Room Arguments

1 Leibniz's Mill

We must confess that the *perception,* and what depends on it, *is inexplicable in terms of mechanical reasons,* that is, through shapes and motions. If we imagine that there is a machine whose structure makes it think, sense, and have perceptions, we could conceive it enlarged, keeping the same proportions so that we could enter into it, as one enters into a mill. Assuming that, when inspecting its interior, we only find parts that push one another, and we will never find anything to explain a perception. And so, we should seek perception in the simple substance and not in the composite or in the machine. Furthermore, this is all one can find in the simple substance—that is, perceptions and their changes. It is also in this alone that all the internal actions of simple substances can consist. (Leibniz [1714] 2019, 304R)

2 Searle's Chinese Room

Consider a language you don't understand. In my case, I do not understand Chinese. To me Chinese writing looks like so many meaningless squiggles. Now suppose I am placed in a room containing baskets full of Chinese symbols. Suppose also that I am given a rule book in English for matching Chinese symbols with other Chinese symbols. The rules identify the symbols entirely by their shapes and do not require that I understand any of them. The rules might say such things as, "Take a squiggle squiggle sign from basket number one and put it next to a squoggle-squoggle sign from basket number two."

Imagine that people outside the room who understand Chinese hand in small bunches of symbols and that in response I manipulate the symbols according to the rule book and hand back more small bunches of symbols. Now, the rule book is the "computer program." The people who wrote it are "programmers," and I am the "computer." The baskets full of symbols are the "data base," the small bunches that are handed in to me are "questions" and the bunches I then hand out are "answers."

Now suppose that the rule book is written in such a way that my "answers" to the "questions" are indistinguishable from those of a native Chinese speaker. For example, the people outside might hand me some symbols that unknown to me mean, "What's your favorite color?" and I might after going through the rules give back symbols that, also unknown to me, mean, "My favorite is blue, but I also like green a lot." I satisfy the Turing test for understanding Chinese. All the same, I am totally ignorant of Chinese. And there is no way I could come to understand Chinese in the system as described, since there is no way that I can learn the meanings of any of the symbols. like a computer, I manipulate symbols, but I attach no meaning to the symbols.

The point of the thought experiment is this: if I do not understand Chinese solely on the basis of running a computer program for understanding Chinese, then neither does any other digital computer solely on that basis. Digital computers merely manipulate formal symbols according to rules in the program. What goes for Chinese goes for other forms of cognition as well. Just manipulating the symbols is not by itself enough to guarantee cognition, perception, understanding, thinking and so forth. And since computers, qua computers, are symbol-manipulating devices, merely running the computer program is not enough to guarantee cognition. (Searle 1990, 26)

References

Leibniz, G. W. (1714) 2019. "The Principles of Philosophy, or the Monadology." In *Modern Philosophy: An Anthology of Primary Sources*, edited by Roger Ariew and Eric Watkins, translated by Roger Ariew and Daniel Garber, 3rd ed., 303–11. Indianapolis, IN: Hackett Publishing Company.

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