

The *Corpus* Is Not Yet Closed...

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I will begin my response to this impressive set of responses and criticisms to my ‘Ihdeology,’ by expressing my extreme gratitude to Evan Selinger, who conceived of the ‘critical companion’ called *Postphenomenology*, brought it into being with its list of eminent scholars from a multiplicity of fields. The contributors from philosophy of technology, philosophy of science, science studies and other disciplines as diverse as musicology and sociology, are among the most distinguished authors one can imagine. Since some of them are my former students, a few are colleagues, but most are peers in the relevant fields, it is with a sense of pride that I feel this gratitude. Perhaps it is only with someone like Selinger that this result could happen—he is persistent and productive in his own right. Today he is already one of the most obvious new visionaries in the philosophy of technology or technoscience studies. Since *Postphenomenology*, he has edited (with Jan Kyre-Berg Olesen) *Five Questions in the Philosophy of Technology* (2006), this time with 24 scholars who delivered, and the forthcoming *New Waves in the Philosophy of Technology* (2008). I could go on listing his earlier and forthcoming works as well, *but*—especially since several of the papers urge me to recognize the ‘darker’ sides of things—I will respond to precisely the darker side of this critical companion.

When Selinger was developing the book, he was still a Ph.D. student at Stony Brook and he would occasionally come in to update me on progress. Although he didn’t see me doing this, I would occasionally look at some of my piled up books on the shelf behind him which also included some of the Cambridge companions—to Gadamer, Husserl, and others. I realized that these companions were all companions to ‘*dead white males*’! Indeed, Habermas was the only other living philosopher in that companion series! Furthermore, precisely because of this status, the written *corpus* of each was *closed*. So, I had found the source of my slight feeling of unease, as if a critical companion provoked some sense of being an epitaph. This feeling was not helped by my most recent contribution to the Selinger *corpus*, a special issue of *Phenomenology and the Cognitive Sciences* on cyborg bodies—my contribution is titled: “Aging: I don’t want to be a Cyborg.”

Now, in contrast to gratitude, I also have to enter a protest in my response—the *corpus* is not closed, nor complete. And, in part precisely because of a growing cyborg hybridization process which helps maintain my aging body as described in the forementioned article, I fully expect to significantly expand the Ihde publication *corpus* for some time to come! So, on to the task of response:

In design, this panel is supposedly a response to *Postphenomenology: A Critical Companion to Ihde*, yet, except for Selinger, the panelists are all respondents not themselves in the book and none take on the book-as-a whole for this occasion. Perhaps this is an example of my notion of the ‘designer fallacy’ in which an outcome is rarely isomorphic with its originating ‘intention’?

And, while I cannot know which respondents have both read the entire companion, let alone my full *corpus* of works my discussion will have to address the essays as given. (I suspect only Selinger comes close to full acquaintance with the *corpus*. And even he, until the process was

well along, was not very familiar with my earlier work on auditory experience which receives considerable attention in *Postphenomenology*.) This panel, instead, brings new issues to consider in the development of postphenomenology.

Actually, in this case, the unintended consequences turn out to be highly beneficial. Each critic has latched onto what could be taken as some underdeveloped strand of my work, and elaborates this into a complementary trajectory to which I can now respond. Posthumanism, pragmatism, Marxian thought, and normativity are the four themes which are brought to this discussion. And, I shall try to respond to each, but I will begin with what I call the “Al Lingis” gambit. Al Lingis once noted to me—and I have seen him in action doing this—that his first take upon critics is to plead guilty! And so, he will say “I am even more guilty than you think I am....” So, in this case, yes, I am not a foundationalist, particularly in ethics and political philosophy and am unlikely to become one; no, I have not launched a reform movement for either technologies or politics; nor am I an espouser of posthumanism in its most radical senses; and yes, I reject the deterministic and later pessimistic tones of much classical Marxism. And, I also plead guilty to having more philosophical interest in the production of scientific knowledge and epistemology than in battles between utilitarians and deontologists; and I hold descriptive work must be careful and highly developed, before going on to drawing normative conclusions; and, contrary to Paul Durbin’s chastisements concerning my lack of engagement in so many of the past SPT concerns—take ‘appropriate technologies’ as an example—because I thought these misguided at the time, and now I think we can see better how and why this movement was misguided, and so on.

