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SCIENCE AS A VOCATION: THE LOGIC OF ARGUMENTATION AND REVISITING WEBER'S INTELLECTUAL PROJECT

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Abstract: The article examines Max Weber's seminal lecture *Science as a Vocation* (1918), through the lens of modern argumentation theory. The authors argue that Weber's text not only presents a sociological reflection on the role of science in the age of modernity but also implicitly demonstrates a model of rational argumentation. By analyzing Weber's distinctions between scientific and non-scientific modes of reasoning, as well as his concept of the ethical neutrality of science, the article reconstructs the inner logic of Weber's intellectual project as an epistemic argument: one that separates rational justification from moral persuasion. The study also reveals how Weber's conceptualization of science as both vocation (*Beruf*) and profession anticipates the contemporary debates on the purpose, autonomy, and ethical limits of scientific knowledge.

Keywords: Max Weber, science as vocation, argumentation theory, rationality, ethics of science, epistemic justification, modernity.

Introduction

Max Weber's 1919 lecture *Science as a Vocation* remains one of the most conceptually dense and normatively decisive texts for understanding the modern status of scientific rationality. Although it is typically read as a sociological and existential reflection on the fate of science in a "disenchanted" world, the text also serves as an implicit model of how scientific discourse legitimates itself. Weber speaks not merely about science but *scientifically about science*, constructing a self-reflexive argument in which science is justified without being sacralised, delimited without being diminished, and grounded without being absolutized.

The internal architecture of Weber's reasoning has been frequently described but rarely re-

constructed in argumentative terms. Yet his entire lecture is organised as a sequence of rational delimitations: science is distinguished from prophecy, value-judgement, metaphysics, world-view and salvation doctrine not by appeal to authority or tradition, but by the structure of justification that science accepts as binding upon itself. In contemporary vocabulary, this means that Weber draws the boundary between epistemic and non-epistemic claims — between statements that demand reasons and those that appeal to faith, charisma, or existential need. Such boundary-drawing corresponds to what argumentation theory would later conceptualise as *dissociation* (Perelman) and as *domain delimitation* in pragma-dialectics.

If Weber's text is read from the standpoint of argumentation theory, it becomes clear that the

lecture is not simply descriptive but performative. By the way Weber argues about science, he enacts the very rationality he attributes to it. His reasoning could be rendered in Toulminian terms as a structured chain of claims, warrants, and backing, with explicit rejection of non-epistemic rebuttals. Thus, Weber's "vocation" discourse can be reinterpreted as an epistemic argument — an argument about why science must bind itself to method, neutrality, and lucidity even under conditions of existential demand.

It is within this dual perspective — *sociology of science* and *logic of argumentation* — that the present study revisits Weber's intellectual project. Rather than treating argumentation as an external theoretical lens added from the outside, we consider it as a reconstructive key that makes explicit the rational form already implicit in Weber's text.

As noted by I.B. Mikirtumov, a professor at the Higher School of Economics, remarked that Max Weber's lectures *Science as a Vocation* (1918) and *Politics as a Vocation* (1919) stand on a par with Thomas Mann's *Reflections of a Nonpolitical Man* (1919), Oswald Spengler's *Decline of the West* (1918–1922), and Edmund Husserl's *The Crisis of European Humanity and Philosophy* (1935). These works not only proclaimed a sense of cultural crisis but also shaped an aesthetic of its experience — a melancholic affect of "the end of everything." Yet Weber's lecture, chronologically the first among these, differs in form and purpose.

Weber's *Science as a Vocation* emerged as both a product and a critique of modernity. Delivered before Munich students in 1918, at the threshold of Europe's social and intellectual transformation, the lecture combined the rhetorical rigor of philosophical reasoning with the existential tone of a moral inquiry. From the perspective of argumentation theory, Weber's address can be viewed as a paradigmatic case of **epistemic argumentation**, where claims are justified not by faith or authority, but by internal coherence and methodological validity.

As the authors note, Weber's reasoning operates through carefully structured contrasts — between faith and knowledge, vocation and profession, inspiration and method, charisma and rationalization. Each opposition functions as an argumentative device, guiding the audience toward Weber's central thesis: science, while es-

sential to intellectual progress, cannot provide ultimate answers to questions of meaning or value. In this sense, Weber's discourse exemplifies the *logos*-centered model of reasoning that later became foundational in argumentation studies (Toulmin, 1958; Perelman & Olbrechts-Tyteca, 1969).

