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Postphenomenology - Again?

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In the fall, 1997, I presented a paper in Pueblo, Mexico, with a subtitle, "How many phenomenologists does it take to detect a Greenhouse Effect?" This brought loud laughter from several European philosophers in the audience. Afterwards, engaging one of the principals, there was a long email exchange which indirectly led to a comparison of Heidegger's and my philosophies of technology in a newly translated Dutch book, *American Philosophy of Technology: The Empirical Turn.*[1] The primary title of the original paper was "Whole Earth Measurements" and had to do with the problem of instrumental, technological detection of global environmental changes. It included critiques of two Godfathers of phenomenology: Husserl and Heidegger. That exchange provokes echoes for this symposium's theme: Postphenomenology.[2]

From Husserl's early 20th century invention of phenomenology, we are now entering it's second century. Phenomenology has several 'histories:' Mid-century, Herbert Spiegelberg's *The Phenomenological Movement* in two volumes;[3] recently, Lester Embree's *Encyclopedia of Phenomenology* with its multiple 'histories'.[4] Regionally, Bengt Kristenssen-Uggla's history of phenomenology in Sweden and Bernard Waldenfels' massive *Phenomenologie*

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[1] Achterhuis, Hans, ed. <u>American Philosophy of Technology - the Empirical Turn</u>. Bloomington: Indiana University Press, 2001.

[2] This paper was given at Kent State University, sponsored by the Veroni Lectures, as a mini conference on "Postphenomenology." The other two speakers were Tina Chanter from DePaul University, Chicago, and Thomas Flynn of Emory University, Atlanta. March 1, 2003.

[3] Spiegelberg, Herbert. <u>The Phenomenological Movement - A Historical Introduction</u>. Phaenomenologica ; 5/6. Hague,: Nijhoff, 1960.

[4] Embree, Lester E. <u>Encyclopedia of Phenomenology</u>. Contributions to Phenomenology ; V. 18. Boston: Kluwer Academic Publishers, 1997.

im Frankreich[5]. And I, with others such as Embree, James Edie, Hugh Silverman, Richard Zaner have contributed to article length histories of development in phenomenology. These are all histories about phenomenology.

A second kind of 'history,' common in 'continental circles,' is a commentary history. Here Godfathers – narrowly, I suppose, Husserl, Heidegger, Merleau-Ponty, Ricoeur and the like, and more widely, if contrarian revisionism is allowed, Derrida, Foucault, Irigaray, etc. - continue to be *interpreted*. Urtexts are reworked and mined in a sort of philosophical-'literary history'. Here, the future of phenomenology would be the future of such interpretations. Of these there is no end. Both histories are *academic* and both are *secondary*.

In this reflection, however, I want to take a different perspective. This will be a perspective which is personal, reflecting upon my own experience as a 'phenomenologist'. My question is: how does one *do phenomenology*, rather than discourse about it or engage in internicine interpretations. This is a perspective *from the trenches*, as it were. Why do we need a *postphenomenology*, modified and transformed from its earlier European roots into a more contemporary, flexible and effective philosophical toolcase. Postphenomenology does bear some relationship to the other 'posts' of the present: postmodernism, poststructuralism, postindustrialism, postanalytic, and the rest of the *ad infinitum* posts.

This is not the first such reflection I am making upon a *postphenomenology*. I was told this conference title came from my 1993 book title, *Postphenomenology: Essays in the Postmodern Context*[6], but few of you will know an earlier response to Rorty in *Non-Foundational Phenomenology*[7]. And, not all of you will yet know the title of a chapter in a recent book, a response to the new semiotics, in *Chasing Technoscience*[8], where I have an entry: "If phenomenology is an albatross, is postphenomenology possible?" In short, this

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[5] Waldenfels, Bernhard. Phänomenologie in Frankreich. Frankfurt; Suhrkamp Verlag, 1983.
[6] Ihde, Don. Postphenomenology - Essays in the Postmodern Context. Evanston, Ill.: Northwestern University Press, 1993.
[7] Ihde, Don. Non-Foundational Phenomenology.Goteborg, Fænomenografiska notiser, 1986.
[8] Ihde, Don, and Evan Selinger. Chasing Technoscience - Matrix for Materiality. Indiana Series in the Philosophy of Technology. Bloomington: Indiana University Press, 2003.

meditation is about postphenomenology – *again*. However, I will need to balance meta-theoretical concerns with a sense of postphenomenological practice by showing examples of the latter.

I am going to start with very recent events. My latest book, *Bodies in Technology*[9], was released a short while ago. Last fall it got its first run in an Internordic Seminar in Aarhus, Denmark. One of the participants, a researcher, invited me to the Learning Laboratory Denmark. The Lab, located in a building originally built by the Nazi occupiers as a center for the Germanization of Danish culture. This effort ended as an ironic failure, particularly with respect to philosophical culture. Everyone knows that after World War II, most Scandinavian countries quite deliberately eschewed German originated philosophy, which had prior to that War been the dominant influence, and adapted English speaking, primarily Anglo-American analytic philosophy in protest, which still remains the dominant style of philosophizing in standard departments.

This building, now totally renovated, today bespeaks the minimalist, pine and aluminum Scandinavian architectural and furniture style. Learning Lab occupies several floors, mostly open plan but with nooks for seminars and conversation places, display pieces including robots and sensing devices from Lego, the parent origin of the Lab, and state-of-the-art computer stations. I am invited to a quick tour, and then seated in a comfortable sofa-table-and display board area, with coffee and 'danish' and the conversation begins.

