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**Emergent Technologies between Phenomenology and Poststructuralism: A methodological Question**

Abstract:

This essay aims at understanding the importance of phenomenological method in questions of new technology and changing life-worlds. Emergent intelligent technology fundamentally change the way we live, perceive and act in the world. Major parts of global economy and systems of transport will soon be governed by automated systems. Humans interact increasingly with intelligent robots and connect their bodies through technological devices with the Internet of Things. This fundamental shift includes a blurring of categories such as natural/artificial, biology/technology, real/virtual to name just a few. Such a blurring of lines calls forth philosophical reflection. Current theories in media philosophy and philosophy of technology make use of poststructuralist theories. When Katherine Hayles speaks of the technogenesis of consciousness or Bernard Stiegler's epiphylogenesis, the evolution of humans through technology, they describe processes beyond human experience and are related with accounts of relational ontology (G. Deleuze) or process ontology (A.N. Whitehead). Those theories take being as temporal and relational becoming.

The philosophical movements of postmodern and posthuman thought are essentially post-metaphysical in the sense that they question anthropocentrism and the categories established in the course of humanist thinking. In this line of thought, a new materialism of the embodied and embedded subject, that evolves through and with its environment has become central. This subject is not the strong Cartesian ego cogito, but a weak and temporal node of relations and affects. Brian Massumi goes as far as to establish a theory of movement independent from what is moving. The blind spot of such accounts is experience. If the subject is conceptualized as relational, cognitive and intentional agency is also decentralized. The notion of experience is thus marginalized.

In this text I challenge the absence of a conceptual framing of experience. The working hypothesis is that the strong presence of poststructuralist thinking in posthuman philosophy and philosophy of technology needs to be complemented by a phenomenological account of novel experiences in technological life-worlds. Such an account is important to establish new constructive and creative relations with technological possibilities as well as for the constitution of moral standards and ethical guidelines for intelligent technologies.

1. Introduction

I came about the differences between phenomenology and poststructuralism a few years ago, when I started working about the impact of technology on human self-understanding. There is an appeal to poststructuralist thinking because it encompasses complex and dynamic systems and relations. In contrast to that phenomenology seems somewhat simplistic and to preoccupied with the subject. Still my work sticks to phenomenology rather than poststructuralism (being aware that there is no such thing as a unified movement called poststructuralism). My project now enters a stage, where a methodological clarification is in place. Let me shortly outline, what I want to present here today and I very much hope for your opinions, because this topic is crucial for a philosophy that tackles contemporary problems with a huge ethical impact.

In a first step, I will give you an idea what my project is about. I will give an overview of how I think technology impacts on human self-understanding. How this becomes visible in cultural narratives and how the embodied human subject figures in this plot. In the second part I will give a very short overview of the way contemporary philosophy of media and technology deals with this topic. Most of the accounts can be subsumed under the label of poststructuralism, such as the theories of Brian Massumi, Katherine Hayles, Bernard Stiegler or Mark B.N. Hansen. My aim is to understand why this method has become so predominant even though most of the authors are also trained in phenomenology and often reference to Edmund Husserl, Merleau-Ponty and the concept of the body. I will argue that although I take their writings as important and essential insights in contemporary culture there is one shortcoming. This is the role of experience. The question of how we experience the profound changes in our perception, construction of knowledge and self-understanding is rarely addressed. This leads me to the role of the subject. Most of the theories no matter from what field agree on one thing: There is no such thing as a strong subject. This has not only been shown by neuroscience but also in philosophy the notion of a strong unified subject has become dubitable probably long before Foucault's dictum of "man would be erased, like a face drawn in sand at the edge of the sea" (Foucault 2001, 422). It might have started already in early human history. With the advent of new technologies, the hybridization of what we call human will be taken to a whole new level and we will have to understand what that means. The central question will be: How can phenomenology account for the qualitative changes in our experience of technological life-worlds? I will conclude my presentation with some thoughts on Merleau-Ponty's late writings, especially his notion of the *flesh*, as a possible framework that integrates the poststructuralist insights and phenomenological analysis of experiences in and with technology.