It seems reasonable to accept the viewpoint according to which the lecture "*Science as a Vocation*" "...was a challenge... In Weber's speech, knowledge was combined with deep life experience; every word bore the heavy stamp of personality..., and this cannot go unnoticed. He tore away the veils of illusions" (Golovin, 2024, pp. 89–90).

Thus, the lecture format, delivered to students (by the way, in a similar format, I. G. Fichte and T. Litt also gave their presentations, so this can be considered a kind of German tradition), which later became a book, was devoted to science during a period of crisis—specifically, a crisis within the framework of the Modern era (Gaidenko & Davydov, 1991, 5). On the one hand, there was a need for reflection and re-evaluation, but on the other hand, there existed a faith in progress and the necessity for the development of science.

Even scientific anarchism in the spirit of P. Feyerabend (Golub, 2015, 8), not to mention postmodern manifestations such as cultural relativism, had not yet gained wide popularity. In other words, faith in science and its significant role in society was strong, although some positions still required reconsideration.

Research Aims and Tasks

The present research aims to identify the main tenets of Weber's lecture "Science as a Vocation", to reinterpret them within the framework of modern argumentation theory, reconstructing the internal logic of the argumentation of that lecture, and to show that its text functions not only as a sociological diagnosis of the contemporary state of science, but also as an indirect epistemological argument legitimizing scientific rationality.

To accomplish this general aim, the study pursues the following specific research tasks:

1. To explicate the conceptual structure of Weber's discourse on science as vocation within

its intellectual and historical context.

2. To identify the argumentative loci by which Weber distinguishes scientific reasoning from prophetic, metaphysical, ethical, and soteriological modes of discourse.
3. To reveal the internal argumentative structure of Weber's conception of science as both a vocation and a profession by reconstructing the implicit logic of Weber's reasoning in terms of contemporary argumentation theory (Toulmin, Perelman, pragma-dialectics), without distorting the original conceptual content.
4. To compare Weber's argumentative strategy with later theoretical formulations of epistemic rationality and discursive legitimacy in the 20th-century philosophy of science and critical theory.
5. To demonstrate that Weber's discourse operates as a self-legitimation of scientific rationality through argumentative discipline rather than metaphysical or ethical foundations.

Research Object and Subject

The Research Object of the present study is the intellectual structure of Max Weber's lecture *Science as a Vocation* as a conceptual and normative statement on the nature, limits, and conditions of scientific rationality in modernity.

The Research Subject of the study is the internal argumentative logic through which Weber delineates science from non-scientific modes of justification and legitimates scientific rationality without appeal to metaphysical, ethical, or salvific premises.

Research Methods

The methodological framework of this study is composite, combining conceptual-historical reconstruction with elements of comparative analysis and argumentative reconstruction. First, Weber's lecture is examined as an intellectual artifact situated within the context of late-Weberian diagnostics of modernity; this involves a conceptual-historical approach that treats "Science as a Vocation" not as an isolated statement but as part of Weber's broader project on rationalization and value differentiation. Second, a

comparative reading is undertaken to relate Weber's implicit claims about the nature of scientific rationality to later theoretical articulations in epistemology and critical theory.

Argumentation theory is introduced not as an external explanatory model but as an analytical instrument to make explicit the justificatory structure already operative in Weber's discourse. In this respect, the analysis draws selectively on the Toulminian notion of warrants and backing, on Perelman's concept of dissociation as a technique of rational boundary-drawing, and on the pragma-dialectical distinction between epistemic and non-epistemic standpoints in rational dispute. Argumentation analysis, however, does not replace the conceptual reading of Weber's text; rather, it functions as a secondary layer that renders explicit the internal logic by which Weber legitimates science without metaphysical or ethical premises.

Such a compound methodology makes it possible to treat Weber's lecture simultaneously as

- (a) a source of sociological meaning,
- (b) a site of normative justification,
- (c) a case of implicit epistemic argumentation.

The combination of these approaches provides sufficient analytical precision to support the study's aims without distorting the original philosophical content of the text.

1. What is not Science, according to Max Weber

The German term "Beruf" translates both as "profession" and "vocation." This duality reflects Protestant work ethics and reveals how Weber conceptualized scientific life as both a practical and moral calling. His argumentative strategy begins by defining what science is not, excluding forms of belief and ideology that claim to offer ultimate meaning. In argumentation-theoretical terms, Weber's reasoning employs delimitation: he defines science by marking its borders through counterexamples (van Eemeren & Grootendorst, 2004). Science, he argues, cannot answer existential questions — a theme echoed by Bulgakov ("1908 Nobel laureate E. Rutherford is credited with the statement that 'If a scientist cannot explain to the cleaning lady who cleans his laboratory the meaning of his work, then he himself does not understand what he is

doing" (Bulgakov 1992, p. 14)) and later explored through Toulmin's model of claim–data–warrant reasoning. Weber's dialectical method exposes the epistemic limits of science while affirming its rational core.