That said—and I doubt that this will surprise my readers—I do think the industrial model of factory farming is despicable, and indeed the old ‘rust belt’ industrial technologies even deserve their Heideggerian critique; and I am very, very concerned about the retrograde rejections of multiculturalism in the form of the various fundamentalisms-cum-terrorisms now rampant; and I could even be called ‘nostalgic’ for good old fashioned civil liberties; and, above all—though anyone who has read *Technology and the Lifeworld (1990)*, should know that I take concern for the environment as a major issue for the postmodern world.

Is this stubbornness? Or simply sclerotized categorization and habit? I shall try to convince you to the contrary, but I shall do this somewhat indirectly by turning to new and as yet little published aspects of the still open *corpus*.

In my typical style, I will begin anecdotally: Some years ago at a book exhibit at SPEP, SUNY Press had a collection of my works on their table. They had just re-issued *Experimental Phenomenology (1986)* which lay alongside *Existential Technics (1983)* and *Consequences of Phenomenology (1986)*. Several persons noted this sampling and one spoke up—pointing to *Experimental Phenomenology*—“That’s ‘early’ Ihde!” I was amused, and sort of wondered what ‘late’ Ihde might be? Such a periodization, however, has some justification precisely because this event was also uttered just when I was beginning to modify my adaptation of doing phenomenology. Not there on the table, was the simultaneously issued monograph from the *phenomenography* group in Goteborg, Sweden, titled, *Non-Foundational Phenomenology (1986)*. That monograph contained considerable reference to Richard Rorty and his then popular descriptions of non-foundationalism, and this was also part of my own response to his pragmatism in *Consequences of Phenomenology* which was lying on the table. Later, of course, I changed this to *postphenomenology*, as in *Postphenomenology: Essays in the Postmodern Context (1993)* and in today’s companion.

Purists do not like this and I get lots of flak from them. My own response is that every scholar of phenomenology recognizes variants: ‘transcendental,’ ‘existential,’ ‘hermeneutic,’ phenomenologies—so why not *post* phenomenology? It would be inappropriate to use the bulk of my response time to describe the distinctive features of postphenomenology when I should respond to the critiques in this special issue. So, I will only make passing reference to how the shape of postphenomenology, in my case, emerges with greater explicitness out of the now decade of my *technoscience reseach group*. Put as simply as I can: Even earlier than TRG, I had already been a non-foundationalist and gradually realized that the Deweyan critique of Cartesianism, foundationalism, and even subjectivity, was more effective than classical Husserlian critiques which retained too much of the ‘vocabulary’ of subject/object, external/internal and the like. But, I also felt that the looser and more generic ‘instrumentalism’ of pragmatism lacked a certain analytic rigor—which I found and continue to find in the use of *phenomenological variational theory*, which led to my notion of *multistability*, prominent in your critiques. Then, finally, as the distinctive shape of the research seminar took place—reading in science studies, philosophies of science and technology, with feminist subthemes, and reading only living authors—the relevance of ‘case studies’ began to make an impact. Thus, postphenomenology is pragmatism+phenomenology+the *empirical turn*.

At this juncture, then, I can respond to Hickman’s contributions: He, Mitcham and Durbin have been the foremost pragmatist oriented philosophers of technology to recognize my own adaptation of pragmatism. And, I accept virtually all of Hickman’s characterizations of how pragmatism operates in postphenomenology. I would make one slight emendation by adding that postphenomenology, while like pragmatism is clearly an *experientialist* philosophy; it is not, like classical phenomenology, ‘subjectivist’ or either foundationalist or ‘relativist’—instead, it has, as Hickman recognizes, a *relationalist ontology*.

