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On Instruments and Aesthetics: A Possible Deweyan Inconsistency

Abstract. Larry A. Hickman and Albert Borgmann have carried on a decades-long debate about the status and value of technological practices. Hickman's work develops from the thought of John Dewey. A recent essay alleges that Hickman's engagement with Borgmann has been superficial, particularly because full engagement would involve admitting that Dewey's instrumentalist theory of inquiry and his aesthetics are at odds. This paper argues not only that Hickman has attended to the full scope of Borgmann's thought but also that Dewey is innocent of the criticism charged. Along the way, I develop a critique of the traditionalistic nostalgia implicit in accounts like Borgmann's. This all serves to address the longstanding concern that pragmatism can be reduced to a crass form of instrumentalism.

Despite rumors to the contrary, tradition still matters. Determining in what ways we do and should relate to our traditions is an issue of central importance for philosophy in general and for the philosophy of technology in particular. After all, most attempts at understanding the epochal trends of human history involve reference to how newly developed and deployed tools and techniques reshape the traditional ways in which people have been able to understand their world and, consequently, themselves. One contemporary philosopher of technology who is prominent for being concerned about the status of tradition is Albert Borgmann, notably in his writings on "the device paradigm" and its consequences for our "focal things and practices," which he relates to "matters of ultimate concern."

A recently published article in the *Journal of Speculative Philosophy* argues that the key insights Borgmann offers on the relationship between our tools and our world- and self-understanding have been overlooked in Larry A. Hickman's exposition of a Deweyan philosophy of technology. The author, Eric Mullis, suggests that if Borgmann's position "were given a fair shake, Hickman would need to spend much more time defending Dewey's philosophy of technology" (Mullis 2009: 110), especially because "a thorough consideration of the device paradigm reveals an inconsistency in Dewey's philosophy" (Mullis 2009: 116). My contention is that Hickman has sincerely engaged with Borgmann's work, though not in a way that directly addresses the putative tension in Dewey's thought Mullis indicates. As such, my tasks here are to give a charitable and initially uncritical presentation of Borgmann's "focaltechnic" philosophy of technology, to highlight how Hickman has replied to much of the Borgmann-inspired criticism Mullis offers, and then to show how two elements of Dewey's thought – in this case, his instrumentalism and his aesthetics – are in fact consistent. This second objective is the real payoff of the argument since it stands to address the longstanding concern that pragmatism can be reduced to a crass form of instrumentalism; wedding Dewey's instrumentalism to his

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aesthetics in a closer fashion makes such a reduction impossible. The Hickman-Mullis debate in contemporary pragmatist scholarship provides a suitable occasion to make this important point concerning the relationship between classical pragmatism and technology.

How the “Device Paradigm” Threatens Things and Practices

Throughout much of his published work, Albert Borgmann has been troubled by what he terms the “device paradigm.” In *Technology and the Character of Contemporary Life*, the book in which Borgmann initially presented his worries about present-day technological culture, he writes that the device paradigm is the pattern that “inheres in the dominant way in which we in the modern era have been taking up with the world” (Borgmann 1984: 3). Elsewhere, Borgmann explains that “the conjunction of machinery and commodity [is] a technological device,” which he contrasts with ‘things’: “a thing... has an intelligible and accessible character and calls forth skilled and active human engagement” (Borgmann 1995: 90). He argues that the proliferation of devices rather than things in the contemporary era has limited our ability to achieve the good life.

On this characterization, devices invite their users to passivity and consumption, in part because complex machinery often stands in for human activity. By contrast, things require active engagement, especially skillful and deliberate practice. Borgmann identifies technologies such as the stereo, television, and Bic pen as archetypical devices. The wood axe, fountain pen, and bass tuba fall within his category of thing. He sees each of the tools in the former set as limited and limiting, while use of those in the latter group encourage growth, especially in skillfulness, and engagement. This claim is made primarily in terms of ‘availability’: “goods that are available to us enrich our lives and, if they are technologically available, they do so without imposing burdens on us. Something is available in this sense if it has been rendered instantaneous, ubiquitous, safe, and easy” (Borgmann 1984: 41). But things and devices are not on equal footing regarding availability: “availability is realized by... devices” (Verbeek 2005: 177). As time has gone on and new tools and techniques have been developed, devices have multiplied. Devices are ubiquitous, easily understood, and easy to use. They are available in the senses of being both easily attainable and easy to deploy. The ready-made, the kitschy, and the foolproof are those categories which Borgmann has in mind when he speaks of the availability of devices.