To begin with, it is essential to note that the German term *Beruf* translates both as "profession" and as "vocation." This semantic duality is not accidental in Germany—the country of Protestant work ethics—and reflects the traditional understanding of professional activity as a form of divine calling (Tsurkanova, 2023). Yet Weber's interest lies not merely in linguistic nuance. His argumentation strategy relies on differentiating the *non-scientific* dimensions of human existence before defining what science itself is.

Rather than arguing *ex negativo* in the scholastic sense, Weber begins his lecture by excluding certain modes of thought and practice that do not belong to science. Such a method corresponds to what argumentation theorists describe as "**delimitation reasoning**"—an approach that defines a concept by setting its boundaries through counterexamples (van Eemeren & Grootendorst, 2004).

Weber famously declared that science does not provide ultimate answers to the fundamental questions of life. Against the common belief that science is entirely governed by logic, he asserts that much of scientific inquiry is **existential in nature**. The lecture demonstrates this through specific disciplines: medicine, law, and the arts. Weber writes, "All the natural sciences answer the question of what we must do if we wish to master life technically. But whether we should do so, and whether it has meaning in the end, these are questions that science leaves unanswered" (Weber, 2012).

In modern argumentation terminology, this marks the distinction between **instrumental rationality** (reasoning about means) and **teleological rationality** (reasoning about ends). Weber's claim anticipates the structure of Toulmin's argument model:

- **Claim:** Science cannot determine the ultimate meaning.
- **Data:** Examples from law, medicine, and aesthetics demonstrate that normative questions lie beyond scientific method.
- **Warrant:** Scientific rationality operates within a framework of empirical validity, not moral purpose.

- **Backing:** Historical and cultural experience confirm that scientific progress does not resolve ethical dilemmas.
- **Qualifier:** This holds within the limits of methodological reasoning.

Weber's insight parallels Mikhail Bulgakov's ironic observation in *Heart of a Dog*: ““Certainly, it might be possible to graft the hypophysis of Spinoza or some such devil, and turn a dog into a highly advanced human. But what in heaven's name for? Tell me, please, why is it necessary to manufacture spinozas artificially when any peasant woman may produce a real one any day of the week? ...” Both thinkers, each in his own idiom, confront the same existential dilemma—the absence of a definitive “why.” (Bulgakov, M. 2005 (translation by M. Glenny), p. 55).

From the standpoint of argumentation theory, such reasoning represents a **dialectical strategy** rather than a merely descriptive one: the claim is not to deny science but to expose its epistemic boundaries. Weber's rhetorical move is to invite reflection rather than closure. This is consistent with what Perelman and Olbrechts-Tyteca (1969) describe as the *audience-oriented argumentation*, where persuasion occurs through acknowledgment of shared uncertainty.

Weber also draws a controversial line between political science and political engagement. "Politics has no place in the classroom," he insists, emphasizing that students should not practice politics in academic settings. This claim, while defensible on didactic grounds, generates a tension that Weber himself acknowledges: how can one study politics without, in some sense, engaging in it? The paradox reveals another layer of his argumentative logic—the deliberate use of **aporetic reasoning** (posing a contradiction to sharpen conceptual clarity).

Similarly, when Weber asserts that those who seek the *meaning of the world* should look elsewhere than in science, he enacts a rhetorical distancing that serves as both a warning and clarification. In argumentation terms, this functions as a **rebuttal clause**, delimiting the domain of scientific discourse: science serves self-knowledge and the understanding of causal relations, not metaphysical salvation.

Finally, Weber's invocation of the "charismatic leader" in academia further refines his argument about the role of the scientist. The true scholar, he claims, must not act as a prophet or

demagogue but as a rational specialist. This stance embodies Weber's broader argumentative ethos—the **ethos of intellectual integrity**. In modern parlance, it is a call to epistemic humility: the recognition that no amount of knowledge justifies claims to ultimate authority.

