsense method is a very advanced form of epistemic simulation. It carefully copies the outside form of scientific inquiry by using hypothesis statements, putting data in tables, and citing existing literature. However, it always fails to produce knowledge that meets the strict standards of falsifiability, conceptual clarity, and logical coherence. These methods are not just wrong; they are fundamentally incompatible with the main goals of seeking the truth. They often cannot be proven wrong by facts, are based on vague or unclear language, and are supported more by long-standing institutional practices than by real critical validation.

This idea is very similar to Jean Baudrillard's famous idea of simulacra representations, which are hyperreal objects that don't have real referents but still work as if they do, without needing any real proof (Baudrillard and Glaser 1994). In academic settings, nonsense methods are very similar to this hyperreality. They go around as seemingly legitimate research artifacts, often showing up in very reputable journals, but they don't really help make real knowledge. For example, a study by Cortiñas-Rovira *et al.* shows how pseudoscientific methods, particularly in the social sciences, continue to be published in top-tier journals despite lacking empirical rigor (Cortiñas-Rovira *et al.* 2014). These studies demonstrate how such methods can be institutionalized within academic systems, where publication pressure and prestige often outweigh methodological integrity.

Also, Alex Broadbent's inquiry thesis in the philosophy of medicine gives us a very useful way to compare things. Broadbent carefully separates real medical traditions, which are based on evidence-based reasoning, from other practices, like quantum healing or miracle-based therapies, that are based on non-scientific ways of explaining things. In both cases, the key difference is whether a practice really wants to do rational inquiry or just copies the surface level of inquiry (Mebius 2020). Likewise, the nonsense method in academic research does not always deny the existence of standards; rather, it subverts them by pretending to engage with them superficially. For instance, a study by Bøe *et al.* discusses how certain qualitative research practices, while appearing methodologically sound, often lack genuine empirical grounding and instead rely on superficial engagement with established

standards. These practices may employ complex terminologies and frameworks that mimic scientific rigor but fail to contribute substantively to knowledge advancement (Bøe, Larsen, and Topor 2019).

To understand how such methods are produced and perpetuated, we must draw on the philosophy of language, particularly the later work of Ludwig Wittgenstein. Wittgenstein's concept of language games emphasizes the role of context and social practice in shaping meaning (Lawson-Frost 2017). Within this framework, some research that appears nonsensical by scientific standards may nonetheless function meaningfully within specific academic communities. This does not, however, absolve them of epistemic responsibility. While Wittgenstein's work encourages us to take context seriously, it also requires us to ask what standards a community uses to validate claims. When those standards are internally incoherent or isolated from empirical critique, they become part of an epistemically closed language game.

The history of analytic philosophy also shows that there are always tensions between the ideas of nonsense and meaning. Rudolf Carnap and the early Wittgenstein said that logical syntax was the most important way to tell meaningful statements from meaningless ones. This meant that they thought metaphysical statements that couldn't be proven through experience were nonsense. But as Werner wisely points out, post-Wittgensteinian philosophy recognizes that nonsense can serve two purposes: it can mean philosophical confusion, or it can be a powerful challenge to think more clearly about the limits of meaning (Werner 2020). In this more nuanced way, nonsense can be a philosophical threshold, a clear sign that we've crossed into a realm where established rules of knowledge start to fall apart.

So, to tell the difference between methods that are just plain wrong and methods that are useful but controversial, we need to look at more than just their content. We also need to look at their epistemic orientation. If a method clearly helps a research program make sense, it might still be valid even if it gives vague or unclear results. On the other hand, a nonsense method is one that doesn't take epistemic responsibility and avoids legitimate criticism by using vague language, uncritical appeals to authority, or just institutional support instead of strong rational discourse.

This diagnostic lens is further sharpened by the work of Boudry and Braeckman, who introduce the concept of immunizing strategies. In pseudoscience, these strategies are used to protect beliefs from refutation by shifting goalposts or redefining terms (Boudry and Braeckman 2010). Nonsense methods often adopt similar strategies, though more subtly: they couch incoherent claims in technical jargon, invoke philosophical pluralism to evade critique, or rely on interdisciplinary ambiguity to obscure the absence of methodological rigor.

Yet not all engagement with ambiguity should be dismissed. As Canali, Shan, and Williamson emphasize, the transfer of concepts across disciplines, particularly in cases of scientific change and epistemic pluralism, can generate new forms of understanding. What appears nonsensical in one domain may be illuminating in another, provided it is contextually reinterpreted and subjected to epistemic scrutiny. Thus, nonsense methods must be judged not by their unfamiliarity or innovativeness, but by whether they invite or resist critical evaluation (Canali 2022; Shan and Williamson 2021).

In this light, the distinction between nonsense methods and traditional pseudoscience becomes clearer. Pseudoscience tends to reject epistemic standards outright, often embracing anecdotal evidence or supernatural explanations. Nonsense methods, by contrast, simulate compliance with epistemic norms while subverting their logic from within. They participate in scholarly discourse not to contribute meaningfully, but to sustain institutional visibility. Wittgenstein's rejection of radical skepticism reminds us that meaningful conversation can't be based on endless doubt; it has to be based on shared ways of living and doing things (Lawson-Frost 2017). Nonsense methods blatantly break this trust by using shared academic language in a way that completely cuts it off from its real epistemic purpose. They break the social contract of inquiry not by being open about it, but by pretending to be something they are not. For instance, studies published in predatory journals often employ sophisticated academic jargon and formatting to mimic legitimate research. However, these studies typically lack rigorous peer review and empirical validity, rendering them epistemically hollow. Such practices undermine the integrity of academic discourse by presenting pseudo-scientific content as credible scholarship (Björk, Kanto-Karvonen, and Harviainen 2020).

