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REPLY

Defamiliarizing Technology, Habituation, and the Need for a Structuralist Approach

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Abstract
In response to my article "Earth, Technology, Language", Christopher Müller asks whether use-oriented theory and Wittgensteinian language can capture the structural relations of power that shape habituation and argues that digital media do not provide opportunities for empowerment and democracy because there is no co-ownership. In my reply I argue that I have shown that this can be done with the broader conception of use I propose, that the grammar of technology should also be understood in terms of implicit knowledge, and that technology, like language, also has a public dimension: I claim that there is no such thing as a private technology or private power, and that some degree of co-ownership or resistance is possible. In the second part of the paper I reply to Bas de Boer's questioning of my criticism of postsphenomenology. I insist that postphenomenology does not have the full instrumentarium to carry out an adequate and comprehensive analysis of the social dimension of technology use, and that it is important to attend to the structural dimension of technology, with or without use of the term 'transcendental'. I clarify my use of the term as referring to conditions of possibility.

Keywords Technology and language · Wittgenstein · Habituation · Power · Grammar · Postphenomenology

1 Introduction

I warmly thank Christopher Müller and Bas de Boer for their comments, which do not only help me to further clarify what I tried to do in my essay, but are—each in their own way—interesting and original contributions to the literature.

Chris Müller agrees with my criticism of postphenomenology, my proposed shift to the social dimension of technology ('Wittgensteinian language games give social structures and relations of power an ontological basis that is easily neglected in empirical studies

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of artefacts.'), and my call for a new language to talk about technology, the planet, and ourselves. He then asks pertinent and important questions regarding this language: how critical should it be and how can it conceptualized the way transcendental conditions translate into individual experience? And what about the power dimension? His answer—and the way he "translates" and elaborates what I have said—is informed by the tradition of philosophical anthropology, in particular Günter Anders and Helmut Plessner: as human organisms must 'continually turn themselves into human beings, alien objects and tools are transformed into familiar capacities. As I would put it: one gets *used* to them. Similarly, Wittgenstein's language games 'bind words to their context and habitual use.'

Now Müller asks whether the language I use 'can capture the structural relations of power' that shape this habituation. In particular, what if we are left speechless and if the devices we use become part of myself, which is through the device controlled by others? He worries that use centric approaches miss the wider power relations of language acquisition—and hence also of technology acquisition. There is normativity at work: in the "proper" use of language and (I would say) in the "proper" use of technology. As we become more confident in use, we also are normalized and may be oppressed by 'obvious meanings. Although elsewhere I have explicitly pointed to normative (Coeckelbergh 2018) and power issues (Coeckelbergh 2017), Müller rightly observes that this essay leaves them implicit. Whereas in *Using Words and Things* I refer to Foucault, he proposes that we use Marxist language (via Althusser) and cultural studies to remedy this gap, adding a structural layer to use. I am very sympathetic to this proposal and believe it could complement my *already* structural approach based on using Wittgenstein's view of language (Coeckelbergh 2018) by emphasizing the social dimension. However, for Müller there is a limit to the comparison between language and technologies: he claims that whereas language is usually co-owned, giving speakers the power to resist and actively shape meanings, digital media lack this co-ownership.

Müller's focus on the structural and power dimensions of language and technology shows the powerful (pun intended) implications of using theory about language to better understand technology. I agree that the theoretical resources he opens up in his reply can help us to cover and uncover these dimensions, thus assisting to further elaborate the proposed direction in thinking about technology. Contemporary philosophers of technology need to pay more attention to the structural dimension of technology, and Müller's point about familiarity and invisibility of technology, for example how the smartphone 'slips from perception', is important and can be helpfully connected to Heidegger's distinction between ready-to-hand and present-at-hand in *Being and Time* (1927). In my language: one of our tasks as philosophers of technology is to reveal technology's grammars (Coeckelbergh 2018). Müller's emphasizes the issue of normalization: analysis of the smartphone in terms of normality and how the possibilities of the phone become *my* possibilities (emphasis of the author) is convincing and helpful. I also sympathize with his intuitions about the 'impenetrable veneer of ordinariness' that makes it difficult to acquire the right kind of knowledge—this question of knowledge is crucial. Furthermore, I also see an interesting link with the work of Bourdieu here, in particular with his notion of habitus. As Romele (2020) has argued, Bourdieu's theory can help us to think beyond the problematic of the empirical turn. The habitual dimension of technology deserves more work. However, I disagree with Müller's reply on two points:

