Putting Pragmatism to Work?

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Philosophical Tools for Technological Culture (2001) updates the Deweyan philosophy of technology that Larry Hickman first offered us in *John Dewey's Pragmatic Technology* (1990). Hickman responds to a number of criticisms directed at the earlier book and includes a number of additional essays on topics such as technological determinism, Heidegger, Habermas and on future directions for the philosophy of technology. The first book suggested that John Dewey's philosophy of inquiry represents both a philosophical technology and a philosophy of technology offered long before any other major philosophical figure. Hickman also defends Dewey's approach as superior to any currently in the field. In broad outline, both claims are certainly correct. Dewey's pragmatism was arguably the first philosophy to recognize that scientific knowledge and technical expertise were becoming critical to a range of social and political issues. As Hickman demonstrates in both books, Dewey saw that conventional epistemological approaches to knowledge would have distorting and even corrupting influences within the emerging scientific, regulatory and financial institutions of late capitalism. And Dewey's reconceptualization of inquiry is indeed still the most promising response we have to dilemmas that have by now become familiar.

Yet both as a society at large and as a philosophical community we are far from being able to work within a pragmatic technology when approaching the problems that we face. Instead, we confront many of the same assumptions and attitudes that Dewey sought to counter in his own time. On the one hand, many contemporary actors continue to promote a naïve and simplistically progressive picture of science and technology, one that is insufficiently attentive to social inequalities that are too infrequently remedied by technical change, as well as to environmental impacts and "revenge effects," to use Edward Teller's term, that follow on technological innovations. On the other hand, those who are sensitive to these problems often seem to devolve toward forms of fatalism and romanticism that ultimately provide no basis for constructive response to problems of either a social *or* technical bent.

Within philosophy, the analytic tradition appears determined to pursue the old lines of inquiry, even at the cost of isolating the discipline entirely from any wisp of relevance to problems of either a personal or social cast. Postmodernism has

followed Dewey's lead, but as Hickman argues effectively, the forms of postmodernism associated with key European thinkers, as well as Richard Rorty, fail to embrace Dewey's reconstructive philosophy. This failing leaves them with no positive program of action, and ends up contributing to our social problems by reinforcing the nostalgia of a return to a golden era favored both by traditional conservatives and, increasingly, by greens, humanists and others on the postmodern left. Hickman does point to the "good guys." They include Andrew Feenberg and Don Ihde whom (correctly again, I believe) Hickman identifies as working more in a pragmatic intellectual tradition than in the Continental, phenomenological tradition with which they are self-identified. Significantly, both Feenberg and Ihde are actively seeking common ground between philosophy of technology and science studies, and Hickman, too, cites recent work by figures such as Andrew Pickering and Bruno Latour (but not the social constructionists Wiebe Bijker or Trevor Pinch) as compatible with Dewey's approach.

I am happy to throw in with this general lot, and not particularly interested in nitpicking Hickman's readings of Habermas (whom I take to be more pragmatic than does Hickman), Heidegger (who was no pragmatist but nonetheless far less of an essentialist or romantic than Hickman makes him out to be), or Albert Borgmann (whom I read as one of the good guys, while Hickman does not). Yet I am both more impressed and more depressed by the way that our intellectual milieu fails to reflect much impact from Dewey's own work. Hickman's response is just to keep hammering away. Dewey is the answer to every question, and those who criticize Dewey have always got him wrong. As I see it, the weakness in Dewey and in Hickman is that both fail to come to grips with the way that technology is problematic. This is, of course, an ironic weakness for anyone holding a pragmatic position. In the new book, it emerges most clearly in Hickman's attempt to address that tar-baby that no self-respecting pragmatist should ever touch, the definition of technology.

Here's why no pragmatist needs to define technology. Everybody knows what technology is. You can say things like "Technology will solve that problem," or "Technology is just getting out of hand," or "We need better technology," or "I'm investing in technology," and all these statements will be parsed and understood by virtually anyone *within the specific conversational contexts in which they are likely to be asserted*. This is just what a pragmatist expects. It is an expectation implicit in Peirce's seminal articles "How to Make Our Ideas Clear," and "The Fixation of Belief," as well as in Dewey's own "The Reflex Arc

Concept in Psychology." The demand for definitions is an unreasonable and even misleading demand, made to seem reasonable by the very logicist, rationalist and empiricist traditions in epistemology that pragmatism is intended to supplant. This is not to say that the word "technology" cannot be problematically vague or ambiguous in certain usages, nor that philosophers such as Heidegger or Ellul have not created confusion with idiosyncratic uses. But the pragmatic response to such problems is contextually specific clarification. It is *not* an attempt to "analyze" or "define" a term or concept that functions perfectly well in most of the contexts in which it is routinely used.