The nonsense method is best described as an epistemically incoherent practice that carefully mimics the structure of scientific reasoning while intentionally avoiding its main purpose. It avoids criticism not by outright denying it, but by using stylistic legitimacy in a smart way. For example, in some fields of management research, methodological frameworks like “cost and benefit analysis” are often used without a clear empirical foundation. These frameworks are presented with complex diagrams and references to established theories, but they often lack rigorous testing or data validation. The use of such methods creates an illusion of scientific rigor while masking the absence of a substantial contribution to knowledge. It avoids criticism not by outright denying it, but by using stylistic legitimacy in a smart way. Because of this, it needs a philosophical response that is both diagnostic and reformative, as well as a concerted effort to bring institutional practices in line with the necessary standards of rational inquiry.

EPISTEMIC ARCHITECTURE AND THE DEMARCATION PROBLEM

To understand nonsense methods as a separate group in the epistemology of science, we need to look beyond their surface features like vagueness, ambiguity, or rhetorical excess and focus on their deeper epistemic structure. Traditional pseudoscience is easy to spot because it is based on unscientific ideas or relies heavily on anecdotal evidence. Nonsense methods, on the other hand, are often deeply ingrained in academic institutions and gain legitimacy by taking on the formal characteristics of academic work. Research that uses complex jargon or ambiguous models, but fails to contribute new knowledge or empirical validation, often finds institutional support through its superficial alignment with established academic structures and expectations, particularly in areas with methodological pluralism like social sciences (Pollock et al. 2024). This part goes into great detail about how these kinds of methods work in terms of knowledge, looking at how they relate to rational criticism, empirical evidence, interdisciplinary discourse, and methodological integrity.

Boudry and Braeckman talk about "immunizing strategies," which are tactics used on purpose to protect a belief system from being proven wrong by facts or challenged by reason (Boudry and Braeckman 2010). These strategies are not just used in pseudoscience; they can also be seen in advanced academic writing when methods are set up in ways that make them hard to criticize. In the case of nonsense methods, immunization strategies often appear as excessive abstraction, deliberately vague language, or uncritical appeals to epistemic relativism. For example, a researcher might claim that their construct is 'not intended for empirical measurement,' or that their method is 'exploratory' without providing a clear definition of what constitutes genuine insight. These approaches do not align with the core principles of academic research—such as empirical testing and logical coherence—but instead use the language of academic methods to avoid scrutiny. While these methods may appear to comply with existing academic norms, they lack a commitment to epistemic truth. They protect themselves from critique not through solid evidence or reasoning, but through discursive positioning. This allows nonsense methods to function as epistemic fortresses, not because they are rigorous or valid, but because they are designed to be unreadable or untestable, thus evading meaningful evaluation.

Canali (2022) argues that the transfer of concepts across disciplines can prompt genuine scientific change, particularly when ideas are adapted, translated, and interrogated within new epistemic frameworks (Canali 2022). Similarly, Shan and Williamson (2021) emphasize epistemic pluralism as a virtue of interdisciplinary research, provided it fosters constructive tension rather than conceptual incoherence. Nonsense methods often mimic this interdisciplinary movement but without epistemic discipline. They borrow terms such as "strategy," "modelling," or "optimal solution" from other fields and deploy them metaphorically, without clarifying their operational meaning in the new context. This gives the illusion of depth and innovation, while actually undermining conceptual clarity. Unlike true interdisciplinary inquiry, which opens itself to scrutiny from multiple domains and embraces critical evaluation, nonsense methods thrive on conceptual ambiguity that intentionally obstructs verification. It is important to clarify that not all research that evades critique or is not easily falsifiable falls under the category of nonsense methods. True interdisciplinary work may involve complex, evolving concepts that are difficult to measure or test immediately, but it remains open to scrutiny and re-evaluation over time. In contrast, nonsense methods intentionally avoid scrutiny by using vague or imprecise language, deliberately framing their constructs in a way that prevents meaningful testing or falsification. These methods mimic scholarly practices without adhering to their fundamental epistemic commitments, thereby subverting the very essence of research aimed at advancing knowledge.

Yet it would be misleading to dismiss all unconventional or non-traditional methodologies as nonsense. As Broadbent has shown in the philosophy of medicine, some healing systems that incorporate ritual, faith, or community belief may still operate within rational inquiry if they are open to evidence-based evaluation. Broadbent's distinction between inquiry-oriented and superstition-based practices suggests that what matters is not the method's cultural origin or surface appearance, but its epistemic intent (Mebius 2020). Similarly, a method in social science or education that draws on narrative or indigenous knowledge is not inherently

nonsensical if it remains open to critique and adaptation based on empirical evidence and sound reasoning. Such methods are valuable when they engage with the broader academic discourse and evolve in response to valid challenges. However, it becomes problematic, or nonsense, when these methods use cultural pluralism or philosophical pluralism as a defense mechanism to evade critical evaluation. A 'reasoned challenge' refers to criticism grounded in logical analysis, empirical data, and sound theoretical reasoning, rather than dismissing critique simply on the basis of ideological or cultural differences. For example, invoking indigenous knowledge as an unquestionable authority without allowing it to be tested or adapted to evolving scholarly frameworks hinders its constructive application in research.

Philosophically, the tension between sense and nonsense has deep roots. Wittgenstein, Carnap, and other logical positivists emphasized verification and logical structure as the boundary between meaningful and nonsensical statements. As Werner (2020) points out, however, later philosophy recognizes that not all nonsense is epistemically empty. Sometimes it marks the limits of language, signaling the need for conceptual renewal. In this sense, nonsense can serve a clarifying function forcing scholars to confront their assumptions.

