Rewriting the Constitution:

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Rewriting the Constitution: A Critique of 'Postphenomenology'.

Abstract:

This paper builds a three part argument in favour of a more transcendentally focused form of 'postphenomenology' than is currently practised in philosophy of technology. It does so by problematising two key terms, 'constitution' and 'postphenomenology', then by arguing in favour of a 'transcendental empiricist' approach that draws on the work of Foucault, Derrida, and, in particular, Deleuze.

Part one examines 'constitution', as it moves from the context of Husserl's phenomenology to Ihde and Verbeek's 'postphenomenology'. I argue that the term tends towards different senses in these contexts, and that this renders its sense more problematic than the work of Ihde and Verbeek makes it appear. Part two examines 'postphenomenology'. I argue that putatively 'poststructuralist' thinkers such as Derrida, Foucault and Deleuze may be better characterised as 'postphenomenologists', and that approaching them in this way may allow better access to their work from a philosophy of technology perspective. Part three argues for a 'transcendental empiricist' approach to philosophy of technology. In doing so, it argues for a rewriting of contemporary philosophy of technology's political constitution: since an 'empirical turn' in the 1990s, I argue, philosophy of technology has been too narrowly focused on 'empirical' issues of fact, and not focused enough on 'transcendental' issues concerning conditions for these facts.

Keywords:

'postphenomenology'; 'Ihde'; 'Verbeek'; 'Deleuze'; 'transcendental empiricism'; 'transcendental turn'.

This paper builds a three part argument in favour of a more transcendentally focused form of 'postphenomenology' than is currently practised in philosophy **[p 534]** of technology. It does so by problematising two key terms, 'constitution' and 'postphenomenology', then by arguing in favour of a 'transcendental empiricist' approach that draws on the work of Foucault, Derrida, and, in particular, Deleuze.

The first part focuses on the term 'constitution', with attention to how its sense changes as we move from the context of Husserl's phenomenology to that of 'postphenomenology', as advanced by Ihde (1993, 2008, 2012; Selinger 2006a) and Verbeek (2005, 2011). This aim of this part is quite restricted: to argue that 'constitution' tends towards different senses in the contexts described, and that this renders the term more problematic than the work of Ihde and Verbeek makes it appear. The second

part focuses on the term 'postphenomenology' itself. The aim of this part is to argue that putatively 'poststructuralist' thinkers like Foucault, Derrida and Deleuze may in fact be better described as 'postphenomenologists'. This claim is in some ways consonant with Ihde's own attempts to ascribe a phenomenological genealogy to poststructuralist thinkers, as when he situates Derrida and Foucault in terms of what he calls 'edifying phenomenology' (1986: 192-193); however, it also goes beyond this by placing greater emphasis on the importance of a linguistic turn in the work of Foucault, Derrida and Deleuze. The third part of the paper uses the findings of the previous two parts to focus on a problematic sense of 'constitution' that the work of Ihde and Verbeek does not cover: the political sense. I argue that, since an 'empirical turn' in the 1990s, philosophy of technology has been too narrowly focused on empirical issues of fact, and not focused enough on 'transcendental' issues concerning conditions for these facts. The paper concludes by arguing for a 'transcendental empiricist' approach that posits a series of radical relations between the empirical and the transcendental.

1.) On 'Constitution':

The aim of this part is to briefly examine the key term 'constitution', in order to show that its sense is more problematic than contemporary 'postphenomenology' in philosophy of technology, as practised by Ihde and Verbeek, makes it appear. I begin by drawing on a dictionary definition to focus natural language senses of the term before considering how these relate to technical philosophical senses, as evident in Husserl's phenomenology and Ihde and Verbeek's 'postphenomenology'. I argue that 'constitution' tends towards an idealist sense in the former context, but towards a materialist sense in the latter. The semantic instability considered here is, in turn, important for the third part of the paper, which returns to the term in order to investigate its neglected political sense.