His paradigmatic example of historical changes in availability, warmth, clearly shows the contrast: in our device-centric culture, one can have warmth at the spin of a wall-mounted dial. A quick flick of the wrist causes behind-the-wall and below-the-floor machinery to kick into action, heating the surrounding environment without additional engagement necessary. The achievement of warmth in a thing-based culture involves tromping through snowbanks, wielding sharp axes, dodging falling timber, and avoiding bears. In this situated process, the individual is engaged from first to last, and he or she must take both time and risks in order to achieve the sought end. Further, so Borgmann’s story goes, developing competency in device-based warmth-

acquisition is significantly easier than learning to swing an axe without hurting oneself, which leads to further passivity. This distinction is then one about the engagement and strenuousness of life.

Because of the self-cultivation implicitly required by difficult-to-use things, and because things definitionally involve active engagement, Borgmann claims that things make available multiple interrelated possibilities and results. Heading into the forest for firewood rewards and develops skill in navigation, axemanship, dexterity, forestry, and many other practices. The able woodsperson's body is exercised through hiking and chopping, and he or she may well have an aesthetic experience while deciding just which tree to fell. In contradistinction, because devices are readymade and thus quick to present their effective applications, which are almost always more limited in scope and number than those of things, many fewer engaged and integrated outcomes are produced in device-use. When one activates a thermostat, one receives the desired warmth and only the slightest of finger-exercises as peripheral benefit.

On Borgmann's view, the most important technologies, which are consequently also those most displaced by the contemporary world's glut of devices, are those tools he terms "focal things and practices" (Borgmann 1984: 201)¹. These are called focal because he "does not want technology to be 'enclosed in boundaries' but to be 'related to a center'. The center... would be provided by what he calls 'focal things and practices'" (Verbeek 2005: 183-84). These boundaries and their implicit segmentation of life are, on his account, paradigmatically present in devices: the pruning clippers for cutting bushes, the kitchen shears for cutting meat, the office scissors for cutting paper². Focal things, however, are things which have diverse consequences, require skill, and provide order and orientation for the rest of life. He goes on to explain that these things are normally tied up with our aesthetic sensibilities. The fireplace, which requires attentive tending and supplies a comfortable aura in which people can read or knit while chatting, is emblematic of this kind of thing, as are the practices of distance running and gardening. In all cases, focal technologies "require a practice to prosper within" (Borgmann 1984: 196), and these practices provide the contexts which, he suggests, better center life than those involving more prevalent disposable, single-application, easy-to-use devices.³ The computerized tools of the information age – which he argues sometimes operate by substituting information for reality, so that we treat "information as reality" – are his most recent target, and they seem to be devices *par excellence*, devices that apparently both disengage and confound their users. This occurs because "information gets more and more detached from reality and in the end is offered as something that rivals and replaces reality" (Borgmann 1999: 182), which has led some of Borgmann's critics to claim that he believes "digitally generated information is incapable of making a positive contribution to culture" (Cooper 2004: 100).

¹ For a fuller discussion, see Borgmann (1992, esp. 37-47).

² And, despite the obvious segmentation and specificity of use, these assumed 'devices' are likely much closer to being Borgmannian things than many other tools.

³ It is notable that most of the things Borgmann terms focal are, from an ordinary perspective, antiquated, and he has been extensively criticized for romanticizing the past. See, for example, Fallman (2007) and Verbeek (2002).

Borgmann accepts that tools and techniques were initially developed, in a Baconian spirit, “to protect us from hunger, cold, disease, darkness, confinement, and exertion” (Borgmann 1984: 140). Unfortunately, though, our culture’s switch from predominately using things to almost exclusively employing devices has left humans feeling and being disconnected from their world, from each other, and from themselves. Peter-Paul Verbeek links this claim with some of those made by Karl Jaspers, “who decried the emergence of ‘mass existence’ in which human beings only consume mass-manufactured products and have no true ties with the world” (Verbeek 2005: 180). Borgmann’s contention is that it is only through counter-culture development of context-dependent and orientation-shaping focal practices that humanity can retie itself to its world and overcome the limitations by way of alienation and disengagement that are implicit in the device paradigm. I call this conditionally necessary development “counter-culture” because Borgmann is clear that he is after “*the recognition and the restraint of the paradigm*” (Borgmann 1984: 220), a phrase that makes obvious that this correction cannot come exclusively from within the device paradigm. It should by now be clear that, in Verbeek’s words, “Borgmann’s analysis of the technological mediation of existence is somber” (Verbeek 2005: 179). Other philosophers of technology, including Larry A. Hickman, have pushed back on this gloomy outlook. As Hickman’s responses are explored, especially in light of Eric Mullis’s criticisms, further details of Borgmann’s sketched position will become apparent.