2. Human Self-Understanding Challenged by Technology

In my current project I research how emergent technologies challenge human self-understanding. More precisely I am interested in the impact of current reductionist views of human cognition growing out of neuroscience and their application in predictive smart technologies. Neuroscience strongly promotes the view that the human subject essentially is a cerebral subject (comp. Fernando Vidal, Francisco Ortega 2017). Despite a growing interest in more holistic accounts and the importance of embodiment as it is promoted through contemplative neuroscience and phenomenology (Evan Thompson 2014, Thomas Fuchs 2009, Antonio Damasio 2006), the view of the brain as ultimate condition for any mental act prevails.

Human self-understanding is not one of the classic problems in philosophy, let alone in phenomenology. This topic seems much more fitting for sociological research or cultural scientific reasoning. In part my project belongs to cultural science, it has an interdisciplinary approach. Nevertheless, at the core it is a philosophical project, because I do not research what people think of themselves or what they used to think before digital technology came into play. My goal is different: I research images of human and artificial intelligence in science, cinema and art in order to understand the underlying concepts in comparison to phenomenological approaches of embodied cognition. Vidal and Ortega (2017) show in their book on the *Making of the Cerebral Subject* that people rarely think of themselves as their "brains", even though this reduction of psychological processes to the neural processes is heavily propagated by neuroscience as well as neurophilosophy. Patricia Churchland (2013) even titels her recent book *The Self as Brain*. She argues that:

Without the living neurons that embody information, memories perish, personalities change, skills vanish, motives dissipate. Is there anything left of me to exist in an afterlife? What would such a thing be? Something without memories or personality, without motives and feelings? That is no kind of me. And maybe that is really okay after all. (Churchland 2013, Chapter 1, p. 9, ebook)

Not many people would deny that a functional brain is a necessary condition for being a person. That does not mean that it is also a sufficient condition. While there is a strong brain-centered rhetoric present in science and its popularizations through media and cinema, people still think of themselves as beings with an individual body, history, psychology plus a brain. This keeps on being the status quo despite of various predominant approaches in neuroscience and psychiatry of the past and the present to treat patients as brains. One of the common credos of psychiatry and in major mental health agencies today according to Vidal and Ortega is: "there are no mental diseases, only brain diseases." (Ibid., 17 f.) The authors cite a study by Emily Martin from 2009 stating that patients nevertheless have problems to adapt a view of themselves as "brains" because this view cannot accommodate personal experiences and narratives of how it is like to be a person with this or that condition. In short: Neural a-typicalities are never simply experienced as that. For once, nobody actually experiences ones' own neural processes. And second: Any given condition is experienced mentally and thus integrated in a holistic framework of embodied psychological, intersubjective, social and autobiographical experiences. None of those can be accounted for in terms of neural processes.

The tension between the neuroscientific reduction of the individual to neural processes and the self-understanding of people as being embodied social beings with mental states is paradigmatic. One might say it is the contemporary *conditio humana*. As such it should be questioned from a philosophical perspective. Within the individual this tension is not as problematic as on a social level: Neuroscience with its aura of novelty and cutting edge imaging techniques remains a story of success, even though imaging techniques create much less new and relevant knowledge as their successes in funding suggest (comp. Vidal, Ortega 2017). Nevertheless, the idea of a central organ that can be manipulated to create better humans, enhanced cognitive performances or novel perceptions is very tempting, which explains that everything using the label *neuro-* is a potential economic success.

Neuroscientific imaging techniques and the fascination they trigger are the entrance point to the topic of technology. Imaging techniques do not present images of brain processes, but create pictorial representations of theories about neural processes. They act as visualizations of more or less adequate theories and models of neural activity. It is the fascination with the possibility to hack our brains that is enforced through neuroscience's liaison with imaging techniques. This successful relation feeds back into the creation of artificial intelligence and smart devices. The two main questions for me are: First: What image of human cognition, emotion and purpose gets integrated in technology? And second: How do we imagine human-machine relations and societies of the future? This second question is directed toward digital art and cinematic narratives.[[1]](#footnote-1) These two fields are linked by one encompassing narrative. That is the idea that intelligent technology will eventually transcend the human race and either in a merger with human intelligence or all on its own evolve to new level of existence. This is what computer scientist and futurist at Google Ray Kurzweil calls the singularity (Kurzweil 2006), a historical point zero in which humans and technology merge. Whether this is a real possibility or not lies beyond the scope of my research. I am interested in understanding, how technology is experienced. Cinema is one strong cultural force which displays human concerns, hopes and self-projections into future societies. I take this images and narratives as a source to evaluate how the relation with technology is imagined and what concepts of human and artificial intelligence are at stake here. An interpretation of contemporary utopian and dystopian narratives will give a clue about what to for in current developments in technology. What images and normative components concerning human behavior are incorporated in the technologies now? This question is very different from what is commonly asked. It is not about the anxiety of being outrun by technology and neither is it about technology becoming self-conscious. My aim is to reveal the human factor in artificial intelligence: Beyond the dystopian narratives lies a fascination for an enhanced and more efficient human intelligence that is related to the reductive notion of the malleable cerebral subject in neuroscience. To uncover these reductive features in existing and emergent technologies a phenomenological approach is needed to look beyond the surface of profit-maximization and smooth user experiences.