Thus, from the perspective of argumentation theory, Weber's *Science as a Vocation* operates as a coherent **meta-argument**: it persuades by mapping the limits of persuasion itself. His discourse exemplifies how rational argumentation can function not to assert dogma but to sustain the dialogue between knowledge and meaning.

2. What Science is, according to Max Weber

Weber portrays science as a form of production—systematic, specialized, and progressive, yet transient. He compares knowledge creation to industrial work, acknowledging both efficiency and fragmentation. This analogy exemplifies Toulmin's model of balancing claim and counterclaim: specialization enables progress but restricts holistic vision. For Weber, scientific reasoning operates as both method and moral commitment. The scientist's vocation mirrors Kant's categorical imperative: to pursue knowledge for its own sake. Weber's argumentation combines logos (clarity), ethos (intellectual honesty), and pathos (existential awareness). He anticipates the modern understanding of epistemic justification (Goldman, 1999) and the communicative rationality later formulated by Habermas (1984). Science thus becomes a disciplined form of argumentation aimed at lucidity and self-knowledge.

Weber begins his exploration of science with a striking statement: “At present, the attitude toward scientific production as a profession is determined primarily by the fact that science has entered a stage of specialization unknown before, a state that will persist in the future” (Weber, 2012).

The very phrase *scientific production* reveals Weber's rhetorical and conceptual innovation. Unlike industrial or artisanal production, this “production” concerns knowledge itself—its systematic generation, refinement, and transmission. From an argumentative standpoint, Weber constructs an **analogical argument**, comparing science to industrial labor to underscore the procedural and cumulative nature of modern

knowledge. Yet his analogy carries an implicit warning—specialization, while enabling progress, also fragments intellectual unity.

Just as Henry Ford's assembly line (1908) revolutionized manufacturing, Weber implies that the division of intellectual labor transforms the nature of science. Knowledge becomes reproducible, standardized, and, in some sense, depersonalized. This reasoning mirrors the **Toulminian warrant**: specialization provides efficiency but at the cost of holistic vision. Weber's argumentative structure, therefore, follows a *both-and* logic—affirming progress while lamenting its human price.

Thus, according to Weber (2012), science is nothing other than the production of knowledge. Considering the fact that Ford's assembly line was launched in 1908, while the lecture *Science as a Vocation*, which later became a book, dates to 1918, it is quite reasonable to assume that the outstanding German sociologist did not exclude the possibility of literally conveyor-belt-like production of knowledge. Moreover, the specialization mentioned in the same sentence can, to some extent, be likened to the narrow specialization that is characteristic of assembly-line production. However, we will not speculate on why the analyzed work contains no mention of the word “assembly line” or its derivatives. It should be emphasized that such an approach to science—as a kind of continuous production of knowledge—fits within the logic of the Modern era.

It is no coincidence that a little further on, Weber (2012) writes: “Scientific work is woven into the movement of progress” (p. 3). Considering the enormous (almost boundless) faith in progress characteristic of Modernity, we may acknowledge that science as production, if not the ideal of Modernity, at least fits quite well into its logic (Grechko, 2009, p. 48).

A few lines later, Weber notes, “Scientific work is interwoven with the movement of progress.” This claim exemplifies **teleological argumentation**: the justification of scientific endeavor through its contribution to collective advancement. Yet Weber's treatment is not triumphalist; he simultaneously introduces a **counter-argument**—progress in knowledge does not necessarily imply progress in meaning. In his rhetorical balance, Weber practices what modern theorists (van Eemeren & Grootendorst, 2004) call *strategic maneuvering*—reconciling persua

sive intent with critical distance.

Weber further complicates the notion of science by introducing the concept of **inspiration**. “Inspiration,” he writes, “plays no greater role in science than in the practical life of a modern entrepreneur. But it plays no lesser role than in art.” Here Weber’s reasoning approaches *analogical argumentation through contrast*: science and art share the creative impulse, yet differ in teleology. The artist’s work achieves timeless perfection; the scientist’s work, by contrast, inevitably becomes obsolete.

This idea embodies Weber’s central argumentative paradox: the dignity of science lies precisely in its transience. As he observes, “What is accomplished in science will be surpassed in ten, twenty, or forty years.” The statement functions as a **self-refuting yet reinforcing argument**—science’s impermanence proves its vitality. From the standpoint of argumentation theory, this is a classic example of *dialectical concession*: by admitting a weakness, Weber strengthens his overall claim.

