The Hidden Thread
From the Vicious Circle of Argument to the Mystery of
Understanding

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Abstract

This article advances one central claim: human reasoning, in all its historical forms, confronts three fundamental impasses, each situated at a deeper level than the one before.

The first impasse may be called the endless triangle. Every argument rests upon three concepts -fact, evidence, and reasoning- yet each side of this triangle requires the other two in order to stand, and none possesses an independent foundation. This vicious circle, named the Münchhausen trilemma by Hans Albert, is not a historical defect removable by progress in knowledge; it is a structural limit, just as Gödel's incompleteness theorems showed that no consistent formal system can prove its own consistency from within.

The second impasse concerns the pre-argumentative background. Before argument begins, an unquestioned ground exists upon which argument stands, yet that ground cannot itself be justified by argument. Some of the most eminent philosophers of our time have pointed to this reality from different angles and given it different names: 'hinge', 'life-world', 'tacit knowledge'. What all of them share is this: prior to any reasoning, there are pre-argumentative necessities that are neither provable nor refutable, and without them, even the act of doubting is impossible.

The third -and deepest- impasse is usually so obvious that it goes unseen: that understanding is possible at all; that two separate minds can access one shared meaning; that human reason can know

the world. This hidden thread, connecting minds to one another and to being, precedes every argument, every language, every concept. No argument can justify it, because every justification already relies upon it.

A historical survey stretching from the Greek Sophists to twenty-first-century big data shows that every attempt to escape these three impasses (from Plato's Forms to Descartes's cogito to Popper's falsifiability) has collided with the same barriers. Historical responses have taken four forms: relativism, silence, deferral, or the substitution of one impasse for another. None of these four has managed to break through the structural deadlock.

This article follows none of those four paths. Our point of departure is this: if the problem of reasoning were merely epistemological, perhaps an epistemological solution would suffice. But evidence from psychology and cognitive science shows that changing one's beliefs is an existential threat to the human brain, not an epistemic process. Humans believe first, then construct reasons; reasoning evolved not for the discovery of truth, but for social success. The solution, therefore, cannot be purely epistemic, it must also be cultural and structural.

This article offers no final answer. But it claims that correctly diagnosing the problem -at all three of its levels- is the most important step that has not yet been properly taken.

Keywords

reasoning, fact, evidence, vicious circle, epistemic triangle, Münchhausen trilemma, Agrippa's trilemma, Gödel's incompleteness theorems, hinge, life-world (Lebenswelt), tacit knowledge, pre-argumentative background, hidden thread, big data, epistemology, philosophy of argument, cognitive psychology

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Introduction

Bertrand Russell spent decades attempting to ground mathematics in pure logic. He believed that if reasoning were made sufficiently precise, it could provide a firm foundation for all knowledge and all human dialogue. It was for this reason that he wrote in 1945 that he hoped humanity would one day be able to resolve all its disagreements through reasoning (Russell, 1945). He regarded this not as a mere wish, but as a serious project.

Eighty years after Russell, what is the situation?

In a world with more access to information than ever before, we disagree more than ever before. In a world with more precise reasoning tools than ever, we are less persuaded by reasoning than ever. In a world where 'facts', 'evidence', and 'data' are wielded like weapons, every side in a dispute reaches entirely opposite conclusions using the same facts, the same evidence, the same data. These failures are not accidental. They do not stem from the education level, intelligence, or intentions of the participants. They have a deeper root.

But before asking 'Does reasoning work?', we must step back and ask:

Why do we reason at all?

As far as we know, humans are the only creatures who not only solve problems but also construct reasons for their solutions, linguistically and abstractly, in order to justify them to others and even to themselves. It is as though a relentless inner judge is constantly evaluating us, and when we lack good reasons for our actions we feel discomfort and inner dissonance. This is why some have called humans not 'the rational animal' but 'the justifying animal', a being that immediately begins to construct reasons for everything it does, not to discover truth, but to achieve inner peace and social persuasion (Aronson, 2011; Haidt, 2012).

This hunger for reasons is both an ability and a vulnerability: the very same innate need to understand that makes reasoning possible

also creates the conditions for its abuse. Two thousand years of philosophy, politics, and propaganda show how readily humans accept weak, incomplete, or fabricated reasons, simply because they need reasons (Mercier & Sperber, 2017).

This article begins from a simple but fundamental hypothesis: perhaps the problem lies not in how we use reasoning, but in reasoning itself. The issue is not that we misuse it; even when we reason honestly and in good faith, reasoning confronts a structural problem that no good intention can overcome. The problem lies in the core upon which the edifice of human thought has been built for two thousand years, a core that great thinkers have glimpsed from different angles, but have not yet properly articulated. Our answer is that this core is not a single impasse, but three simultaneous impasses, each situated at a deeper level than the last.