The issue emerges when nonsense methods are systematically perpetuated within academic institutions without critical examination or reflection on their epistemic validity. What Wittgenstein viewed as a tool for philosophical self-correction becomes, in contemporary academia, a vehicle for professional advancement. The distinction is no longer between sense and nonsense in the abstract, but between epistemically productive and epistemically inert practices. In this respect, nonsense methods are not philosophical provocations; they are methodological evasions. In fields such as medical research, epistemic complexity is a known challenge. Boniolo and Campaner (2019), examining cancer research, show how integrating multiple epistemic levels, molecular, clinical, psychological requires both methodological flexibility and philosophical clarity. This model provides a valuable analogy: complexity does not excuse epistemic sloppiness; rather, it necessitates greater rigor in justifying methodological choices.

Nonsense methods, conversely, frequently invoke complexity as a pretext to avoid precision. Instead of articulating how their methods genuinely relate to the phenomenon under investigation, they seek refuge behind the rhetoric of systems theory, emergence, or nonlinearity, without offering any operational clarity. This isn't complexity as epistemic richness; it is complexity as a way to hide ideas. Still, the lesson from Boniolo and Campaner (2019) is still useful: interdisciplinary or nonlinear approaches can work if they are clear about their epistemic assumptions and are open to criticism. Not because they are unusual, but because they are fundamentally unaccountable, nonsense methods fail.

LOGICAL FALLACIES AND THE STRUCTURE OF NONSENSE

While the epistemic architecture of nonsense methods demonstrates their structural incoherence, a more detailed critique can be made by examining the frequent use of logical fallacies within these methods. These fallacies are not merely incidental

errors; they often constitute central components of the rhetorical strategies employed to create an illusion of credibility. For instance, in social science research, the *post hoc ergo propter hoc* fallacy is commonly used, where a correlation between two events is mistakenly interpreted as causation. An example of this fallacy is when researchers claim that an increase in student workload directly causes higher dropout rates, without considering other contributing factors such as mental health issues or financial constraint. Another prevalent fallacy is *hasty generalization*, where conclusions are drawn from insufficient or unrepresentative data. For example, a study might generalize the effectiveness of a teaching method based on a small, non-diverse sample of students, thereby misleadingly presenting it as universally applicable. These logical missteps are strategically employed to shield the research from critical scrutiny, thereby undermining the integrity of academic inquiry. This part lists some common mistakes that often show up in nonsense methods and shows in detail how they undermine rational inquiry while pretending to be academically legitimate.

One of the most common mistakes in nonsense methods is the *appeal to authority*. This fallacy occurs when the validity of a claim is based not on strong evidence or sound reasoning, but on the proponent's prestige, reputation, or credentials. This tactic is frequently used in pseudoscientific or fringe practices that rely heavily on testimonials from well-known figures in medicine, science, or academia (Stegenga 2023). In nonsense methods, famous thinkers are often cited out of context to lend weight to weak arguments, thus protecting them from legitimate critique. For example, using thinkers like Foucault or Derrida to support vague claims about 'knowledge regimes' without clarifying their meaning does not enhance the epistemic strength of the argument but instead acts as an attempt to borrow authority and obscure the lack of logical coherence as shown in Table 1.

Example of Nonsense Method	Appeal to Authority Used	Explanation of Misuse
Quantum Healing	Claims from well-known physicists without empirical support	Uses terms from physics to support unproven health practices without scientific validity.
Educational Theories (using Derrida/Foucault)	References to Foucault or Derrida to support vague claims about "knowledge regimes"	These philosophers' ideas are used out of context, without clear application or definition.
Alternative Medicine (e.g., Homeopathy)	Testimonials from famous individuals or celebrities	Relies on authority figures to validate practices that are not scientifically proven.

Table 1: Appeal to Authority in Nonsense Methods

The *fallacy of ambiguity* is another common mistake. It happens when a term is used in a way that is not clear or consistent. This often means semantic drift, which is when the meaning of a concept changes slightly in different parts of an argument, making it seem like the argument is coherent when it is not. Hadorn shows how these kinds of vague terms can make public policy debates a lot harder to understand, especially when important words like "impact" or "sustainability" do not have clear definitions that everyone agrees on. In the world of nonsensical methods, this kind of widespread uncertainty lets researchers seem strict while skillfully avoiding accuracy. People often use words like "synergy," "paradigm shift," or "transformative learning" without explaining them well enough. This makes it hard to prove them wrong because they can switch between metaphor and concrete claim without anyone noticing (Hadorn 2021).

The *fallacy of composition* says that if something is true for a part, it must also be true for the whole. This is also employed by nonsensical methods. When talking about inferential robustness in biology, Justus warns against making broad theoretical claims based on a small number of findings without enough empirical support (Justus 2012). In educational or social science research, this fallacy often appears in claims such as, "Because the researcher conducted an analysis of the influencing indicators (factor analysis), he claims that a strategy to address the research problem has been found." Such reasoning ignores variability and fails to engage with contradictory evidence. It creates a narrative of success based on anecdotal or partial data, presented as universalizable fact.

A subtler but no less dangerous fallacy is the *non sequitur* drawing a conclusion that does not logically follow from the premises. Lawson-Frost highlights this in ethical discourse, where researchers often leap from descriptive premises to normative conclusions without justification (Justus 2012). In nonsense methods, this fallacy manifests in conclusions like, "This model improves teachers' empowerment, so it must be philosophically sound." The inference from pedagogical efficacy to epistemic validity is not logically warranted unless supported by rigorous argumentation. Without this, the method appears persuasive but collapses under scrutiny.

Another critical fallacy is *appeal to ignorance*, where a claim is deemed true simply because it has not been disproven. Pigliucci and Boudr argue that this fallacy undermines the burden of proof and permits dubious claims to gain traction in scientific discourse (Pigliucci and Boudry 2013). In the nonsense method, this often takes the form of: "The researcher got this theoretical model from the results of the interview; therefore, it is valid as a hypothesis to be proven." Such reasoning shifts the epistemic burden from a strong theoretical model based on grand theory, legitimizing untested or unfalsifiable methods on the pretext that this model has been used by previous students. This method often exploits the gray area of early-stage research to avoid epistemic accountability which clearly violates the scientific approach that has been agreed upon in the academic and research world.

