Larry Hickman and Tuning up the Technological Culture

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Larry Hickman, the preeminent curator of Deweyan philosophical artifacts, presents a striking portrait of philosophers at work in the current technologically driven world. Hickman demonstrates that Deweyan pragmatism is a useful tool for "tuning up" technological culture, and he is persuasive in his repeated arguments for making philosophically driven adjustments to our contemporary culture. The productive pragmatism advocated by both Dewey and Hickman shows a refreshing respect for the "integrity of technology," by which I mean that both Dewey and Hickman recognize technology on its own terms as non-derivative, complete and robust.

This strikes me as profoundly right, and I admire Hickman for his persistence in supporting this view. In my earliest inquiries into technology, I became obsessed over whether technology had any "integrity." That is to say whether there was anything unique about technology that was not derivative of science or theoretical knowledge. As a result, I wrote my dissertation on this topic: *The Integrity of Technology: A Critical Investigation of Classical and Pragmatic Interpretations of Knowledge, Science and Technology* (1993).

Larry Hickman's book, *Philosophical Tools For Technological Culture: Putting Pragmatism to Work,* is a collection of nine essays written over a period of nine years. As such, the volume covers a multitude of areas, but taken collectively, they outline the main problems that individuals in twenty-first century technological culture face on a daily basis. These essays are united by the persistent question of whether philosophy can have a meaningful effect on the ever-changing technological world. Philosophy can and it does, Hickman says, and it had *better.*

In his book, Hickman's principal mission is to argue for the superiority of John Dewey's pragmatism over any other philosophical school or movement, including the pragmatism of any other pragmatist. Hickman argues that Dewey's productive pragmatism is more adequate than other philosophies by virtue of its being able more fully to understand technology as it really is, and by virtue of its proven ability effectively to interact with the technological world. Additionally, Hickman argues that Dewey's pragmatism is productive because it furnishes

tools that produce meaningful changes in technological culture. In his elegant presentation and analysis of Dewey's philosophical tools (education, aesthetics, ethics, political philosophy, logic, philosophy of nature) Hickman demonstrates how these tools produce renewal, reform, and even revolution in technological culture.

Hickman advances two principal lines of argument. He extends Dewey's critique of classical and modern philosophy to the twentieth century philosophies that emerge concurrently with or following Dewey's, including Anglo-American analytic philosophy, early and later critical theory, phenomenology, and pragmatism. Secondly, as if he were a curator of philosophical artifacts, Hickman gathers together the philosophical tools developed by Dewey, and argues that they still work in the global culture of the twenty-first century.

1. Hickman's Endorsement of Dewey's Critique

Dewey's critique of the traditional Western intellectual tradition enables him to restore technology to a solid footing, and to free technology from a status of subordination to science. Technology is "restored" rather than established, because, as Hickman (2001, pp. 10-11) points out, technology has never been chronologically later than, nor ontologically subordinate to, science.

While Hickman acknowledges that the subordination of technology within a hierarchy of knowledge "is a deeply rooted idea" that "has a long pedigree" he does not incorporate much of Dewey's critique of classical Greek philosophy into his recent book, since he has done so elsewhere (Hickman, 1990) (and he need not have done so again).

Hickman's purpose is admittedly different, and in this book he clearly focuses on current technological culture. He does, however, mention aspects of Dewey's rejection of Platonic Forms (p. 53) and of the Aristotelian conception of natural science as exclusively empirical (p. 54) or passively observational (p. 30). And he adds that Dewey denies Aristotle's attribution of superiority to theoretical contemplation (p. 30).

Since Dewey's criticism of the classical Greeks actually helps introduce his own philosophy of technology by means of his theory of inquiry, it is germane to the critical analysis that Hickman applies to more recent philosophers in *Philosophical Tools.*

Dewey's idea of technology is best understood in terms of his objections to classical Greek conceptions of knowledge and productive action, and in terms of his theory of inquiry. In order for Dewey to establish his theory of inquiry, he had to rid himself of the ontology inherent in the classical Greek philosophical outlook. To accomplish this, Dewey argues against two major flaws: the dualistic ontology of the Greeks, and the spectator theory of knowledge. These two arguments are used with modifications by Hickman in his Deweyan critique of philosophers who are contemporary with or follow Dewey.