Our approach is this: if an epistemological solution has not sufficed for two thousand years, perhaps it is time to begin elsewhere, not from what reasoning 'ought' to be, but from what evolution and cognitive psychology reveal about the true nature of belief and understanding.

This article does not provide a final answer. But it claims that correctly identifying the problem is itself a step that has not yet been properly taken. If the fundamental question is whether we can build a chain of fact, evidence, and reasoning that stands upon independent foundations, our answer is neither definitive, nor simple, nor comforting: No, we cannot. But the reason for this 'cannot' matters more than the answer itself.

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1. What Exactly Are We Talking About?

Before proceeding to a critique of the nature of human reasoning, we must first establish precisely what we mean by 'reasoning'.

The question seems simple, but closer inspection reveals layers of complexity.

In its simplest definition, reasoning is the process of moving from one or more propositions (called 'premises') to another proposition (called the 'conclusion') (Copi et al., 2018).

This definition is so broad that it encompasses almost every mental process, from 'The sky is cloudy, so it will probably rain' to the most intricate philosophical and scientific arguments.

Yet this very generality creates a problem. Throughout the history of thought, 'reasoning' has been employed in markedly different senses, and each sense carries different implications.

To clarify the discussion, we must distinguish three things:

• Reasoning as logical structure: the formal relation between premises and conclusion, independent of content. This is what formal logic studies.

• Reasoning as cognitive process: what actually happens in a human mind when someone 'reasons'. This is the domain of cognitive psychology.

• Reasoning as social act: what occurs in conversation, debate, and persuasion. This belongs to rhetoric and argumentation theory.

These three senses differ from one another, and many of the historical misunderstandings in the philosophy of reasoning arise from conflating them. This article employs all three -logical structure, cognitive process, and social act- because, as we shall see, the problem appears to exist simultaneously at every level.

The Principal Types of Reasoning

In the philosophical tradition, three principal types of reasoning are recognised, each establishing a different relation between premises and conclusion:

• Deduction: If the premises are true, the conclusion is necessarily true. The classic example is one we all know: 'All humans are mortal; Socrates is human; therefore Socrates is mortal.' Deduction is the strongest form of reasoning, but it carries a fundamental limitation: the conclusion adds nothing beyond what was already contained in the premises. Deduction does not discover; it only reveals (Aristotle, 1984).

• Induction: We move from particular observations to a general conclusion, for example, 'I have seen a thousand white swans, so probably all swans are white.' Induction allows genuine discovery, but it never yields certainty. A black swan may always appear tomorrow (Copi et al., 2018).

• Abduction (inference to the best explanation): Among all possible explanations of a phenomenon, we select the best one (Peirce, 1931–1958). A doctor diagnosing from symptoms, a detective following clues, a scientist constructing a theory that fits the data, all employ abduction. But what makes one explanation 'best'? This question leads us directly to the heart of the problem.

Who Built This Concept?

Reasoning as a distinct philosophical subject has a long history, and understanding its main lines is essential to our discussion.

• Aristotle: In the fourth century BCE he founded the first systematic logic in history. His logical works, later collected as the Organon, codified the rules of syllogism, induction, and valid inference. He believed that if the rules of inference are correct and the premises begin from self-evident truths, certain knowledge is attainable. This dream (certain knowledge through correct reasoning) remained philosophy's principal goal for two thousand years (Aristotle, 1984).

• The Stoics: They took a different path from Aristotle, focusing on the relations between propositions (propositional logic) rather than the internal parts of sentences. Their achievement was the formulation of rules that became the backbone of modern logic, including the famous Modus Ponens: If P then Q; P; therefore Q (Long & Sedley, 1987). This was humanity's first step towards turning reasoning into a logical machine indifferent to content.

• Frege: In 1879, Gottlob Frege quietly revolutionised logic by inventing predicate logic, a formal language capable of expressing far more complex structures than Aristotelian logic (Frege, 1879). Frege aimed to ground mathematics in pure logic; Russell and Whitehead pursued this dream in Principia Mathematica.

• Peirce: Charles Sanders Peirce was the first to identify abduction as an independent form of reasoning and to formalise it (Peirce, 1931–1958). He argued that most genuine scientific discoveries proceed abductively, not deductively or inductively.