A Pragmatic Take on “Focaltechnics”

Mullis’s main complaint is not that Hickman has gotten Borgmann wrong but instead that he missed what is most important about Borgmann’s analysis. It is worth noting that after referencing chapter 6 of *Philosophical Tools for Technological Culture* (“Literacy, Mediacy, and Technological Determinism”), “Hickman’s most sustained discussion of Borgmann,” Mullis agrees with the argument presented there: “Borgmann is a reductionist who believes that information technology determines human behavior” (Mullis 2009: 111). But he is concerned “that Borgmann’s most significant contribution to the philosophy of technology has been overlooked” (*Ibid.*). Specifically, Borgmann insists that devices drive a wedge between ends and means, hiding how chosen ends come about. On a Deweyan view, few charges are more disastrous; after all, thinkers like Hickman, as philosophers of continuity, repeatedly argue that ends and means must be transactional and reciprocal. Mullis’s worry amounts to a claim that Hickman has trivialized his engagement with Borgmann, an accusation that, if true, would cast a poor light on Hickman’s work and potentially undermine his reading of pragmatism, which continues to hold sway in many philosophical camps.

In the introduction to this paper, I referred to Borgmann’s philosophy of technology as “focaltechnic”. This term, which nicely mentions the basic commitment of his philosophy, was not coined by me. Rather, it was first used by Hickman in his 2000 “Focaltechnics, Pragmatechnics, and the Reform of Technology,” an essay in which he locates his pragmatic theory of technology in relation to Borgmann’s tripartite

distinction between substantive, instrumentalist, and pluralist philosophies of technology. A significant portion of Hickman's work in this piece is explaining where the specifics of his pragmatic philosophy are at odds with Borgmann's allegiance to focal practices as the antidote to our contemporary ills⁴.

After giving an explanation of Borgmann's frustration with the device paradigm similar to that which I offered in section one of this paper, Mullis uses up-to-date technological examples to show how the deleterious effects of device-culture have become even more insidious than previously thought. In place of Borgmann's example of the stereo, a device which has made music "a disembodied, freefloating something, a commodity that is instantly, ubiquitously, and easily available" (Borgmann 1995: 89), Mullis offers the iPod, which is not bulky and is even freer of obvious machinery. The rise of tiny but long-lasting batteries has made us able to take our devices with us, freeing them from whatever slight contextual-dependency they retained by needing to be plugged in for use. This surely bolsters Borgmann's worry about disembodied, free-floating commodities.

Mullis points to focal things and practices as simultaneously endangered by and yet able to overcome the device paradigm. Following Borgmann, he shows the promise of focal practices by describing the differences between home-cooked meals and microwave dinners: "The microwave dinner and the microwave efficiently provide a hot, tasty meal; however, one who relies heavily on the device for food production loses out on interaction with the means that go into food production since the device takes care of them". In contrast, Mullis suggests, "when someone takes the time to cook food, the human-reality interaction is greater. The cook must be engaged in that he must know the nature of the foods, know how to prepare them, know suitable combinations of different foods, and know the tastes of those he cooks for (including himself)". On this account, the microwave encourages disconnection from the process of production, and other means of cooking do quite the opposite. Mullis goes on to explain in detail what he hints at in the previous quotation: the real value of cooking is found in how it, unlike readymade TV dinners, encourages working, eating, and communicating together. Focal practices can – if they are allowed – break up consumer culture by ensuring attention to life's social dimensions.

Hickman gives this line of thinking its due: "Only a few true-believer free-marketeers would want to disagree with [Borgmann's] claim that most of us in Western industrialized countries have a tendency to get too tightly locked into patterns of consumption" (Hickman 2000: 89-90). But he also stresses that Borgmann "has cast the net of his condemnation of the device paradigm too broadly. He tends to do this by reducing the many and varied functions of certain devices to one essential property" (Hickman 2000: 93). Microwaves are for speedy, thoughtless cooking; televisions are for wasting weekends in vegetative stupor. There seems to be a real inattention to the wider possibilities of the ways we can deploy devices.

⁴ I was surprised to see that Mullis's 2009 essay referred only to Hickman's 1990 *John Dewey's Pragmatic Technology* and 2001 *Philosophical Tools for Technological Culture: Putting Pragmatism to Work*, because the 2000 essay seems to be explicitly on point and thus to preempt and defuse much of the criticism presented.