The first is his suggestion that attention to the structural and power dimension necessarily implies taking distance from a use-oriented theory of technology (and language). I agree that this follows if we go with a narrow definition of use, one that is perhaps implied in current postphenomenology and mediation theory and that leaves out the power and

structural dimensions. However, a broader conception of use as I have proposed (2017; 2018) need not be vulnerable to his objection and can, so I believe, accommodate the concerns and theoretical plug-ins proposed by Müller. Müller, however, interprets the grammar of technology in terms of purely "technical" information such as camera angle, technological competence, etc. But this is not how I understand the grammar of technology, which in my view includes what Müller frames with Stiegler as 'knowledge that escapes'. This is why I employ Wittgenstein's focus on implicit knowledge in *On Certainty* (1969) to talk about technique and sympathize with interpretations of Wittgenstein that criticize a focus on explicit rules and, more generally, explicit knowledge (Coeckelbergh and Funk 2018).

The second point I disagree with is Müller's assumption that (as I would but it) there is a fundamental asymmetry when we try to apply insights about language to technology and media, in particular, his claim that digital media do not provide opportunities for empowerment and democracy because, in contrast to language, there is no co-ownership. In response I affirm the public dimension of technology. The meaning of technology is always public. With Wittgenstein, we can say that there are no private language games and that, similarly, there is no such thing as a private technology (Coeckelbergh 2017, 44). It is in principle public. And this is also true for power. There is no such thing as private power. Although infrastructures of technology are not co-owned in the way language is, through use people can also resist and change things and change the game. Even technology itself can be a game changer (Coeckelbergh 2018). Moreover, whereas Müller is right to say, with Anders, that nuclear technologies create 'a world without us', today's digital technologies are not entirely like Heidegger's and Anders's modern technologies, and constitute a world in which we participate, through our use. Like with language use, norms can shift—albeit slowly. I use Wittgenstein's metaphor of the river-bed here, which only changes very slowly (Coeckelbergh 2018). That does not mean, of course, that there are no problems with regard to power asymmetries in these worlds, games, and structures, and these need to be further analyzed. But digital technologies are more democratic than suggested by Müller, and even nuclear technology is not totally "owned" by authorities, corporations, and other powerful actors; here too resistance is possible (but arguably more difficult given centralized power). In the spirit of postphenomenology's attention to differences between technologies but going significantly beyond it by embracing critical theory and cultural studies approaches (postphenomenology tends to leaves these out), I propose that we analyze the subtle and less subtle dynamics of ownership and disownership with regard to technologies and media, including digital ones, rather than making a categorical distinction between language and technology or between different technologies.

Finally (but this is not a point of disagreement, simply an observation), Müller's analysis tends to remain at the level of looking at how language functions in relation to technology, whereas I go a step further and use language as a metaphor to analyze technology use, also use that has little direct connection with the use of language. This is, incidentally, why I fully agree with Müller's conclusion that language games alone cannot expose all the hidden social and power relations: we need to pay attention to what I called 'technology games' (2018), and defamiliarization is indeed one of the operations that is necessary to make this approach work. To conclude, Müller's comments open a fascinating problematic, and I welcome further dialogue between the mentioned approaches. If we bring different approaches together, we can hope to make sense of Müller's beautiful claim that 'each technology invents the human and the world anew' in a way that is sensitive to the issue of who has the power to shape this re-invention of technology and the human, and more generally of how individual agency and use relates to the wider structural context in which technology is inevitably embedded.

Whereas Müller accepts my criticism of postphenomenology, Bas de Boer questions how I position myself towards it, in particular my claim that it neglects the social dimension and that we need a transcendental approach. First he asks why, for instance, a postphenomenological analysis of ultrasound technology cannot be a '*starting-point*' (his emphasis) for analyzing a practice and the social context, and points to Ihde's call for a 'cultural hermeneutics' and Verbeek's suggestion that the mediation framework must be complemented with an appropriation one, which is about how humans give meaning to technological mediations. He argues that in theory postphenomenology can further analyze the social, practical, and cultural context, whether or not it may have done so in practice. Then he questions why games and forms of life are transcendental at all, rather than 'changing and contingent on social structures, historical developments, etc.': why are they not empirical conditions of possibility? Furthermore, picking up my claim that mediation language is not very precise, De Boer argues that to say that the earth is a condition of possibility is as vague as saying that the Anthropocene mediates the relationship between humans and the earth.