• Toulmin: In 1958, Stephen Toulmin's The Uses of Argument demonstrated that real-world reasoning (in courts, in science, in politics, in everyday life) differs sharply from the models of formal logic. His six-element model (claim, data, warrant, backing, qualifier, rebuttal) described reasoning as it actually occurs, not as it ought to occur (Toulmin, 2003).

Looking across all these definitions and systems (from Aristotle to Frege to Toulmin) one common assumption emerges: they all presuppose that reasoning 'starts somewhere' (from premises, from self-evident truths, from data, from warrants). None seriously asked: where does that starting point come from? And what ultimately justifies the inference we draw?

It is at this point that we can no longer remain within the first sense of reasoning, reasoning as logical structure. For the question of reasoning's validity inevitably draws us towards mind and world:

Does the validity of reasoning arise from logic's own rules, from external reality, or from the wiring of our brains?

This is the question that takes us to the heart of the discussion, and the answer lies in the triangle we examine in the next section.

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2. The Triangle of Understanding: Fact, Evidence, and Reasoning

Before anything else, we must be precise about what we mean by the 'triangle of understanding'. By this we refer to the three foundations upon which human understanding rests, without any one of them, understanding is impossible: fact, evidence, and reasoning.

Fact

In the analytic tradition, from Russell to the early Wittgenstein, a fact is a state of affairs in the world, independent of our minds (Russell, 1918/1919; Wittgenstein, 1921/1922). Examples: 'Water boils at 100°C'; 'The Second World War ended in 1945'. From this standpoint, a fact is a report, not an interpretation; a description, not an evaluation.

Yet this simple definition conceals a problem: which of the world's infinite states count as facts? At this very moment, the temperature at every point on Earth is a fact; the number of leaves on every tree is a fact. But we do not treat these as relevant facts unless they appear within a specific context and for a specific question, what philosophers call the theory-ladenness of observation.

A fact, then, requires a framework in order to be relevant or significant. Without a framework, anything can be a fact, which means no fact, taken alone, says anything at all.

Evidence

A fact placed in the service of an argument. The same fact -'water boils at 100°C'- becomes evidence when used to support a thermodynamic theory. This distinction matters greatly, because 'being evidence' is a functional role, not an intrinsic property.

The same fact can serve as evidence for one argument and for its opposite. 'Being evidence' is therefore a relation, not a quality. And every relation requires two sides: the fact on one, the argument on the other. Evidence without a fact has no base; without an argument, it is meaningless.

Reasoning

The chain that connects evidence to conclusion. In formal logic, an argument is valid if the conclusion necessarily follows from the premises. But where do the premises come from? From facts and evidence. Yet we have already seen that facts require an argumentative framework in order to be relevant. Thus reasoning both presupposes facts and determines which facts are relevant, it is at once their outcome and their precondition.

The structure before us is therefore a closed loop.

This pattern recalls Gadamer's hermeneutic circle, though there the circle runs between the part and the whole of a text, whereas here it runs between fact, evidence, and reasoning (Gadamer, 1960). In both cases the crucial point is identical: no external starting point exists.

Fact requires an argumentative framework to be relevant; reasoning requires evidence in order to have a foundation; and evidence (meant to bridge the two) is neither independent of fact nor independent of reasoning. Each side of the triangle leans upon the other two. None stands alone (Hanson, 1958).

A Self-Similar Structure

At first glance this appears to be a simple circularity, but the problem runs deeper.

Consider once more the simple fact: 'Water boils at 100°C.' How did this proposition achieve the status of a fact? It required: evidence, repeated measurements made with calibrated instruments (themselves validated by prior facts); reasoning, a theoretical framework explaining why water must boil at that temperature; and that framework was itself confirmed by evidence that carried meaning only within earlier frameworks…

Every fact, in order to be a fact, rests upon a network of other facts, other evidence, other reasonings, each of which rests upon the same structure. The fact itself contains a triangle; and the same is true of evidence and of reasoning.

In mathematics, such a structure is called self-similar: the pattern repeats at every scale, like a snowflake, in which each branch replicates the whole. But there is a decisive difference: in a snowflake, the self-similarity eventually reaches a simple base, a water molecule. In the triangle of understanding there is no base. At every level the same structure reappears, the same circle, without end.

Nature, Mathematics, and the Triangle

This self-similar pattern is not unique to human understanding. We encounter the same form in nature and at the heart of mathematics. The question is whether the resemblance is accidental.

In 1623, Galileo wrote that 'the book of nature is written in the language of mathematics'. Later discoveries in physics and mathematics showed that this mathematical structure exists not only in the external world but also in the structure of understanding itself.

