

Critique of Cognitive Science

The claim that human minds work by representation and computation is an empirical conjecture and might be wrong. Although the computational-representational approach to cognitive science has been successful in explaining many aspects of human problem solving, learning, and language use, some philosophical critics such as Hubert Dreyfus and John Searle have claimed that this approach is fundamentally mistaken.

Critics of cognitive science have offered such challenges as:

1. The emotion challenge: Cognitive science neglects the important role of emotions in human thinking.
2. The consciousness challenge: Cognitive science ignores the importance of consciousness in human thinking.
3. The world challenge: Cognitive science disregards the significant role of physical environments in human thinking.
4. The social challenge: Human thought is inherently social in ways that cognitive science ignores.
5. The dynamical systems challenge: The mind is a dynamical system, not a computational system.

6. The mathematics challenge: Mathematical results show that human thinking cannot be computational in the standard sense, so the brain must operate differently, perhaps as a quantum computer.