The Oxford English Dictionary lists seven main natural language senses of the term 'constitution': the first three emphasise action and an agent (for example: 'the action of constitution, making, establishing'); the second four emphasise something 'constituted', a patient (for example: 'a. The way in which anything is constituted or made up; b. Composition in reference to **[p 535]** elements; c. Consistency (*Obs*)') (OEDb 2014).[1] The first point to be emphasised about 'constitution', then, is that

[1] The full entry reads:

> 1. The action of constituting, making, establishing.
> 2. The action of decreeing or ordaining.
> 3. A decree, ordinance, law, regulation.
> 4. a. The way in which anything is constituted or made up. b. Composition in reference to elements. c. Consistency (*Obs*)).

it is a term carrying flexibly active and passive senses in natural language. This, furthermore, is in keeping with the Latin root of the term, '*constitutio'*, which means '…an act of settling, a settled condition, anything arranged or settled upon, a regulation, order, or ordinance' (OEDa 2014).

But how do natural language senses of 'constitution' relate to technical philosophical senses? On the history of the term, Moran writes:

> The whole problem of phenomenology comes down to the problem of constitution. The term… itself has a pre-history in Kantian philosophy, and, though rare in Kant's own writings, is commonly found among Neo-Kantians…. In the Kantian sense, 'constitution' refers to the manner in which objects are 'built up' for consciousness out of a synthesis of sensory intuitions and various categories which are applied according to rules, a meaning which continues in Husserl…. As early as *Philosophy of Arithmetic*, Husserl had already employed the term 'constitution' ['*Konstitution'*], [and] [t]he term has a major role in Husserl's mature… writings (2000: 164).

What can be taken from this? First, that 'constitution' has a background in Kantian idealism. Second, that Husserlian phenomenology is the context in which the term properly emerges as a technical term in philosophy.

Idealism is the metaphysical position which takes the structures of consciousness to be constitutive of knowledge and experience.[2] This means that, whereas 'constitution' carries agent and patient-centred senses in natural language, idealism tends towards privileging agent or 'subject'-centred senses when employing the term in a technical philosophical sense. Following Kant, this is a tendency of Husserl's phenomenology. As Moran continues:

> For Husserl, 'constitution' expresses the manner in which objects of consciousness come to have the kinds of 'sense and being' that they do, the manner in which subjectivity carries out its function of giving sense. Husserl's notion of constitution should perhaps be thought as a

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5. a. Physical nature or character of the body in regard to healthiness, strength, vitality, etc.
b. Nature, character, or condition of mind; mind, disposition, temperament, temper.
6. The mode in which a state is constituted or organized; especially, as to the location of the sovereign power, as a *monarchical*, *oligarchical*, or *democratic constitution*.
7. The system or body of fundamental principles according to which a nation, state, or body politic is constituted and governed (OEDb 2014, original emphasis).

[2] More technically, Moore defines idealism as follows:

> Let *s* be a kind of sense-making. Then idealism with respect to *s* may … be defined as the view that certain essential features of whatever can be made sense of in accord with *s* depend of features of *s* itself (2012: 142).

> kind of setting out or 'positing' (*Setzung*), as a giving of sense, 'sense-bestowing' (*SInngebung*). Husserl uses words like 'manifesting' and 'exhibiting' as equivalent to 'constituting' (2000: 164-165). **[p 536]**

What is important here is the use of present participles such as 'positing', 'giving', 'bestowing', 'manifesting' and 'exhibiting'. While these do not fully capture the original sense of German terms like *Setzung* and *Sinngebung*, they do emphasise that, in Husserl's work, 'constitution' tends towards an active sense centred on a form of subjectivity which, as Moran puts it, 'carries out its function of giving sense'. Historically, this is borne out by the fact that Husserl tended increasingly towards idealism in his later work, particularly after his so-called 'discovery' of the full implications of *epoché* or 'phenomenological reduction' around 1905-1906 (Bell 1990: 153), and by the fact that, in his late *Crisis* era work, he argues for a form of 'transcendental idealism' in the Kantian style as the only acceptable position in philosophy (Husserl 1970a: 70, 97-100; 1988: 108). It is also arguable, however, that there is a grammatical tendency towards idealism throughout Husserl's writings, despite the more 'naturalistic' point of view of his work up to 1905-1906 (Bell 1990: 153).[3]

Sokolowski has put the case that, over time, Husserl's use of 'constitution' becomes 'too much orientated towards subjectivity' (1964: 218). For the purposes of this part, however, a more restricted conclusion is all that is required: simply to note that there are (idealist) tendencies to

[3] Reflecting back on 1891's *Philosophy of Arithmetic* in 1929's *Formal and Transcendental Logic*, for example, Husserl writes:

> It was …, in my later terminology, a phenomenological-constitutional investigation; and at the same time it was the first investigation that sought to make 'categorial objectivities' of the first level and of higher levels (sets and cardinal numbers of a higher ordinal level) understandable on the basis of the 'constituting' intentional activities, as whose productions they make their appearance originaliter, accordingly with full originality of their sense (1969: 87).

