Review of *Philosophical Tools*
Craig Hanks
Texas State University, San Marcos

Philosophical Tools for Technological Culture: Putting Pragmatism to Work. Larry Hickman. Bloomington, Indiana University Press, 2001.

> Philosophy recovers itself when it ceases to be a device for dealing with the problems of philosophers and becomes a method, cultivated by philosophers, for dealing with the problems of men. (John Dewey, "The Need for a Recovery of Philosophy," p. 95.)

In *Philosophical Tools for Technological Culture: Putting Pragmatism to Work,* (2001), Larry A. Hickman argues that thinking about philosophy, with Dewey, as being properly concerned with the actually existing problems of human beings, and that placing a philosophy of technology at the center of our philosophical concerns, is necessary "if we are to convert conditions that range all the way from what is merely irritating to what is life-threatening into situations that are stable, harmonious, and more nearly what we wish them to be" (p. 28). Hickman finds great advantages in John Dewey's philosophy, properly understood as "productive pragmatism." As a philosophical tradition with explicitly applied intent, Pragmatism might be expected to be a central player in our discussion of science and technology. And, while it is flourishing in certain particular arenas (consider Andrew Light's work on Environmental Philosophy and Glenn McGee's in Bioethics), as Larry Hickman has pointed out, citing the estimable *American Philosophy of Technology: The Empirical Turn* (2001), Pragmatism is often strangely absent from more general discussions in philosophy of technology. Taken together with the fact that philosophy of technology is itself rather at the margins of mainstream philosophy, Hickman has a difficult task indeed.

Philosophical Tools for Technological Culture is Hickman's most recent installment in a 20+-year project. Thirteen years ago, *John Dewey's Pragmatic Technology*. (Bloomington: Indiana University Press, 1990), brought Dewey more fully into the purview of philosophers of technology, and philosophy of technology to the attention of pragmatists. But, the roots of this project stretch back more than ten additional years and are evident in the selection of texts and the excellent editors remarks in three edited collections published between 1981

and 1990: *Technology and Human Affairs*, edited with Azizah Al-Hibri. (1981); *Philosophy, Technology, and Human Affairs* (1985)*; Technology as a Human Affair* (1990), as well as in numerous articles and presentations.

The present work contains nine chapters, eight of them previously published, and the ninth, "Tuning Up Technology," was presented as the Berry Lecture at Vanderbilt University in 1994. A frequent shortcoming of books that start their life as separately written essays is that they remain just that, a collection of separate essays. Such is not the case for *Philosophical Tools for Technological Culture*, where the notion of "productive pragmatism" is used to "leaven the entire volume" (p. 4). Hickman argues that "productive pragmatism" is preferable to "instrumentalism" as a characterization of Dewey's work, citing Dewey's own later dissatisfaction with "instrumentalism." The separate essays work together, and the book reads as if it was written all of a piece. The key here is "Tuning up Technology," which appears as Chapter 1. In this chapter, Hickman places Dewey in the context of the history of western philosophy and argues that his philosophy of technology is central to Dewey's work. Counter to other accounts of technology (the device paradigm, technophobia or technophilia, technological determinism, and so on) Hickman argues that, "Technology in its most robust sense, then, involves 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. 12, italics in the original).

Through the remainder of the book Hickman places "productive pragmatism" in dialogue with Ellul, Benjamin, Marcuse, Horkheimer, Habermas, Heidegger, Ortega y Gassett, Mumford, Niebuhr, Rorty, Bergmann, Ihde, Pitt, Mitcham, Feenberg, Mesthane, Peirce, James, and Whitehead. Hickman takes on a wide range of matters of contemporary concern including the nature and possibility of community, the role and character of education, religious belief, anti-scientific thinking, populism, and throughout it all democracy. Hickman argues for a politicized technology and a technologized politics. He summarized some of these thoughts in a recent presentation, saying "Our efforts at democracy will doubtless require that we improve the tools and techniques that we now have. But we cannot have more democracy without more technology, in the sense that I have employed the term. This is because technology is the means by which we tune up our tools and techniques" (Hickman, "Response to Hanks").