The matter of essences is clearly important because, taking up the microwave/cooked meal distinction, we can see that Mullis falls into the same trap that Hickman diagnosed in Borgmann. On Mullis's account, the microwave user loses out on food production, "the microwave can reliably produce warm food at any time" (Mullis 2009: 113), and the cook cares about the preferences of those for whom he or she cooks. Quite a bit of idealization — of both utopic and dystopic sorts — has occurred in Mullis's presentation. Though the microwave can be used to heat up prepackaged meals, it can also be one more tool in a chef's home-cooking arsenal, especially valuable for those people without the financial means or physical space to acquire and maintain an oven. Though the microwave does not always require interaction with much in the way of food production, the microwave can only reliably produce warm food if one has engaged in a different sort of food preparation: shopping. And though an ideal cook may always be attentive to the gustatory proclivities of his or her diners, most readers are sure to remember more than one childhood instance of parents requiring they eat meals that, though prepared with them in mind, they found disgusting.

Because of examples like these, cases in which the quick and easy distinction between good things and bad devices becomes suspect, we must resist Borgmann's essentialism and instead agree with Hickman's pragmatechnic commitment "that we put an end to speaking of tools... as having complete essences that predetermine and provide the measure of our ways of involvement with them. [He] suggest[s] that we instead speak of the ways in which [tools] can and do serve to enhance delight and to resolve problems, that is, to enlarge the meanings of our experiences" (Hickman 2001: 122). There is something a bit too neat about Borgmann's analysis, and it frequently requires us to move to an unacceptable level of imaginative abstraction to see the relevance of his claims for our lives. I suspect Borgmann would blame this on the ubiquity of the device paradigm, but I would instead point to the varied ways in which our tools are understood and can be used. In light of this, "a flexible functionalism," Hickman suggests, will "take us further down the road to understanding the complexities of our technological milieu" (Hickman 2000: 93).

Though Borgmann offers a Neo-Heideggerian critique, Hickman is careful to distinguish between this position and that of Heidegger, who "apparently wanted to go all the way back to stone bridges, [whereas] Borgmann says he wants to go forward by going only part of the way back, to acoustical instruments and home cooking" (Hickman 2000: 92). While Hickman's criticism of Heidegger may be a little too glib, there is still something right about his suspicion of the impulsion or motivation of Borgmann's critique. The particular cultural space from which Borgmann seemingly exclusively draws his focal things and practices is a point of some concern for Hickman, and this returns to the very first sentences of this essay. Though he does not say as much, Borgmann is at least implicitly concerned with *maintaining tradition*.

The items Borgmann identifies as things, and especially focal things, can often give us different ways of interacting with our world. They can challenge us to take up the strenuous life, working hard and thoughtfully to achieve our chosen aims. But they do not always do so, and they may in fact frustrate our hopes of fuller and more meaningful lives. Frequently it seems that the justification for orienting and carrying

out our lives in terms of these practices he offers is traditionalistic: because an item or practice worked well in the past, it can also work well today, and thus we should again adopt it. For instance: for generations, some people cooked meals together and then sat down to eat at a family table. And for many of these people, these occasions were important and provided structure to their lives. The habits necessary to use things, such as the oven and the frying pan, are often learned from parents, passed down from generation to generation. In this way, they become constitutive of a tradition, a shared and inherited way of using things well. Though they are not always immediately intuitive in their use, devices do not demand the same degree of training. In part because of this difference, devices can undermine and even eliminate traditional ways of engaging with the world. This fact by itself is neither an occasion for celebration or for mourning.

While traditional lives lived in terms of things demand education and care, the traditionalistic bias can serve to cover over ways in which tradition frustrates. Cooking in this way requires active attention and skillful habits, yes, but it also sometimes served to limit meaningful lives, as the mostly-uncompensated time needed for this work was expected and demanded of a limited set of people (most often women). Tradition functions as a repository of useful practices, and thus we may appreciate it for showing us what ways of being have worked well and have been important in the past. In this way, traditions are consonant with what Dewey referred to as the funded character of experience: some elements of human life are meaningful and interpretable primarily in terms of earlier experiences, including those of the cultures in which we were formed. But cultural tradition must never be accepted uncritically, and practices – focal or otherwise – cannot be understood and should not be implemented without attention to the full breadth of their consequences, including who is and may be excluded and restricted in the process. An appropriate attitude toward tradition is then one of conscientious consideration: the value of tradition must be continually reevaluated and reestablished.

