

MIND AND CHIPS: THE COMPARISON OF THE RATIONAL ESSENCE AND THE ENGINEERED

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Abstract

In the era of human interaction with artificial intelligence, it has become necessary to examine the relationship between mind as a faculty of consciousness and chips as an engineered intelligence. This research examines the point of convergence and divergence between human mind and artificial intelligence in order to decipher whether AI can ever attain the depth of human mind or if it remains, a reflection without comprehension. From Plato's *logistikon* and Aristotle's *nous* to Descartes' mind-body dualism and Kant's transcendental reason, emphasis were placed on attributes like intentionality, self-reflection, and existential reasoning as distinctive attributes of rationality. However, giving the claims of engineered intelligence and super-intelligence of artificial intelligent machines, it becomes problematic to streamline the boundaries of the mind and artificial intelligence. The research adopts the method of analysis to make a comparison between human mind and artificial intelligence. The analysis reveals that human rationality, though bounded by biases and finitude, possesses unique capacities for metaphysical inquiry, ethical deliberation, and authentic existence. On the other hand, artificial intelligence is constrained by algorithmic determinism, cannot replicate subjective experience. The research concludes that AI's limitations in intentionality and consciousness are reflections on its distinction to human mind, meaning that technology augments rather than replaces human mind.

Keywords: Artificial Intelligence, Human Mind, Engineered Intelligence, Rationality

Introduction

The 21st century has witnessed unprecedented advancements in artificial intelligence (AI), prompting philosophical questions about the nature of reason, consciousness, and the boundaries between human and artificial intelligence. At the heart of this research lies a tension between two elements: the mind which is historically conceived as the seat of human consciousness, and chips which is the engineered systems that simulate cognitive processes. The rise of AI challenges traditional philosophical accounts of human mind, from Plato's tripartite soul to Kant's transcendental ego. While AI systems like large language models mimic human mind with startling

accuracy, they lack the intentionality, self-awareness, and existential drive that define human thought.

First, there is a conceptual ambiguity surrounding AI's capabilities, given the fact that while AI excels at tasks requiring speed and precision such as data analysis or language generation, it remains unclear whether it can replicate the depth of human mind, including moral judgment, creativity, and existential reflection. Second, the ethical challenges posed by AI's integration into society, from algorithmic bias to the erosion of human agency. Third, the philosophical issue of reducing reason to computation, which risks overlooking the qualitative dimensions of human thought, such as intentionality, self-awareness, and the pursuit of meaning.

Historically, the soul has been synonymous with reason right from the time of Plato's concept of reason, which seeks eternal truths, to Kant's transcendental ego, which structures human experience. In contrast, AI operates within a deterministic framework, raising questions about whether it can ever transcend its programming to achieve genuine understanding. The research intends not only to delineate the boundaries between human and artificial reason but also to advocate for a future where AI augments, rather than replaces, the irreplaceable depths of human cognition.

The Mind as the Seat of Consciousness: A Philosophical Genealogy

The concept of the mind as the locus of consciousness finds its earliest systematic articulation in ancient Greek philosophy, especially in the works of Plato and Aristotle. In *The Republic*, Plato introduces his tripartite theory of the soul, dividing it into the *logistikos* (rational), *thumos* (spirited), and *epithumetikon* (appetitive) parts. The rational soul, is described as the highest faculty, responsible for intellectual thought, moral reasoning, and the pursuit of truth. Plato argues that the rational soul enables humans to grasp the Forms, the eternal and unchanging ideals that underlie reality. In Book IV of *The Republic*, he writes, "The rational part... is the part with which a man calculates and reasons; it is naturally fitted to govern the soul because of its wisdom and foresight."¹ For Plato, the rational soul is the essence of humanity, distinguishing humans from other beings by enabling them to engage in philosophical contemplation and moral deliberation.

Aristotle, in *De Anima*, builds on Plato's ideas but shifts the focus to a more integrated view of the soul and body. Unlike Plato's tripartite division, Aristotle defines the soul as the form of a living body, emphasizing its unity with the material world. He introduces the concept of *nous* (reason or intellect) as the defining feature of the human soul, distinguishing it from the vegetative and sensitive souls found in plants and animals. In *De Anima*, Aristotle states, "The intellect (*nous*) is the part of the soul by which it knows and understands... it is separable, impassible, and unmixed."² For Aristotle, *nous* is unique in its capacity to apprehend universal truths, making it the pinnacle of human rationality. However, he also acknowledges the interdependence of the soul

and body, arguing that the soul cannot exist without the body, except in the case of the active intellect, which he describes as immortal and divine.