Soren, the director, gets to the point. He has recently purchased *Bodies in Technology*, and has grasped and appreciated its thesis. Human embodiment is presupposed in and by our technologies, particularly those related to the production of knowledge, including scientific instrumentation, communication technologies, and the new forms of virtual reality, simulation and modelling devices, all of which are discussed in *Bodies in Technology*. He likes the whole-body, active-body, notions of embodiment worked out therein and wants the

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[9] Ihde, Don. <u>Bodies in Technology</u>. Electronic Mediations ; V. 5. Minneapolis: University of Minnesota Press, 2002.

book – and me – to be part of a large educational program and proposal Learning Lab is developing.

The program and grant is one which relates to *play and learning* for children. It has a concern as well: The Danes see beginning to happen in Denmark what has already happened to some extent here – children get 'plugged into' various technologies, particularly screen technologies from televisions, to computers, to video games, and bodily develop 'couch potato' practices. Associated with this phenomenon is another: weight gain, will children become fat, little couch potatoes? So, the project is one which needs to critically reflect upon this; dream up technological environments which encourage, rather than discourage bodily activity, in a stimulating and creative way engaging play and learning. Bodies in Technology applied? I will be going back to Learning Lab in May, along with a small group of others who have similar views and perspectives on this situation to brainstorm. Then, as I was leaving the Lab, I met a philosopher who was also a researcher in the Lab and after a very brief conversation about a phenomenology of embodiment, he said his goodbye with the comment, "It's taken a long time, Don, but I think we finally have Cartesianism *on the run*." I call this an example calling for *doing postphenomenology*.

It is an example of a different site and job for a philosopher, a site which I call the "R & D location [research and development]." I would contend that most philosophy, and philosophers, are caught in an old academic model in which conversations with each other are the mode, disengaged from today's primarily *research activity* model of a university and subsequently insulated into a situation of self-replication and often irrelevance. Were we to ask what the larger social expectations for philosophers might be, and what the self-determinations of philosophers seem to be, two themes might be considered dominant. Within the academy, one theme has been the pessimistic one that this is the age of the "end of philosophy." Rorty has been a major spokesman for this view – philosophers are no longer intellectual mandarins [although Rorty continues to act like one]. Often philosopher's roles have been diminished to levels in which philosophers and philosophy are regarded as interesting relics of

a previous time – maybe modern times? This worry and theme has occupied a lot of academy time.

The second theme, slightly less pessimistic, is that philosophers can still play a role, particularly if they *apply* philosophy – and here we see the new industry of mostly "applied ethics." Beginning with scarcity problems within medical resources, often dominated by utilitarians, we have seen applied ethics fields expand from medicine to business to many other fields. Today nearly half the jobs for philosophers are of this sort if one reads *Jobs for Philosophers*.

While I have never underestimated the importance of such roles, I have argued on numerous occasions that this is placing the philosopher in a role which is too late to utilize the best of philosophy's uses and skills. For an ethicist to try to determine what is the best allocation and fairest distribution of systems *already in* place or of effects *already established*, is in effect, to play a "triage or ambulance corps" job after the battlefield is already strewn with the wounded and dying. Instead, I have argued, an earlier positioning of philosophers is needed – precisely at the developmental stages of today's technoscience trajectories. Philosophers should be in "R & D positions."

This prelude obviously signals my own frustrations concerning identification with classical phenomenology, both in the North American, but also in the broader Euro-American context. Philosophers, *post*phenomenologists, in R&D positions could conceivable bring to bear thinking on future, rather than past or actually in-place phenomena. Interestingly, there is a unique American precedent for precisely this role and conception of philosophy – it took place both in theory and practice with *pragmatism*, particularly of the Deweyan type. Dewey considered philosophy to be a "tool," set up to deal with concrete problems and in his later thoughts even thought of replacing his term, instrumentalism, and its tool conception of philosophy, with "technology".[10] I have always thought and felt that a *pragmatic* phenomenology would be the most promising North American hybrid for doing phenomenology.

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[10] Hickman, Larry. <u>John Dewey's Pragmatic Technology</u>. Indiana Series in the Philosophy of Technology. Bloomington: Indiana University Press, 1990.

Secondly, a pragmatic wedded phenomenology is also in a deep sense, *empirical*. That is, it is a phenomenology which deals not so much with academic disputes and a literary-critical style of work, as with the examination of "the things themselves." Academic philosophers rarely do this, although I detect a contemporary trend which does point in such directions. Interestingly, it is a trajectory more often taken by those engaged with philosophy of technology than in other subfields. For example, no philosopher has been more influential upon computer design and development than Hubert Dreyfus who has made a career with his phenomenological investigations and critiques of artificial intelligence and expert systems. I have been to many conferences in which whatever he says cannot be done sets the research programs for years to come-to try to prove him wrong. But he is not alone-in the cutting edges of biotechnology, my former student, Paul Thompson is a pioneer in work upon agricultural biotechnology and bioethics, and in Holland where technology assessment is a public task, Bart Gremmen has become the national "ombudsman" who must negotiate the national debate on GM biotechnology (genetically modified foods). My own contributions, sometimes unknown to me, have indirectly resulted in design modifications to airport light approaches, something I learned about in Japan and refer to in my introduction to philosophy of technology.[11] This is what the Dutch authors of 'the empirical turn' have recognized and termed those of us discussed, 'pragmatic'.[12]

Before moving on, I want to claim that such a pragmatic-empirical postphenomenology looks very different from the 'phenomenology' which has been critiqued by its successors and revisionist thinkers who dominate today's internalist discussions. The kind of postphenomenology I am describing is *engage* and does not look *passe* or outdated. It is not the classical phenomenology criticized by Lacan, Foucault, Derrida, and Deleuze. Nor is it the old style of subject-centered phenomenology which remains taken as the only or orthodox phenomenology by these same critics. To its detractors, that