In the 1970s, Mandelbrot formalised fractals, structures that repeat the same pattern at every scale: a coastline looks similar from an aeroplane and from the ground; tree branches replicate the pattern of the trunk; the bronchial branches of the lungs replicate the pattern of the entire respiratory system (Mandelbrot, 1982).

Yet a crucial difference remains: fractals are self-similar but law-governed; their repeating pattern can be described mathematically. The triangle of understanding is self-similar but not law-governed, and it never reaches a base. At every scale one encounters the same structure, without a controlling rule.

The most striking instance of self-similarity appeared at the very heart of mathematics. In 1931, Kurt Gödel proved two theorems that shook the intellectual world.

• First incompleteness theorem: any sufficiently powerful consistent formal system is incomplete, there exist true statements within it that cannot be proved from within the system.

• Second incompleteness theorem: no consistent formal system can prove its own consistency using only its own resources.

Gödel constructed this proof by means of a self-referential statement: 'This statement is not provable within the system', creating a circle (Gödel, 1931). This mirrors exactly the structure we encounter in the triangle of understanding: reasoning requires rules whose validity is established by reasoning.

Gödel showed in mathematics that truth always exceeds provability. This article argues that the same limitation appears in epistemology: human understanding always exceeds what can be justified. Both phenomena speak -in different languages- of the same underlying structure. Perhaps Galileo ought to have said: 'Not only nature, but our understanding too, is written in the language of mathematics.'

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3. A History of Failure: From the Sophists to Big Data

In the previous section we examined the internal structure of reasoning. Now we ask what fate this structure has met across the course of history.

The story begins in Greece, not because the Greeks were first, but because they were the first to admit openly: reason, this apparently noble instrument, has cracks that cannot be ignored. From the outset, reasoning appeared not as a path to truth, but as a tool for victory, survival, and control, a hidden thread that continues into the age of algorithms.

Greece: From the Sophists to Agrippa

In the fifth century BCE, the Sophists did something that still unsettles many: they demonstrated that reasoning can support any conclusion.

Protagoras declared that 'man is the measure of all things'. Gorgias went further: 'Nothing exists; or if it does, it is unknowable; or if knowable, it cannot be communicated.'

Later, the Pyrrhonist sceptics -Sextus Empiricus and Agrippa- delivered the final blow with their 'five modes': disagreement, infinite regress, relativity, hypothesis, and circularity. They argued that every argument ends in one of three: circularity, infinite regress, or a dogmatic stopping-point, what is known as Agrippa's trilemma (Sextus Empiricus, 2000).

Socrates and Plato fought this scepticism with all their force. Plato located truth in the realm of Forms; correct reasoning could reach it. Aristotle constructed a logical system: syllogism, induction, premises, conclusion. Yet the central question remained unanswered: where do the premises come from?

The Islamic World and Descartes

This question reached its height in the Islamic world. Avicenna sought an ultimate starting point with his 'demonstration of the truthful', an attempt to escape both regress and circularity. Fakhr al-Din al-Razi showed that every attempt to halt leads back to regress or circle. Ibn al-Haytham demonstrated through experiment that without experience, reasoning ends in illusion.

In the West, William of Ockham insisted that reason cannot bear metaphysical burdens: simplify, eliminate, shorten. Descartes then resolved to start from zero: 'I think, therefore I am.' But how to reach the external world from 'I am'? He needed God to guarantee reason's reliability and the world's existence.

Critics -Mersenne and Arnauld among them- immediately identified a structural impasse now known as the Cartesian Circle: Descartes proves God's existence by appealing to the clarity and distinctness of reason, yet guarantees the trustworthiness of reason by appealing to a non-deceiving God. The circle closed once more.

Hans Albert later named this the Münchhausen trilemma, an ironic reference to the baron who claimed to pull himself and his horse out of a swamp by his own hair. Albert meant that every search for ultimate justification does the same: it pulls reasoning out of the swamp of doubt by its own hair, which is impossible (Albert, 1985).

At this point a natural question arises: what distinguishes Agrippa's trilemma from the Münchhausen trilemma, and why do both appear in this article? The answer lies not in their content (which is essentially the same) but in their purpose. Agrippa (first century CE) discovered the problem and, as a sceptic, concluded that certainty is impossible. suspend judgement. Albert (twentieth century) reformulated the same three impasses with a different aim: ultimate justification is impossible, so we must abandon justificationism and keep everything permanently open to criticism. These two are not repetitions; they complement one another.

Hume, Kant, Nietzsche

Hume pushed empiricism to its limit and found that even causality - the pillar of science- cannot be proved from experience. We observe constant conjunction, not necessity. The logical positivists of the twentieth century attempted to rescue Hume, but their principle of verification was itself unverifiable.

