

Material Hermeneutics

Ihde, Don. *Expanding Hermeneutics: Visualism in Science*. Evanston, IL: Northwestern University Press. 1999, pp. 216.

What can the philosophy of technology contribute to the philosophy of science? In the past decades, the philosophy of technology has seen radical changes. The classical positions in the field, many of them phenomenological in nature, made a gloomy diagnosis of our technological culture. Technology was thought to alienate people from themselves and from their world. Phenomenological approaches of science were composed in the same key. Science was seen as a reduced way of approaching reality, in which things can only be present in a very limited way: as 'objects' to be analyzed.

Against this massiveness and romanticism, contemporary phenomenological approaches of technology – like Don Ihde's – takes a more differentiated view. Mediation has replaced alienation as the key concept for analyzing technology. Technologies are not thought to *estrangle* people from themselves and their world anymore, but to *mediate* their existence and experiences. These new directions in the philosophy of technology can inform a new phenomenological approach of science, as Don Ihde shows in 'Expanding Hermeneutics'.

hermeneutics and positivism

For Ihde, philosophy of technology is 'a hermeneutic task' – but in order to fulfill this task, he has to expand hermeneutics. Like he did before in *Postphenomenology*, he tries to go beyond classical positions in continental philosophy. In *Expanding Hermeneutics* these are mainly the positions of Husserl, Heidegger, Merleau-Ponty, and Ricoeur.

Ihde starts his book explaining the dominant interpretation of hermeneutics, which is informed by the 'hermeneutics-positivism binary'. From this binary point of view, the natural sciences have a positivist (empirical-analytical) way of understanding and the humanities a hermeneutic (interpretative) one. The former is supposed to be dominated by realism, the latter by relativism: the sciences reveal reality 'as it really is', the humanities develop interpretations. This 'H-P binary,' according to Ihde, is not adequate anymore. His aim in *Expanding Hermeneutics* is to show that science is a profoundly hermeneutic activity, and that hermeneutics, therefore, is not limited to the humanities.

In order to arrive at this point, Ihde makes three preparatory steps, mainly consisting of previously published articles. His first step, 'Interpreting Hermeneutics', can be read as an introduction to hermeneutics: its origins, its relation to phenomenology and to the philosophy of language, and its relevance for the philosophy of technology. The second part of the book, which is called 'Continental', focuses on what Ihde calls the 'P-H tradition' – the phenomenological version of hermeneutics. On the basis of a discussion of the work of Merleau-Ponty and Paul Ricoeur, Ihde shows that hermeneutics should not only direct itself at the *linguistic*, but also at the *perceptual* aspects of interpretation. Hermeneutics is the philosophical analysis of interpretations: it concerns the ways in which reality can be present for people. Perception, from Ihde's phenomenological approach, has a hermeneutic dimension in that it constitutes a relationship between humans and reality, on the basis of which reality can be present in specific ways. Interpretation is existentially embodied in perceiving human beings.

This focus on perception links phenomenology with science and technology. Science needs perceptions, after all. And scientific perceptions are in many cases mediated by technological instruments, as Ihde makes clear in part 3 ("Analytics") and, ultimately, in the last and most important part, which has not been published before: "Expanding Hermeneutics."

The most important chapter in part 3 is Ihde's "Response to Rorty." It deals with the question whether phenomenology is an 'edifying' (hermeneutic) or a 'foundational' (positivist) branch of philosophy. If the latter were the case, from a Rortian point of view, phenomenology would be in serious trouble. Foundationalism has become untenable, now that philosophers have come to the conclusion that what we call 'reality' is always mediated by our ways of accessing it: language, frames of reference, and contexts of interpretation. And, because of its claim to return 'to the things themselves', classical phenomenology might raise the suspicion entailing a foundational way of thinking.

But, according to Ihde, phenomenology is not foundational at all. For even though Husserl, the founder of phenomenology, 'was wedded to his terminology of "transcendental idealism"', in his philosophy the concept of 'constitution' has a central place. Human 'intuitions' of reality are *constituted*, not *given*. And Merleau-Ponty 'claimed that the implication of phenomenology was not transcendental, with all the hubris of a total and self-contained system, but existential'.

the need for a radical reinterpretation of phenomenology

This reinterpretation of phenomenology is important, since it creates the possibility for a new phenomenological philosophy of technology, which goes beyond the classical diagnosis of alienation. Yet, I think Ihde's claim that phenomenology is not foundational or essentialist requires a more profound analysis than he gives. For instance, Merleau-Ponty may have called his work 'existential', but he still claimed phenomenology to be 'a method to describe the world'. And this can hardly be seen as an 'edifying' enterprise.

Merleau-Ponty's claim was understandable in its context. Phenomenology developed in opposition to the positivist claim that the sciences can reveal what reality 'really' is. But it did so by holding that only phenomenology can reveal reality in its full and original richness of meaning. In order to overcome this phenomenological 'foundationalism', it should not only be made clear that phenomenology has an existential dimension, but also that phenomenology should not be seen as a method to 'describe the world'.