[11] Ihde, Don. <u>Philosophy of Technology - an Introduction</u>. New York: Paragon House, 1993.
[12] Achterhuis, Hans, ed. <u>American Philosophy of Technology - the Empirical Turn</u>. Bloomington: Inidiana University Press, 2001.

phenomenology looks dated and of little use. But, none of the detractors seems in the least familiar with what has gone on in post-classical phenomenology. I once had an interesting exchange with Bruno Latour on precisely this issue – his critique of the only partial recognition of embodiment, even by Merleau-Ponty, and especially for technologies, acknowledged in *Pandora's Hope*[13], did not move on into post mid-twentieth century developments. In this same conversation, I chastised him for also equating philosophy of technology with Heidegger – as if it had ended there. That he admitted, but his retort to me was that I do "philosophy of consciousness," which I denied, and then he said, "you are a phenomenologist; therefore you do philosophy of consciousness."

In part I lay this problem to a very deeply entrenched habit within so-called 'Continental Philosophy' which denominates certain canonical figures and then for decades sticks to taking these as the only thinkers to be read or commented upon. That is what I have called "generic continentalism".

If a *post*phenomenology can, in its American context, become more pragmatic and empirical than its older European traditions, what does it reject and what does it retain from these? In order to remain within time constraints, I shall have to be quite quick and brutal with my answers:

First, postphenomenology cannot afford to retain its classical modernist backdrop. It must jetson both its notion of a 'subject' or ego and particularly its *transcendental* subject or ego. I take it that Descartes' epistemology, early modern epistemology, was clearly the backdrop against which Husserl first framed phenomenology. Modern epistemology draws its very model of knowledge from the metaphor of the *camera obscura*. The camera functions as an *epistemology engine*, describing each element of this epistemology.

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[13] Latour, Bruno. <u>Pandora's Hope - Essays on the Reality of Science Studies</u>. Cambridge, Mass.: Harvard University Press, 1999.
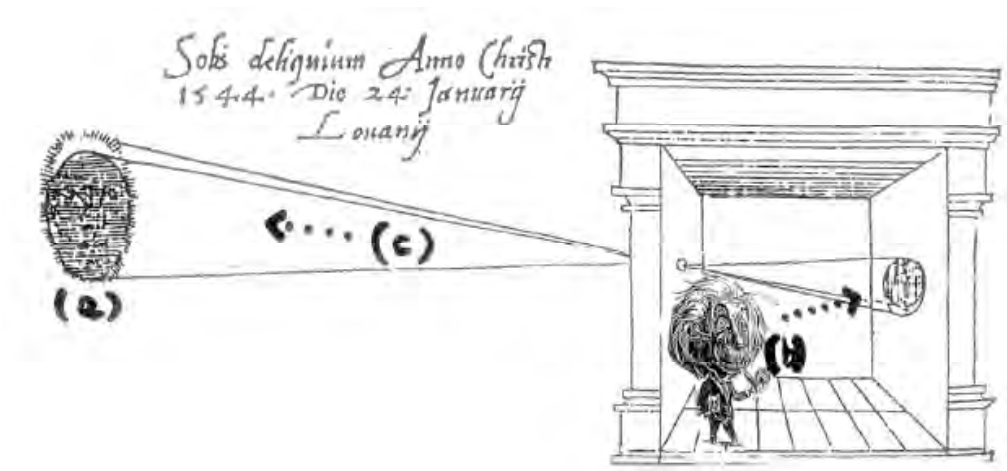
If we now turn to the illustration, one can easily see that almost all the salient features of early modern epistemology are suggested by this engine: (a) the subject or self is 'inside' the camera box. Sometimes this early modern homunculus is located precisely, such as in the pituitary gland, sometimes expanded to coincide with the whole body outline – but in either case 'subjective states' are 'inside the box'. (b) External reality (*media res*) is 'outside the box' and is not directly experienced by the subject.[14] (c) The subject sees/knows only *representations* or the image of external reality, upon the *tabula rasa* or what is projected into the box. (d) This representationalist epistemology, then, has the problem of needing some kind of guarantee that external reality (b) *corresponds* to the representations which are the images in the box. (e) For Descartes, the answer is 'god' or the 'ideal observer' who can see both inside and outside the box and verify that the representation corresponds to the represented. Applying some reflexivity to this situation, I argue, shows that in actuality it is *Descartes who is God or in the God's eye position because he both sees inside the box from outside the box!* This is what I call his "cheat code" and some such position is implied in all early modern epistemology. In passing, while I have often contended that this epistemology engine is obsolete, its persistance in most analytic, cognitive science, artificial intelligence programs continues. Indeed, one could almost make the case that most of

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[14] Here one can see at a glance the invention of the subject/object split and equally the invention of 'external' reality.