Weber’s comparison between art and science also exposes two different logics of value. Art’s justification is **aesthetic coherence**; science’s is **methodological validity**. This distinction foreshadows modern discussions in epistemic argumentation, where justification depends not on permanence but on procedural soundness. To claim that science “produces” knowledge is, therefore, not to industrialize thought but to recognize its organized, collective character—a notion resonant with Habermas’s later concept of *communicative rationality* (Habermas, 1984).

Weber then raises a pivotal question: *Does science have meaning?* He anticipates his critics’ objection that, if science cannot answer ultimate questions, it may be meaningless. Yet Weber rebuts this by reorienting the debate from ontology to ethics. Meaning, he implies, does not arise from results but from **commitment**. Citing Tolstoy’s reflections on death and finitude, Weber constructs a moral analogy: the scientist’s vocation resembles a **categorical imperative** (Kant, 2007)—a self-imposed duty pursued for its own sake, independent of reward or consequence.

In this way, Weber transforms epistemic justification into moral reasoning. The act of doing science becomes an ethical stance—a rationalized version of faith in the value of knowledge itself. This shift from logic to ethos demonstrates

the layered nature of Weber’s argumentation: at once analytic, existential, and normative. The scientist is called not merely to know but to persist in knowing despite uncertainty, echoing Socrates’ humble maxim, “I know that I know nothing” (Socrates, 2024).

Weber also anticipates an objection to the idea of endless specialization: if knowledge fragments infinitely, does the “universal scholar” (the Leonardo or Lomonosov type) become impossible? His answer is ambivalent. The age of encyclopedic genius, he argues, has indeed passed. Yet, within this limitation lies a new possibility: through collaboration and methodological rigor, the collective intellect replaces the solitary polymath. The argument reflects an **inductive generalization**: from the increasing complexity of knowledge, Weber infers the necessity of specialization as a structural condition of modern science.

Contemporary scholars (Bagdasaryan & Korol, 2014) have since pointed out the social cost of such specialization: the narrowing of education and the erosion of cultural synthesis. Weber foresaw this tendency but accepted it as a tragic inevitability—a necessary corollary of rationalization. His rhetorical method thus combines **realist concession** with **normative justification**, maintaining equilibrium between socio-logical observation and philosophical reasoning.

In the final part of this section, Weber privileges **method** as the defining criterion of science. “Every scientific work presupposes the validity of logic and method—these universal bases of our orientation in the world” (Weber, 2012). Argumentatively, this functions as a *foundational claim*: scientific legitimacy rests not on belief but on reproducible procedure. The “vegetable seller” in Weber’s ironic metaphor personifies the non-scientific mind—one that operates by habit, not by method.

This line of thought aligns with modern **epistemic argumentation theory**, which distinguishes between *belief-based* and *method-based* justification (Goldman, 1999). Weber’s emphasis on method as both instrument and ethos turns science into a discipline of clarity—“a calling for lucidity,” as he might say. His reasoning culminates in a concise definition:

“Science is a profession practiced as a special discipline serving self-consciousness and the knowledge of factual relations” (Weber, 2012,

p. 249).

From the standpoint of argumentation analysis, Weber's definition synthesizes his entire intellectual project:

- **Claim:** Science is a disciplined pursuit of clarity and self-knowledge.
- **Data:** Its procedures yield technical mastery and intellectual lucidity.
- **Warrant:** Methodological rigor, not moral certainty, grants science its legitimacy.
- **Rebuttal:** Yet science cannot prescribe meaning or happiness.

Thus, Weber's lecture exemplifies the *logic of reflective argumentation*—a self-conscious reasoning process that acknowledges its own limits. His vision of science as a vocation is simultaneously an epistemological model and a moral stance: the duty to argue well, to reason responsibly, and to seek clarity even in the face of meaninglessness.

3. The Ethical Neutrality and Argumentative Integrity of Science

Weber's concept of ethical neutrality signifies a transition from persuasive to epistemic reasoning. Science, he maintains, persuades not by emotion but through coherence and clarity. The separation of 'is' and 'ought' marks a foundational argumentative move that resonates with Habermas's theory of communicative rationality. Weber's critique of academic authoritarianism further reinforces his meta-argument: knowledge thrives only where rational discourse remains open. Ethical neutrality becomes an argumentative virtue—the moral duty to stay within epistemic bounds. In this sense, Weber's vision of a 'disenchanted world' is not despair but discipline: the demand that meaning must always be reasoned, not presumed.