3. Poststructuralism vs. Phenomenology

From a more detached point of view it does not make much sense to put poststructuralist accounts into opposition to phenomenological ones, also given that poststructuralism in large parts is rooted in phenomenology. Neither is embodiment neglected in poststructuralist accounts. It is even problematic to identify the theories in the field of emergent technologies and new media that I have in mind with poststructuralism. Usually those theories integrate both phenomenology and poststructuralism and lay more emphasis on one of the two.

These two approaches open up two different lines of critique, that from outside seem in part mutually exclusive. This may be the reason for the current predominance of poststructurialist accounts whilst an integrative account would be more productive.

The line of critique represented by theorists that refer to classic poststructuralist theories like those of Gilles Deleuze or Jacques Derrida can be subsumed under the headline of a critique of traditional humanism. Humanism is not per se associated with the bad guys. Even proponents of posthumanism might label their endeavor as a form of advanced humanism (that propagates the evolution of the species). Humanism has become the target of critique already with poststructuralism and postmodern thought. Even more so with the appearance of the topos of the anthropocene: The anthropocene is a geochronological concept describing an epoch in which human activity predominantly influences developments in nature and society. What might have appeared as a positive outlook in enlightenment and within the narrative of progress in modernity now figures as destructive force. Humans are responsible for exploitation and destruction in the name of profit. Furthermore, the processes human activity triggered are far too complex and exceed human capacities to mend them. Poststructuralist critique targets the idea that human beings are more special than any other life-forms because of their rationality and moral sentiments. Also, the interpretation of everything from a human perspective has become problematic in the light of climate change and the destruction of whole ecosystems. Without going into detail here, one can say that current theories share the conviction that anthropocentrism needs to be replaced by an ecological account of humans being embedded within a complex system of relations and agencies.

This description of environments as complex nets of relations and agencies has both an ontological claim and a phenomenological claim. In terms of ontology, most theories refer to Merleau-Ponty, Alfred North Whitehead, Gilles Deleuze and Gilbert Simondon. In short the aim is to develop an understanding of reality as a complex and open system of relations in constant development. For the problem of human-machine relations that means first and foremost that there is no essential difference between human and technological agency. Jennifer Gabrys for example creates the notion of the ambividual, that can be both a human or artificial agent:

Rather, the citizen works through processes that might generate ambividuals: ambient and malleable urban operators that are expressions of computer environments. While the ambividual is not an expression of a cognitive subject, it does articulate the distribution of nodes of action within the smart city. [...] I would suggest that who or what counts as an ambividual is not restricted to a human actor in the smart city, since the articulation of actions and responses occurs across human-to-machine and machine-to-machine fields of action. (Gabrys 2014, 34)

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1. Also in literature, there is a huge number of narratives dealing with technology and its impact on human self-understanding. For further reading see Hayles 2005 and Vidal, Ortega 2017, Chapter 4. There has been a notable shift from a preference for utopian plots in the Obama era to dystopian topics such as Margaret Atwoods *The Handmaid's Tale* (1985) after Trump's election. The sales of this book went up by 30% in 2016 according to an [New York Times article](https://www.nytimes.com/2017/01/27/business/media/dystopian-classics-1984-animal-farm-the-handmaids-tale.html). There it is stated that: The sudden boom in popularity for classic dystopian novels, which began to pick up just after the election, seems to reflect an organic response from readers who are wary of the authoritarian overtones of some of Mr. Trump’s rhetoric. [↑](#footnote-ref-1)