I agree with De Boer that the discussion should concern the "in theory" question. In practice, I see in for example Verbeek's work implicit references to the social. To take up the example of his influential ultrasound paper (Verbeek 2008) not explicitly cited by De Boer: Verbeek refers to the social context when he describes the moral problems. The point "in theory", however, is that this is done *implicitly* and that postphenomenology itself does not have the full *instrumentarium* to carry out this analysis in a way that fully takes into account social relations and (to put it in the language of mediation theory in order to facilitate "translation") how *they* mediate technology and the way technology mediates us, and how in turn we and technology shape social relations. In this case, Verbeek's focus is on how technology mediates the (individual) moral subject. The term appropriation, used by Verbeek in a way that focuses on how individuals make sense of technology, can only do *some* of the work but misses a convincing conceptualization of the social-structural environment in which individual use-meanings and appropriations are embedded. And Ihde has proposed a cultural analysis but does not develop this in a way that connects to material beyond individualistic phenomenology. He neither uses insights from the social sciences, nor sufficiently make use of resources within his own tradition of thinking. Reijers and I show that hermeneutics could be used (Coeckelbergh and Reijers 2016) and as my discussion with Müller illustrates, my Wittgensteinian approach offers a framework that is able to connect with a social analysis, whereas neither De Boer nor the postphenomenological school he defends shows that it is possible to do this within postphenomenology—in theory or in practice.

As to my use of the term transcendental, vehemently opposed by Ihde since its recent (re-)introduction by me but also by Smith (2015): I am not married to the term, but I do think it is important to attend to the structural dimension of technology. Some stay within the Heideggerian tradition and call this a focus on the 'ontological' (e.g. Zwier et al. 2016); I have translated it into a call to analyze its conditions of possibility. But I see these conditions as "transcendental" only in the sense of "conditions of possibility". For me they *are* related to 'changing and contingent on social structures, historical developments'. Stronger: they *are* these social structures and they *are* historically developed and continue to change. The confusion arises, I believe, because the term transcendental has been used in the Kantian and phenomenological traditions in a way that suggest *transcendence*. But transcendental and transcendence need not overlap; for me the technologies and games of life I speak about are immanent structures that are usually

not visible when and as we use technology but that nevertheless shape, and are shaped by, our use. We can reveal them, make them visible, because they are not hidden in principle. This interpretation of transcendental is in line with the empirical interpretation proposed by Smith (2015). So I use "transcendental" in a very specific technical sense of conditions of possibility, without the luggage my postphenomenological friends and critics may associate with it.

That being said, if it would turn out that using this term is too confusing, I am happy to drop it. The Wittgensteinian framework I introduced offers sufficient conceptual tools to do the work I want it to do, especially if it can be enriched with forms of structuralism and thinking about power issues as suggested above. I would also be happy to see attempts to combine postphenomenology, appropriation, and Wittgensteinian notions; I even plan to contribute to this. However, there remains a tension between, one the one hand, more structuralist and holistic approaches to technology and, on the other hand, the tendency of postphenomenology, inherited from phenomenology, to focus on the individual subject, including individual use and appropriation. Someone who wants to bridge this tension has a hard job, since there is not just a difference in 'descriptive focus', as De Boer suggests, but also in the toolkit available to both. Rhetoric does not help here; but the language we use is important. I expect that De Boer agrees with me that making sense of technology is a social endeavor, and that we need to develop the appropriate conceptual tools to clarify this. On this basis, we can then further compare the theoretical tools we have and what they can do. In this respect, I am pleased to see that De Boer agrees that a Wittgensteinian approach is a valuable addition since it 'brings to our attention new ways in which technology use is structured.'

Finally, I agree that a transcendental claim about the earth as a transcendental condition needs to be connected to 'detailed empirical research', just as mediation claims need to be supported by such research. What *I* meant with my vagueness objection is more an "in principle" or "in theory" point related to the terms used: saying that something (A) is a condition of possibility of something else (B), already defines a precise relation between A and B, implying that A makes possible B, whereas to say that A "mediates" between B and C, posits an "in between" between B and C but leaves the relations between B and C undefined. If I say that the earth mediates my relation to others, for example, then it is clear that earth "does" something to that relation, but it is unclear *what* it does. This needs further specification, not only empirical but also in general and in theory. If, on the other hand, I say that earth is a condition of possibility for our relation to one another, then I mean that earth makes possible those relations and that we are dependent on earth for those relations. Here too empirical specification is needed as to the *how*, but in theory I know the precise relation between the two terms.

That being said, the theory I proposed does not depend on this intuition about vagueness and, in general, I do not object to the use of the term mediation. Perhaps it can play a role in describing specific human-technology relations, where technology plays the role of an "in-between". My underlying worry stems from my observation that under the influence of recent mediation theory the term is used excessively and becomes a passe-partout to describe everything technology does and is. In response, I hope that the Wittgensteinian language I proposed may contribute not to a less "empirical" but certainly more pluralistic and diverse vocabulary. I also hope to raise more awareness among philosophers of technology about the importance of language, perhaps even language *as a technology*. Mediation is then *one* of the things language does.

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