analytic philosophy's epistemology is nothing more than an attempt to maintain Cartesian epistemology and metaphysics! Husserl's *Cartesian Meditations*[15] attempted to overthrow this metaphor. His notion of intentionality *relationalizes* instead of separating 'subject' and 'object'. For him there is not 'inside' or 'outside,' but only inter-relationality between the human experiencer and the world or experienced environment. Moreover, for Husserl, all subjectivity is intersubjectivity. The camera box is stashed. But, in spite of this, Husserl remained caught within the modernist linguistic web. He spoke of 'consciousness,' and 'ego', 'sensations,' 'hyle,' 'cogitata' and the whole shebang of modernist terms, all of which clung to the box metaphor – and then, worse, he called his science a science of subjectivity! The very notion, 'subjectivity,' carries with it the in-the-box signification. And I contend that this signification cannot be escaped so long as the old vocabulary is used. Postphenomenology, I contend, substitutes embodiment for subjectivity. This was its Merleau-Pontean moment. Bodies cannot be *transcendental*; they are *existential*. While there lingers, but to a much lesser extent, notions of subjectivity in Merleau-Ponty, it is clear that his primary emphasis was placed upon *embodiment*. With Merleau-Ponty[16] one could see that subjectivity is not something limited to being inside the box, "Truth does not 'inhabit' only 'the inner man', or more accurately, there is no inner man, and in the world, and only in the world does he know himself" (pp. xi) . More radically, "…even the phantoms of 'internal experience' are possible only as things borrowed from external experience. Therefore consciousness has no private life…" (pp. 27). Yet, "consciousness" remains in Merleau-Ponty's vocabulary and thus carries with it the echo of 'subjectivity'. Phenomenology, falsely, becomes the philosophy of subjective phenomena (still suggesting inside the box). How can one escape? I contend that with the replacement of the 'subject' by embodiment, one changes the body/mind problem in early modern philosophy into a body/body problem, which is what I suggest Merleau-Ponty did. Merleau-

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[15] Husserl, Edmund. <u>Cartesian Meditations - An Introduction to Phenomenology</u>. The Hague: M. Nijhoff, 1969.

[16] Merleau-Ponty, Maurice. <u>Phenomenology of Perception</u>. New York: Humanities Press, 1962.

Ponty drew his distinction between the 'objectively' constituted body, the mechanical and third-person constituted body of the Cartesian sciences and the *corps vecu* or lived body as experiencing body. This is the body-in-action, outside itself already in a world. What to my mind is important here is that this move undercuts the inside/outside of the camera metaphor. Living my body is simultaneously and yet experientially being both inside and outside. Now, if there is a 'subject' at all, it is the actional 'subject' of bodily action. From this follows the whole series of Merleau-Pontean points about how one must have a body to have intelligent behavior, speech, sexuality or any other human action. The points I have just made, which call for jettisoning the 'subject' and turning to embodiment, and for situating phenomenology in its concrete and bodily contexts, responds both to the *existential* and the *pragmatic* moments noted above.

But Merleau-Ponty did not go far enough. Bodies, while not transcendental, are both gendered and cultured. This insight, I would claim, is fully phenomenological, but it's impact was captured early by those who characterized themselves as 'anti-phenomenological'. Foucault is a principal here. For Foucault, the body is the social body, the body politic, the malleable, disciplined body. Embodiment, I would contend, suggests many of the states which concern those worried about subjects and being centered. Bodies cannot help but be 'centered' in some deep sense – so long as they are living. The very materiality of situated embodiment carries with it many such significations. But Foucault's body also assumes a perspective which is quite different from the Merleau-Pontean one. One clue to this de-perspectival shift occurs with the body of the condemned in *Discipline and Punish*[17]. The condemned victim is dismembered and the perspective from which this is described is that of a 'third person' – we are back to another side of Descartes' *camera*. If the regicide was 'de-centered' he was so by virtue of being dismembered! Bodily, actional, being directed into a world, retains a locus. But this locus is inter-relational, both with

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[17] Foucault, Michel. <u>Discipline and Punish - The Birth of the Prison</u>. New York: Vintage Books, 1979.

an environing material world and it is situated within the world of cultural-social meanings.

It is here that we reach another dilemma concerning modernism and phenomenology. The various forms of structuralism, post-structuralism and today's revived semiotics shift our attentions away from what could be called the Merleau-Pontean moment of embodiment towards a 'second body,' the body of cultural-social 'construction'. Indeed, in its most extreme forms, this structural-semiological moment interprets the body itself as an invention, a construction. Foucault's body of the condemned, the regicide being torn apart, is not the lived body of the victim, but a new kind of 'object body' upon which is being enacted the will of the king. The victim is, at most, a passive body upon which is being enacted the force of the 'body politic'. This body is the object body upon which are being enacted the social-cultural meanings of a politics. In *Bodies in Technology* I address this theme and shift. I use a terminology of "body one" and "body two," the lived body under the sign of Merleau-Ponty and the cultural body under the sign of Foucault. Postphenomenologically, both must be united. The strategy of structuralism, post-structuralism and semiotics is to attempt to dissolve body one into body two. "Everything is socially constructed." There are two problems with this: first, I deny that body one can ever be absorbed into the cultural, it is the necessary condition for being a body and is describable along the lines of *corps vecu*. But, equally, body one is situated within and permeated with body two, the cultural significations which we all experience. Embodiment is *both* actional-perceptual and culturally endowed.

The body is not only cultured, it is gendered. Several phenomenologically trained feminists have been particularly good at dealing with the gendered body – Iris Young, Susan Bordo, Carol Bigwood (in Donn Welton's *Body and Flesh*[18]). They recognized the implicit 'male' or anonymous body of Merleau-Ponty, and Iris Young and her series of essays spanning "Throwing Like a Girl" to "Pregnant Subjectivity," to "Breasted Being" has pointed this up. Similarly, Susan Bordo

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[18] Welton, Donn, ed. Body and Flesh – a Philosophical Reader. Oxford: Blackwell, 1998.

captures the same sense of a rich embodiment. Besides going beyond Merleau-Ponty regarding gendered embodiment, they have also been able to capture the double sense of sensory and social dimensions of embodiment. They locate the experience of being embodied with the motile, actional embodiment of the Merleau-Pontean notion, with the cultural-social experience of being seen by another as experienced also by oneself.