While Borgmann's forbearer Heidegger was almost surely right about the work of enframing that occurs with modern technologies, simply going back to an earlier time will not salve our present condition. There are two reasons to believe this: first, such a return ignores the progressive elements that have come with technological development. No longer is one half of the population expected to stay at home, tasked with the necessary work of replenishing and reproducing labor. Second, and more strikingly, expecting such a return on a large scale is simply unrealistic. Devices are here to stay, and so we must find the best and most productive ways to integrate them into our contemporary lives, to reconstruct their uses for our purposes. Mullis surprisingly does not seem to pick up on and resist this throwback strand in Borgmann's thought, despite his apparent comfort of conceptual and applied use of high-tech, present day devices like iPods and laptops. I take this to mean that he is attentive to my second concern about feasibility but inattentive to the first.

This, coupled with Mullis's idealization of focal practices, is very problematic, because it means that he joins Borgmann in having "given too much weight to the integrity of focal things and practices" (Hickman 2000: 93). At one point late in his

article, Mullis invokes Deweyan experimentalism when he writes, “technological artifacts such as iPods, cell phones, microwaves, computers, and television sets are just the fruits of intelligent inquiry. They reflect the resolution of problematic situations and allow us to function and flourish” (Mullis 2009: 115). On an initial read, this quotation shows that Mullis is attentive to the origins of tools, but it is very strange that the artifacts he lists are all, from the Borgmannian perspective, devices! Surely his article is concerned with instrumentalism in the device paradigm, but it is unclear why he would not include at least one obvious Borgmannian thing, let alone a potential focal thing, in his catalog of exemplary fruits of intelligent inquiry. At best, this is an unfortunate slip; at worst, it means Mullis intends to place focal things in some other category. Given the broad conception of intelligent inquiry found in Hickman’s work, this would be a strange move to make. From this brief article, it is unclear whether Mullis is committed to the untestability of focal practices, a major point of division between Borgmann and Hickman, but that he utilizes the same customary examples for focal things as Borgmann and then fails to number them among the results of productive inquiry is suggestive.

I take the question of whether focal things and practices can be brought under experimental scrutiny to be the most significant disagreement between Hickman and Borgmann. Hickman acknowledges the consonance between his philosophy of technology and Borgmann’s before insisting on this important difference:

Like focaltechnics, pragmatechnics holds that focal things and practices generally do have to do with aesthetic experience, sympathy, and enthusiasm. Unlike focaltechnics, however, pragmatechnics holds that we sometimes need to examine our enthusiasms, aesthetic experiences, and sympathies, to subject them to tests of relevance and fruitfulness, and then to honor the ones that serve common goals and to reject the ones that are unproductive because they are based on what is merely personal or sectarian. (Hickman 2000: 95-6)

Because this dispute has been the subject of a decades-long exchange of arguments, it will not be possible to present much here except a very brief summary. Hickman characterizes their disagreement as one between seeing focal practices as “testable on the one side and contestable and attestable on the other” (Hickman 2000: 99). Borgmann explains his concern this way: “if values are testable, then there must be strategic or higher-order values that are firm and tell us whether our tactical or first-order values that are being tested at the moment will serve as effective means for the strategic ends. (This is an unresolved and longstanding issue between Hickman and me; see my 1992, pp. 345-347)” (Borgmann 2003: 31)⁵. If Borgmann pressed hard enough, despite all of Hickman’s insistence on the revisability of ends and ideals, I expect he would ultimately stop the seeming valuational regress by agreeing with Dewey’s cryptic assertion that “[g]rowth itself is the only moral ‘end’” (Dewey MW

⁵ His internal citation is to *Crossing the Postmodern Divide*. On this metaphilosophical claim, Borgmann seems to be allied with the neopragmatism of Richard Rorty, another thinker whose ethical thought Hickman finds to be insufficiently experimental, cf. the concluding pages of Rorty (2007) and Hickman (2001, esp. 89-90).

12: 181)⁶, though with some qualifications, including that ‘growth’ can be tested ecologically⁷ and that “Dewey has been massively misinterpreted on this score, as if he had some kind of fixed ideal which would not yield to any kind of interpretation”⁸. This difference with Borgmann reveals a deep faith on Hickman’s side, shared with Dewey, that through a self-correcting process of testing and revision, we will find worthwhile practices as well as criteria for evaluating these practices.