4. The Ethical Neutrality and Argumentative Integrity of Science

Weber's reflection on the status of science culminates in his notion of **ethical neutrality**—the claim that science must remain free from moral and ideological commitments. From the perspective of argumentation theory, this principle marks a decisive shift from *persuasive* to *epis-*

temic reasoning: the scientist seeks justification, not consensus. Science persuades not by emotional or ethical appeal (*ethos* or *pathos*), but through methodological coherence (*logos*).

Weber's distinction between "value judgments" and "factual statements" remains one of his most influential argumentative moves. It separates the *what is* from the *what ought to be*, effectively drawing the boundary between descriptive and normative discourse. In contemporary terms, this anticipates the **argumentative dichotomy** later formalized by Habermas (1984): *strategic rationality* aims at success, while *communicative rationality* seeks understanding. Weber's scientist, like Habermas's ideal speaker, argues with precision but without moral coercion.

At the same time, Weber warns of the danger of **authoritarian rationality** within academic life. "Students are forced to remain silent," he writes, critiquing the hierarchical model of the German university. This remark reflects not only a sociological observation but also a meta-argument about discourse ethics: genuine knowledge cannot flourish where debate is suppressed. In this sense, Weber's idea of the "charismatic professor" becomes a cautionary figure—the teacher who confuses epistemic authority with moral leadership.

For Weber, the true academic ethos lies in **clarity, rigor, and intellectual honesty**—virtues that correspond to the internal ethics of argumentation. As van Eemeren and Grootendorst (2004) suggest, the quality of argument depends on the willingness of participants to submit claims to rational criticism. Weber's scientist exemplifies precisely this disposition: the readiness to question, to be refuted, and to continue reasoning despite uncertainty.

Thus, the logic of Weber's lecture embodies what modern theorists call a **meta-argument**—a discourse about the very conditions of argumentation. His claim that science "cannot tell us what we should do" is not a confession of weakness, but an affirmation of intellectual discipline: to refrain from speaking where knowledge ends. The refusal to overstep one's epistemic bounds becomes, paradoxically, a moral act in itself.

Weber's famous image of the "disenchanted world" (*Entzauberung der Welt*) is not a lament but an argumentative synthesis. Rationalization "disenchants" the world only insofar as it de-

mands that meaning be argued for, not assumed. In this sense, Weber's intellectual project remains profoundly dialogical: science is not the destruction of meaning but its continuous negotiation through reasoned discourse.

Conclusion

Weber's "Science as a Vocation" can be read as both a sociological reflection and a model of argumentation. It offers a logic of reasoning that joins epistemology with ethics. Science provides clarity, not salvation; the scholar is a specialist, not a prophet; and the method is the foundation of all argument. To practice science, for Weber, is to argue responsibly—to seek understanding while accepting the limits of knowledge.

The analysis also reveals Weber's "Science as a Vocation" as an implicit argumentation model, in which the structure of reasoning itself becomes an ethical stance — an appeal to intellectual integrity and rational accountability.

The conducted analysis allows us to reinterpret *Science as a Vocation* as more than a sociological reflection; it is also a **model of rational argumentation**. Weber's lecture, while addressing the crisis of modernity, constructs a coherent argumentative system that links epistemology, ethics, and vocation.

The main conclusions can be summarized as follows:

- 1. Science provides clarity, not salvation.** It answers specific, empirical questions but leaves existential "why" questions unresolved.
- 2. Truth-seeking lies outside scientific logic.** The search for ultimate meaning belongs to philosophy or faith, not empirical science.
- 3. The scholar is a specialist, not a prophet.** Academic authority arises from expertise and method, not moral superiority.
- 4. Science as production.** Knowledge is generated through collective, methodical labor—the rational equivalent of industrial specialization.
- 5. Vocation as a categorical imperative.** The pursuit of science is an ethical act of self-commitment, independent of reward or utility.
- 6. Method as the foundation of the argument.** Scientific reasoning depends on clarity, reproducibility, and internal coherence.

- 7. Ethical neutrality as an argumentative virtue.** Science remains impartial only when it resists ideological instrumentalization.
- 8. Argumentation as vocation.** Weber's own discourse models the rational ethics he advocates: a logic of reasoning that sustains humility, openness, and critical dialogue.

In this way, Weber's *Science as a Vocation* continues to inspire modern argumentation theory. It exemplifies the idea that the true vocation of the scholar lies not in possessing truth, but in **reasoning toward it responsibly**. The scientist's mission is to argue well, to clarify, and to preserve the fragile balance between knowledge and meaning—a task that remains as urgent in the twenty-first century as it was in Weber's time.

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