The dualistic ontology of the classical Greeks separated knowing and doing into two separate domains. These domains or spheres became "generalized [and institutionalized] into a complete separation of theory and 'practice'" (Dewey, *Reconstruction in Philosophy*, 1957, p. ix). Obsessed with logical form, the early Greek philosophers were concerned with the shape knowledge *should* take if it were true knowledge. As a result, they elevated knowing to an ontological realm of completely knowable entities, and relegated everything else to a lower, less important and less reliable realm.

Since Greek science was modeled almost exclusively on mathematics, it emphasized the logic of proof at the expense of the logic of discovery. Ideally for both Plato and Aristotle, mathematical and demonstrative knowledge was the most perfect type of knowledge. As a result, their model did not serve the interests of what we now call experimental science, or any of the "less elevated" forms of knowledge, such as those in the domains of practice (*praxis*) or making (*techne*). The model served as a paragon and led, subsequently, to a hierarchy.

Thus, the ideal of scientific and demonstrative knowledge that was established in classical Greek philosophy led in the modern era to the practice of regarding technology as a subset of science, and thereby to the practice of overlooking the integrity of technology (Baldine, 1993, p. viii). Scientific knowledge was thought to be pre-eminent because it was theoretical, and according to this paradigm, practice and experimentation were given a second-class status. Productive action, or *techne*, was accorded an even lower status than that of *praxis*, because of its connection to material things and the lower social class of persons who did the making and producing.

Plato and Aristotle were building upon Parmenidean insights when they developed the philosophical tradition in which being and knowing were

inextricably linked. In doing so, they gave metaphysical pre-eminence to knowing over doing and acting. Dewey objected to this sort of valuation by the Greeks, arguing that "the measure of the worth of knowledge according to Aristotle, . . . is the degree in which it is purely contemplative" (Dewey, 1957, p. 110). Consequently, the requirements of theoretical knowledge predisposed the earliest treatments of *techne* to a definitional and, therefore, metaphysical disadvantage (Baldine, 1993, p. 116). Thus, "The early meanings that Greek philosophers associated with *techne* were nested within an epistemological hierarchy in which the universal (in the case of Plato) and individual essences (for Aristotle) prevailed as the ultimate arbiters of ontological and practical value."

Hickman appropriately applies this criticism to philosophers in the Anglo-American analytic tradition. Because of their overriding interest in conceptual languages and theory, most analytic philosophers remain "solidly within [the] sway" (Hickman, 2001, p. 161) of traditional substance-accident metaphysics, despite appearances to the contrary. The rich, vibrant, multi-layered context of inquiry eludes the narrowly confined analyses and focus of most analytic philosophers. Moreover, the reliance of analytic philosophy on correspondence theories of truth suggests a reliance on a scientific realist metaphysics.

In the case of action theory, Hickman argues that the attempt to analyze action free of its context defeats the purpose of the analysis. He quotes a favorite example of this sort of theorizing in which the simple action of raising an arm is analyzed as if it were a disembodied or context free arm. Hickman's point is that no amount of analysis can justify theoretical activity apart from the practical context of the very operation that is under critical scrutiny.

For this reason, Dewey and Hickman agree with C. S. Peirce that knowledge is correlative to the process and context of inquiry. Knowledge is pre-eminently an *activity* which occurs within nature, and is brought about by means of human inquiry. It is *not* a process which occurs according to mathematical formulations or conditions that are formed outside of, antecedent to, or "above" the actual conditions of the natural environment. The natural environment for Dewey in his *Logic* (1938) includes both the cultural and the biological contexts in which living organisms interact, since "the environment in which human beings live, act and inquire" is a cultural one, as well as physical. In short, Dewey promotes an alternative decidedly different from the ontological model of the classical Greeks.

For Hickman, as well as for Dewey, overzealous abstraction is regarded as harmful to one's philosophizing. As an antidote to abstraction, Hickman (2001, p. 162) deftly introduces into the pragmatic toolbox the relatively recent idea of the body in which one's own being and identity are situated. In addition to the biochemical map that defines each person, there is an additional physical narrative of one's body *as* situated. Both types of narrative are inextricably tied to and central to the context of the experience of inquiry. According to this view, one fashions one's own tools according to the visibly physical, as well as less visible biochemical, equipment one has. Each situated person adjusts to the technological world the best he or she can, and makes alterations in the technological milieu to the extent possible.

