

Institute for Advanced Studies in Basic Sciences GavaZang, Zanjan, Iran

Self-Awareness

Prof. Majid Ramezani

Report for Project <1>

Faeze Ahmadi

October 2025

Advanced Artificial Intelligence Course Report

Topic: Self-Awareness

I have just entered the world of Artificial Intelligence, and I always thought that anything that can think or make decisions like a human must also have some kind of "intelligence" or even "awareness."

But when our professor talked about Self-Awareness in class, I realized that there is a big difference between intelligence and self-awareness.

Self-awareness basically means that a being not only understands its surroundings but also understands itself. It knows "who I am," "what state I am in," "how I feel," and "why I am doing this."

Humans have this ability, and that's why we can think about ourselves, realize our mistakes, and even feel emotions like regret or pride.

In psychology and cognitive science, self-awareness is usually defined as "the mind's understanding of itself."

For example, when we stand in front of a mirror and see ourselves, our brain knows that the reflection is us, not another person.

Because of this, scientists have done mirror tests with animals like dolphins, chimpanzees, and elephants to see if they recognize themselves.

If the animal examines its own body or tries to remove a mark on its face using the mirror, it means it has some level of self-awareness.

But when it comes to machines or Artificial Intelligence, things are very different.

An AI system may be able to make logical decisions, learn from experience, or even imitate human behavior — but it doesn't really understand what it's doing.

For example, a robot might say "I'm tired," but it doesn't actually feel tired, because it doesn't have anything like inner feelings or subjective experience.

Professor Ramezani said: "Artificial Intelligence might become smarter than humans, but it can never experience being human."

This sentence really caught my attention, because I think it shows the real difference between humans and machines.

A machine only processes information, but a human experiences life.

Some scientists, like Ray Kurzweil and David Chalmers, believe that maybe in the future, when neural networks become complex enough, a kind of artificial self-awareness might appear.

But many others, like John Searle, disagree.

They say that even if a machine can imitate conscious behavior, it still isn't truly aware.

In Searle's famous <u>"Chinese Room"</u> example, a person inside a room can give correct answers in Chinese without actually understanding the language, just like an AI that only follows algorithms.

In the end, what I learned from this research is that self-awareness means having an inner understanding of oneself, not just processing data.

As long as AI only understands the world from the outside, and not from within itself, it is still not truly "self-aware."

Maybe one day machines will have some kind of awareness of themselves, but for now, this ability belongs only to living beings, especially humans.

Honestly, I hope that AI never replaces us humans, because I think a machine world would be soulless.

I will always prefer human life, because no matter how smart or emotional AI becomes, it still lacks one thing, real existence.

References

[1] Searle, J. R. (1980). "Minds, Brains, and Programs." Behavioral and Brain Sciences, 3(3), 417–457.

[2] Chalmers, D. J. (1995). "Facing Up to the Problem of Consciousness." Journal of Consciousness Studies, 2(3), 200–219.

[3] Kurzweil, R. (2005). The Singularity is Near: When Humans Transcend Biology. Penguin Books.