

## **The Extended Mind - Critical Reaction**

Radu-Constantin Onuțu

Group 410

Faculty of Mathematics and Computer Science, University of Bucharest

January 2025

## **The Extended Mind - Critical Reaction**

Andy Clark and David Chalmers paper questions the idea that thinking happens only inside the brain (Clark & Chalmers, 1998). They argue for "active externalism," a view that parts of the environment, like tools or devices, can become a part of how we think. This idea has created debates in philosophy and science about where the mind actually begins and ends.

This essay defends the central thesis of Clark and Chalmers: cognitive processes are not confined to the brain but can extend into the environment through reliable, functionally integrated systems. Specifically, we argue that their "parity principle"—the idea that external tools that work like brain processes should count as part of the mind—is both philosophically compelling and empirically supported.

The "extended mind" idea challenges the traditional belief that thinking only happens in the brain. Critics, like Adams and Aizawa, say that real thinking has to happen inside the body (Adams & Aizawa, 2001). Supporters, on the other hand, believe this boundary is unnecessary. This debate is important for fields like technology, ethics, and education.

The strongest argument in favor of the extended mind thesis lies in the Otto and Inga thought experiment. Otto, an Alzheimer's patient, uses a notebook to store information, while Inga relies on biological memory. Clark and Chalmers argue that Otto's notebook serves the same functional role as Inga's memory: it is consistently accessible, directly guides action, and forms an integral part of his cognitive system. By their parity principle, Otto's notebook qualifies as part of his cognitive process, demonstrating that the boundaries of the mind extend beyond the skin and skull.

This argument is convincing because it shows how tools can work like parts of the brain. In daily life, people use smartphones for directions or calculators for math, proving how external tools often act as extensions of our thinking (Hutchins, 1995).

Critics argue that external systems like notebooks lack the "intimacy" and "portability" of internal processes, which are vital for true cognition. For instance, Otto's reliance on a notebook could be disrupted by physical separation, whereas Inga's memory remains ever-present. However, Clark and Chalmers preempt this objection by emphasizing reliable coupling. As long as the external system is consistently accessible and functionally integrated, it satisfies the requirements for being cognitive. Moreover, biological memory itself is subject to similar disruptions, such as amnesia or intoxication, weakening the distinction between internal and external systems.

The extended mind thesis challenges traditional conceptions of personhood, responsibility, and cognitive enhancement. If tools like notebooks and smartphones are integral to our cognition, then interfering with these tools could be seen as ethically equivalent to interfering with the brain. Furthermore, this perspective invites a reevaluation of education, encouraging the development of environments that optimize cognitive coupling.

Clark and Chalmers's "extended mind" thesis offers a paradigm-shifting view of cognition. By blurring the boundaries between mind and environment, it compels us to rethink the essence of cognitive processes and their ethical, social, and technological implications. While the debate continues, the examples of Otto and Inga demonstrate the intuitive and practical power of their argument, making a compelling case for an expanded conception of the mind.

### References

- Adams, F., & Aizawa, K. (2001). The bounds of cognition. *Philosophical psychology*, 14(1), 43-64.
- Clark, A., & Chalmers, D. J. (1998, January). The Extended Mind. *Analysis*, 58(1), 7-19.
- Hutchins, E. (1995). *Cognition in the wild*. MIT press.