

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



علوم شناختی

جلسه ۲۶ (الف)

چالش خودآگاهی: مباحثه‌ی دانایی

The Challenge of Consciousness: The Knowledge Argument

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PART 3: APPLICATIONS



Chapter 15: The Cognitive Science of Consciousness



Chapter 15.1: The challenge of consciousness: the knowledge argument



Two sides of the debate on consciousness

- There are exciting experiments and creative theories that seem to shed light on consciousness
- There are powerful arguments that it is impossible to give an information-processing model of consciousness

Two perspectives on cognitive agents

- The third-person perspective
 - Work backwards from observable behaviors and capacities (such as reaction times, levels of blood oxygen, verbal reports) to information-processing mechanisms that could generate those behaviors and support those capacities.
 - Experimental techniques and tools: psychological experiments, functional neuroimaging, computational modeling
- The first-person perspective
 - The target of investigation is a rich, conscious life, full of feelings, emotions, sensations, and experiences

The knowledge argument

“Mary is confined to a black-and-white room, is educated through black-and-white books and through lectures relayed on black-and-white television. In this way she knows all the physical facts about us and our environment, in a wide sense of ‘physical’ which includes everything in *completed* physics, chemistry, and neurophysiology... It seems, however, that Mary does not know all that there is to know. For when she is let out of the black-and-white room or given a color television, she will learn what it is to see something red...”

(Jackson 1986)

The knowledge argument against the information-processing model

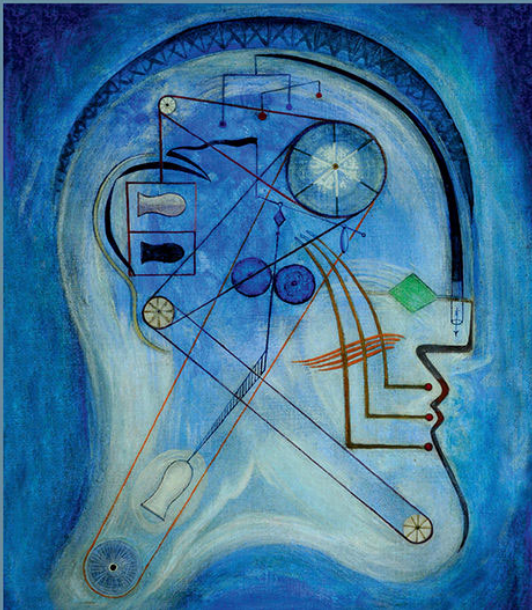
1. In her black-and-white room Mary has complete knowledge of how information is processed in the brain.
2. So, in her black-and-white room Mary knows everything that there is to know about the information processing going on when a person has the experience of seeing red.
3. When she leaves the black-and-white room, Mary acquires new knowledge about what goes on when a person has the conscious experience of seeing red.
4. Therefore, there must be some aspects of what goes on when a person has the conscious experience of seeing red that cannot be understood in terms of how information is processed in the brain.

José Luis Bermúdez

Cognitive Science

An Introduction to the Science of the Mind

Third Edition



José Luis Bermúdez,
Cognitive Science:
An Introduction to the Science of the Mind,
 3rd ed., Cambridge University Press, 2020.
Chapter 15 (Section 15.1)

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Overview

Consciousness is an almost bipolar topic in contemporary cognitive science. On the one hand, we have many exciting experiments and creative theories aiming to understand what consciousness is and how it contributes to cognition. On the other, there are powerful arguments that it is impossible to give an information-processing model of consciousness. This chapter looks at both sides of the debate.

Section 15.1 introduces the challenge of consciousness through Frank Jackson's much-discussed Knowledge Argument. We then consider the differences between conscious and nonconscious information processing. Section 15.2 explores how these are revealed in priming experiments and by studying the behavior of brain-damaged patients. Section 15.3 draws on these findings to explore theories about the function of consciousness. In Section 15.4 we look at two powerful arguments objecting to that whole way of proceeding. According to these arguments,