On this point, Hickman questions whether John Rawls might have differently anticipated the contract into which each person enters under the "veil of ignorance," if Rawls had been more attuned to the background culture of human situatedness. (I do not see how this would alter the contract, since Rawls leaves it up to each person to figure out what kind of arrangement would be optimum, given who each person is and how each person evaluates the variety of unknown opportunities or disadvantages that lie ahead. But Hickman's main point is exceedingly important.) How else are we going to be able to adjust to technological culture, now or in the future, if we stay aloof from the variety of contexts that define that culture? Moreover, how are we to *make* meaningful improvements and tune-ups? As long as theory is supreme, it is difficult for the domains of practice and production to be taken seriously. Does the inheritance from classical Greek philosophy commit philosophy to a perpetual philosopher's fallacy?

Hickman subjects early and later critical theory to similar philosophical scrutiny. Intent upon establishing the primacy of *praxis,* the early critical theorists Max Horkheimer and Herbert Marcuse nonetheless had not themselves fought entirely free of the idea of nature as a reified, or in some cases, a noumenal entity. While critical theory rejects the fixed and final causes of the early Greek philosophical outlook, that outlook still held these philosophers, among others in the *praxis* tradition, under its ontological dominion.

Hickman points out, for instance, that Horkheimer's and Marcuse's idea of technoscientific rationality is the dominating and all-controlling element in human experience. This error leads them to conclude that a true reconstruction

of technological culture is either impossible (in the case of Horkheimer), or unlikely (in the case of Marcuse). For these early critical theorists, culture and human values stand in opposition to nature on the one hand, and the technosciences on the other. The genuinely pragmatic instinct of critical theory is to locate technology in the domain of practice or production. But as Hickman (2001, pp. 165-167) argues, the early critical theorists themselves failed to appreciate the prospects for politicizing and transforming society *within* technological culture. Ironically, they remained more committed to a stronger brand of theorizing, despite the fact that from the outset, they held that technology is a defining force in society and culture.

Historians of philosophy might object to the traditional interpretation of Plato and Aristotle assumed above, because it is admittedly onesided, and I agree that it is not wholly accurate. This somewhat heavy-handed theoretical interpretation of Platonic and Aristotelian thought was championed and promulgated by Christian, Judaic, and Islamic theologians, who were the primary transmitters of the Platonic and Aristotelian tradition in the history of philosophy. A dissenting case could be made, for instance, that productive action actually provides a recurring *context* for knowledge in Plato and Aristotle. In any event, Aristotle clearly distinguished theoretical knowledge from productive action, but he did not *derive* the latter from the former. Therefore the notion that he (or Plato) made productive action (*techne*) derivative is more of a piece with the traditional interpretation than with the original thinkers themselves.

The important point is that the medieval theological interpretation prevailed, and Dewey, Martin Heidegger, and most modern philosophers accepted it as part of the Western intellectual tradition. It can be argued that, rightly or wrongly, they *made* it part of the tradition, because this interpretation is the one that prevailed and set the terms of discourse for contemporary discussions of science and technology.

Consequently, the thrust of Dewey's whole philosophy militates against hard and fast distinctions such as Being and non-Being, knowledge and experience, reason and sense, or theory and practice. Dewey found all of these distinctions to be arbitrary interpretations of experience blind to the real context and operation of inquiry. As such, these polarities are useless in helping individuals convert a problematic situation into an unproblematic one, and they are incapable of producing meaningful changes or adjustments of technological culture.

The nature of scientific knowledge also has been historically misconstrued, from Dewey's point of view, insofar as it has too often been based upon the assumption that knowledge or truth is the result of a correspondence or a representation rather than an *interaction* by means of inquiry and experimentation (Baldine, 1993, p. 222). Dewey applies this indictment even to Newtonian science. Progress in science, argues Dewey (1929, p. 154) hinges on the "choice of operations," by means of which the inquirer interacts with the environment, "not upon the properties ascribed to objects, which were alleged to be so antecedently certain and fixed that all detailed phenomena might be reduced to them."

There is a sense in which Dewey commits "an act of intellectual regicide," in the words of Cornel West (1989, p. 89). West argues that Dewey labors to uncenter Greek and medieval philosophy as well as "behead modern philosophy by dethroning epistemology." Towards this end, Dewey focuses on a second flaw in classical Greek and modern thought, namely, the spectator theory of knowledge. This flawed conception of knowledge is based upon an analogy with vision: one in which the object of vision is external to the seer and independent of the act of seeing (Baldine, 1993, p. 202). As Dewey saw it:

> the object refracts light to the eye and is seen; it makes a difference to the eye and to the person having an optical apparatus, but not to the thing seen. The real object is the object so fixed in its regal aloofness that it is a king to any beholding mind that may gaze upon it (1927, p. 19).