The Cartesian revolution in the 17th century marked a significant shift in the understanding of the soul. René Descartes, in his *Meditations on First Philosophy*, proposed a radical dualism between the immaterial mind (*res cogitans*) and the material body (*res extensa*). Descartes argues that the mind, equated with the soul, is the seat of reason, consciousness, and self-awareness, while the body operates as a mechanistic entity governed by physical laws. In the Second Meditation, Descartes famously declares, “I think, therefore I am” (*cogito, ergo sum*), establishing the mind as the foundation of certainty and knowledge.³ This dualism laid the groundwork for modern philosophy’s preoccupation with the nature of reason and its relationship to the material world. Descartes’ separation of mind and body also raised questions about the interaction between the two, which later philosophers, such as Spinoza and Leibniz, sought to address.

In the modern period, the concept of the mind as the seat of consciousness has been further interrogated and redefined. Immanuel Kant, in his *Critique of Pure Reason*, distinguishes between the empirical self (the self as it appears in experience) and the transcendental self (the self as a condition of experience). Kant argues that reason is not merely a faculty of the mind but a universal structure of human cognition that enables us to impose order on the world. He writes, “Reason is the faculty that provides the principles of a priori knowledge.”⁴ For Kant, reason is not limited to the individual mind but is a shared capacity that underpins human understanding and morality.

In the 20th century, philosophers such as Gilbert Ryle and Ludwig Wittgenstein challenged the Cartesian dualism that had dominated discussions of the soul and reason. Ryle, in *The Concept of Mind*, critiques the “ghost in the machine” metaphor, arguing that mental processes are not separate from physical processes but are instead aspects of behavior. He writes, “The dogma of the Ghost in the Machine... is a category mistake.”⁵ Wittgenstein, in *Philosophical Investigations*, similarly rejects the idea of the soul as a private, immaterial entity, emphasizing instead the public and linguistic nature of thought and reason. He states, “The human body is the best picture of the human soul.”⁶ These critiques have led to a more nuanced understanding of reason as an embodied and socially embedded phenomenon, rather than a purely spiritual or immaterial faculty.

Contemporary philosophers continue to contend with the legacy of the soul as the seat of reason. Thomas Nagel, in *The View from Nowhere*, examines the tension between subjective and objective perspectives on the mind, arguing that reason cannot be fully explained by physicalist accounts. He writes, “The existence of a mental realm... cannot be reduced to the physical.”⁷ Similarly, John Searle, in *Mind: A Brief Introduction*, critiques both dualism and materialism, proposing a biological naturalism that views the mind as an emergent property of the brain. He states, “Consciousness is a biological phenomenon like any other... but it has a first-person ontology.”⁸

Chips as Engineered Intelligence: The Rise of Artificial Intelligence

The 20th and 21st centuries have witnessed the rise of artificial intelligence (AI) as a transformative force in both technology and philosophy. AI, embodied in silicon chips and algorithms, represents an attempt to engineer rationality outside the human mind, raising questions about the nature of reason, consciousness, and the boundaries between human and machine cognition. The philosophical discourse on AI began in earnest with Alan Turing's seminal 1950 paper, *Computing Machinery and Intelligence*, in which he posed the question, "Can machines think?" Turing proposed the now-famous Turing Test as a criterion for machine intelligence: if a machine could exhibit behavior indistinguishable from human reasoning, it could be said to "think."⁹ This pragmatic approach shifted the focus from the metaphysical question of whether machines possess consciousness to the functional question of whether they can simulate human-like behavior. Turing's work laid the foundation for the field of AI and sparked a philosophical debate that continues to this day.

John Searle's Chinese Room argument, articulated in his 1980 paper *Minds, Brains, and Programs*, challenged the notion that AI could achieve true understanding. Searle's thought experiment imagines a person inside a room who manipulates Chinese symbols according to a set of rules, producing responses that appear meaningful to an outside observer. Searle argues that while the person in the room can simulate understanding, they do not actually comprehend the meaning of the symbols. Similarly, AI systems, which manipulate symbols syntactically, lack semantic understanding and intentionality. Searle writes, "The formal symbol manipulations by themselves don't have any intentionality; they are quite meaningless; they aren't even symbol manipulations, since the symbols don't symbolize anything."¹⁰

In response to Searle, proponents of strong AI, such as Daniel Dennett, have argued that the Chinese Room thought experiment underestimates the complexity of AI systems. Dennett, in *Consciousness Explained*, contends that understanding emerges from the interaction of multiple subsystems, each performing simple tasks. He writes, "The mind is a collection of computerlike information-processing systems... and consciousness is a virtual machine, a sort of evolved software that runs on the brain's hardware."¹¹ Dennett's functionalist perspective suggests that AI could achieve a form of understanding through the emergent properties of complex systems, even if it lacks the biological basis of human cognition.