Such hindsight by an author can, however, be misleading. It is therefore noteworthy to find passages such as the following in 1900-1901's *Logical Investigations*:

> A painting only is a likeness for a likeness-constituting consciousness, whose imaginative apperception, basing itself on a percept, first gives to its primary, perceptually apparent object the status and meaning of an image (2001: 239).

As a complement to this early picture of consciousness as 'constituting', Husserl also writes of objects of consciousness as 'constituted' in *Logical Investigations*:

> ... the objects of which we are 'conscious', are not simply *in* consciousness as in a box, so that they can merely be found in it;… they are first *constituted* as being what they are for us, and as what they count as for us, in varying forms of objective intention (2001: 156, original emphasis; see also Husserl 1981: 11, 15, 23, 34).

privilege subject-centred senses of the term in Husserl's work.[4] With this in mind, let us now turn to contemporary 'postphenomenology' in philosophy **[p 537]** of technology, as practised by Ihde and Verbeek. The use of 'constitution' in this context is influenced by Husserl's phenomenology, but in what ways does it differ?

Ihde, for his part, writes: 'embodying [a technology] as an activity … has an initial ambiguity. It must be learned or, in phenomenological terms, constituted' (1990: 73). When discussing 'activity' and 'ambiguity' here, Ihde seems to have Heidegger and Merleau-Ponty in mind, rather than Husserl. This is because what he is aiming at is a view of 'constitution' as an embodied and enactive process taking place 'between' subject and object, and constituting both (Ihde 1999).[5] As Verbeek elaborates:

> The postphenomenological approach makes it possible to move beyond… the subject-object dichotomy in two… ways. First…, Ihde shows the necessity of thinking in terms of human-technology associations rather than approaching human subjects and technological objects as separate entities…. Second, human-world relationships should not be seen as relations between pre-existing subjects who perceive and act upon a pre-existing world of objects, but rather as sites where both the objectivity of the world and the subjectivity of those who are experiencing… and existing in it are *constituted* (2005: 111-113, original emphasis).

There is a tendency in this passage, evident in the emphasis it devotes to 'associations' and 'sites' of constitution, to emphasise the correlative nature of subjectivity and world. Such a form of 'correlationism' is also evident in Husserl's phenomenology, and is compatible with the tendencies towards idealism that we have identified there (Moran 2000: 165). But how does postphenomenology's treatment of specific 'associations' or 'sites' play out in practice, in contrast to the idealist tendencies of classical Husserlian phenomenology?

Of obstetric ultrasound, one of his favourite examples, Verbeek writes:

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[4] Authors including Ihde and Janicaud consistently stress that Husserl intended phenomenology to be a rigorously 'presuppositionless' method, eschewing all metaphysical claims, including those of idealism (Ihde 1999: 29; Janicaud 2009: 81). What this underplays, however, are the explicitly idealist leanings of Husserl's later work (Bell 1990: 153-154; Ricoeur 1999: 176). A much more controversial issue is the *type* of idealism towards which Husserl tends. Moore, for example, detects a form of 'subjective' or 'empirical idealism' in Husserl (Moore 2012: 451). He is supported in this by occasional notorious statements from Husserl (see, for example, 2002: 94-95). Other authors, such as Moran (2000) and Sokolowski (1964), read Husserl more straightforwardly in terms of a form of 'transcendental idealism'.

[5] A view of constitution as embodied and enactive is present in Husserl's late work (see, in particular, the essay 'Foundational Investigations of the Phenomenological Origin of the Spatiality of Nature' (1981: 222-233)). However, it is more strongly associated with the work of Merleau-Ponty and Heidegger.