Before moving on to the next modification from phenomenology to postphenomenology, I want to take a moment to inject one of my own contributions to this movement. Bodily materiality, as all of you who know my work in the philosophy of technology know, also relates to another materiality, *technology*. In my early work, I tried to show how material culture, artifacts, *technologies*, are taken into human experience through human-technology relations. Intentionality, now not 'consciousness per se' but embodied, includes material technologies in various positions as I relate to a or any 'world'. I shall not here rehearse the essentially phenomenological schematism of *embodiment, hermeneutic, and alterity* relations which are a trademark of this early work. Rather, I shall briefly take up some very recent work which casts yet another perspective upon embodiment.

From a focus upon technologies in many forms from the seventies through the eighties, by 1990 I had become more interested in the role of technologies in science and this shift has characterized much of my work since *Instrumental Realism*[19]. From the embodied kind of postphenomenology, I became more and more aware of how embodiment is reflexively implied in science instrumentation. Science's instruments *imply* human embodiment or what I sometimes call the *anthropological constant*. And in this situation the role of finitude and limitation often comes to the fore. I shall illustrate this from an example of research on imaging technologies: First, a very quick historical indicator of how instruments imply embodiment.

Galileo was crucial for this in early modern science – his favored technology was the telescope and I have argued recently that even Husserlian

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[19] Ihde, Don. <u>Instrumental Realism : The Interface between Philosophy of Science and Philosophy of Technology</u>. Bloomington: Indiana University Press, 1991.

phenomenology overlooked the primacy of this type of embodiment in an article, "Husserl's Galileo needed a Telescope"[20]. Here is a very brief phenomenology of a Galilean telescopic moment:
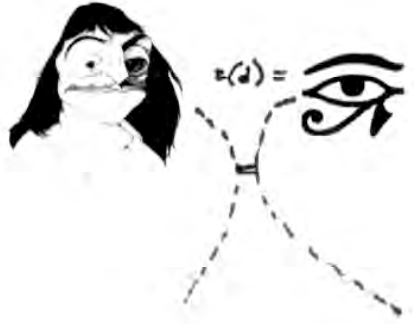
Historically, Galileo made four observations which have stood the test of time – mountains and geological features of the moon; cycles of Venus; satellites of Jupiter; and sun spots. Simply put, the telescope provides Galileo with a set of spatio-temporal transformations which allow *embodiment to be varied*. I shall call the ordinary variant the 'eyeball' variant; the telescopically mediated variant the 'instrumental variant'.

<table>
<tr><td align="center">Eyeball Variant</td><td align="center">Instrumental Variant</td></tr>
<tr><td align="center">Moon-in-sky, figure/ground</td><td align="center">Moon in telescopic frame</td></tr>
<tr><td align="center">'smallish'</td><td align="center">'close up'</td></tr>
</table>

Transformation of 'apparent distance'

Isomorphic in spite of transformation

Distance transformation by Optics

Magnification of Moon motion – but also bodily motion

Relative 'earth' stability vs. more 'irreal-virtual'

You should be able to recognize here, regarding postphenomenology, that I am using an embodiment vector within an enhanced notion of *variations* to show

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what is both variant and invariant, recognizably phenomenological. Yet, in this early modern science, one can easily recognize a kind of ordinariness to both the eyeball and instrumental variations – although the Jesuits at the time saw this as much more questionable than we do in retrospect.

Jump now to the 21st century and a radically different kind of imaging:
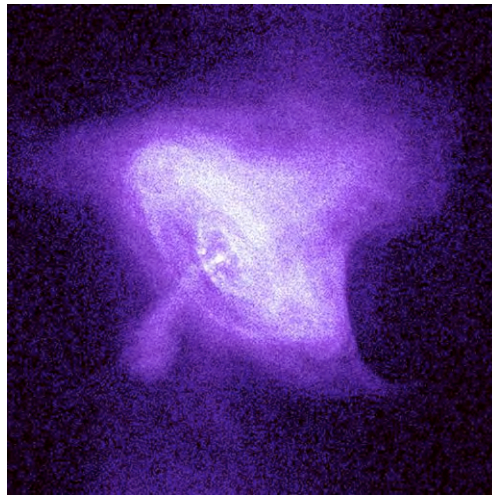
What I am showing is an image from the Chandra X-ray source satellite. It shows the pulsar structure from the center of the Crab Galaxy with the two radiation jets streaming from this galactic nucleus. It 'looks' isomorphic, i.e., like something we embodied humans could see – but it is not. No 'eyeball' vision of this celestial phenomenon is directly possible because these are X-ray spectrum emissions. Three pre-phenomenological points: (a) 'postmodern' imaging in science has been attained only since the mid-twentieth century when, in this case, astronomy finally exceeded the boundaries of *optical or light wave* radiation. Today, radiation emissions from gamma waves to radio waves can be imaged which far exeed the spectrum bands of light. (b) To produce this image, highly complex and compounded technological processes are used, including the transformation of data or linearly transmitted bits into *perceivable gestalts* such as the pulsar image I showed. (c) Virtually none of the emissions beyond the light spectrum are bodily detected (infra red can be felt as heat beyond red, but wave lengths beyond these boundaries are 'invisible' to us in ordinary experience.)

