

Aesthetical belief differences: A case study on Modrian artworks.

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Keyword: Chinese Room Argument, Epistemology, Artificial Intelligence

1. Background and purpose of study

One of the most challenge problems in artificial intelligence is to automatically understand the perception of human being by machine. On the first attempt to answer this problem, Alan Turing (1950) introduced his famous test in which a man participate in imitation game via teletype to try to determine a computer or human is in response. This test turns to be a very basic foundation for the development of Physical Symbol System Hypothesis by Allen Newell and Herbert Simon (1976) in later years. In this hypothesis, intelligence is defined as the ability to perform a symbolic reasoning.

However, the proposal of Turing has been critically debated by John Searle (1980). By introducing the Chinese room argument, he declared that a machine can possibly perform some given tasks by following the set of rules, or syntax in other word, but it cannot understand meaning of input, or semantic. Then, Searle concluded that a machine cannot have perception as human being as men have biological functions to perceive the world.

The Chinese room argument has turned to be a controversial topic in the field of artificial intelligence. On the recent counterargument, Rapaport (2016) think that the adds-up of neural firing of perceptual images, just more symbols, into the syntactic systems will make a “machine-can-think”. In that paper, he says the combination of neural firing of language and the neural firing of perceptual images will produce the language of thought. On the attempt to further elaborate the question “can syntax carry semantic?”, I suppose that there are a symbolic system which can carry out the both logics of neuron firing of Rapaport. Then, I try to answer the question “can that system carry out semantics?”.

2. Research content

Observing how man capture or perceive absolutely new objects is a possible approach to answer the proposed question. By analyzing two different groups of students, one group is architecture students and another one is just normal students, who contemplate the artworks of Piet Mondrian at the first time, I try to figure out the following points:

- Do people with different knowledge backgrounds will have different aesthetical perceptions?
- Does aesthetical perception change over-time?
- How the Piet Mondrian’s art school has been named?