Kant declared causality a structure of the mind, neither derived from experience nor from reasoning. But the question remained: why should we trust the structure of the mind? By confining us within mental structures, Kant showed that we never reach the 'naked fact' (the noumenon); what we see is always shaped by the frameworks of the mind (Kant, 1781/1998).

Nietzsche tore the mask from Platonic rationality: reasoning is not a tool of truth but of the will to power. We invented logic not to understand the world, but to master it and render the chaotic calculable. From this view, reasoning is a weapon: we first desire (will), then construct reasons to present desire as truth (Nietzsche, 1887/1967).

The Twentieth Century

In the twentieth century, Frege and the early Wittgenstein sought to make language transparent. The late Wittgenstein located meaning in language games: reasoning is rooted in life, not in logic. Gödel struck again, as we have already seen: no consistent formal system can prove its own consistency from within. Even mathematics, humanity's most rigorous reasoning apparatus, is not exempt from the circle.

Popper replaced proof with falsifiability: science never reaches certainty, but only escapes error. Kuhn, with his account of paradigms, struck harder: scientific reasoning is confined within a closed shell, and when paradigms shift, scientific logic itself changes, what he called incommensurability. Feyerabend concluded with 'anything goes': no method is superior; science is a modern myth advanced by power and propaganda (Feyerabend, 1975).

In 1958, Toulmin argued that philosophers had confused reasoning with mathematics. Real reasoning (in courts, in science, in politics) works quite differently. His six-element model described reasoning as it is, not as it ought to be (Toulmin, 1958/2003). Yet Toulmin did not ask: where do the warrants themselves come from? He described context-dependence but did not probe the circle within it.

Psychology, Big Data, and the Return of Hume

In the late twentieth century, Kahneman and Tversky showed that the mind has two systems: fast and intuitive, and slow and analytic. In most cases it is the first system that decides; the second system only constructs the justification (Kahneman, 2011).

Mercier and Sperber went further, arguing that reasoning evolved not to discover truth but for social success. What they demonstrated is precisely what the Sophists had known two thousand years before: reasoning serves victory in debate more than truth-discovery (Mercier & Sperber, 2017).

In the early twenty-first century, something occurred that no previous philosopher of reasoning had foreseen: for many of the most consequential decisions, companies and governments discovered that reasoning was unnecessary, sufficient data would suffice. Machine-learning algorithms, without traversing the explicit stages of deduction, induction, or abduction, produce more accurate predictions than the best human reasoning, simply by detecting patterns in billions of data points.

This is reminiscent of Hume two centuries earlier: causality cannot be proved; we observe repetition. Big data shows the same, but differently, not through philosophy, but through raw data and statistical pattern. The crucial difference is that correlation replaces causality. Algorithms do not ask why A causes B; they observe, billions of times over, that when A is present, B follows. This is Hume's triumphant return, the point at which analytic reason retreats and 'machine habit' in pattern-detection supplants logical inference.

Big data entered through the back door (not via two millennia of philosophical reasoning, but by another route entirely) and arrived at the very destination philosophy had sought: successful prediction of reality. Yet big data cannot provide the 'why'. It can say this patient is likely to develop cancer; it cannot say whether we should

tell them. It can say this offender is likely to reoffend; it cannot say whether we should imprison them.

The 'why' -justification, meaning, value- still requires reasoning: a return to the same unsteady triangle that carries two thousand years of failure behind it and has still not managed to find a foundation outside itself.

Why Was This Core Never Properly Articulated?

Two thousand years passed. Thinkers came and went. Systems were built and collapsed. Each generation believed it had solved the problem; the next showed it had not. The explanations offered were familiar: tools were imperfect, rules imprecise, language ambiguous, data insufficient.

But perhaps the problem lay in the core upon which all these tools were built, a core glimpsed by great thinkers from different angles but never properly formulated. Why not? Perhaps for two reasons.

First, attention focused on rules rather than foundations. Philosophers spent most of their time improving the rules of inference, useful work, but rather like repairing a roof without asking whether the foundations are sound.

Second, fear of the consequences. To openly admit that the foundational structure of reasoning is irredeemably groundless is to risk opening the door to relativism. Many philosophers preferred not to follow this path to its end.

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4. The Hidden Core: What Precedes Argument

All the foregoing discussion (the triangle, the Münchhausen trilemma, the self-similar structure) concerned the process of reasoning: the relation between fact, evidence, and argument; what happens within the structure once reasoning has begun.

A more fundamental question, and one less frequently asked, is this: what must already exist before reasoning starts, in order for reasoning to be possible at all?