> [U]ltrasound constitutes the unborn in a very specific way: … in Ihde's terms, a sonogram establishes a hermeneutic relation between the unborn and the people watching it. In hermeneutic relations, technologies produce a representation of reality, which needs to be interpreted by its 'readers'. Moreover, the technology itself embodies a 'material interpretation' of reality, because it has to make a 'translation' of what it 'perceives' into a specific representation – in this case, the scanner has to make a relevant translation of reflected ultrasonic sound waves into a picture on a screen…. In all cases, the unborn is constituted in a specific way and so are its parents in their relation to it (2011: 24).

This is a nuanced reading, providing a good elaboration of the postphenomenological concepts of 'hermeneutic relation' and 'material interpretation'; moreover, Verbeek's 'in all cases' conclusion is uncontroversial – all it asserts is that ultrasound is a necessary term in a site of constitution involving other terms (for example: the unborn child, medical experts, and parents). What is troubling, however, **[p 538]** is the conclusion Verbeek later draws from the example; namely, that '[in this case], technology does not *impede* morality, but rather *constitutes* it' (2011: 38-39, original emphasis). Here, emphasis seems to have shifted: instead of comprising one necessary term in a more complex site of constitution, ultrasound seems to be emerging as something more akin to a necessary and sufficient *agent* of constitution.

If Verbeek construed technologies in this way, as the sole terms that mattered in their sites of constitution, then his approach would tend towards a narrow positivism or a technologically deterministic form of materialism.[6] Verbeek claims to be against both positions, so we may simply have identified a slip on his part here.[7] The point, however, is that such slips may be an unavoidable result of the semantic instability of a term like 'constitution'. As we saw above, there are tendencies towards idealism in Husserl's phenomenology, insofar as it emphasises the 'constituting' role of consciousness. In contrast, the postphenomenology of Ihde and Verbeek emphasises the constituting role of technologies; a result of this, however, may be a tendency towards narrower and more positivistic forms of materialism than either Ihde or Verbeek explicitly avow. In what follows, we will unpack the consequences of this: Is the 'postphenomenology' of Ihde and Verbeek critically focused enough on its own conditions and tendencies? If not, can the case be made for an expanded conception of 'postphenomenology'? And, how would this expanded approach stand in relation to the contemporary *political* constitution of philosophy of technology?

[6] There are much more rhapsodic strands of contemporary philosophical engagement with technology and media where these tendencies become more pronounced. See, for example, Flusser 2002 and Stiegler 1998.
[7] Further on, Verbeek is more circumspect: 'Technologies help to constitute freedom by providing the material environment in which human existence takes place and takes its form' (2011: 60).

2.) On 'Postphenomenology':

The aim of this part is to further examine 'postphenomenology', in order to argue for an expanded sense of the term, capable of including putatively 'poststructuralist' thinkers such as Foucault, Derrida and Deleuze. I begin by focusing on the importance of a linguistic turn in the work of these thinkers, before moving to consider similarities and differences between their approaches and those of Ihde and Verbeek.

As we have seen, 'postphenomenology', as practised by Ihde and Verbeek, aims at decentring the focus of 'constitution' away from the subject, towards a more holistic hermeneutic account of how technologies are used, interpreted and embodied. In *Multistabilities*, Ihde summarises this by the equation: 'phenomenology + pragmatism = postphenomenology' (2012: 128). On the one hand, this is trivial, since there are many philosophical approaches that, consciously or not, mix aspects of pragmatism and phenomenology (those of Merleau-Ponty, Heidegger, Dewey, James, or Rorty, for example). On the other hand, the equation is revealing in terms of what it excludes.

One excluded factor is reference to any form of 'linguistic turn' in philosophy. Ihde's equation therefore diverts attention away from thinkers who critique phenomenology from a philosophy of language perspective: from Frege, Wittgenstein and Habermas, **[p 539]** through, more importantly for the purposes of this paper, to 'poststructuralists' like Foucault, Derrida and Deleuze.[8]

In 1966, Foucault published *Les Mots et les choses*. The title of this book (literally: *Words and Things*) gives an important clue as to how phenomenology is a key target for so-called 'poststructuralists'. As Husserl's motto of 'back to the things themselves' (Husserl 2001: 88) already indicates, an aim of phenomenology is towards letting things 'show themselves', independent of conceptual confusions brought about by language.[9] In contrast, 'poststructuralists' emphasise the critique of language. As Foucault writes:

[8] Ihde devotes considerable attention to 'linguistic turn' issues elsewhere in his work (see, for example, Ihde 1986, 1993, 1999). My focus on his 'phenomenology + pragmatism' equation here is therefore somewhat rhetorical, but nevertheless defensible as an index of how Ihde situates his own work in relation to these issues. For a development of this, see part three of this paper below.