The problem with this conception is that it regards seeing as a purely passive activity of beholding, noting and observing in such a way that the seeing subject is entirely separate from the object under view. It is a kind of aesthetic gazing and contemplative countenancing that exemplify the nature of theoretical viewing for the classic Greeks. It is essentially theoretical, since *theoria* suggests "being an onlooker" (Stephen Toulmin's phrase in introducing a 1984 reissue of *The Quest for Certainty*).

The spectator view of knowledge expressly precludes any sense of an agent's effect upon an object—either constitutive or interactive. Ironically, this concept of viewing would even preclude the visual fusing of images— something that eyes are widely known to perform— since this type of active fusing would undermine the utter detachment and objectivity of the objects under view

(Baldine, 1993, p. 203). This kind of knowledge is really a contemplation of an object without in any way interacting or intervening with the object. Dewey (1957, p. 115) interprets this beholding and noting as an extension of classical Greek aesthetics and he considers this conception of knowledge, assimilated as it was to Greek aesthetics, to be profoundly harmful to subsequent philosophy.

As Hickman points out in his earlier book, *John Dewey's Pragmatic Technology* (1990), Dewey felt that the primary reason the Greeks failed to develop experimental science was their exclusion of human inquiry from science. In utter disregard for the operations and procedures of their own productive artisans and workers, they were unable to connect theory and practice, or to see them as inherently symbiotic.

Hickman and Dewey stress that there is no need to turn the relation of theory and practice upside down, reversing the insult and proclaiming that practice and productive action are primary, at the expense of theory. Indeed, Hickman is known to have reversed his own earlier position (1990, p. 99) about whether productive pragmatism inverts the Aristotelian hierarchy of the sciences.

Inherent in the spectator view of knowledge is a latent subjectivism against which Dewey, Heidegger and, to some extent, the later Ludwig Wittgenstein protested (see Rorty, 1979). For these philosophers, the classical Greek understanding of objects of knowledge is a kind of subjectivist understanding (see Rorty, 1982). Both Dewey and Heidegger point out that the empiricists failed to rid themselves of subjectivist conceptions of knowledge derived from the Greeks. They tried "to put the new wine in the old bottles," as Dewey (1957, pp. 51-52) says, but in fact "failed in getting an emancipated and independent expression."

Dewey thought that the empiricists barely freed themselves from the spectator conception. Despite the fact that the empiricists argued against a faculty of rational perception, they unwittingly incorporated a new version of it in the spectator model of knowledge. With sense data as the new basis for knowledge, they de-emphasized the role of intellection in the process of knowledge, but the new role of sensation confirmed, rather than denied, that the process of knowing is a passive occurrence. (See Israel Scheffler, 1974, p. 202.) In other words, empiricism no less than rationalism ultimately endorses a mentalism, that is to say, a conception of experience or consciousness at once distinct from, yet inexplicably a part of nature.

By contrast, some of the later critical theorists such as Langdon Winner (1977) and Feenberg (1999) manage to stay firmly grounded in the practical context of technology in society. Each successfully eschews both the mentalism of the modern empiricist philosophers, and the foundationalism of their own critical theory predecessors Horkheimer, Marcuse, and Jürgen Habermas. Winner and Feenberg seem to me to share a commitment to working out one fundamental sort of "tune up," namely, practical ways in which democratic values could effectively improve the human condition under technological development. Hickman applauds Winner's and Feenberg's functionalist approaches to technology.

At the same time, Hickman (2001, pp. 169-170) seems to caution against Winner's argument that technological institutions "dictate" political institutions, a reversal of what in the past was the case of political interests determining technology. If what Winner claims is true, it does not seem to me that the reversal he speaks of presents us with a significantly different philosophical challenge. It goes without saying that every institution contains political commitments, and that new institutions in turn produce new technology. What is not so clear is how to reform socio-political institutions and technology so that they commit to values that are meaningful within a given technological and cultural context.

