

**Daniel C. Dennett**

*Intuition Pumps and Other Tools for Thinking.*

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The title may suggest to the uninitiated that *Intuition Pumps and Other Tools for Thinking* is a primer on critical thinking or informal logic. However, it should *rather* (ch. 9) be seen as a survey of Daniel Dennett's contributions to philosophy. *Intuition Pumps* takes the most interesting ideas Dennett has presented over his distinguished career, along with some sharp new ones, and puts them in a different context and format—the greatest hits of his clever quips. The purpose is to re-present them in a more accessible layout for the popular-level reader, leading him on a rapid-fire tour of Dennett's philosophy. Composed of nearly 80 chapters, many of them three pages or less, *Intuition Pumps* is an excellent survey of Dennett's contributions to philosophy of mind and elsewhere.

Given its scope, there is much to both agree and disagree with in *Intuition Pumps*. Since disagreement is more inherently interesting we will focus on a particular area of disagreement that cuts across several chapters and sections.

Dennett makes a distinction between explanations that work bottom-up versus those that work top-down. He calls the former *cranes* and the latter *skyhooks* (ch. 38). The top, in his reasoning, is mind, while the bottom is the material, physical, mechanistic entities and processes that science studies. Thus, any attempt to explain anything by starting with mind or intent is a skyhook, and such explanations are unscientific and disallowed. More precisely, they are non-existent: skyhook explanations cannot trace their existence back to the mindless, mechanistic processes of nature, and so are essentially appeals to miracles.

To illustrate this, Dennett provides a particular application. We tend to think that someone is competent at something because they understand how to do it, and he can translate that knowledge into action. But this is a very un-Darwinian explanation. What evolution reveals, according to Dennett, is that the obtaining of beneficial attributes is not a matter of wanting them or striving for them. To think it is would be to confuse Darwinism with Lamarckism. Instead, beneficial attributes are simply given, and those who have them thrive and those who do not do not. To apply it to the present case, those who are competent at something thrive and those who are not competent do not – and this competence is simply given. To jump ahead to comprehension (a mental concept) and work back to competence is a skyhook. A crane explanation, the only type of explanation allowed, has competence preceding comprehension, and thus existing (at least for a time) without comprehension (ch. 39).

Dennett's Darwinian understanding of the mind underlies much of his philosophy. We tend to think that something either has a mind or it does not, it either has intentionality or it does not. But Dennett argues that these properties slowly develop in stages approaching them (bottom-up) with properties that are *almost* all the way, but not quite: *sorta* minds with *sorta* intentionality (ch. 21). Much of the criticism of this perspective lies in other philosophers mistaking a "failure of imagination" (ch. 5) for a philosophical argument.

One primary example of this is Leibniz's thinking machine (*Monadology* §17). If we created a machine to have various mental properties and enlarged it so that we could go inside (like a mill,

Leibniz suggests) and observe all the various motions and parts, all we would observe is motions and parts – *not* thoughts, beliefs, sensations, perceptions, or anything characteristic of mentality. Yet this merely represents a failure of imagination on Leibniz’s part (ch. 54). Leibniz simply could not imagine how purely material, mechanistic objects and events could have content. A similar situation involves William Bateson, an early 20th century geneticist who could not imagine how all the power genes carry could be contained in a material entity, and who accordingly receives even more disapprobation from Dennett (chs. 22, 54, 55, 60).

However, there is an objection to all of this. Dennett argues that competence precedes comprehension. But then why would comprehension ever arise? You would have everything you need, everything that Darwinian evolution would select for, with just the competence. And even if comprehension did arise, there would be no reason to trust it, since it would not have been produced in such a way that poor comprehension was less fit than greater comprehension. The control placed upon it by Darwinian factors (where greater comprehension would provide greater competence, and thus increase fitness) would be absent. Presumably, one could deny that comprehension did arise, but that is not a possibility Dennett pursues, no doubt since it would entail that he himself does not understand Darwinism, nor his own philosophy, nor even this particular point that competence precedes comprehension. Yet he cannot jump ahead to comprehension and work back to competence, since this would be an appeal to one of those nasty skyhooks he otherwise decries.

So what of Leibniz’s thinking machine? Dennett’s criticism here seems too broad. Leibniz is not merely saying that he does not see how mental properties, such as intentionality, could arise from a material, mechanistic entity, he is saying that he does see that they cannot. How does that part moving as it does in relation to those parts have content in the same way that beliefs have content? We can make the thinking machine larger and more complicated, but this does not change anything. Having a lot of physical connections between a lot of physical parts may be difficult to keep track of, it may be complex. But a complex series of movements among complex parts has no more claim on having content than a simple series of movements among simple parts. Leibniz’s intuition here is similar to Hume’s, that we cannot get an “ought” from an “is.” The former “expresses some new relation or affirmation” (*A Treatise on Human Nature* 3, 1). Adding more and more descriptions does not get us one whit closer to a prescription. Dennett’s suggestion would be that if you produce something so complex that we cannot keep track of all the movements and relations between all the parts, then perhaps normativity (an “ought”) may arise. But thinking that the complexity, the large number of interacting parts, may produce normativity is like thinking that if you walk far enough you will eventually get to the Moon.

Now perhaps Leibniz and Hume are wrong about this. That is certainly a respectable position. But Dennett does not really give us any reason to think so. He just says that Leibniz has had a failure of imagination, and that it is on a level with William Bateson’s failure of imagination regarding genes. However, there seems to be a fundamental difference: Bateson could not see how genes could have as much power as they do if they were purely material entities: he did not see that they could not, he just did not see how they could. This is not the case for Leibniz (and Hume). They do not fail to see how an accumulation of material objects and processes could produce mind and morality: they *do* see that it *could not*, even if you have a gazillion of them (Dennett’s favorite number). Again, they could be wrong (intuitions often are) but this has to be argued, not dismissed.

However, at this point we can point to Dennett’s whole corpus as a sustained argument seeking to demonstrate this precise point as well as many others surrounding it. *Intuition Pumps* is

an *introduction* to Dennett's philosophy. To go deeper, we must delve into his other works where, once again, there is much to both agree and disagree with.

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