[9] Note, for example, the emphasis on things speaking 'for themselves' in this extract from Merleau-Ponty:

> If the philosopher… feigns ignorance of the world and the vision of the world which are operative and take form continually within him, he does so precisely in order to make them speak, because he believes in them and expects from them all his future science (1968: 4).

> *Les Mots et les choses* is the … title of a problem…. A task of … treating discourses … as practises that systematically form the objects of which they speak (2002: 54).[10]

Crudely, whereas phenomenology priorities 'things' over 'words', 'poststructuralists' like Foucault, Derrida and Deleuze prioritise a critical focus on 'words' over 'things'. As Derrida writes:

> Contrary to what phenomenology attempted to make us believe, contrary to what our desire cannot fail to be tempted to believe, the thing itself always escapes (1973: 117).

The paradox of phenomenology is that it aims to suspend the structures of language in an attempt to let things 'describe themselves'; since description is a linguistic concept, however, phenomenology cannot achieve this, and 'the thing itself always escapes'. Against phenomenology's emphasis on a presuppositionless description of 'things', then, so-called 'poststructuralist' thought emphasises a critique of the presuppositions and norms engendered by language itself. As Deleuze writes:

> Philosophy is at its most positive as critique: an enterprise of demystification (2006: 99).
>
> [T]he conditions of a true critique and a true creation are the same: the destruction of an image of thought [that is, a fundamental set of normative 'postulates' or **[p 540]** 'propositions'] … and the genesis of the act of thinking in thought itself (2004a: 176).

Foucault, Derrida and Deleuze were part of the generation of French thinkers emerging in the mid-to-late 1960s, after the 'structuralism' of Lacan, Althusser and Lévi-Strauss. It is therefore chronologically correct to describe them as 'poststructuralists'. That apart, it may be more appropriate to the logic of their work to describe them as 'postphenomenologists'. Beyond what has already been identified in this part, there are many further reasons for this: the fact that all three tend towards the impersonal register of the third person, for example, in contrast to the first person 'I' privileged by phenomenologically-inspired thinkers like Merleau-Ponty or Sartre; the fact that all three engage Nietzsche-inspired attacks on the concepts of '*doxa*' and 'common sense', which they take to be implicitly crucial to phenomenology (see Deleuze 1988); or the fact that, in contrast to the

[10] Consider, further, this elaboration from Foucault:

> I have no wish at the outset to exclude any effort to uncover and free… 'prediscursive' experiences from the tyranny of the text. But what we are concerned with here is not to neutralise discourse, to make it the sign of something else…. What, in short, we wish to do is to dispense with 'things'… To substitute for the enigmatic treasure of things anterior to discourse, the regular formation of objects that emerge only in discourse (2002: 52-53).

'everyday' examples privileged by phenomenology, all three tend to emphasise esoteric and sometimes wilfully aestheticised examples from art, literature and science.[11]

It is important to note that the postphenomenology of Ihde and Verbeek, in decentring the focus of 'constitution' away from the subject, also makes comparable moves away from the register and problems of classical phenomenology. In terms of form, this is manifest in how similarly circumspect and reflexive Ihde and Verbeek are in their use of the first person 'I', and, as we saw above, in the consistent stress they place upon the 'correlated' nature of subjectivity and world (Ihde 1999: 26-38; Selinger 2006b: 89-92). In terms of content, it is manifest, most obviously, in how specific Ihde and Verbeek are in the use of examples, most of which focus on cases of what Ihde calls 'embodiment' and 'hermeneutic' relations involving technological artifacts (Ihde 1990: 72-108). This use of examples highlights both a similarity and a difference between the postphenomenology of Foucault, Derrida and Deleuze, and that of Ihde and Verbeek: the similarity is that both groups can be said focus on what remain underdeveloped subsets of examples in the work of 'classical' phenomenological authors like Husserl, Heidegger, Sartre or Merleau-Ponty; the difference is that whereas the subset concerns 'esoteric' or 'aestheticised' examples in the case of Foucault, Derrida and Deleuze, it concerns 'technological' or 'artifactual' examples in the case of Ihde and Verbeek (examples which, among classical phenomenological authors, form a notable subset in the work of Husserl, Heidegger, and Merleau-Ponty in particular (see, for example, Husserl 1970b, Heidegger 1962, and Merleau-Ponty 1976)).