Feenberg, a student of Habermas and a later critical theorist, seems to capture the Deweyan spirit just about right, according to Hickman (2001, pp. 169-170). Feenberg's conception of technology is dynamic, allowing that technology is neither determining nor value free. In *Questioning Technology* (1999), Feenberg goes appreciably beyond the early critical theorists who seemed to shut down when it came squarely to facing technology as it really functions in society and culture.

In Hickman's estimation, Feenberg succeeds where other critical theorists failed. The early critical theorists wanted it both ways. They wanted to show that technology is value-laden and vested with political interests of dubious merit, but they also wanted to argue that by virtue of its merciless neutrality and aloofness technology could not be gotten under control. In the case of Feenberg, Hickman (2001, p. 172) extends Deweyan critique explicitly, listing eight arguments that Feenberg shares with Dewey that seem to qualify Feenberg as a productive pragmatist.

Feenberg (1999, p. 172) posits two dimensions of technological objects, their social meanings and their cultural horizon. Within these Deweyan and hermeneutical practical matrices, Feenberg captures the interactive nature of the life of artifacts and of those using and living with the artifacts. According to Hickman, the interaction is intrinsic to their meaning, as it is dynamic, altering the technological objects *and* the life of the person(s) using them. Once free of unnecessary ontological dualities, Feenberg's conception of productive technology can be understood as contributing to the meaning of technological culture.

Through his critique of the classical Greek intellectual outlook, Dewey was able to reclaim the unity of knowledge and action. Hickman, equipped with that unity, is able to pursue the practical benefits of inquiry and the good uses to which those benefits might be put. Hickman's extension of Dewey's critique is a practical step in forging new inquiries and fashioning new tools for inquiry.

2. Philosophical Tools for Tuning up Technological Culture

In light of the foregoing critique, what *are* the prospects for the reform or reconstruction of technological culture? This is one of the central questions of Hickman's book. Clearly for Hickman, the prospects for reform are conditioned only by the limits of experimental inquiry, and the chances for reform must occur within the context of inquiry. Thus, the basic architecture of the philosophical toolbox is Dewey's theory of inquiry—which is, not incidentally, Dewey's conception of technology.

The specific tools needed for tuning up technological culture, however, have to be custom made to handle the particular cultural dimension in which problems arise. Consequently particular adjustments or "tune ups" reflect the specifics of the given social, economic, political, ethical, aesthetic, or scientific contexts in which they are made.

Both Dewey and Hickman see tune ups, and indeed, the entire process of productive inquiry as an inherently *natural* process of evolution. Dewey was deeply affected by Darwin's observation that the differentiation of organs within each species enables it to interact with and adapt to its environment in ways that assure its survival. Dewey developed an analogous conception of the human

organism developing *habits* so that the organism can adjust to its environment by making necessary changes to assure its well-being.

Hickman significantly expands upon this notion, and, I believe, he goes beyond Dewey inasmuch as Hickman claims that "techniques and technology are evolutionary products." At the simplest level, this claim is none other than the recognition that human beings use technology to interact with and adapt to their environment. But Hickman seems to imply more, suggesting a kind of trans-genic quality about technology, as if technology were the cloned product of a species of intra-organic responses (Hickman, 2001, p. 23, gives arms, legs, feet as examples) with a species of extra-organic materials (he suggests a blind person's cane, a dental pick). Hickman (p. 23) argues that technological products "have evolved from non-instrumental, non-artifactual behavior in ways that appear continuous" with the process of evolution. I am intrigued by Hickman's suggestion, since who can fail to wonder whether technology might be the next step beyond evolutionary biology? But how does Hickman arrive at this suggestion? He does so in three steps.

At the outset, Hickman (p. 17) stipulates that he intends to locate technology within the context of the evolutionary history of human development. Second, Hickman responds to Mitcham's criticism that he, Hickman, defines technology so broadly that it is virtually coextensive with all human work and activity. To defend himself from this charge, Hickman gives a cumbersome definition of technology which differentiates it from non-instrumental or minimally cognitive and merely technical activities:

> 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.

Third, Hickman (p. 17) emphasizes that technological activities have to be at least minimally cognitive and show evidence of organized, deliberate and inferential operation. In addition, artifacts can be either tangible or intangible (including, among other examples, a telescope, a stethoscope, a robot, a computer, a palm pilot—in contrast to ideas, codes, formulas, literary or artistic forms).

