



## Intentional systems

### Description

In his book *Consciousness Explained*, the philosopher and cognitive scientist Daniel Dennett says that a study of hallucination, “will lead us to the beginnings of a theory – an empirical, scientifically respectable theory – of human consciousness” [4]. I’ve explored what some philosophers say about [hallucination](#) in previous posts and tried to relate that to design.

From the perspective of the humanities I think “[imagination](#)” does the job as well as “hallucination,” but it suits the project of a philosophical materialist, such as Dennett, to appeal to this less ordinary term which draws attention to the fact that our senses are prone on occasion to deception, falsity, untruths, and the unverifiable. We are prone to *hallucination*, though more commonly than we think.

On the subject of scientific respectability, one of the tests for a theory is that you can use it to make predictions, and that these predictions turn out to be verified, or at least verifiable, by observation.

According to Dennett we predict what will happen in any circumstance based on one of three conditions. He calls these the *design stance*, the *physical stance* and the *intentional stance*.

My current project is to establish how discourses about consciousness and its perplexities impinge on how we think about environment, place, the urban condition and architecture “in the digital age. Does it make sense to ascribe consciousness to a city? – that kind of thing. I thought that Dennett’s appeal to the *design stance* might provide useful insight.

“We generally adopt the design stance when making predictions about the behavior of mechanical objects, e.g., “As the typewriter carriage approaches the margin, a bell will ring (provided the machine is in working order),” and more simply “Strike the match and it will light” [88].

According to this stance, you can predict what will happen based on what we think the system is designed to do. But I think design in architecture and most other areas is rarely driven by such a singular set of functional performance goals. Dennett is mainly thinking of the specific actions built into

computer programs. For Dennett, that's the *design stance*.

The *physical stance* is based on what happens to physical systems independently of their design. For Dennett it's the stance most often adopted when we identify that a thing is not operating as it should. Wet matches don't light when struck, and there's a good physical explanation for that.

From this stance our predictions are based on the actual physical state of the particular object, and are worked out by applying whatever knowledge we have of the laws of nature. [88].

He doesn't mention the concept of [affordance](#) in the article in which he introduces these stances. His article 'Intentional Systems' from which I am quoting appeared in 1971 before the burgeoning of [UX design](#) and its theorizing, and he is thinking of chess-playing computer programs rather than the practical world of human interaction with material objects and systems.

Considering the physical properties and intricacies of computer hardware, Dennett dismisses the possibility that the *physical stance* will reveal useful predictions about the operations or failings of computer systems. So he turns to the *intentional stance*.

## The intentional stance

In a previous post I examined uses of the word 'intentionality'. I'm pleased to see that the philosopher John Searle recognised that the word is 'problematic' [85]. In English the ordinary usage of 'the word' 'intention' is to be goal-directed. The reason I am at my desk is that I *intended* to be here. According to Searle and others this is just one of many ways that we exhibit intentionality. Searle makes this clear.

My subjective states relate me to the rest of the world, and the general name of that relationship is 'intentionality'. These subjective states include beliefs and desires, intentions and perceptions, as well as loves and hates, fears and hopes.

'Intentionality', to repeat, is the general term for all the various forms by which the mind can be directed at, or be about, or of, objects and states of affairs in the world' [85].

Humans act intentionally for much of the time. As well as acting with purpose, we human beings are capable of telling stories about how and why we act as if goal-directed. Intentionality is a good way of accounting for human thought and behaviour, and even predicting to some extent what people will do. For Dennett intentionality is also a handy way of describing what computer programs do:

'the definition of Intentional systems I have given does not say that Intentional systems really have beliefs and desires, but that one can explain and predict their behavior by ascribing beliefs and desires to them' [91]

This is to ascribe to a computer human attributes, such as beliefs, desires and the capability to act rationally. For Dennett it doesn't matter if the mechanics of a computer are different to the mechanics of human thought and action.

“One will arrive at the same predictions whether one forthrightly thinks in terms of the computer’s beliefs and desires, or in terms of the computer’s information-store and goal-specifications” [91].

Here, *intentional system* seems to serve as a surrogate for *artificial intelligence*. Dennett coins a casual term “aboutism,” and that relates to consciousness. It’s ok to assert that a person, other organism, or thing is conscious, as a singular state, but the full transitive form of “conscious” as a verb is to be conscious **of** something. Searle says something similar, and both draw on Brentano and Husserl. See post [The phenomenological attitude](#).

## References

- Dennett, Daniel C. “Intentional Systems.” *The Journal of Philosophy* 68, no. 4 (1971): 87-106.
- Dennett, Daniel C. *Consciousness Explained*. Boston, MA: Little, Brown & Co, 1991.
- Searle, John R. *Mind, Language, and Society: Philosophy In The Real World*. London: Weidenfield & Nicolson, 1999.

## Note

- Featured image is from Midjourney, prompted with the (near) quotation from Searle: “Intentionality is the general term for all the various forms by which the mind can be directed at, or be about, or of, objects and states of affairs in the world.”

## Category

1. Architecture

## Tags

1. AI
2. consciousness
3. intentionality

## Date Created

January 14, 2023

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