Closely related to ambiguity is the *fallacy of equivocation*, where a term is used in multiple senses within the same argument, usually without disclosure. Fillion discusses how scientific discourse demands semantic precision, especially when it comes to translating concepts across disciplinary boundaries (Fillion 2021). Equivocation in nonsense methods often occurs with scientific terms such as

“strategy,” “optimal solution,” or “modeling,” which are stripped of their technical meanings and used metaphorically. This gives the terms a false sense of scientific legitimacy by separating them from their real-world meanings. This makes the conceptual space bigger without adding any new knowledge.

It is common to misapply robustness as a means to prove that a method works in all situations. People often argue that if a method is robust, it is universally valid, but this can conceal underlying issues if not carefully examined. Stegenga cautions that robustness should not replace a careful assessment of the plausibility of a mechanism or the diversity of supporting evidence (Stegenga 2009). In many cases, the *false dilemma fallacy* is used alongside robustness, where a method is presented as either robust or invalid, disregarding other critical possibilities such as methodological incompleteness, conceptual ambiguity, or domain-specific limitations. This oversimplified, black-and-white reasoning prevents a nuanced analysis of the method's true effectiveness and contributes to the perpetuation of nonsense methods. Importantly, while robustness is a valuable characteristic, it is not an infallible safeguard. Without a clear and thorough justification of its underlying assumptions and empirical foundation, a method may still fail to provide reliable or meaningful results, despite appearing robust on the surface.

The logical errors built into nonsense methods serve a specific rhetorical purpose: to make things seem coherent, cleverly avoid criticism, and gain institutional legitimacy without permission. These common patterns, which range from appeals to authority and ambiguity to fallacies of composition and non sequitur, show how arguments that seem well-structured can actually undermine epistemic rigor. By carefully pointing out these mistakes, we can better tell the difference between real inquiry and methodological simulation. This shows how institutional norms may unknowingly support bad reasoning.

INTELLECTUAL VIRTUE AND EPISTEMIC FAILURE

The persistence of nonsense methods in academic research is not merely a technical issue but also a profound moral and intellectual concern. This phenomenon reflects a significant epistemic failure—it's not just about the misuse of methods but also about the underlying attitudes and dispositions of those engaged in scholarly inquiry. As highlighted by virtue epistemologists, such as Ernest Sosa (1991), the cultivation of intellectual virtues like intellectual courage, open-mindedness, and intellectual humility is essential for genuine knowledge acquisition and the avoidance of epistemic pitfalls. These virtues enable researchers to engage critically with their methods, question assumptions, and remain open to alternative perspectives, thereby fostering a more robust and reflective academic practice.

Virtue epistemology fundamentally shifts the focus of epistemic evaluation from the abstract structure of arguments to the concrete traits and dispositions of epistemic agents. Intellectual virtues such as open-mindedness, intellectual curiosity, courage, and epistemic humility are not merely desirable personal qualities; they are, in fact, indispensable for navigating epistemic complexity, effectively resisting cognitive biases, and diligently pursuing truth.

Kotzee emphasizes the role of intellectual character education in shaping responsible knowers. These virtues are not innate; they are cultivated through disciplined engagement with inquiry, particularly in academic environments. Kotzee argues that in the absence of intellectual virtues, researchers often resort to methodological shortcuts, rhetorical inflation, or even the adoption of nonsense methods as a way of surviving in a professional environment that prioritizes productivity over epistemic rigor. As Kotzee notes, “in the absence of such virtues, researchers may resort to methodological shortcuts, rhetorical inflation, or the adoption of nonsense methods as a form of professional survival” (Kotzee 2018).

Mihai (2019) further suggests that epistemic responsibility is not merely individual but collective. Institutions must foster a culture that encourages ethical reasoning, critical dialogue, and intellectual curiosity, rather than one that rewards superficial productivity. Ideally, research communities should aim to create a culture that is both ethically encouraging and intellectually and financially rewarding, where meaningful contributions to knowledge are incentivized alongside financial support for rigorous inquiry. When institutions prioritize mere output over true understanding, they incentivize epistemic vices such as complacency, arrogance, and dogmatism.

Battaly (2017) identifies intellectual perseverance as a central virtue in confronting epistemic difficulty. Genuine inquiry often involves resisting easy answers, embracing ambiguity, and enduring uncertainty. Nonsense methods, by contrast, offer premature closure. They present complex issues in simplistic terms, delivering clean results that evade the friction of rigorous thinking. Hayward (2019) expands this perspective by delineating three duties of epistemic diligence: the responsibility to pursue knowledge, the responsibility to critically assess it, and the responsibility to acknowledge its limits. Nonsense methods frequently violate all three. They eschew diligent pursuit in favor of expediency; they avoid critical assessment by appealing to abstraction; and they disregard epistemic limits by presenting overreaching claims.

Diligence, then, is not only a work ethic it is a moral orientation toward the care of knowledge. To be epistemically diligent is to be answerable not only to disciplinary norms, but to the broader ethical demands of intellectual life. If nonsense methods represent a failure of epistemic character, then education must take on the task of character formation. Baehr argues that the primary aim of education should be the development of intellectual character virtues. This includes not only teaching students how to analyze arguments, but cultivating in them a respect for evidence, a habit of self-scrutiny, and a commitment to truth-seeking (Baehr 2013). In this context, intellectual virtue is not an “add-on” to being able to complete research at the doctoral level; it is fundamental to any serious conception of learning. When the imperative to research at the doctoral level focuses only on skills, competence, or “publishable results,” doctoral education risks producing technically competent researchers who lack the virtues necessary for epistemic responsibility.