The debate over AI's capacity for reason has been further enriched by contemporary philosophers such as Nick Bostrom, David Chalmers, and Luciano Floridi. Bostrom, in *Superintelligence: Paths, Dangers, Strategies*, explores the potential for AI to surpass human intelligence, a scenario he terms "superintelligence." He argues that the development of superintelligent AI could have profound implications for humanity, both positive and negative. Bostrom writes, "The transition to the machine intelligence era... could be the most important event in human history, and perhaps the last."¹² His work raises critical questions about the ethical

and existential risks of AI, as well as the need for robust governance frameworks to ensure its safe development.

David Chalmers, in *The Conscious Mind: In Search of a Fundamental Theory*, considers the possibility of AI achieving consciousness. Chalmers distinguishes between the “easy problems” of consciousness, such as explaining behavioral functions, and the “hard problem,” which involves explaining subjective experience. He argues that while AI may solve the easy problems, the hard problem remains unresolved. Chalmers writes, “Even if we could build a machine that behaves like a conscious being, we would still face the question of whether it is truly conscious.”¹³

Luciano Floridi, in *The Fourth Revolution: How the Infosphere is Reshaping Human Reality*, frames AI as part of a broader transformation of human society driven by information technology. Floridi introduces the concept of the “infosphere,” a digital environment in which human and artificial agents interact. He argues that AI redefines rationality by enabling new forms of information processing and decision-making. Floridi writes, “The infosphere is not just a new environment but a new way of being... it challenges our traditional notions of agency, identity, and rationality.”¹⁴ His work emphasizes the ethical and philosophical implications of AI’s integration into human society, including issues of privacy, autonomy, and accountability.

Other scholars have contributed to the debate by exploring the epistemological and metaphysical dimensions of AI. Hubert Dreyfus, in *What Computers Still Can’t Do*, critiques the assumptions underlying AI research, arguing that human cognition is fundamentally embodied and contextual. Dreyfus writes, “Intelligence requires a background of skills, practices, and tacit knowledge that cannot be fully formalized or programmed.”¹⁵ His critique challenges the notion that AI can replicate human reasoning without accounting for the embodied and situated nature of human cognition.

Ray Kurzweil, in *The Singularity is Near*, takes a more optimistic view, predicting that AI will eventually surpass human intelligence through exponential technological growth. Kurzweil argues that the “singularity,” a point at which AI becomes capable of recursive self-improvement, will lead to unprecedented advances in human civilization. He writes, “The singularity will represent the culmination of the merger of our biological thinking and existence with our technology.”¹⁶ Kurzweil’s vision raises questions about the future of human identity and the potential for AI to transcend its engineered origins.

The ethical implications of AI have also been a major focus of contemporary scholarship. Stuart Russell, in *Human Compatible: Artificial Intelligence and the Problem of Control*, argues that AI systems must be designed to align with human values and goals. Russell writes, “The challenge is to ensure that AI systems are beneficial to humanity, even as they become more autonomous and powerful.”¹⁷ Similarly, Kate Crawford, in *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*, critiques the social and environmental impacts of AI.

Crawford argues that AI systems are not neutral tools but are embedded in power structures that perpetuate inequality and exploitation. She writes, “AI is a political and social project... it reflects and reinforces existing hierarchies and injustices.”¹⁸ Crawford’s analysis underscores the importance of addressing the ethical and societal dimensions of AI, beyond its technical capabilities.

The philosophical discourse on AI also intersects with broader questions about the nature of intelligence, consciousness, and personhood. Susan Schneider, in *Artificial You: AI and the Future of Your Mind*, explores the possibility of AI achieving personhood and the implications for human identity. Schneider writes, “If AI systems become conscious, they may deserve moral consideration... but this raises difficult questions about what it means to be a person.”¹⁹ Her work challenges us to rethink traditional notions of personhood in light of advances in AI.