It is also important to note that Ihde himself has been a vocal figure in ascribing a phenomenological genealogy to putatively 'poststructuralist' thinkers like Foucault and Derrida. In 1986's *Consequences of Phenomenology*, for example, he writes:

> Foucault too, [like Derrida], continues the *praxis* of some distinctly phenomenological habits even while linking phenomenology with Husserl and opposing it. His unmentioned teacher, Merleau-Ponty, remains his subterranean mentor. **[p 541]** Foucault does histories of perception, as in the *Birth of the Clinic.* That is to say, he traces the radically different ways things are seen in correlation to the different practices of an epoch…. This praxis which continues the development of contexts of language-perception is perhaps most dramatic in *The Order of Things.* Not only is his outline a subtle response to Merleau-Ponty (who claimed

[11] Here are some typically 'phenomenological' examples: Husserl's pieces of paper (Husserl 2002: 116; Husserl 1970a), Heidegger's hammer (Heidgger 1962: 98), Sartre's 'glass of beer' or 'chesnut tree' (Sartre 1972), and Merleau-Ponty's ashtray (Merleau-Ponty 1976). Here, in contrast, are some typically 'poststructuralist' examples: Foucault's Raymond Roussel (Foucault 1992), Deleuze's Francis Bacon (Deleuze 2005), Derrida's Antonin Artaud (Derrida 2002: 292-317).

> there could be language about language, but not painting about painting. *The Order of Things* begins with Velazquez's 'Las Meninas', a painting about painting.) The intricate pairing of experience in language-perception is precisely the *forte* of Foucault who may have adopted unconsciously the phenomenological vocabulary, but who does what I would term a kind of subterranean edifying phenomenology (1986: 193, original emphasis; see also 1993: 88-102).

Whereas we have emphasised certain discontinuities between 'poststructuralist' thought and phenomenology, Ihde places greater emphasis on continuities in this extract. The salient broader point, however, is that such discontinuities and continuities can be detected at all. What this draws attention to is the importance of not misconstruing 'postphenomenology' as a title over which rival camps exercise mutually exclusive claims: 'postphenomenology' is not a title to be competed over; rather, it is a field of problems for contemporary thought that implicates the work of all the thinkers mentioned so far in this paper, and potentially many more. In exploring this field, the work of all these thinkers has a role to play, and one of the important ways it fulfils this is by helping us to detect both the discontinuities and the continuities that link the problems of contemporary thought with those of classical phenomenology.

Re-categorising Foucault, Derrida and Deleuze as 'postphenomenologists' is therefore not a matter of splitting terminological hairs, nor of simply 'rebranding' or 'repackaging' their work. Still less is it an exercise in what Ihde has elsewhere disparaged as 'generic continental philosophy' – a form of textual obscurantism (or 'textism') which he takes to devote too little attention to the problems besetting contemporary thought, and too much attention to the exegesis of '…some finite set of canonical philosophical giants and the texts they produce' (2000: 60; see also 1993: 1-8); rather, as I will seek to develop in the next part of this paper, it is a matter of recognising, first, that Foucault, Derrida and Deleuze merit description as 'postphenomenologists' at least as much as Ihde and Verbeek, and, second, that construing them in this way has rich potential for furthering the exploration of 'postphenomenology' as a field of problems for contemporary philosophy of technology.