This takes us to the innermost layer, one that four major thinkers, from four entirely different angles, each reached, and to which each gave a different name.

Kierkegaard: The Leap

The Danish philosopher Søren Kierkegaard, in his Concluding Unscientific Postscript (1846), showed that rational argument can never reach certainty, not because its instruments are imperfect, but because every argument remains mere approximation and never arrives at an independent foundation (Kierkegaard, 1846/1992, p. 189).

He named this stopping-point the 'leap', the moment when reasoning reaches its own limit and cannot proceed further. His solution was religious: since reason cannot justify its own foundation, one must leap from reason to faith (Kierkegaard, 1843/1983, p. 7).

What Kierkegaard saw is what this article calls the hidden core, the wall that reasoning strikes from within and cannot cross. What he proposed as a response (the leap to faith) does not answer the philosophical question; it steps over it. It was left to other thinkers, who saw the same wall, to attempt to understand its nature rather than circumvent it.

Wittgenstein: The Hinges

In the final months of his life, Ludwig Wittgenstein composed notes that were later published as On Certainty (1969). These notes bear witness to a great mind wrestling with the question of the central core of reasoning.

Wittgenstein began with a simple metaphor: 'If I want the door to turn, the hinges must stay put' (Wittgenstein, 1969, §341). His

meaning was this: in order to argue, to doubt, to question, to experiment (in order for any intellectual game to be possible at all) certain 'hinges' must already be fixed in place. These are propositions that are neither proved, nor refuted, nor doubted, not because they are self-evident or have been demonstrated, but because without them even the act of doubting is impossible.

Examples: 'I have hands'; 'The Earth existed before my birth'; 'The laws of logic are valid'; 'I am awake, not dreaming'. These cannot be proved, for if one wished to prove 'I have hands', what argument would one use? And upon what foundation would that argument itself rest?

Wittgenstein held that attempting to prove these things is not merely unsuccessful, it is senseless. It is like trying to prove that two plus two equals four by means of an argument that itself employs the fact that two plus two equals four.

But the crucial point is this: these hinges are not 'beliefs' in the ordinary sense (we do not consciously 'believe' them. They are not hypotheses) we do not provisionally accept them in order to test them later. They are something deeper and older than belief and hypothesis. They are embodied in how we act, in how we are in the world, not as propositions in the mind.

Wittgenstein expressed this with a formulation of striking force: 'If you tried to doubt everything you would not get as far as doubting anything. The game of doubting itself presupposes certainty' (Wittgenstein, 1969, §115, §450).

This means that Descartes (who wished to reach a firm foundation by doubting everything) was, from the very outset, standing upon hinges he had not doubted: the validity of the laws of logic; the continuity of the self that doubts from one moment to the next; the identity of thinking with the thinker. Descartes was unaware of these hinges -or at least did not acknowledge them- yet he stood upon them.

Wittgenstein's own image of the hinges is this: 'They are like the riverbed along which the stream of our thought flows. The river flows, but the bed neither flows nor stands still. It simply is' (Wittgenstein, 1969, §97).

Husserl: The Life-World

Edmund Husserl, the founder of phenomenology, arrived at the same layer from an entirely different direction. In The Crisis of European Sciences (1936), he posed the question: how is science possible, not methodologically, but foundationally?

His answer: all science, all theory, all reasoning, rests upon what he called the life-world (Lebenswelt), the pre-given, spontaneous background that is 'always already there' (Husserl, 1970, p. 142), before any question, before any doubt, before any argument (Husserl, 1970, pp. 103–104).

In Husserl's account, the life-world consists of the self-evident realities we inhabit in everyday life without any reflection whatsoever: that an external world exists; that others have experiences like our own; that the past was real; that objects occupy space and time; that causality operates. These are not inferred, learned, or proved. They are how we are in the world.

Husserl argued that modern science has committed a grave error in believing it can stand independent of the life-world. A physicist thinks that in the laboratory he deals with naked reality rather than with the life-world, but he is mistaken. To conduct an experiment, he must trust his hands, his eyes, the continuity of the world, his colleagues' perception of the same things he perceives. All of this comes from the life-world, not from science (Husserl, 1970, pp. 48–50).

More plainly: science stands upon the shoulders of the life-world. And the life-world cannot be proved, because every proof is already conducted within it.

Polanyi: Tacit Knowledge

The Hungarian-British chemist and philosopher Michael Polanyi gave expression to the same layer from the perspective of human knowing. In The Tacit Dimension (1966) he wrote: 'We can know more than we can tell' (Polanyi, 1966, p. 4).