There are dangers in failing to experiment with our ideals, an example of which Hickman gives regarding Borgmann’s consistent return to the family as integral to focal practices. A certain type of reverence for tradition and conservative practices often runs counter to the meliorism and progressivism of American pragmatism. In our present culture, the concept of “the family” is under significant and important revision, in part because of the attestation and reason-giving strategies Borgmann suggests, but also because of the results of informal empirical-experiential tests as well as structured experimental psychological and health wellness ones⁹. Without allowing these modes of inquiry to count in all of our justificatory practices, including those related to focal practices, we run the risk of falling into what I, generalizing from the work of Peirce, will call a kind of “cultural tenacity”. There is no doubt that those things and practices Borgmann identifies as focal have helped people, perhaps including himself, to live meaningful lives. This, however, is no reason to think that inquiry and experimentation with new practices should stop and all present-day people should ideally be cooking meals and taking up long-distance running. Because of the social nature of human life, we of course learn practices from one another, including those techniques that promise us significant enrichment. In admitting this sociality, however, we also allow in the possibility of engaging in practices only because an authority insists on it, as in the case of Wal-mart workers going through their daily mandated cheer¹⁰, or because of a seemingly idealized and limited judgment that microwaves are bad and ovens are good. Borgmann’s justification is at its best when he writes of attestation, which carries with it an appeal for others to try something because they might like its consequences. At the same time, however, it must be admitted that this is an invitation to a kind of informal experimentalism, the successes of which can only be bolstered by inclusion of more formal testing.

The above should be enough to show that contrary to Mullis’s assertion, Hickman has long been concerned with the focaltechnic element of Borgmann’s thought. Lurking under all of Borgmann’s worry about the device paradigm, though, is the relationship between ends and means, a concern Mullis notes was also of pressing

6 Dewey’s works employed in this essay are referred to by series designation, volume number, and page number. All of these are found in the critical edition, Boydston J.A. ed., (1969-91), *The Collected Works of John Dewey, 1882–1953*, Carbondale, Southern Illinois University Press.

7 Cf. Flanagan O. J. Jr., (1996), “Ethics Naturalized: Ethics and Human Ecology,” in May L., Friedman M. and Clark A. eds., *Mind and Morals: Essays on Ethics and Cognitive Science*, Cambridge, MA, MIT Press, 19-44.

8 Hickman L. “Education as Growth,” Interview. *The Cologne Video Project and the Dialogue between Pragmatism and Constructivism*. Available online, <<http://www.hf.uni-koeln.de/30941video355>>.

9 Hickman (2000: 102-104).

10 “Give me a W! ... Give me an A!,” etc. For more, see <<http://www.wal-martchina.com/english/walmart/rule/wmcheer.htm>>.

importance to Hickman's philosophical progenitor, John Dewey. As Hickman has written extensively on the relationship between means and ends in his pragmatic philosophy of technology, I will draw on his work as well as Thomas M. Alexander's rendering of pragmatic aesthetics in order to undermine the criticism on which Mullis's argument rests. Once again, this is not merely an attempt to intervene in a debate in contemporary pragmatism, but rather to highlight the stakes of the disagreement, to weigh in on the relationship between instrumentalism and aesthetics.

John Dewey's Aesthetic Instrumentalism

Borgmannites argue that the device paradigm is currently pervasive and exemplifies "the manner in which devices separate means from ends" (Mullis 2009: 112). Thinking back to the first section, in which I gave a rough sketch of Borgmann's position, use of the wall-mounted thermostat device sets in motion all sorts of means that are necessary but invisible to reaching one's desired ends of warmth. On the other side of his distinction, achieving warmth with a wood fire may require a careful progression of fully-engaged means, including tree-chopping and wood-hauling. Mullis links this concern for "the interplay of ends and means, a movement to a culminating moment, and a pervasive quality" with John Dewey's writings on consummatory experience in *Art as Experience* (Dewey LW 10)¹¹. By now Dewey's understanding of aesthetic experience has been well-explored, so rather than attempting to blaze a new trail, I will briefly explain each of the three components of an aesthetic moment with significant reference to relevant sections of Hickman's *John Dewey's Pragmatic Technology* and Alexander's *John Dewey's Theory of Art, Experience, and Nature: The Horizons of Feeling*.

By "pervasive quality," Dewey meant "that which binds together all the defined elements, the objects of which we are focally aware, making them a whole" (Dewey LW 10: 198), Alexander explains this as the "ineffable unity of contexts of experience, an apprehension which locates specific objects of consciousness within a whole situation, itself immediately grasped or felt to be balanced or discordant" (Alexander 1987: 4). Our experiences "hang together in certain ways. An evening with friends may consist of many factors; but I may say in retrospect that it was stimulating, or perhaps even boring" (Hickman 1990: 35). Each situation in which individuals find themselves has a general, overarching feeling. Analogous to this are William James's claims about the "stream of thought" and the ways in which humans are able to experience and perceive *conjunctive relationships*, a point which set him in opposition to the predominantly nominalistic British empiricist tradition¹².