Pritchard (2020) highlights the importance of intellectual humility, the recognition of the limits of one's knowledge and the willingness to revise beliefs in light of better evidence. This quality is especially important in interdisciplinary research, where ideas from one field may not easily apply to another. Researchers often use silly methods when they don't realize their own conceptual blind spots or think

their chosen frameworks can explain things much better than they really can. Being epistemically humble does not mean being intellectually lazy or uncritical of other people's views. Instead, it calls for careful critical engagement, along with a measured level of confidence and a deep understanding that knowledge is always temporary, shaped by its context, and open to change. Without this kind of humility, research becomes a show instead of a real investigation, simply confirming institutional scripts instead of bravely questioning them.

SCIENTIFIC LEGITIMACY REVISITED: POPPER, KUHN, AND LAKATOS

When looked at closely through the major philosophical frameworks of 20th-century philosophy of science, especially those put forth by Karl Popper, Thomas Kuhn, and Imre Lakatos, the idea that nonsense methods are serious epistemic failures becomes clearer and more complex. Each of these important philosophers offers a different and interesting way to tell the difference between real scientific research and claims that are not scientific or are not scientific at all. Together, their ideas provide a strong way to analyze how nonsensical methods work in real life and, most importantly, why they continue to exist in modern academic settings.

Popper and the Criterion of Falsifiability

One of the most important and well-known rules for what makes science legitimate is Karl Popper's idea of falsifiability. Popper believed that the most important thing about a scientific theory is that it can be proven wrong by real-world evidence. If you can't prove a theory wrong with observable evidence, then it doesn't belong in the realm of empirical science; it belongs in metaphysics or ideology (Rubin 2025).

A lot of the time, and in a big way, nonsense methods go against this basic rule. They use words that are purposely vague, ideas that cannot be put into practice, and research designs that cannot possibly give evidence that goes against their claims. Maxwell points out that these kinds of methods cleverly avoid being tested by using circular reasoning or vague statements. Wettersten calls this the strategic use of pseudo-empirical shields, which are conceptual structures that keep claims from being thoroughly examined while giving the impression of scientific rigor (Maxwell 2021; Wettersten 2007).

Popper's standard is very important, but it does have some flaws. Holtz and Monnerjahn (2017) make an important difference between potential falsifiability and actual falsification. They point out that even theories that seem to be able to be tested may not be able to be tested properly because of bad methods, entrenched disciplinary norms, or widespread publication bias. In this case, nonsense methods cleverly take advantage of the flaws in Popperian logic that exist in institutions. They make claims that seem to be able to be proven wrong, but they are never really challenged or put through rigorous empirical testing.

Kubiak and Kawalec (2021) build on this criticism by showing how epistemic and cognitive values can unintentionally skew inference, even in situations where falsifiability is theoretically possible. A method may meet the formal criteria for refutation, but if the evidential environment is poorly structured, it may still lead to research that is misleading or harmful. So, just having the ability to be proven wrong does not mean that you will always be right. Even so, Popper's framework is still very useful for figuring out exactly how shallow methods are that try to avoid empirical confrontation while also using the rhetorical power and prestige of scientific discourse.

Kuhn and the Function of Paradigms

The *Structure of Scientific Revolutions* by Thomas Kuhn is a very detailed book that explains his influential paradigm theory. It gives a more sociological and historical view of scientific knowledge. Kuhn says that science does not move forward by adding more facts in a straight line. Instead, it moves forward through paradigm shifts, which happen when a new way of thinking completely replaces an old one after a time of crisis and intellectual upheaval (Kuhn and Hacking 2012).

There are two ways to look at nonsense methods in this Kuhnian model. First, they could be immature paradigms or new ideas that have not been fully developed yet and still do not have strong conceptual coherence or empirical support. Second, and maybe more importantly, they could be a sign of paradigm ossification, which is when academic communities stick to old ways of doing things that do not really give them new insights but are kept up for institutional or rhetorical reasons.

Kuhn's insight into anomaly tolerance is particularly relevant. During "normal science," researchers often accommodate anomalies rather than discard the paradigm (Kuhn and Hacking 2012). This tolerance allows flawed or incoherent methods to persist, especially when they are institutionally embedded or supported by prevailing trends. The nonsense method survives because there is no shared sense of crisis, even when anomalies abound.

Battaly (2017), applying virtue epistemology to scientific practice, reminds us that the durability of a paradigm depends not just on coherence, but on the intellectual character of the scientific community. When epistemic virtues are lacking, anomalies are rationalized rather than interrogated, and nonsense becomes normalized.

Lakatos and the Problem of Degeneration

Imre Lakatos extends and refines both Popper and Kuhn with his concept of scientific research programs, which consist of a "hard core" of central assumptions surrounded by a "protective belt" of auxiliary hypotheses. A progressive program predicts novel facts and explains anomalies; a degenerative program simply adjusts to accommodate failure without generating new insight (Lakatos 1978).

Nonsense methods exemplify degenerative programs. They maintain theoretical commitments through ad hoc modifications, obscure their failures through jargon, and shift emphasis from explanatory power to discursive performance. They do not

produce new predictions, nor do they revise their core assumptions in response to critique.

Lakatos's distinction is especially helpful for understanding why such methods endure. They are not eliminated because they adapt rhetorically, even as they contribute little to the empirical or conceptual landscape. Baehr and Battaly say that the continued use of these methods is a failure of both epistemic character and epistemic structure. The researchers may not have the intellectual courage or humility to stop following unproductive paths (Baehr 2013; Battaly 2017). In fields where new ideas are being seen as more important than being right or making sense, degenerative programs can last forever.

INSTITUTIONAL PSEUDOSCIENCE AND ACADEMIC SIMULATION

To effectively criticize the widespread use of nonsensical methods, we first need to clearly establish their fundamental characteristics. These characteristics—such as conceptual ambiguity, lack of empirical validation, and resistance to critique—serve as key indicators for recognizing the presence of these methods. Once these traits are defined, we can better understand how such methods fit into the larger academic system. These methods are not arbitrary; they are perpetuated by deeply rooted structural, cultural, and epistemic forces within academia. This section argues that nonsense methods function as a form of institutional pseudoscience, not only pervasive in universities but also deeply embedded in their research practices, evaluation systems, and teaching cultures.