One of the great virtues of *Philosophical Tools for Technological Culture* is the manner in which Hickman responds to two critiques often raised against Dewey: i) that he is ultimately an apologist for the status quo who recommends an increased reliance on experts, and ii) that his instrumentalism is reductionistic.

Carl Mitcham suggested that the second of these haunts not only Dewey's work, but also Hickman's 1990 *John Dewey's Pragmatic Technology* (Mitcham 1994). The problem is this, if all human activity is "instrumental," in Dewey's terms, or "technological" in Hickman's, then what have we learned and what is gained through the use of these categories? Hickman turns to this matter early in the book with a four-part typology of human activities. The four types of activities are those that involve tool use, the technological (tool use and cognitive activity) and the technical (tools use but little or no cognitive activity), and those that do not, the non-instrumental but cognitive, and the non-instrumental and non-cognitive. The first two of these involve tool-use, but only the first is technology properly understood.   On this Hickman has commented, "I argued that technology is a term that should be treated as analogous to biology or geology. Technology is inquiry into our tools and techniques" (Hickman, "Response to Hanks").   Important in this typology is the clear fact that a significant portion of human activity is not technological as understood on this typology, and, as Hickman notes, much of it falls into the fourth category, the non-cognitive and non-instrumental. "The greatest part of life," he writes, "is what is immediate and habitual."

The critique of Dewey's work as calling for a technocracy has been heard from the political left and right, and Hickman responds to charges from both quarters here. The fundamentalist religious right attacks Dewey and science, often in the same breath. And, the critical theorists, starting with Horkheimer, find Dewey's talk of "instrumentalism" indistinguishable from the instrumental rationality critiqued in works such as *The Dialectic of Enlightenment.* These are no mere problems of theory, as almost daily we learn of some attempt to roll back the serious presentation of science in public education or policy, or yet another technological advance so complicated that it is presumed beyond the understanding of most people

Hickman takes on this difficult matter throughout. In Chapter 2, "Technology and Community Life," he argues that precisely because it excludes democratic participation and denies the importance of individual experience, technocracy is a social dead-end. "Wherever individuals are not free to articulate problems and to

attack them experimentally, then growth within the society is greatly diminished" (p. 57). Chapter 7, "Populism and the cult of the Expert," is Hickman's extended defense of the notion that democracy is educative, that technology and democracy are forms of inquiry (drawing on Peirce and James), and that together these considerations lead us to understand a carefully circumscribed role for experts. In developing Dewey's critique of the Cult of the Expert, Hickman makes use of the notion of "political technology" as developed by Michael Eldridge in *Transforming Experience* (1998). Analyzing and contrasting the political work of Randy Shaw and Ralph Reed, Hickman argues that while political technology can take many forms, we can identify those that are more responsible because they are those that involve those most affected in experimental and democratic processes (Shaw, and not Reed). These political technologies are the sort Hickman has in mind with the notion of productive pragmatism.

We can understand Hickman´s book as an extended argument that technology and democracy are compatible and mutually supporting practices. According to Hickman, if we understand the technology and democracy as fundamentally different, and perhaps even incompatible, human practices, then we will i) understand neither technology nor democracy, and ii) this failure in understanding will hinder our efforts to improve both technology and democracy. In chapter 9, "The Next Technological Revolution," Hickman distinguishes productive pragmatism from other forms of praxis philosophy such as critical theory and phenomenology on three grounds. First, while the other traditions of praxis philosophy tend to merely invert the theory/praxis hierarchy, pragmatism holds that neither has priority, but rather that each requires the other. Second, productive pragmatism "advances the view, which it claims is derived from technological experience, that the norms of technology are produced as by-products of technological activities themselves, and not introduced from the outside...They arise from the interaction of theory and practice as it provides intelligent answers to perceived problems" (p. 181). And, third, unlike other praxis philosophies, productive pragmatism, in both Dewey's and Hickman's versions, places a philosophy of education at the center of our concerns.

There are a few matters on which I am not sure I am convinced, or perhaps more accurately, I want to hear more, one terminological and the others more substantive. First, Hickman uses the term "technosciences" throughout to refer to the complex of scientific and technological practices that characterize contemporary culture. I agree with his argument that the traditional separation

between the scientific and the technological is problematic under careful examination. So, it is not the meaning so much as the word itself I find problematic. Perhaps it is the hangover from years of reading a certain critique of technoscience as either precisely the sort of encroaching evil that Horkheimer criticized, or to characterize the problematic dimensions of contemporary science and technology (see, for example, Haraway 1991). I should note, that refiguring the term as Hickman does has the salutary affect of calling us back to reexamine what we think we already know.