He began from a simple observation: an experienced doctor, looking at a patient before any test has been conducted, before any explicit reasoning has been performed, 'knows' something. A skilled musician knows how to play, but cannot explain exactly how each finger moves. A cyclist knows how to keep balance, but an explanation of the physics of balance does nothing to help one learn to ride.

This 'more that we know' (this something we possess but cannot fully articulate) Polanyi called tacit knowledge, in contrast to explicit knowledge, which can be expressed, codified, and transmitted.

Polanyi went further: not only practical skills, but all our knowledge, rests upon a thick layer of tacit knowledge, concerning which questions are worth asking, which data 'feel right', which arguments are 'elegant'. None of this can be fully made explicit, yet without it science is impossible.

And here the circle closes: every attempt to make tacit knowledge explicit (every attempt to 'say' what is 'more than can be said') relies in turn upon a new layer of tacit knowledge that itself remains unarticulated. The circle is shut (Polanyi, 1966, pp. 15–17).

In contemporary philosophy, the nature of these 'hinges' is widely discussed. Some call them 'arational commitments', neither rational nor irrational, but prior to rationality: the non-propositional, non-epistemic, and groundless substrate of knowledge; neither right nor wrong, neither justified nor unjustified, phenomena that lie entirely outside the framework of traditional epistemology (Moyal-Sharrock, 2004).

The Common Thread

Kierkegaard, Wittgenstein, Husserl, Polanyi (four thinkers from four entirely different intellectual traditions) pointed to one reality: before any argument, before any doubt, before any fact or evidence, there exists a pre-rational background upon which reasoning stands. This background is neither provable, nor refutable, nor justifiable by reasoning; it simply is.

• Kierkegaard called it faith, something one must leap to.

• Wittgenstein called it the hinges, something that must stay fixed so that the door can turn.

• Husserl called it the life-world, always already there.

• Polanyi called it tacit knowledge, known but inexpressible.

What all four share:

• It cannot be eliminated or ignored.

• It cannot be made fully explicit, for every attempt to do so relies upon it anew.

• It cannot be proved, for every proof employs it.

• Without it, reasoning -even doubting- is impossible.

The Hidden Thread

Yet something deeper may lie beneath even these layers, something none of the four fully explained: the hidden thread that makes understanding possible at all.

Consider this very text. You are reading these sentences and understanding them. Meaning travels from marks on the page to your mind. This happens, but why, and how, is it possible?

Not merely because we both know the rules of language (necessary, but not sufficient); not because we are both human (a description, not an explanation). But because a hidden thread connects my mind

and yours, and the minds of all the people who will one day read this text in other parts of the world, to a shared meaning. This thread is not in the words, not in logic, not in argument. It precedes all of them.

It is what happens when someone says 'I understand' and truly does. This transmission of meaning (this moment when two separate minds 'see' the same thing) is perhaps the most astonishing everyday reality we live, and about which we are never astonished. This is what struck Galileo: not that the world is complex, but that it is comprehensible. Einstein carried the same wonder, writing: 'The eternal mystery of the world is its comprehensibility' (Einstein, 1936).

This hidden thread is not a vicious circle, not a hinge in Wittgenstein's sense, not a life-world in Husserl's sense, not tacit knowledge in Polanyi's sense. It is something prior to all of these, perhaps the deepest layer that human reasoning has reached, and from whose description it remains incapable.

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5. The Complete Picture: From Triangle to Core

We can now see the full picture, one that shows reasoning to stand without independent foundation not from one direction, but from three.

On one side, the triangle of fact–evidence–reasoning forms a vicious circle. Every attempt to escape it ends in infinite regress, circularity, or a dogmatic stopping-point, precisely what the Münchhausen trilemma describes.

On another, at the most fundamental level, there are hinges that are neither provable nor refutable; a background upon which the argumentative triangle stands, yet which itself stands upon nothing. Without this background, even questioning the triangle is impossible.

And in the deepest layer of all lies something prior even to the hinges: the hidden thread that makes understanding itself possible, the fact that separate minds can access one shared meaning, that human reason can know the world. This is not a vicious circle, not a hinge; it is what every argument, every language, every concept already presupposes, yet what none can justify.

These three layers together reveal one reality: reasoning is a closed system, possessing neither independent base nor independent support. This is not a historical defect to be overcome by progress in knowledge; it is a structural limitation as fundamental as Gödel's theorems in mathematics. Just as no consistent formal system can prove its own consistency from within, reasoning cannot (from within itself) establish its own foundation.