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Now, the postphenomenology: All knowledge possible for us implies our embodiment – this is true for this imaging as well and what the complex of satellites, computers, imaging equipment does, is *to translate* what has been *invisible* into the *visible*. My body, including its limits and contingencies, are reflexively implied in this process! But note how different this is from the Galilean example: there the simple eyeball/instrumental variations entailed only equally simple spatial-temporal transformations. These are transformations upon human-technology embodiment relations and retain an equally easy isomorphism of perceivable comparison. With the now technologically *constructed* image of the Crab pulsar, while the technology remains in the same mediating position between embodied observer and imaged phenomenon, the image must also be transformed by the translation of emissions into perceivable gestalts – and thereby our embodiment is being referenced in this science practice! Finally, before moving into the next step, note that with this contemporary image which looks so deceptively simply isomorphic, my knowledge of it must be critically informed. To 'read' – and I want to underline the metaphoricity of this term – the image, I must know the 'grammar' of its production. This is a *hermeneutic* dimension of science, but in the case of visual images, a *perceptual hermeneutic*. We are still well within reach of phenomenology.

In spite of the fact that I self-consciously used the terms, *hermeneutics*, and *reading*, the latter metaphorically, this is not a textual hermeneutics – it is rather a hermeneutics of materiality, a way of getting 'the things' to 'speak' or become 'visible'. But, the very term 'hermeneutics' indicates another problem for a phenomenology becoming postmodern. Hermeneutics would seem to belong to the spectrum of linguistic-based, 'textual' processes which mark so much of postmodernism. Most members of the postmodern club are 'textists' and thus are located upon the humanities side of what I call the Diltheyan Divide. The tribal language of "indeterminacy of the text," how something is "represented," these "readings," "inscriptions," "traces," and even the "world of the text" bespeak a linguistic hermeneutic mode. And, most francophilic current work

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feels comfortable in this practice. What it hides, however, is a second inheritance from modernity.

That inheritance contains the distinction between *nature* and *culture* (or society). And if a pragmatic turn, embedded in the notion of embodiment, can potentially overcome the modernist problem of body/mind, more is needed to overcome nature/culture. This modernist has as its figure, not Descartes, but Dilthey. As Ricoeur has pointed out in any number of his books, hermeneutics began to *expand* from its earlier European exegetical and text-oriented limitations, outward to become, with Dilthey, a general method for the human or social sciences. But this expansion came with both a high price and a severe limitation: I refer to the Divide Dilthey devised between *Naturwissenschaften* and *Geisteswissenschaften*, a division between the natural and the human sciences. The early successes of the natural sciences, self-interpreted along positivist lines from Comte to Carnap, produced a defensive action which, as early as Dilthey, simply ceded to the natural sciences a different and successful hypothetical-deductive method which is still allowed, and more strongly in Europe than in North America. This tradition, not fully accepted by Husserl, nevertheless continued to be taken for granted by much European and some North American philosophy. I attempted to address this problem in *Expanding Hermeneutics: Visualism in Science*[21]. There, the version of a material hermeneutics began to take shape around the practices of science technologically embodied in instruments.

But the European acquiescence to this Divide remains clear and powerful amongst the postmodernist club. These 'textists' with the often transcendentalized notion of the text, clearly remain comfortable within the limitations of *Geisteswissenschaften*. Foucault, however, does make an ironic turn with respect to the background for the Divide: the tradition of the text, he shows, is premodern. In his *The Order of Things*[22] he shows how, prior to modernity, the whole of creation is taken as the book of nature, written by God,

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[21] Ihde, Don. <u>Expanding Hermeneutics: Visualism in Science</u>. Evanston, Ill. : Northwestern University Press, 1999.
[22] Foucault, Michel. <u>The Order of Things – An Archaeology of the Human Sciences</u>. New York: Vintage Books, 1970.

filled with signatures, symmetries, and levels of meaning, all of which are part of a natural hermeneutics but also textual. Similarly, the practice which in effect cedes knowledge by authority, i.e., by ancient authors, shows how fully the premodern was textually based. Foucault's second irony, for my purpose, arises from his claim that "perception is invented" in modernity. What counts as evidence moves from texts to *observations*, but to observations of a certain type. In this early modern movement from a knowledge based upon texts to a knowledge based upon perception, there was hidden a problem in the *reductionism* involving perception. First, there was the move from multidimensional perception to an almost exclusively *visualist* perception, and then a second reduction to only a narrow set of visual properties and forms: those which are clear and distinct and those which are spatial and geometrical. This perception is clearly *not* phenomenological perception. Foucault is describing Cartesian perception which, in contrast to phenomenological perception, throws us back to the previous phenomenological critique of modernity. However, this shift from text to perception is also entangled with the nature/culture Divide I am now addressing. A shift from text to perception, in science, bespeaks a need for a different kind of critical interpretation, an interpretation which relates to the materiality of the world and its 'things'. And, insofar as this problem gets forefronted, I must say I find my textist postmodern colleagues, still embedded in premodern textism, to be largely unhelpful. Rather, a different set of interlocutors, often involved with the same problems, seem to me to be much more helpful. So, again, I turn to the technoscientists who are sensitive to precisely this problem:

Bruno Latour in *We Have Never Been Modern*[23] tries to show how so much of our practice involves hybrids, things which are neither exclusively nature or culture – and these certainly include all our technologies. For him, hybrids such as speed bumps, door openers and the like are not only both natural and cultural, constructed and real, but are fitted into a fully symmetrical human and non-human semiotics in which all actants act upon each other. And Donna

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[23] Latour, Bruno. <u>We Have Never Been Modern</u>. New York: Harvester-Wheatsheaf, 1993.