Pseudoscience is commonly described as a belief system that reject the scientific method, relies heavily on personal anecdotes as evidence, or makes claims that cannot be tested. Examples include astrology, homeopathy, and various conspiracy theories. However, nonsense methods push this boundary. They do not directly oppose scientific norms; rather, they behave as if they do. Research findings by Smaldino and McElreath (2016) show that publication pressures can drive the adoption of improper methods that, although appearing scientifically valid, actually increase the likelihood of false positive findings. They appear in peer-reviewed journals, fulfill formal publication criteria, and often receive institutional funding. Yet epistemically, they are indistinguishable from pseudoscience. Their claims cannot be falsified, their logic is circular, and their concepts remain undefined. What distinguishes them is not their content, but their context of legitimacy. This condition invites a shift in focus from the epistemic failings of individuals to the systemic habits of institutions. When epistemic failure becomes normalized within academic systems, we are no longer dealing with isolated pseudoscience. Instead, we are confronting a deeper phenomenon: *institutional pseudoscience*. Studies have shown that certain academic systems, particularly in high-pressure environments, foster an ecosystem where methodological rigor is often sacrificed in favor of publication metrics and institutional prestige. For example, research by Julia Heuritsch discusses how publication pressure explains 19% of the variance in the occurrence of misconduct and between 7% and 13% of the variance of the perception of distributive and organizational justice, as well as overcommitment to work. The perceived impact of scientific misconduct on research

quality shows that the epistemic harm of questionable research practices should not be underestimated (Heuritsch 2021). Similarly, Wayt Gibbs (1995) highlights that many researchers in the developing world feel trapped in a vicious circle of neglect and—some say—prejudice by publishing barriers they claim doom good science to oblivion. These systemic failures are not limited to isolated cases but are embedded within the institutional culture, creating a form of institutional pseudoscience that can distort academic progress.

Drawing on the work of Papastephanou, we can understand institutional pseudoscience as the result of sedimented practices forms of inquiry that persist not because they are epistemically sound, but because they have been naturalized within educational and research institutions. Papastephanou warns against the "practico-inert," where critical reflection is stifled by the inertia of institutional routines. In such contexts, methods are preserved because they serve institutional ends (publication, accreditation, funding), even if they fail epistemic scrutiny (Papastephanou 2009). Schildermans et al. echo this concern, showing how institutional thinking operates through artificial formal systems of validation that may no longer correspond to genuine inquiry. The peer review process, for instance, can become a mechanism of reinforcement rather than critique. When epistemic evaluation is reduced to stylistic compliance, nonsense methods flourish (Schildermans, Simons, and Masschelein 2019).

This is not merely a problem of ineffective institutions; it is a philosophical failure of epistemic governance. Such a failure stems from an inability to distinguish institutional recognition from epistemic merit—a key concept in virtue epistemology. According to Sosa, epistemic virtues such as intellectual courage and epistemic humility are essential for maintaining a clear distinction between valid knowledge and socially accepted but methodologically weak practices (Sosa 2007). When institutions fail to emphasize these virtues, they inadvertently create an environment where methods are treated as knowledge-generating solely because they gain institutional acceptance rather than being critically evaluated for their empirical rigor or theoretical soundness. This phenomenon is reflected in institutional pseudoscience, where practices that lack epistemic credibility become normalized and legitimized within academic structures (Feyerabend 1975). As a result, ontological confusion arises, as methods are mistakenly seen as valid sources of knowledge based solely on their institutional endorsement, rather than on their capacity to produce reliable and valid findings.

As discussed in the previous section, Lakatos's distinction between progressive and degenerative research programs provides a useful framework for identifying pseudoscientific tendencies in academic research (Lakatos, 1970). Degenerative research programs, as Stegenga emphasizes, fail to yield new insights or advance scientific understanding. Instead, they accommodate anomalies without generating testable predictions or offering any conceptual advancements. In the context of academia, degenerative programs are often entrenching themselves because institutions reward consistency with established models and adherence to high-volume publication norms (Stegenga 2023). This is especially evident in high-impact journals that prioritize quantity over quality, contributing to the normalization of methodologically weak research (Smaldino and McElreath 2016). Such programs are

rarely abandoned due to the institutional incentives tied to publication metrics, rankings, and reputational capital. Therefore, institutional pseudoscience is not a product of ignorance, but rather of institutional inertia and perverse incentives (Heuritsch 2021).

Importantly, institutional pseudoscience often adopts the language of critique and innovation to further entrench itself. Methods are framed as "innovative" or "critical," and even claim adherence to frameworks like the National Qualifications Framework. However, these claims often lack the methodological rigor necessary to substantiate them (Björk, Kanto-Karvonen, and Harviainen 2020). For example, some qualitative research methods may be presented as "critical" or "disruptive," but when examined closely, they fail to offer clear empirical evidence or a coherent theoretical framework. Instead, these methods tend to use philosophical vocabulary not to clarify complex issues but to obfuscate the absence of rigorous methodology.

Hoveid and Hoveid (2009) argue that educational institutions play a central role in shaping epistemic capacities and moral agency. When universities endorse methods that are disconnected from epistemic responsibility, they risk fostering epistemic complacency. Students and researchers learn to produce acceptable output without understanding what makes knowledge trustworthy.

This has ethical implications. Institutional pseudoscience does not merely mislead; it erodes trust, undermines critical thinking, and wastes intellectual resources. It imposes the form of inquiry while removing the moral and philosophical commitments that give it meaning. In this context, resisting nonsense methods is not simply a matter of improving quality control. It is a moral imperative, requiring institutions to realign their practices with the norms of epistemic integrity, including clarity, coherence, testability, and responsiveness to critique.