Phenomenology needs to be redefined as *analyzing people's relationships with the world*. For that is what classical phenomenologists actually did. Husserl, Heidegger, and Merleau-Ponty did not describe the *world* but our *relationship* with it, be it in terms of 'consciousness', 'being-in-the-world', or 'perception'. By seeing itself as a method to describe the world, phenomenology did not do enough justice to its own contextualism and non-foundationalism. For in line with the 'edifying' character of contemporary continental philosophy, it can be elaborated that within these human-world relationships, both the objectivity of the world and the subjectivity of those who are experiencing and existing in it are constituted. Our world is 'interpreted reality' and our existence is 'situated subjectivity'. What the world 'is' and what subjects 'are', arises from the interplay between humans and reality.

Phenomenology, therefore, should be reinterpreted as a philosophical approach in which human-world relationships are analyzed, as well as the constitution of subjectivity and objectivity within these relationships. Along the lines Ihde drew in his earlier work, a phenomenological philosophy of technology can then direct itself at the mediating role of technological artifacts in human-world relationships. Technologies co-constitute these relationships by shaping people's perceptions and interpretations (the ways in which reality can be present for humans) on the one hand and their actions and forms of engagement with reality (the ways in which humans can be present in their world) on the other. Human interpretations of and ways of being involved with reality are mediated by technological artifacts.

the hermeneutics of instruments

In the fourth and last part of his book, Ihde brings his expanded hermeneutics into contact with the philosophy of technology. Here, Ihde shows the edifying character of phenomenology in practice. He does so by asking attention for the hermeneutic role of instruments in the coming about of scientific knowledge. The relationship between scientists and reality is often mediated by instruments. This state of affairs allows two possible interpretations, which Ihde indicates as a 'strong program' and a 'weak program'. In the weak program, instruments are simply seen as interfaces between scientists and reality: they provide access to phenomena. The strong program goes one step further. It holds that the mediating role of instruments is far from neutral: they do not simply 'depict' reality, but co-determine how reality can be present for and interpreted by scientists.

Instruments enable scientists to perceive aspects of reality that could not be perceived without them, like brain activity, micro-organisms, or invisible forms of radiation emitted by stars. The 'reality' studied here, has to be 'translated' by technologies into perceivable phenomena. What 'reality' is, in such situations, is co-shaped by the instruments with which it is perceived. According to Ihde, science performs a 'hermeneutics of things' – an interpretation of reality – 'by turning them into scientific objects' (p. 139): reality is 'prepared' by instruments in order to be studied by scientists (p.150).

This 'strong program' has enormous implications for hermeneutics. Not only does it make possible an expansion of hermeneutics to the sciences, thus outdating the 'H-P binary'; it also implies an expansion of hermeneutics from texts to materiality. Human interpretations of reality are not to be understood in terms of textual and linguistic structures only, but also as mediated by artifacts. In the same vein as Latour, who claims that the social sciences have too exclusively focused on humans and forgot about the nonhumans, it can be said that hermeneutics has only been using half its capacity, occupying itself only with texts and neglecting things.

This hermeneutic 'turn toward things' allows for a philosophy of technology, which – contrary to the classical positions – is closely connected with the empirical reality of technology. The mediating role of artifacts is not limited to the sciences. Artifacts do not only mediate perceptions of scientists, but play a role in our everyday lives as well. Email and cellular phones mediate how people can be present for each other, cars and trains mediate how the environment can be experienced. The hermeneutic role of artifacts is not

limited to the laboratory. In this sense, *Expanding Hermeneutics* can be seen as a continuation of Ihde's earlier *Technology and the Lifeworld*.

science as technological hermeneutics

The most important value of *Expanding Hermeneutics*, however, lies in its contribution to the connection between the philosophy of science and the philosophy of technology. In this sense, it can be read as a hermeneutic supplement to Ihde's *Instrumental Realism*. In this earlier study, Ihde shows that Post-Kuhnian philosophy of science rightly focuses on the contextuality of scientific knowledge, but neglects the role of sensory perceptions in this contextuality. It directs itself mainly at 'macroperceptions' - the scientific frames of reference that form the background against which reality is understood - while forgetting the important role of sensory 'microperceptions'. Microperceptions are commonly mediated by instruments of all kinds. Instruments therefore co-constitute the reality studied by scientists. Their role is not simply instrumental, but hermeneutic: they shape people's way of access to reality. And this brings Ihde where he wanted to arrive: at the inadequacy of the hermeneutics-positivism binary. Science originates in perceptions - but what is perceived is first prepared and made readable by instruments.

Neglecting this technological constitution of scientific observations leads to a new variant of the naive realism that constructivist philosophers of science warn about. There is no simple correspondence between a scientific observation on the one hand, and 'reality' on the other. The active role of instruments in scientific practice has been underplayed until now in empirical science and technology studies (STS). Because of its tendency to relate the content of scientific knowledge primarily to contexts of interpretation and social interactions, STS encounters the danger of running into the opposite pitfall of naive realism: naive idealism. The origins of scientific knowledge are not related in reality itself, then, but primarily to our ideas about reality. Against this, Ihde shows that science is not only a product of interpretations, but also of the material conditions on which these are formulated: the instruments with which scientists perceive reality.

Expanding Hermeneutics makes possible a connection between phenomenologically oriented philosophy of technology and empirical science and technology studies. It opens many new and interesting lines of thinking about technology and its relation to science. Ihde's 'expanded hermeneutics' deserves to be expanded and elaborated further.

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