Hickman then goes on to join my normative critics and prescribes that I should take a normative turn, a sort of Deweyan reformist turn, in *educational contexts*. Now, continuing my guilty plea—Hickman is right, I do not have an extensive set of *publications* which would constitute an education corpus, I will become a little defensive and point out that these are not entirely lacking, and that behind the scenes or via the applications of others there is an extant education record. The earliest such impact goes back to a much earlier set of relations to Goteborg’s Educational University which, borrowing from *Experimental Phenomenology* launched a considerable secondary curriculum unit on ‘creative thinking’ using the examples of variations developed in that book! Later, *Experimental Phenomenology* was, in fact, translated into Swedish by Daidalos Press which also publishes Habermas, Rorty, et. al. into Swedish. In between, I long served on boards of higher education as a consultant and referee to ‘technological literacy’ programs in several states. Most recently—in fact two weeks ago—I just returned from a very large conference of technology educators in Scotland, as one of four keynote speakers addressing technological literacy (Andrew Feenberg, Leonard Waks, and Joe Pitt were the others). But, admittedly, articles on this topic, some very recent, are scattered and as with so many of my early works on new topics, appear first in European rather than American journals and books. So, again defensively, my guilt is at least not total.

Similarly, I want to respond to one of Selinger’s criticisms also related to my use of variational theory which received its ‘early Ihde’ treatment in *Experimental Phenomenology*. Selinger refers to a more recent example: my phenomenological expansion of the ‘duck-rabbit’ into ‘duck-rabbit-squid-Martian’ variants and criticizes its ‘abstract’ and disembodied approach. Were I to leave the situation with this abstractness, I could accept such a criticism. Simple, visualist

Gedanken Experimenten are actually very similar to those used by Einstein—who, I remind you, was a contemporary of Husserl. Einstein's variations on seeing relativistically placed railroad trains, one moving in one direction, the other in the opposite, with the momentary illusion of being moved when possibly standing still, also ignores the full-body correction of kinesthesia-tactility in the actual situation. As Merleau-Ponty pointed out, the only solution to a perceptual error is *more and better* perception. Similarly, Einstein's correlation of acceleration and gravity, as in the sudden elevator drop thought experiment, again serves the same kind of purpose I use in my abstract examples. And, while those were used by 'early Ihde,' I later and quite consistently also developed more full-body variations. The extensive descriptive analysis of alternative navigational examples from European and South Pacific forms, fully utilize body positions as variants. [On this score, I think Hickman's point concerning how I could more correctly understand South Pacific navigation as 'instrumental' is well taken.] Most recently, I have been developing two highly full-body examples to complement the quick-insight abstractions with a program to deconstruct the dominant notion that it is 'intuitive' that the earth is experienced as being stable, while the sun is in motion, thus leading to the 'false' notions about motion incorporated in pre-modern physics, and another example of now multistable and multitrajectory of what I call "the seventh machine" which is the bow-under-tension with bow and bowstring. I now hold that this invention, common to virtually all peoples and taken most commonly as a hunting or weaponry 'archery' technology, is as adaptable and multitrajectory as any of the classical Greek six machines. Archery is only one trajectory, with stringed instruments, drills and fire starters as others. This latest full-body set of multistable variations is just now coming into published form. I will mention in passing that both *Listening and Voice* and *Experimental Phenomenology*, early Ihde 'phenomenologies' are being republished with additional chapters on instruments and technologies added to the earlier texts, adding more embodiment and materiality dimensions to both.

Now, however, it is time to enter into some deeper considerations which arise from the critiques in this special issue:

I begin by combining observations arising from both Weiss and Selinger, relating to what could be called modifications of the human. Weiss chides me for not paying sufficient attention to 'post human' or human modifying technologies: genetic engineering, cybernetics, cosmetic surgery, reproductive technologies and the like. And Selinger recommends the utilitarian-moralist stance of Singer and Mason regarding food, condemning the factory farm, industrial—and Heideggerian 'standing reserve' critique which does not let, now following the same Heideggerian organic romanticism of "what passes for chickens to resume living as real chickens." Now, I could begin with human-modifying technologies and 'real' chickens by appealing to the recognition that ever since humans stopped being hunter-gatherers any 'real' chickens have been modified away from their jungle predecessors many millennia ago. All agriculture, all domestic animal husbandry, long ago moved away from the 'wild.' It is just now, probably in postmodernity, that we are becoming more radically capable of animal and human self-modification. Pre-postmodern modifications often had spiritual, psychological or 'animal' models as guides. Today the more material, technological or biotechnological means have become dominant. But I think it is too early, and the usual tech-hype too intense, to get a sufficient grip upon these techniques. Brain imaging remains a "new phrenology" as the title of an MIT Press book has it; and some body-enhancing is being re-thought: I just read an article on tattoo removal which is becoming popular and users are now calling for the development of less permanent dyes, so that one can more easily erase or re-do tattoos. One of the things I liked about Hickman's paper was his recognition that I could float easily between pre-historic and contemporary examples in a pragmatist-

instrumentalist way-- or a phenomenological variation way, looking for deeper patterns. I do the same here.