ETHICAL EROSION AND THE MORALITY OF METHOD

The epistemological analysis of nonsense methods must be complemented by a thorough engagement with academic ethics. If pseudoscientific practices are not only permitted but legitimized within higher education, we are dealing not simply with cognitive error but with a moral failure. This section argues that the normalization of nonsense methods is inseparable from broader ethical crises in academia namely, the erosion of integrity, the entrenchment of conflicts of interest, and the neglect of epistemic responsibility.

Sullivan (2022) critiques the role of motivated reasoning in contemporary research cultures, showing how institutional reward systems prioritize publication metrics and grant acquisition over critical reflection and methodological rigor. When success is measured by output volume, researchers may unconsciously adjust their reasoning to align with institutional goals rather than epistemic standards.

This is not merely a personal flaw; it is structurally induced. As Nijhof et al. (2012) argue, ethical behavior in research requires not just individual virtue, but organizational commitment to integrity. Without institutional structures that reward ethical conduct, even well-intentioned researchers may drift toward instrumentalism, adopting methods that are publishable but epistemically vacuous. Tripathi and Chaturvedi (2024) back up this idea with real-world evidence that shows how personal

beliefs and institutional cultures work together to shape ethical choices. When institutional environments reward compliance more than critical inquiry, and visibility more than validity, using nonsensical methods becomes a reasonable choice, even if it goes against your morals.

In biomedical research, conflict of interest (COI) is often thought of only in terms of money. However, as Almassi (2016) demonstrates, COI also manifests in subtler and pervasive ways, for instance, when personal ambition, institutional loyalty, or disciplinary prestige subtly distort one's objective judgment. Little (2020) describes COI as a corrosive force that undermines epistemic objectivity. In the context of nonsense methods, COI may appear in the form of intellectual patronage, where scholars support weak work because it affirms a shared agenda or protects professional alliances.

Pinto (2020) adds that commercial pressures have produced ethical erosion even in fields that once prided themselves on public interest. When research is shaped by market imperatives, whether through corporate funding, impact factors, or university branding, the line between inquiry and publicity begins to blur. In such an environment, nonsense methods thrive, not in spite of ethical codes, but through their procedural circumvention. Holman & Bruner (2017) discuss how industrial partnerships and technological acceleration have introduced new layers of ethical complexity. Large-scale collaborations, algorithmic tools, and automated research platforms enable speed and scale but also diffuse responsibility.

This phenomenon has led to what we might call technologically amplified ethical risk. When research is outsourced to automated systems, or when rapid publishing cycles override deliberation, epistemic failures become harder to trace. Nonsense methods may proliferate not because anyone wills them into being, but because the system no longer slows down enough to filter them out.

Tsirogianni & Gaskell (2011) call for methodological pluralism that includes ethical reflexivity. When diverse methodologies are permitted without a corresponding emphasis on shared values such as accountability, transparency, and empirical clarity the result is not pluralism but epistemic fragmentation. In such settings, nonsense becomes normalized under the guise of diversity. Hudson (2022) introduces the concept of epistemic harm, which occurs when biased or careless research distorts public understanding or undermines trust in knowledge systems. Nonsense methods contribute to such harm not only by misleading readers, but by eroding the conditions under which critique becomes possible.

Fleisher & Šešelja (2022) argue that preventing epistemic harm requires collective epistemic responsibility. It is not enough for individuals to uphold integrity in isolation. Institutions, journals, reviewers, and disciplinary bodies must share responsibility for the knowledge they enable. This calls for a systemic ethics of inquiry, where standards are upheld not merely through codes of conduct, but through a shared commitment to reasoned dialogue and intellectual honesty. Jones adds a further dimension, defending the ethical legitimacy of political engagement in academic work. While this may seem unrelated to nonsense methods, it is vital to distinguish between ethical activism and epistemic opportunism. The former engages with evidence and argument; the latter deploys rhetorical style for ideological gain. Where activism is

grounded in inquiry, it can enrich research; where it becomes a mask for nonsense, it undermines it (Jones, Molitor, and Reif 2019).

Winch (2001) reinforces this moral imperative, arguing that researchers must aim for public relevance, not just internal coherence. Research that cannot be critiqued or applied risks becoming aesthetic rather than epistemic, a symbolic exercise rather than a contribution to knowledge.

RECONSTRUCTING EPISTEMIC INTEGRITY IN HIGHER EDUCATION

Having examined the rise of nonsense methods as an epistemic, institutional, and ethical failure, a question that now arises: what would it take to reform the epistemic culture of higher education? This section outlines a framework for epistemic reform, grounded in the philosophical imperative to restore rational discourse, intellectual integrity, and institutional accountability. Reform must be both conceptual and practical, addressing not only what we teach and publish, but how we understand the role of knowledge in the university.

Epistemic Reform Begins with Conceptual Clarity

The first step toward epistemic reform is restoring conceptual clarity to the discourse of research and education. Too often, complexity is confused with depth, and abstraction with insight. The prevalence of nonsense methods reveals a failure to define, delimit, and defend the concepts on which scholarly arguments are built.

Rapanta (2018) emphasizes that conceptual clarity can be cultivated through argumentation dialogue, a pedagogical method that trains learners to interrogate claims, identify premises, and expose fallacies. This is not simply a classroom exercise; it is a cultural intervention. By embedding argumentation as a core academic practice, institutions can resist the spread of performative scholarship and foster critical engagement with knowledge.

A reformed epistemic culture would require not only methodological instruction but philosophical grounding teaching students not just *how* to research, but *why* methods matter, *what* counts as justification, and *how* to detect epistemic failure.