Haraway, under the sign of the cyborg, shows how such entities as Oncomouse, the patented, gene modified mouse of Dupont, is both nature-culture, real and constructed. Without putting it in my terms, both Latour and Haraway are deconstructing the Diltheyan Divide. My own *Expanding Hermeneutics*[24] is also an attempt to dissolve or at least deeply question this division as well, and to show that in practice and at their cores, the natural sciences are themselves fully hermeneutic. They are methods of making non-human material entities *speak so as to be heard or understood* and, as the imaging example showed, *to make what was invisible visible*. One can see that the version of postphenomenology I am outlining here continues to owe much of its shape to the necessary materiality of technoscience investigations. Technologies insofar as they are material, can be placed within the inter-relationality which I take to be phenomenology. If I return to what is now a more than a three decade old set of notions, technologies are the material aspects of our embodied ways of relating to a world. From *Technics and Praxis*[25] through *Technology and the Lifeworld*[26] my version of an embodied intentionality was one which examined the placement and role of our use of, interaction with, and subsequent mutual constitution of our technologically textured world and embodied being. What remains phenomenological is the inter-relationality of embodied being in a concrete and material world. If I 'make' technologies; they, in turn, make me. What is different about this phenomenology, in a nuanced change from classical phenomenology, is the thematizing of materiality, particularly in the form of instruments and devices by which we make 'worlds' available to us which were previously unexperienced and unperceived. Instruments are the means by which unspoken things 'speak,' and unseen things become 'visible'. Thus, these decades of investigations are such that I have learned a lot about technology and science praxis and that, in turn, informs what I call postphenomenology. I want to conclude this itinerary by returning to interests which are usually associated with the humanities side of the Diltheyan Divide

[24] Ihde, op. cit.
[25] Ihde, Don. Technics and Praxis. Boston: R. Reidel Pub. Co., 1979.
[26] Ihde, Don. Technology and the Lifeworld : From Garden to Earth. Bloomington: Indiana University Press, 1990.

and illustrate how a material phenomenology, enhanced by a material hermeneutics, produces a very different type of knowledge regarding 'histories'. In both examples I am playing off texts in material contexts and these particular examples are admittedly chosen to show contrasts and conflicts which need to be resolved by a critical phenomenological-hermeneutic process:

The first relates to the coming of the Vikings to England in the seventh century. Textual history about this period is both very sparse and highly selective – most of the texts are those produced by the monks and clergy in the monasteries of the times and describe the pillage, raids, and savagery of the invaders from the northlands. Monasteries were robbed; monks killed; and buildings often burned – even prayers were written asking the Almighty to spare us from the Northmen. Here is the image of the Viking as savage warrior, full of fury, lawless and uncouth. But it is also an image depicted by the 'victims' of the Vikings, the few persons educated enough to write and record – from their point of view – what was happening.

The material culture of the time, however, shows something of a different aspect concerning Viking invasions: coins soon appeared which were of Danish design, indicating that exchange networks, economies were being established; English law, still later, began to take on the more democratic cast of the Scandinavian "Thing" or parliament of peers; tools and ship design improved in the invaded regions. And much about material culture shows a very different result than that portrayed by the monks. A critical interpretation calls for more variations (phenomenological) and more dimensions. Did the Vikings raid the monasteries? Yes, no doubt with cruelty, but also as with bank robbers – why do they rob banks? Because that's where the money is and likewise in 7th century England, that's where all the gold was. But gold can also be coin and coin can be used in trade, and trade there was and both ways. This, however, is shown often extra-textually and through the evidence of the material. Today's mass spectroscopy can be used to identify specific locations of materials – for example, in the South Pacific, some three thousand years ago, it has been established that an obsidean trade occurred across thousands of miles of inter-

island traffic because obsidian objects from a particular volcano have shown up in dated locations evidencing this trade. No texts are involved with this history. Outzi, the five thousand year old Iceman found in Switzerland has had his bowels speak since they contained DNA identified residue of mountain goat and sheep as one of his last meals before he was murdered, evidenced by the lately discovered arrowhead under his shoulder bone. His copper axe evidenced an earlier use of copper technology than ever before known, all this out of the 'speaking' of the things.

Beyond the texts, there are the things and the things are not merely 'objects' nor are they dumb. Properly interrogated they 'speak' back to us. Now, one final example: When I was in theological school in the late fifties, the Dead Sea Scrolls had just been discovered and the archeological excitement associated with them has not entirely abated. I was fascinated with not only the discovery, but the controversies which arose and were pursued around what the texts showed about the religious world of the time. At the same time, I was learning my first lessons in the critical interpretation theory of the time – again literary, "J" and "E" redactors and the two creation stories, etc. These studies were rigorous and exciting, as much so as deconstruction may be today for young scholars. But it was not until much later and the lessons made possible by the material interrogations of the things that a more recent history could be formed. Here I borrow from Israel Finkelstein's and Neil Silberman's *The Bible Unearthed: Archeology's new vision of ancient Israel and the Origin of its Sacred Texts*[27]. In short, here is a study which interfaces the textual with the artifactual.

Classical archeology-textual interfaces were mostly one-directional: the Bible was taken as a text which gave clues for archeology. If it spoke of the fall of Jericho; the archeological task was to find Jericho and see if its walls fell down. The Bible was taken as an urtext which could be verifed or confirmed. Finkelstein and Silberman reverse this interface: their question is, given the

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[27] Finkelstein, Israel, and Neil Asher Silberman. <u>The Bible Unearthed : Archaeology's New Vision of Ancient Israel and the Origin of Its Sacred Texts</u>. New York: Free Press, 2001.

extensive archeology of the 20th century, what does it imply for the construction of the Bible and its claims?

Their claimed results are very radical. But before noting a few of these, let us take a short detour into what a primarily textual analysis showed apart from and prior to this postphenomenological variation and inversion. Actually, quite a lot: critical scholars have long known that the Pentateuch was a compositely authored group of texts, eventually combined into the later versions which we know as the five books of Moses. Stylistic analysis, including the different names for God – YHWH and Elohim – the cultural contexts and the like bespoke multiple authorship. Comparative work showed that the Genesis creation stories, at least those of the "E" source, were modeled upon Babylonian myths and probably developed during the Babylonian captivity, implying that this part of Genesis quite far postdates the Exodus. In short, when I read *The Bible Unearthed*, regarding its construction, there were less surprises than might have been expected.