It may turn out, in the very deepest sense, that “we are what we eat” in very unexpected ways. As discussed in *Science*, 15 June 2007, a magazine which I have read religiously for nearly two decades, anthropologists pose a new theory concerning how we are what we eat: How is it that modern humans, very little physically changed for somewhere between 100-200,000 years BP, developed such large brain cases and brains, compared to our nearest relatives, the apes, or our earlier hominid cousins? The hypothesis discussed is that *cooking*, or what I shall call a culinary technology, may have a large role in this evolution. I am sure you can recall the skull shapes of some of the earliest pre-modern hominids which have a large bone crest running along the top of the skull. These pre-moderns also have large jaws and teeth, particularly in contrast to *homo sapiens sapiens*. Now that crest served functionally as an anchor to the very large muscles which stretched from the top of the skull to the jaw—indicating very powerful bites and chomping activity. The diet, probably with more nuts and tubers, but also raw, torn off slabs of meat, needed grinding and—as the article points out—a much larger portion of the inner body designed as a digestive system. Apes and earlier hominids not only had smaller brains, but also larger proportioned digestive systems, some 30% larger than ours. Cooking and culinary technologies change the environmental conditions for that physiognomy. Cooking ‘predigests’ as both Ernst Kapp, the earliest philosopher of technology and James Feibleman recognized as a sort of ‘external stomach’ such technologies provide. Thus cooking provides conditions for smaller teeth, less jaw muscle, smaller digestive tracts--and *expanded* skull capacity as the authors surmise. And, the systematic use of cooking fires are clearly evidenced from early modern humans on. Of course for this development, which had to begin before 200,000 BP, while lacking the specific form of hearths, is also evidenced in some of our pre-modern hominid relatives. Question: what if Mason and Singer do succeed in changing our eating habits; what evolutionary changes will these entail were we to turn vegetarians all, since among other things, high protein diets are costly for increased populations? Might we evolve into more ruminant forms? Back to bigger or multiple stomachs as per ruminants? Here is an Ihde provocation: We also know now that in much earlier pre-modern times, dinosaurs—including Tyrannosaurus Rex, but more recently , a feathered, chicken-shaped dinosaur weighing about a 1000 pounds found in China, both of which are virtually genetically identical to our non-‘real’ farm chickens. “Genes like a chicken; tastes like a chicken”? So, why not genetically retro-engineer such pre-chickens and there would be no need for packing so many chickens into a factory farm? Only a few would be needed to supply the same number of humans with protein. Does this imply that posthuman technologies could solve the problems of a Heideggerian equation between the Holocaust and modern agriculture? I do not mean to be facetious, but I am suggesting that solutions to our problems are probably going to have to include more and different technologies, rather than rejecting or turning off our technologies. This, again, is pragmatism+phenomenology.

More normativity: must I, as several suggest, including Selinger, become more ‘foundationalist’ when ethics and politics are considered? No, no ‘god’ will save us, nor will an absolute. In fact, here with Dewey and not even Husserl, I see no need to go in this direction. ‘Relativism’ as I understand it, is merely the mirror-image of foundationalism. In relativism, everything goes, all is equal, there is no ‘standard’ for judgement. Caught in an old fashioned binary, there will be a perpetual, incommensurability to this style of argumentation. But I am not a relativist. Contrarily, a ‘relativistic’—or phenomenological variant—position needs only some limited degree of relationality to establish better and worse, or better and less than better solutions. This has been my argument for decades now, and I have frequently used culinary and perceptual examples:

There is no ‘best’ cuisine, but within any genre of cuisines there are clearly better and worse ones. But the emergence of a *relativistic* scale is also related to experiential *expertise*. My wife and I have now made three trips to four different regions of China, thus gaining in experience both with respect to Chinese food, to the differences between indigenous and exported Chinese cooking, and with respect to regions. And, relativistically—also intersubjectively compared to other travelers’ experiences—certain conclusions seem quite robust to me: first, indigenous Chinese cooking is discernibly different from Chinese-American, Chinese-French, or Chinese-German styles of cooking. And we—plus our other intersubjective interlocutors—agree that there is a superior quality to the indigenous form. [I would add to that that I know of no discerning-palate person who would claim that Chinese-German variants are up to any of the other named variants above!] And, so as not to extend this too long, this same intra-genre set of expertises can apply to wine tasting, tea tasting, etc. etc.etc. none of which requires either an absolute scale or a god. This is a culinary physics which is analogous to its Einsteinian form in comparing Newtonian to Einsteinian accuracies. And, just as relativistic physics no longer needs an absolute space or time; neither does a relativistic phenomenology need a foundation nor a god.

This finally brings us to Val Dusek. He rightly recognizes that there is little in my written record and also little in *Postphenomenology* which relates my obviously materiality-sensitive approach to classical Marxism. And, he is correct, that I reject earlier versions of technological determinist, whether in the more optimistic Marx-Lenin forms, or the later more pessimistic Critical Theory forms. Now, while I have frequently mentioned both Ernst Kapp and Karl Marx as 19th century neo-Hegelian predecessors to philosophy of technology, I have not extensively commented upon any 19th century—or for that matter much on the Heideggerians’ discussions of Aristotle’s *techne*. Both, to my mind, belong to something like abandoned *epistemes* in the Foucault sense. So, instead, he pulls an end run on me in the work of Edgar Zilsel, a 20th century Marxist also associated with the Vienna Circle. I admit that I had never heard of Zilsel or Zilsel’s theses prior to my printing out of Dusek’s response in the middle of last week! Ouch! So, with the desperation of a typical contemporary, I quickly turned to the internet, including Wikipedia, to find out about him. And, while I am not up to speed, I am clearly going to be sympathetic to his position as I understand it so far—even though he is closer to a social constructionist position than am I. Zilsel argues, somewhat like Lynn White Jr. and the Weberians, that capitalism and a more egalitarian society are needed for the emergence of early modern science, but also that early modernity produces a fusion of the work of craftspeople with text-oriented intellectuals. And, he places this movement earlier than the 17th century, in the Renaissance. Here the “aha” phenomenon strikes home. I, too, make the same point, but in a more instrument centered, material way: In much recent work, but also much earlier in my “The Historical and Ontological Priority of Technology over Science” (1983), I have argued that the Renaissance was a period of time, in which instrumentation proliferated in *both* the arts and early modern science’s beginnings. Music became more instrumental than earlier *a capella* sacred chanting; optical instruments became tools both for artists and later for science practitioners; and all this followed the big-machine revolution of the late Middle Ages which Lynn White Jr. points up. In my handout concerning the still open *corpus*, I list some of these very recently published or still forthcoming works: ‘Did the *camera obscura* invent early Modern Science?,’ first presented at SPEP, 2002, now published in *Mediated Vision*, edited by P. Kockelkoren (ArtEZ Press, 2007) “Die Kunst kommt der Wissenschaft zuvor: Oder: Provozierte die Camera Obscura die Entwicklung der modernen Wissenschaft?” published the previous year in *Insstrumente in Kunst und Wissenschaft* (2006), out of a five year project on instrumentation in art and science at the Free University of Berlin in which I have been participating. But, I also go farther, I think, than Zilsel in that the instrumentation of science practice to produce more robust and accurate

knowledge, also may be detected in the Hellenic Greek—not Classical Greek—period of the 2nd C. BCE. Eratosthenes' measurements of Earth, the famous calculator now interpreted as a refined machine showing solar universe measurements, all come from this post-Classical—and highly *multicultural* era. Similarly, in the short period *before* the unwise Spaniards closed off the Moors and Jews in 1492, the whole school of Henry the Navigator was producing high quality maps, mathematical navigational calculations, and navigational instruments, contributions Christians, Moors and Jews working together. So, yes, social conditions—I emphasize multicultural exchange—and material instrumentation may well stimulate science. So, I end with my promise to read some more Zilsel.