Second is the matter of desire, and third the matter of feminism. In defining technology as he does, as geared "toward the resolution of perceived problems," Hickman opens the question of the formation of desire. Perceived problems are those we notice because in someway(s) desire is thwarted. But, since desires are rooted in who we are, and who we are is shaped by, among other things, our social, and hence technological, setting, it could seem that technology responds to the problems of technology. Hickman addresses this when responding to Horkheimer in chapter 3, "Productive Pragmatism, Critical Theory and *Agape*," (see pp. 72-4), but I suspect he has more to tell us. The other matter is a lack of explicit encounter with feminist philosophies of technology (see, for example, Haraway, *Simians, Cyborgs and Women,* and Wajcman, *Feminism Confronts Technology)*. Hickman's work is clearly informed by such an encounter, but in this instance as well I suspect he has more to tell us.

Hickman's engaging and important book reads relatively easily and quickly (I first read it while on vacation in Spain where distraction was ever-present). This is not to say that it is light. The arguments tend to linger, slowly working and expanding our thinking of philosophy of technology, the leavening of productive pragmatism moving from these pages into our theory and praxis. In our present situation, with both technology and politics moving away from the model of productive pragmatism, and an increasingly attenuated public discourse about these matters, Hickman's work is a timely call to recover philosophy, and ourselves.

References

Achterhuis, Hans. *American Philosophy of Technology*. Bloomington: Indiana University Press, 2001

Dewey, John. "The Need for a Recovery of Philosophy," in The Philosophy of John Dewey. ed by John J. McDermott. (Chicago: University of Chicago Press, 1981). pp58-97.

Eldridge, Michael. *Transforming Experience: John Dewey's Cultural Instrumentalism*. Nashville, TN: Vanderbilt University Press, 1998.

Haraway, Donna. *Simians, Cyborgs and Women.* New York: Routledge, 1991.

Hickman, Larry A. "Response to Hanks," comments presented to the *Midsouth Philosophy Conference*, 21 February 2003, Memphis, TN.

_____. *Philosophical Tools for Technological Culture: Putting Pragmatism to Work*. Bloomington, Indiana University Press, 2001.

_____. *Reading Dewey.* (ed). Bloomington: Indiana University Press, 1998.

_____. *John Dewey's Pragmatic Technology*. Bloomington: Indiana University Press, 1990a.

_____. *Technology as a Human Affair*. (ed).   New York: McGraw-Hill, 1990b.

_____. *Philosophy, Technology, and Human Affairs*. (ed) College Station, TX: Ibis Press, 1985.

_____. *Technology and Human Affairs*, edited with Azizah Al-Hibri. St. Louis: The C.V. Mosby Company, 1981.

Horkheimer, Max and Adorno, Theodor *Dialectic of Enlightenment*. Translated by John Cummings. New York: Continuum, 1987.

Light, Andrew. *Controlling Technology: Contemporary Issues*. Edited with Eric Katz and William Thompson. Prometheus Books, 2003.

_____. *Technology and the Good Life?* edited with Eric Higgs and David Strong. Chicago: The University of Chicago Press, 2000a.

_____. *Beneath the Surface: Critical Essays in the Philosophy of Deep Ecology.* edited with Eric Katz and David Rothenberg. Cambridge, MA: The MIT Press, 2000b.

_____. *Environmental Pragmatism*. Co-edited with Eric Katz. New York: Routledge, 1998.

McGee, Glenn. *The Human Cloning Debate.* (ed). Berkeley Hills Press, 2002.

_____. *The Perfect Baby.* Lanham, MD: Rowman and Littlefield, 2000.

_____. *Pragmatic Bioethics.* (ed). Nashville, TN: Vanderbilt University Pres, 1999.

Mitcham, Carl. *Thinking Through Technology*. Chicago: The University of Chicago Press, 1994.

Wajcman, Judy. *Feminism Confronts Technology*. Cambridge, UK: Polity Press, 1991.