Though all experiences have a pervasive quality, not all experiences are moving toward a culminating moment. The majority of situations are quotidian, and routine cannot always and does not easily give itself over to the potential for denouement. Those cases where culmination is actual Dewey refers to as "*an* experience," for

¹¹ Mullis points to pp. 30-46 to make his argument, but the details of consummatory experience are peppered throughout the text.

¹² See James (1912) and (1985); see also Johnson (2007).

means and ends have become integrated such that “the possibility in nature for the fulfillment of value and meaning” (Alexander 1987: 102) is revealed. These cases are possible only if we are free from “distraction and dispersion,” if we do not have “what we observe and what we think, what we desire and what we get... at odds with each other” (Dewey LW 10: 42). This becomes possible relative to “the degree of the scope and intimacy of the interactions realized” (Dewey LW 1: 201), which I take to be a statement of the importance of a tight interplay between ends and means as a necessary precondition for achieving consummatory experiences.

Dewey’s principle of continuity is of course of extreme relevance here; insofar as we are able to recognize and to accord our ends with our means, we are more likely to experience consummation. Hoped-for consummation involves and requires recognition of a situation’s qualitative feeling, because “part of the meaning of a situation involves this drive toward wholeness, the attempt to mediate the problematic and transform it into the consummatory” (Alexander 1987: 150). Hickman has characterized Dewey’s philosophy, and especially his theory of inquiry, as “an account of the rhythms that permeate the interaction of human beings in and with their various experiences” (Hickman 1990: 60). Insofar as situations are experienced as qualitatively chaotic, unsettled, and problematic, they are unconsummated, but these are also the situations that are most fertile for inquiry, most ready to be *made* stable. It is only when an individual’s habituated means become appropriate to the ends he or she desires, through sheer luck or a process of transactional inquiry¹³, that aesthetic consummation is possible.

The 1903 *Studies in Logical Theory* contains an interesting little paper entitled “The Relationship of Thought and Its Subject-Matter,” in which Dewey describes

a certain rhythm of direct practice and derived theory; of primary construction and of secondary criticism; of living appreciation and of abstract description; of active endeavor and of pale reflection. We find that every more direct primary attitude passes upon occasion into its secondary deliberative and discursive counterpart. We find that when the latter has done its work it passes away and passes on. (Dewey MW 2: 299)

This statement nicely links Dewey’s theory of inquiry with Peirce’s writings about the “irritation of doubt” as spurring investigation into the world, an investigation which abates and potentially ceases once the motivating doubt or problem has been resolved by a belief’s being settled. Dewey’s notion of inquiry is phasic, but it occurs within a broader context of continuous experience. Speaking in general terms, the recognition of a problematic situation temporarily disrupts the non-cognitive, habitual, transactional relationship an organism has with his or her environment. Cognitive inquiry and adjustment of practices are then performed in order to return the individual to stability. These new practices and the results of these inquiries provide background conditions for the organism’s newly-won but almost certainly temporary

¹³ Much more could be said about the particulars of Dewey’s theory of inquiry than what I am going to offer here, but to avoid wandering too far afield, and in the interest of brevity, I will refer interested readers to the relevant sections – and there are many – of Hickman’s texts.

non-cognitive practice. This Dewey terms “funded experience of the past,” but it can also be understood as playing a role similar to tradition, as noted above.

Taken at an appropriate level of abstraction, I agree with Mullis about the connection between Dewey’s aesthetics and Borgmann technological aim: Borgmann’s understanding of focal things as unifying and orienting for human lives displays, in an ideal case, pervasive quality, moving toward a culminating moment, and a tight relationship between ends and means. Looking again to the woodsperson hunting warmth, one may see an individual taking essential steps to prepare his or her situation for the culminating moment: the spark of flame. Unfortunately, Mullis does not stop at this consonance. Instead, he presses the Borgmannian point that the device paradigm limits the *possibility* of consummatory experiences. Moreover, he disappointingly places the blame for the device-based ills of our contemporary culture squarely at the feet of instrumentalists like Hickman and Dewey. This hasty judgment could not be more mistaken.

