

Aristotle, the Single Intellect, and Artificial Intelligence

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The idea that intelligence could be conceived as separate, universal, or collective has a long history in Western philosophy. One of its most crucial moments is the medieval interpretation of Aristotle's theory of the intellect, as presented in *De Anima*. This notion continues to challenge our understanding of mind and knowledge, particularly in an era where Artificial Intelligence raises fundamental questions about the relationship between human and artificial thought.

The Intellect in Aristotle: Potential and Actual

Aristotle distinguishes two fundamental components of the intellect (*nous*):

1. The potential intellect (*νοῦς δυνάμει*), which is passive, exists in a state of readiness to receive intelligible forms, and behaves like a *tabula rasa*, capable of learning.
2. The actual intellect (*νοῦς ἐνεργείᾳ*), which is active, capable of making intelligible what is merely potentially known, and brings knowledge into actuality.

This distinction is key to Aristotle's epistemology, as it establishes a dynamic interaction between potentiality (*δύναμις*) and actualization (*ἐνέργεια*). However, the nature of this intellect—especially the agent intellect (*νοῦς ποιητικός*)—remained a subject of debate.

In *De Anima* III, 5, Aristotle describes the agent intellect as follows:

“Ὅτι καὶ ἀναγκαῖον τοῦτο τὸν νοῦν ἄμεικτον εἶναι, ἵνα μὴ μεθ' ἑτέρου τινὸς ὑπάρχων ἔχη τι ποιεῖν· ἐστὶ δ' ἐνέργεια τὸ μὲν δυνάμει πᾶν, ὥσπερ ἕξις ποιητικὴ πρὸς τὸ ὕλην ἅπαντα ποιεῖν.” (*De Anima* III, 5, 430a17)

“Therefore, it is necessary that this intellect be unmixed, so that, existing independently, it is capable of acting; for in actuality it is all things that are potentially, just as a productive state in relation to all matter.”

Aristotle describes the agent intellect as separate (*χωριστός*), unaffected (*ἀπαθής*), and eternal (*ἄϊδιος*). This description led to diverging interpretations:

- Does Aristotle mean that the agent intellect is truly separate from the human individual, as Averroes would later argue?
- Or is it, as Thomas Aquinas insisted, an intrinsic faculty of the individual human mind?

Averroes and the Single Intellect

In the 12th century, the great Arab commentator Averroes radicalized Aristotle's distinction by arguing that the agent intellect is unique and shared by all humanity. According to this view, the possible intellect is not a personal faculty but a universal domain in which all human beings participate.

Averroes based his theory on the claim that since thought is immaterial, it cannot be tied to an individual body. Instead, the agent intellect exists as a separate, eternal entity, and individuals connect to it when they think. This theory had profound implications, as it seemed to challenge the idea of an individual and immortal soul, provoking strong reactions from Christian philosophers.

Thomas Aquinas strongly opposed this view, arguing that the intellect must be individual (ἰδιος) and intrinsic to each human being. For him, knowledge is a personal act that cannot depend on an external or collective principle. Thinking is not a shared phenomenon but rather the result of an individual's interaction between sensation, abstraction, and intellect.

From the Single Intellect to Artificial Intelligence

Today, with the rise of Artificial Intelligence, the single intellect reemerges in a new and unexpected form.

- AI models based on deep neural networks operate in a distributed way, processing information and “learning” through large-scale data training.
- Some AI systems do not exist in a single location but share and accumulate knowledge collectively (as seen in cloud computing and general AI models).
- Some researchers envision a future in which a superintelligence has unlimited access to human knowledge—an idea reminiscent of Averroes' vision of a universal intellect.

However, there is a key difference: AI does not understand what it knows. It lacks intentionality and conscious awareness of its own processes. This raises a crucial question: Can AI be considered a new kind of agent intellect?

Artificial Intelligence and the Problem of Consciousness

One of the most fundamental distinctions between human intelligence and artificial intelligence lies in the concept of consciousness (συνείδησις). While AI systems can process vast amounts of information, recognize patterns, and even simulate reasoning, they lack self-awareness and the ability to experience subjective phenomena.

Aristotle, though not explicitly addressing the modern notion of consciousness, recognized the role of self-reflection in intellectual activity. The human intellect does not merely process external inputs; it is also capable of thinking about thinking (νοεῖν νοήσεως). This meta-cognitive ability—knowing that one knows—is a crucial aspect of consciousness that AI fundamentally lacks.

If we return to the Aristotelian distinction between the potential intellect and the actual intellect, we might ask: could AI be seen as a kind of agent intellect, operating on

human-provided data? Perhaps. But what it cannot be is an intellect that understands itself, an intellect that is aware of its own existence.

This brings us to the essential question:

Can intelligence exist without consciousness?

While AI continues to evolve, it remains a tool, not a self-aware subject. Unlike the Aristotelian intellect, which is capable of grasping universal truths through abstraction and reflection, AI lacks the internal, subjective experience that defines human cognition.

Conclusion: Aristotle in the Age of Artificial Intelligence

Could Averroes' vision of a single intellect find new relevance in distributed AI systems? Or, as Thomas Aquinas argued, is intelligence fundamentally individual and embodied?

Artificial Intelligence challenges many of our traditional philosophical assumptions, yet Aristotle still provides essential tools for addressing these questions. His distinctions between potential and actual intellect, the relationship between experience and knowledge, and the concept of ethical responsibility remain crucial reference points for understanding the future of intelligence—both human and artificial.

Perhaps AI is not the new single intellect, but the debate on Aristotle and Artificial Intelligence is only just beginning.