What a Good Argument Is

Yet this is not failure. The fact that no argument can claim an independent foundation does not mean that all arguments are equal, or that reasoning is meaningless. The difference between a good argument and a bad one remains real, but it draws its force not from an external foundation, but from something else. A good argument is one that:

• knows its own limits and makes no claim to stand outside the triangle;

• is aware of its hinges and maintains internal coherence;

• stays in contact with material reality, not by possessing a base beyond the triangle, but by exposing its predictions to experience, even if that experience remains inside the triangle;

• recognises, as far as possible, the pre-rational commitments upon which it rests.

These criteria are themselves within the triangle and rest upon hinges; they make no claim to stand outside. In the absence of certainty, this honesty is no small thing.

Power, Propaganda, and the Weaponisation of Argument

This means that when the core of reasoning has no independent foundation, anyone wishing to use argument not for the pursuit of truth but for the exercise of power finds the task easy. Select facts, cherry-pick evidence, construct apparently coherent reasoning, and manipulate the audience's hinges, and the work is largely done. This is a phenomenon Nietzsche saw clearly, and one the Sophists knew well.

Today, in the world of social media, fake news, and political advertising, this is no longer a philosophical discussion but daily reality. Every skilled propagandist knows: if you can quietly redefine someone's hinges, if you can reshape their life-world step by step, you no longer need explicit argument, the argument arrives later by itself.

Where This Leaves Us

If we recognise and accept that reasoning is not the discoverer of absolute truth but a tool with three-fold structural limits, what then should we do? This question leads somewhere unexpected: to the discovery that persuasion is not fundamentally an epistemic problem, it is bound up with the very being of the human self.

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6. Epilogue: From Diagnosis to Horizon

We have travelled a long road, at least two thousand years in length. We saw that from the very beginning of the construction of human thought and reasoning, thinkers knew and said: data without interpretation is blind, evidence without framework is vague, fact without context is meaningless, and reasoning (meant to connect all of these) is itself built upon a triangle whose sides possess no independent foundation.

Human thought, across all those centuries, attempted to escape this vicious circle. It could not.

But we must be honest here and admit: this article suffers from the same affliction and employs the same instruments. The sentences you are now reading are themselves arguments, built upon observation, data, evidence, and fact. We too are inside the triangle; we have no Archimedean point outside it. Our only consolation - perhaps our only hope- is that an honest acknowledgement of this fact changes at least one thing: it is no longer possible to speak from the position of 'I possess the truth; you do not.' And if someone truly accepts this (not as a tactical manoeuvre, but as an epistemic reality) something in the manner of their conversation changes.

But this consolation is not enough.

Suppose the other party accepts everything said here. They know that arguments are context-bound. They know that facts say nothing without a framework. They know that no one stands outside the triangle. And yet, with all of this, they refuse to change their view. Why?

Today psychology and cognitive science tell us clearly: persuasion is not fundamentally an epistemic matter. Humans believe first, then construct reasons. More educated people do not interpret evidence more accurately; they employ it more skilfully to confirm prior beliefs. Reasoning evolved in social and dialogical contexts, not for the individual discovery of truth, but for success against others. This explains both why reasoning so reliably confirms existing belief, and why genuine conversation (above all on social media) is so rare.

All of this leads to an uncomfortable conclusion: changing one's beliefs is an existential threat to the human brain, not an epistemic process. When a belief is bound up with social identity (with one's tribe, values, and position within a group) stronger evidence does

not help; it reinforces the defences, because it feels more threatening, more painful.

If the problem is not epistemic, the solution cannot be merely epistemic either. What changes are the conditions under which belief-change becomes less threatening: a space in which changing one's mind is not a sign of weakness; in which one's identity is bound not to specific beliefs but to the honest process of thinking; in which 'I was wrong' elicits admiration rather than punishment.

This is no longer a purely philosophical project; it is a cultural and structural project, one that must unfold within human societies and lived life.

But can such a cultural project even begin without a deep exploration of the underlying layers of the human psyche?

Kierkegaard, Wittgenstein, Husserl, and Polanyi each pointed, from different angles, to something that exists before every argument, before every belief, before every identity. Yet even what they saw left one question unanswered, perhaps the most fundamental question this article raises:

If the brain constructs belief in order to protect identity, where does that identity come from? From belonging to a tribe. And where does tribal belonging come from? From language and shared meaning. And that shared meaning -the thing that enables two separate minds to 'understand' the same thing- where does it come from?

Before any data, before any evidence, before any fact or argument, what connects two minds so that conversation is possible at all?

This is the question that transforms the problem of persuasion from an epistemic challenge into a mystery, a mystery whose answer perhaps lies not in logic, but somewhere deeper: in the very nature of human understanding itself.

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