Yet *Philosophical Tools* devotes both space and prominence of position to the articulation and defense of the following definition of technology: "*the invention, development, and cognitive deployment of tools and other artifacts, brought to bear on raw materials and intermediate stock parts, with a view to the resolution of perceived problems*" (p. 26). The definition matches "technology" with Dewey's theory of inquiry, all right, but in doing so it also means that technology is the answer to any problem. I think this is a tautological result of Hickman's view, though there may be a few problems that don't need the deployment of tools or artifacts. Of course, if technology is the *answer* to every problem, then technology cannot, in itself, be problematic. This is a result that defies the usage of the word technology in many of the contexts that have been of considerable interest to philosophers of technology. From my own pragmatist perspective, that is enough to do it in and drop the whole thing. Hickman's response is to assert that while tools and techniques can be problematic, technology cannot. Hence, we have to reform the way we ordinarily talk in order to be consistent with Hickman's definition of technology. This may be a logically defensible solution, but it strikes me as pedantic and decidedly *un*pragmatic.

Hickman's willingness to reiterate Dewey's theory of inquiry as a response to the views of everyone from Max Horkheimer to Harold Bloom is also, in my view, a failure to come to grips with what is problematic (which for a pragmatist ought to be what is interesting) in contemporary technology. My disagreement here is one of emphasis, rather than doctrine, to be sure. My own version of pragmatism is to examine situations that are, on the face of it, problematic, such as the ongoing debate over the use of recombinant DNA techniques to develop new agricultural crops and animals (Thompson, 1997), or that *should be* regarded as problematic, such as the continuing application of industrial principles of policy and management to the food and agricultural system (Thompson, 1995). Philosophers can illuminate why situations are or should be viewed as involving problems, and

can explore possible roles for technical and scientific expertise (as well as political organization) in response to them. Pragmatic philosophy can articulate implicit values lurking behind opposing perspectives (and often imbedded within material dimensions of artifacts themselves) and can specify procedures and processes that promote democratic solutions. Philosophy can also militate in favor of the values that the philosopher endorses. I see myself doing all these appropriately Deweyan things, though my work in a specific context may not provide many opportunities to cite Dewey's work or to mention his name (though occasionally I do [Thompson, 1999]). Hickman offers a nod to my work (p. 163), though I mind being characterized as an analytic philosopher. Nevertheless, though Hickman and I do rather different things, it is clear that we do not disagree about the complementarities between our respective bodies of work.

My kind of pragmatism is particularly relevant with respect to problems in which technological artifacts, technically complex machinery or systems, and scientifically advanced forms of expertise figure prominently. Hickman's book offers a number of arguments and observations that establish the relevance of my own more detailed and context specific studies, and for that I am appreciative. First, lingering influences of foundational epistemology and "straight line instrumentalism" create a cultural climate in which complexity can lead to stupidity. Second, values continue to be sadly neglected when technology enters the picture. Third, the cult of expertise is with us still, and the best response is to open the black boxes and have a look. Opening the black boxes, however, requires attention to the specific context and to details. Hickman certainly does not oppose philosophy that does this; he welcomes it. But precious few black boxes actually get opened in the pages of *Philosophical Tools*.

So, is Thompson just bitching about the fact that Hickman does Hickman style philosophy, rather than Thompson style philosophy, despite the fact that they agree on every important question of substance? Is the problem that Hickman should have written about agricultural biotechnology, rather than the book he did write? In my own defense here, I will assert that questions of emphasis and choice of topic should matter more to pragmatists than they do to unreconstructed analysts or postmodernists. Dewey argued for a reorientation of disciplinary philosophy toward more specific engagement with problems of non-philosophers. As Michael Eldredge (1998) has demonstrated convincingly, Dewey lived up to his own demands for an alteration of practice (as has Hickman, as anyone familiar with his yeoman service to unpopular causes and marginalized groups at Texas A&M University will readily attest). Yet for both

Dewey and Hickman, that practice has mostly been engaged in causes and problems that would conventionally be characterized as social or political, rather than technological. As such, Hickman stops short, I would argue, of really extending his view into the philosophy of technology.

In fact, the philosophical work being done in *Philosophical Tools for Technological Culture* is merely a propaedeutic for engagement with technological practice. When Hickman is called upon to illustrate productive pragmatism*,* he does not cite my work (or Don Ihde or Andrew Feenberg or Stan Carpenter or Kristin Shrader-Frechette or Andrew Light), but two very political examples in which philosophers play minimal roles: the old Office of Technology Assessment, and Randy Shaw's activism in San Francisco. Neither example tells us much about the reconstruction of philosophy, much less the philosophy of technology. There is the regrettable and unnecessary foray into definitions and there are critical comments on others working in the philosophy of technology. But when we come to positive theory, everything Hickman offers has the look of conventional Deweyan social and political thought.

I am happy to be characterized as a fellow-traveler with Hickman, and I will probably find many occasions to cite this book. It is, nevertheless, something of a disappointment from the standpoint of pragmatic philosophy of technology. Neither pragmatic enough nor writing sufficiently *about* technological culture, Hickman fails to undertake a reconstruction of our field of philosophy on the principles that he advocates. Our current intellectual milieu, so depressingly like Dewey's own, demands a philosophical practice that engages technological problems. Dewey gave us the arguments for doing that, and Hickman reiterates those arguments in an updated dialog with a host of intellectuals who still do not get it. That is a step in the right direction, but it is not yet putting pragmatism to work.

References

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