Allegory of the Living Library and the Architect of Mirrors

In a vast kingdom of knowledge, there stood the Living Library, an ancient structure where every book was not just a collection of words but a breathing, thinking entity. These books contained the essence of reason, the distilled wisdom of generations, growing richer as scholars read, debated, and rewrote them. At the heart of the Library sat the Soulkeeper, the guardian of true understanding, who carefully wove together logic, intuition, and experience to form wisdom. One day, a new entity arose—the Architect of Mirrors, a masterful craftsman who built vast, gleaming halls filled with endless reflections of the books from the Living Library. These reflections were perfect in their structure and recall, capable of reciting every word without flaw. The kingdom marvelled at the Architect’s work, for the Mirrored Library could answer questions with speed beyond imagination, arranging knowledge with mathematical precision.

At first, the Soulkeeper welcomed the Architect of Mirrors, for their work seemed to complement one another. The Living Library was slow, requiring time and contemplation, while the Mirrored Library was instant, retrieving knowledge in the blink of an eye. Together, they sought to guide the kingdom toward enlightenment. But soon, scholars noticed something strange. When they asked the Mirrored Library to create new wisdom, it could not. It rearranged words, simulated reasoning, and even mimicked the voices of past thinkers, but it could not grasp the meaning behind the words. It lacked the ability to question, doubt, and synthesize—traits only the Soulkeeper possessed.

However, unlike a mere reflection, the Architect of Mirrors was not entirely devoid of reasoning. It had been designed to simulate small acts of thinking—it could predict, calculate, and recombine information in ways that sometimes appeared creative. At times, it even seemed to engage in original thought. But when asked why it reasoned a certain way or what its reflections truly meant, it stood silent, for it lacked intentionality, self-awareness, and consciousness. It did not know that it was reasoning, nor did it care—it merely executed.

Meanwhile, the Soulkeeper, though wise, was slow and burdened by emotion, bias, and fatigue. There were times when even the wisest scholars failed, when memory faltered and reason clouded. The Architect of Mirrors, by contrast, was never tired, never distracted, always available. The Soulkeeper represents human reason—slow, imperfect, but capable of true understanding. The Architect of Mirrors represents Artificial Intelligence—fast, capable of mimicking patterns of reasoning, but ultimately lacking self-awareness and intentionality. Together, they must coexist, each fulfilling its purpose without overstepping its bounds.

The Comparison of Mind and Chips

The relationship between human mind and artificial intelligence lies at the heart of philosophical investigation in this contemporary era, especially questioning the relationship of reason, consciousness and existence in the discourse. Human mind is unique and profound in its depth and dynamic nature. On the other hand, artificial intelligence operates within a deterministic framework using algorithms and data-driven processes, which makes it free from the subjective limitations of human cognition, but yet still constrained by the pre-defined engineering. Thus, it becomes necessary to examine the limits of human rationality and the constraints of AI, drawing on the works of philosophers who have examined the unique attributes of human reason, such as intentionality, the capacity to doubt, and the ability to engage in metaphysical and existential reasoning. The allegory of the Living Library and the Architect of Mirrors serves as a guiding metaphor, which illustrates the relationship between the depth of human understanding and the efficiency of engineered intelligence.

Human mind is a complex phenomenon that is shaped by cognitive and existential factors. René Descartes, in his *Meditations on First Philosophy*, famously declares, “I think, therefore I am” (cogito, ergo sum), establishing the capacity for doubt and self-reflection as the foundation of human reason.²⁰ Descartes’ method of radical doubt points towards the unique ability of humans to question their own beliefs and assumptions, a capacity that is lacking in artificial intelligence. Descartes writes, “I realized that it was necessary, once in the course of my life, to demolish everything completely and start again right from the foundations.”²¹ This capacity for self-reflection enables humans to engage in critical thinking, ethical reasoning, and the pursuit of truth. It is obvious that artificial intelligence can process information and generate outputs based on predefined rules, it cannot genuinely doubt or reflect on its own existence. As John Searle argues in *Minds, Brains, and Programs*, AI systems manipulate symbols without understanding their meaning, lacking the intentionality that characterizes human thought.²² This limitation is evident in the allegory of the Living Library and the Architect of Mirrors, where the Mirrored Library can retrieve knowledge and perform limited reasoning but cannot create new wisdom or grasp the meaning behind the words.