Mullis is careful to explain that, perhaps unlike Borgmann, he thinks “*devices* are not, strictly speaking, antithetical to consummatory¹⁴ experience. That is, particular devices such as my iPod or cell phone do not necessarily thwart enriching experience in which means coalesce in fulfilling ends” (Mullis 2009: 114). That movies and live and recorded music are now readily available on such high-tech devices as computers is evidence in favor of this: obvious aesthetic experiences that used to occur in the music hall can now occur while sitting before an LCD screen. There are of course important social differences in these experiences, but these do not diminish the possibility of experiential consummation. If one wishes to criticize specific devices, he or she must do so in reference to ends other than the immediately aesthetic. The tack he instead takes it to move from the particular to the general; the issue is the *predominance* of devices, and especially their habit of breaking apart ends and means by obfuscating the involved means. Mullis states his contention directly:

Since the device paradigm characterizes much of everyday life and since consummatory experience and focal practices are contingent upon the integration of means and ends, it follows that the device paradigm does interfere with the cultivation and appreciation of consummatory experience. (Mullis 2009: 115)

The experiential appeal of this claim is significant. Caricatured images of obese Americans clicking their television remotes while sitting on computerized massaging couches and eating microwave-heated chicken potpies come easily to mind, and books like Huxley’s *Brave New World* have prepared contemporary American thinkers to worry about just such a device-mediated future. Nonetheless, as should be obvious, this fear is dependent on creeping back into exactly the same device property-essentialism about which Hickman and Dewey have consistently warned their readers.

After summarizing Hickman’s anti-essentialist functionalist account, Mullis declares, “it is clear, however, that the devices that characterize the device paradigm

¹⁴ Throughout Mullis’s piece, the word “consummatory” is spelled “consumatory.” Rather than note ‘sic’ after each instance, I have simply modified the spelling.

do have something of an essence” (Mullis 2009: 116). This statement is problematic, in part because it lacks argumentation except for that offered earlier in summarizing Borgmann’s philosophy. More than this, the use of the phrase “something of an essence” is ambiguous. On one reading, this is an endorsement of Hickman’s functionalist rejection of fixed essences. Unfortunately, this is not what he means. Rather, as he lets on in the next sentence, “[t]his is not to say that one can make a universal claim about all devices, but it is to say that devices enforce the separation of means from ends”. If Mullis were to have included a contextualist phrase such as “currently, in our situation” in this explanation, then it would be helpful. As he did not, however, it is an example of either a trivial or question-begging assertion.

This judgment is amplified when, in the next line, Mullis writes, “a pure instrumentalism is impossible”. Well, yes. But it is unclear what makes an instrumentalism pure and especially how Dewey’s position could ever be understood in this way. After all, in a 1940 letter to Corliss Lamont, Dewey wrote, “I have come to think of my own position as cultural or humanistic Naturalism. . . . Of course I have always limited my use of ‘instrumentalism’ to my theory of thinking and knowledge” (Lamont 1961: 26). Perhaps Mullis is conflating Dewey’s instrumentalism with the “naïve” or “straight-line” instrumentalism which Hickman has so often challenged as incomplete and incompatible with Dewey’s broader commitments¹⁵.

In preparing for his conclusion, Mullis states, “Modern technological artifacts can shape experience as they separate means from ends and influence the appreciation of focal things and practices and the cultivation of consummatory *experience* more generally” (Mullis 2009: 116). This sentence is correct but not worded strongly enough for Mullis to support his final accusation that “a thorough consideration of the device paradigm reveals an inconsistency in Dewey’s philosophy. Dewey’s instrumentalism is at odds with his account of consummatory experience since the proliferation of devices is an expression of instrumentalism and since devices can hinder the development of consummatory experience”. For this to work, Mullis would need to establish that modern technological artifacts *must*, not just can, separate means from ends. And this would be to join Borgmann in “believ[ing] that information technology determines human behavior”, a reductionism with which he seemed initially uncomfortable and which he avoids in his conclusion by stating that devices are in fact not determinative of experience.

The accusation that Dewey’s aesthetic philosophy is inconsistent with his philosophy of technology is not a new one. In fact, Alexander’s important 1987 book on Dewey’s aesthetics is centrally concerned with replying to “why [Stephen] Pepper, [Benedetto] Croce, and George H. Douglas believed that some or all of the tenets of *Art as Experience* are inconsistent with Dewey’s naturalistic instrumentalism” (Alexander 1987: 2). Alexander argues that their mid-twentieth century criticisms were motivated by a misunderstanding of Dewey’s theory of aesthetic meaning. It seems that Eric Mullis’s recent assault came about from a similar misunderstanding, which resulted in overextension and segmentation of the instrumental component

¹⁵ See, for instance, Hickman (1990: 148-49); Hickman (2001: 72-3, 157-58).

of Dewey's thought at the expense of recognizing its continuity with the aesthetic element of his broader philosophy¹⁶.

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¹⁶ In fact, one of Hickman's most recent essays is centrally addressed to this concern. By offering a brief, Deweyan account of "quotidian aesthetics," the piece argues again for the reciprocal continuity between aesthetics and instrumentalism, consummation and understanding. See Hickman (2013), especially the suggestive reference to *Experience and Nature* in the piece's penultimate paragraph.

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