Institutional Reflexivity and the Ethics of Knowledge Production

Akbar calls for decolonizing the curriculum, arguing that institutional structures must be critically interrogated for the ways they sustain outdated or oppressive epistemic norms (Akbar 2023). This project, however, cannot be reduced to identity politics or ideological rebalancing; it must include a philosophical audit of institutional practices, asking whether they support epistemic rigor, openness, and public responsibility.

Institutional reflexivity means more than periodic evaluation; it requires a self-critical posture toward power, pedagogy, and publication. Koskinen stresses that ethical knowledge production depends on reactivity and the capacity of institutions to

respond to new epistemic challenges without reproducing existing biases or inefficiencies (Koskinen 2022).

Epistemic reform is not achieved by replacing one orthodoxy with another, but by embedding ethical reflexivity into institutional design. This includes reviewer training, curriculum review, hiring standards, and funding protocols each of which shapes what counts as valid knowledge.

Philosophical Resources for Reorientation

Philosophy offers rich resources for reorienting epistemic practice. Koskinen suggests that inquiry must shift from reactive cycles of replication and citation to more emancipatory knowledge practices where evidence, justification, and meaning are co-produced through reflective engagement (Koskinen 2022).

Kuorikoski & Marchionni (2023) advocate for mixed-methods pluralism as a corrective to methodological orthodoxy. Yet they caution that pluralism is not a license for incoherence. Rather, it demands a philosophically informed judgment about when methods converge, when they conflict, and how they can be responsibly integrated.

This vision of reform is not technocratic. It is grounded in the idea that epistemic norms are philosophical commitments to truth, transparency, coherence, and social value. When methods are chosen for style rather than sense, and when publication replaces dialogue, these norms are betrayed.

Pedagogy as Epistemic Transformation

Ližardo calls for pedagogical strategies that foreground personal and cultural epistemologies, helping students become aware of the implicit frameworks that shape their beliefs and reasoning (Ližardo 2022). This metacognitive awareness is crucial in preventing the passive absorption of nonsense methods.

In line with Rapanta, we argue that pedagogy must be seen as epistemic transformation, the shaping of persons who not only possess knowledge but are accountable for how they acquire, interpret, and apply epistemic virtues. This requires a curriculum centered not on metrics but on: curiosity, humility, diligence, and courage (Rapanta 2018).

Teaching students to identify logical fallacies, question conceptual clarity, and challenge institutional scripts is not adversarial; it is an act of epistemic care. Institutions that invest in such pedagogy do not merely transfer knowledge; they cultivate epistemic citizens.

CONCLUSION

This paper has demonstrated that the prevalence of nonsense methods in academic research is not only a technical issue but also a philosophical and institutional challenge. The continued use of these methods can be attributed to deep-seated institutional inertia and perverse incentives that prioritize publication quantity over methodological rigor. However, merely identifying these flaws is not sufficient. To

effectively combat the normalization of nonsense methods, academic institutions must take practical steps to reform research practices.

First, universities should implement methodological training programs aimed at fostering epistemic virtue among researchers. These programs would emphasize the importance of empirical testing, methodological transparency, and intellectual humility, enabling researchers to adopt more rigorous and scientifically valid methods. Second, peer review systems must be strengthened to ensure that only methodologically sound research is published, thus raising the bar for academic publications. Finally, institutional culture should encourage a constructive critique of methods, fostering an environment where valid criticism is valued as a tool for scientific progress, not as an obstacle.

By integrating these practical actions, academic institutions can gradually dismantle the systemic issues that sustain institutional pseudoscience and pave the way for more epistemically responsible and methodologically rigorous research practices.

IMPLICATIONS AND LIMITATIONS

The argument advanced in this manuscript holds significant implications for the philosophy of science, higher education research, and institutional epistemology. First, it reframes the discourse on pseudoscience by introducing the concept of institutionalized nonsense methods, not as external threats but as internal failures embedded within the norms, incentives, and practices of academic life. This philosophical shift adds to the debate over the demarcation by showing how practices that do not really know what they are doing can gain credibility through institutional validation, which goes around the usual signs of scientific legitimacy.

Second, this work makes a contribution to virtue epistemology by showing that the decline of intellectual virtues like curiosity, hard work, and humility is not just a problem for individuals but also for institutions as a whole. Nonsense methods do not last because they always work, but because they are often easy for a lot of people to use. So, any real epistemic reform must include a deep moral change in academic culture, including how researchers are trained, how research is fairly judged, and how epistemic responsibility is built into the system.

Third, in the important area of higher education policy, this criticism is an urgent call for all parties involved, including administrators, peer reviewers, journal editors, and teachers, to think critically about how current performance metrics, strong publication incentives, and disciplinary gatekeeping mechanisms may unintentionally support practices that are institutionally rewarded but lack intellectual substance. It directly tells universities to go beyond their bureaucratic duties and reaffirm their basic moral and epistemological mission.

However, the argument made here also has some flaws. This paper is meant to be philosophical; it does not try to do empirical case studies or give quantitative proof of the spread of nonsense methods. The paper talks about examples to help explain ideas, but it does not actually look at citation networks, publication trends, or specific university policies. Future empirical work could build on this basic analysis by systematically mapping how common nonsensical methods are in different fields or

carefully looking at how educational reforms based on epistemic virtue frameworks affect students.

Also, this critique mostly looks at the humanities and social sciences, especially education and management, where methodological pluralism can make it harder to tell what is true and what is not. More in-depth research is needed to find out how these issues affect STEM fields, where different types of methodological simulation, like overfitting models, publication bias, or algorithmic opacity, may work under different philosophical rules.

Lastly, even though this work is critical, it is not meant to make all non-positivist or interpretivist methods seem less valid. Instead, it calls for a careful rethinking of how these methods are explained, justified, and taught. This will make sure that methodological pluralism is not a place where people can be intellectually inconsistent, but a real place where people can engage in disciplined, thoughtful, and epistemically sound ways.

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