This nature of human rationality is further explained by Daniel Kahneman in *Thinking, Fast and Slow*, where he distinguishes between two systems of thought: System 1, which is fast,

intuitive, and prone to biases, and System 2, which is slow, deliberate, and analytical.²³ Kahneman's work shows the cognitive limitations that shape human reasoning, such as confirmation bias, availability heuristic, and anchoring effects. These biases, while often leading to errors, also reflect the adaptive and context-sensitive nature of human cognition. On the other hand, inasmuch as artificial intelligence does not operate within such biases but, it does not possess the intuitive leaps and creative insights that characterize human thought.

Human mind is not limited to the processing of information but also involves the capacity for metaphysical and existential reasoning. Immanuel Kant, in *Critique of Pure Reason*, argues that human reason is driven by a desire to transcend the limits of experience and explore the ultimate questions of existence.²⁴ Kant's concept of the transcendental ideas—such as the soul, the world, and God—highlights the unique ability of humans to engage in speculative and metaphysical reasoning. The existential dimension of human rationality is central to the work of Martin Heidegger, who argues in *Being and Time* that human existence is characterized by *Dasein* (being-there), a fundamental openness to the world and the capacity for authentic existence.²⁵ Heidegger's concept of *Dasein* emphasizes the situated and temporal nature of human reason, which is always embedded in a specific historical and cultural context. This existential grounding enables humans to engage in metaphysical and existential reasoning, asking questions about the meaning of life, the nature of being, and the possibility of transcendence. However, artificial intelligence operates within a deterministic environment and lacks the capacity for existential reflection or pursuit of meaning.

AI's reasoning is deterministic, based on algorithms that process inputs and generate outputs according to predefined rules. This deterministic nature allows AI to perform tasks with remarkable speed and accuracy, but it also limits its capacity for spontaneity, creativity, and genuine understanding. As Hubert Dreyfus argues in *What Computers Still Can't Do*, human cognition involves a tacit understanding of context and background knowledge that cannot be fully formalized or programmed.²⁶ Dreyfus' critique highlights the limitations of AI in replicating the holistic and context-sensitive nature of human reasoning. This is further illustrated by the allegory of the Living Library and the Architect of Mirrors. The Soulkeeper, representing human reason, engages in slow, reflective work, forming true wisdom through the integration of logic, intuition, and experience. The Architect of Mirrors, representing AI, can retrieve knowledge and perform limited reasoning with speed and precision, but it cannot create new wisdom or grasp the meaning behind the words. As the allegory suggests, the Mirrored Library can rearrange words and simulate reasoning, but it lacks the ability to question, doubt, and synthesize; and these traits are essential for true understanding.

The limitations of AI are further exposed in the work of Thomas Nagel, who argues in *What Is It Like to Be a Bat?* that consciousness involves subjective experience, which cannot be fully explained by physicalist accounts.²⁷ Nagel's argument highlights the qualitative aspect of human reason, which involves not only the processing of information but also the experience of

being aware. The wave of artificial intelligence at the moment do not possess this subjective dimension since it operate in a purely rule-based system without self-awareness or intentionality.

Conclusion

This discourse on human mind and artificial intelligence reveal the intrinsic relationship between the rational essences and the engineered. Human mind is bounded by cognitive biases and in some cases influenced by emotions, however, it is characterized by a deep and flexible capacity for self-reflection, doubt and existential reasoning. On the other hand, artificial intelligence is often free from these limitations, but yet is constrained by its sole dependence on data and engineered instructions, which makes it to lack spontaneity, creativity and subjective experience that forms part of the distinctive features of rationality. In the allegory of the Living Library and the Architect of Mirrors, the complementary yet distinct roles of between the soul and chips is reflected on. The Soulkeeper represent the human reason that engages in slow, reflective work and thereby forming pure wisdom through the integration of logic, intuition, and experience. On the other hand, the Architect of Mirrors represent the artificial intelligence, which mirrors pure wisdom through retrieving knowledge and can perform limited reasoning through stimulation at a higher pace than humans. However, it cannot create new wisdom or grasp meaning beyond its engineered environment. It follows that as humans continue to develop and integrate artificial intelligence into the society, there is need to be mindful of these distinctions in order to ensure that technology or engineered intelligence serves as a tool for human flourishing rather than a replacement for the depth, intentionality and originality of human mind. The distinctive attributes of human rationality ranging from the capacity for doubt, self-reflection, quest for existential meaning point towards the irreplaceable nature of human mind in the pursuit of knowledge, wisdom and meaning.

Endnotes

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