Hickman (pp. 21-23) stresses that it is the *cognitive* dimension of productive activity that makes productive activity properly technological (rather than merely technical) and it is the cognitive which makes technological products essentially natural. His view is not entirely clear in the passage I puzzled over. But he seems to claim that when an organism adjusts or tunes up its environment, the product of its activity is not internal to the organism (extra-organic), since it is made, and yet it is also an intra-organic product, because it is a cognitively produced product occurring in nature. For instance, the voice of a trained singer is both a natural voice of a human organism, and a highly trained technological instrument. Hickman attempts to naturalize technology by arguing that techniques and technology are evolutionary products in this sense. He uses cognition as the mediating term between the extra-organic product that is made, and the intra-organic body experiencing a new environment.

I agree with Hickman's delineation of technological activities, and the terms by which they are, strictly speaking, *technological*. However, while Dewey and Hickman contextualize the standard distinction between organic and inorganic, the distinction need not recede into oblivion. The interface between organic responses to extra-organic or inorganic tools is achieved within any given inquiry. It seems to me that while we can be sure that arbitrary distinctions bear no useful philosophical or practical fruit, blurring useful distinctions does not necessarily produce meaningful tune ups either. At the same time I am intrigued by the claim that technology might be construed as the next step beyond evolutionary biology. And I am not certain whether Hickman means to commit to it himself.

Dewey was committed to democracy as a given mode of revolution, because all social problems affect real individuals, who should, therefore, be encouraged to participate in the renewal, reform or revolution of technological culture. Along these lines, Hickman (p. 191) calls attention to what he terms Dewey's "objective relativism," which takes account of the perspectival nature of perception, essentially allowing for a variety of different views. At the same time, Hickman cautions that, "It is not the satisfaction of the individual problem solver that interests Dewey, but the resolution of the objective situation." In other words, social reform is not about a quest for certainty, but a quest for an acceptable resolution to real problems.

Another dimension of Dewey's commitment to democracy is that democracy is an effective bridge over the chasm between communitarianism and rugged

individualism, which is another expression of the extremes of absolutism and relativism. Particularly in an era when "globalism" suggests *de facto* that all political and economic systems will necessarily converge into the western-styled capitalist market system, an active participatory democracy might usefully tune up the seemingly inevitable flow of technological development in that direction.

Another important tool proposed by Dewey consists of the development of *habits* as "the basis of organic learning." Habits in this sense are a type of making activity since they constitute the practices which make or inform the action one chooses to take. For Dewey, habits exemplify technological activity because they are cognitive, and not the result of blind or spontaneous impulses. Habits also enable a person to make a decision when faced with an indeterminate situation, and to turn it into a determinate one. When (informed) habits interfere successfully with an indeterminate situation, they create a new situation which is determinate and unproblematic, at least for a time. The transformation that comes about is the knowledge product, the new artifact which was intentionally shaped and fabricated by the habits and practices of the inquirer (Baldine, 1993, p. 227).

I would like to offer one suggestion for tuning up our discourse about technology and determinism. "Technological institutions dictate political institutions," "technological imperatives undermine public choice," and "the use of non-print texts erodes literacy," are but a few examples of deterministic claims of a variety of philosophers to which Hickman refers. All too often, discussions about technological determinism degenerate or revert to an ancient conception of efficient or formal cause.

But determinism, it seems to me, is about our level of knowledge and our ability to make meaningful predictions based on that knowledge. This conception of determinism is really an explanation with respect to knowledge and action. It claims that we can make predictions about how things will turn out to the extent that we know them. Recent discoveries in genetic biology forcefully demonstrate that if we can understand fully the human genome, we are in a position to predict what practical steps a person might take for his or her health. Seen in this light, technological determinism is not about losing our free will, or about being dominated by an all powerful technoscientific structure. Rather, technological determinism can be seen as a philosophical tool because it connects what we know and how we might practically act to tune up, adjust, or change technological culture.

3. Conclusion

Larry Hickman mounts a masterful campaign to get anyone not yet on board to listen to the benefits and advantages of John Dewey's productive pragmatism. While I was already converted to the Deweyan point of view when I read Hickman's recent book, I am nonetheless enormously enriched by it. He offers us new insights about the many ways that philosophy can critically enhance everyone's lives by forging deep connections and improvements in technological culture through art, ethics, social and political philosophy, and science. I look forward to his suggestions for future tuneups.

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