But, once the artifacts began to speak, the beginnings of text-artifact contrarity emerged. The authors claim that Solomon, and particularly the golden age of the Solomonic empire, never existed. King David is verified in stone, there are stellae which list his name, although in all probability he was not more than a tribal king in the southern region. Extra-biblical confirmation of Solomon, however, is lacking, and archeologically speaking had there been such a golden age it would be quite unlikely that there would not be many evidences of its richness. Persia has Persiopolis, five times the size of Greece's Acropolis (I have seen both); the land of Israel shows no such remains; Solomon remains archeologically unconfirmed.

But I shall not keep you in suspense – the biggest and most radical claim of *The Bible Unearthed* is that by the best of evidence to date, the Exodus probably did not occur! Rather, the stories of the Exodus were in all likelihood an "invention" of the Captivity in Babylon anachronistically shoved backwards to help invent a nation. Since the discussion of all the evidence for this claim is detailed and often technical, I can only give a few hints of what the authors found from the artifacts. First, many of the towns named as falling under the Hebrew onslaught

after Sinai, events by best evidence were supposed to occur 3500 BP simply did not exist until around 2700 BP.[28] But, according to the best dating schemes, both from the biblical critical theory I grew up with and with more recent evidence, this was the time the Bible was being constructed. In short, what was familiar in 2700 BP was pushed back into Exodus times.

The authors go through the scant stella evidence which sometimes is surmised to refer to Hebrews in Egypt and conclude that dating, references and the like are all wrong and do not converge, and if they are right, there is no evidence of Hebrews held in bondage in Egypt. [In my view, the fact that the Egyptians were fastidious in record keeping, over-fastidious, and there are many records from the dates presumed, shows the strongest negative evidence for absence from Egypt.] The authors show that "Israel" was in fact the name of a northern kingdom which we would identify as Canaanite, well before the Exodus, implying that Israel was simply a variant upon Canaan culture. Finally, the positive theory which Finkelstein and Silberman work out, argues that the Bible is largely the "invention" of the puritan southern tribes, who after the fall of original "Israel" in the north, saw an opportunity to weld together a story claiming the greater moral and religious purity of the south and in the process developed one of the world's great literary works which in turn "created" a people. But, if the things speak as heard by the archeologists, the Bible is not good 'history'.

I have used this example as one which could have arisen out of a postphenomenological analysis. I conclude by showing why this is the case: First, the phenomenon must be examined through variations, in this case I have highlighted the interface between texts and artifacts. And when multiple and complex 'voices' are heard, no one voice is likely to emerge as singular. Second, when the voices are discordant, other patterns need to be sought. In the interplay I am suggesting, there is no privilege to the 'linguistic' nor can there be a 'reduction' to any single strand. And, to make one more point concerning the 'voices' of evidence, harmonies are most likely to arise when there are

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[28] Even dating is perspectival; BC is before Christ; BCE is before the common era; and I have chosen the science dating, "before present."

convergences. Yet another lesson I have learned from science is precisely this one: if two to four different processes yield the same or nearly the same result – for example in dating some specimen – one can have greater confidence in the result. I regard this as a parallel to phenomenological variance/invariance. And, finally, postphenomenology is precisely the style of phenomenology which explicitly and dare I say 'consciously' takes multidimensionality, multistability, and the multiple 'voices' of things into account – to that degree it bears a family resemblance to the postmodern.

Concluding scientific postscript: Return to the future and the think-tank session for Learning Laboratory Denmark. What must we do to get play and learning to stimulate the anti-couch potato trajectory and yet remain technological? A postphenomenology, analyzing embodiment vis-à-vis contemporary entertainment technologies, realizes that screens (as currently in place) imply fixed bodily positions. Cinemas, televisions, computers and other visual display devices, imply a fixed, usually seated, position. Imagine variations: could you go for a walk or a run with a screen fixed in front of you, even a portable one? So, one could switch to other sensory dimensions – it is possible to go for a walk with a walkman, an auditory device. Or, more likely and to preserve the sense of play, one could do variants upon the 'heads up displays' used by fighter pilots wherein the screen is really transparent, but has target grids within the screen frame – one could imagine play technologies of this sort which retain visuality. Or, one could take a version of a treadmill which, while encouraging motion, leaves one 'in place'. Here one could compound the technologies with an action screen and having the embodied position call for climbing up an obstacle course while watching, in order to win the contest.

While these imaginary variations are stated in fun, note that the bodily-technology set of relations must deal with embodiment, the phenomenological structure of human-world possibilities and the like. I am only suggesting a bare outline of a postphenomenological, *engage*, R&D situated practice. For me this is simultaneously challenging – and enjoyable.

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Don Ihde, Distinguished Professor of Philosophy and Director of the Technoscience Research Group at State University of New York, Stony Brook. Ihde is regarded worldwide as a leading philosopher of technology. For many years he has developed phenomenological and hermeneutic ideas to encompass technological mediated relations between humans and lifeworld. Ihde's methodological tool, or 'phenomenology of technics', introduced in *Technology and the Lifeworld* (1990), has proven very influential, and is being used in many parts of the world by researchers to understand the complex relations between us and the world. During the last decade he visited Informations Studies several times as guest lecturer. Among his many books are *Technics and Praxis* (1979), *Instrumental Realism* (1991), *Bodies in Technology* (2002), *Chasing Technoscience* (editor with Evan Selinger, 2003).