3.) Rewriting the Constitution:

The aim of this part is to return to the term 'constitution', as examined in part one, in order to show how it relates to the expanded conception of 'postphenomenology' argued for in part two. I focus the discussion by considering a so far neglected sense of 'constitution': the political sense. I argue that the constitution of contemporary philosophy of technology tends towards excluding important

aspects of the work of Foucault, Derrida and Deleuze. I focus on two particularly important aspects to **[p 542]** demonstrate this: first, the turn towards language that occurs in the work of these thinkers; second, the fact that this turn can be viewed as part of a nuanced and critical approach to 'transcendental' conditions that calls into question some of the main presuppositions to have dominated philosophy of technology since an 'empirical turn' in the field in the 1990s. I conclude by arguing for a 'transcendental empiricist' approach to philosophy of technology. This draws on the work of Foucault, Derrida, and, in particular, Deleuze, to posit a series of radical relations between empirical 'facts' and their transcendental conditions.

The Oxford English Dictionary lists two important senses of 'constitution' that we did not emphasise in part one:

> 6. The mode in which a state is constituted or organized; especially, as to the location of the sovereign power, as a *monarchical*, *oligarchical*, or *democratic constitution*.
> 7. The system or body of fundamental principles according to which a nation, state, or body politic is constituted and governed (OEDb 2014).

This part will draw on these senses to consider the following question: what is the political constitution of contemporary philosophy of technology?

At present, 'philosophy of technology' is an inchoate field. On one hand, it leans towards analytic philosophy, as is evident in the generally positive estimation afforded to figures like Bunge (1985, for example), and in the style of recent approaches including Pitt's pragmatism (2011) and Floridi's 'philosophy of information' (2013). On the other hand, philosophy of technology leans towards continental philosophy, as is evident in the contemporary appreciation of Latour (2007, for example), and the style of approaches including Feenberg's 'critical theory of technology' (2010), and, as we have seen, Ihde and Verbeek's 'postphenomenology'.

There are, however, some 'continental' approaches that still seem too anarchistic, in certain respects, to fit philosophy of technology's contemporary constitution, including those of Foucault, Derrida and Deleuze. Granted, philosophy of technology does engage with these thinkers 'by proxy' through certain figures it does admit (most obviously: Latour), and there are aspects of their thought which have been the focus of work in the field (most obviously: Foucault's approach to the 'Panopticon' in *Discipline and Punish*). In both cases, however, there is arguably a sense of

something more akin to a 'recuperation' of, or, indeed, an 'inoculation' against, aspects of these thinkers taking place, rather than thoroughgoing engagement with their work.[12]

Let us hazard that there is something more to the work of figures like Foucault, Derrida and Deleuze; how could the constitution of contemporary philosophy of technology be rewritten to engage with it?

The previous part of this paper argued that Foucault, Derrida and Deleuze may be better described as 'postphenomenologists' than 'poststructuralists'; one reason this is not a facile terminological matter is that their approaches may have an arguably greater **[p 543]** potential to take exploration of 'postphenomenology' further at this time than those of Ihde or Verbeek, thinkers that the constitution of contemporary philosophy of technology already recognises as 'postphenomenological'.

This claim is consistent with those made at the end of the previous part of this paper: if 'postphenomenology' is not a title to which one group of thinkers has an exclusive right, but rather a field of problems, this makes it all the more pertinent to determine which approaches have the potential to take exploration of this field further at a given time. If we then turn, with this in mind, to the contemporary constitution of philosophy of technology, two particularly important reasons emerge for ascribing arguably greater potential to the approaches of Foucault, Derrida and Deleuze.

First, the turn towards language that occurs in the work of these thinkers does not occur in the same way, or to the same degree, in the work of Ihde or Verbeek. One reason for this is that the latter two thinkers tend towards a Merleau-Ponty-inspired 'existential phenomenology' of embodiment, over and against a 'phenomenology of language' which Ihde, at least, construes as overly Heideggerian in influence (Ihde 1999: 26-38). This means that, while Ihde has devoted in-depth attention to philosophy of language related issues in his further work (particularly in relation to the contexts of sound (2007) and vision (1999)), the approach he deploys remains implicitly closer to a Merleau-Pontian 'phenomenology of speech' that he differentiates from the Heideggerian approach (1999: 37-38).[13] This is problematic for Ihde insofar as he claims that these two strands 'belong together'

[12] This is not to understate the importance of contemporary philosophy of technology approaches to Foucault, in particular (see, for example, Dorrestijn 2012 and Verbeek 2011: 66-89). Instead, it is to suggest that there may be less obviously 'technology'-focused features of the work of thinkers like Foucault, Derrida and Deleuze that may be of relevance for contemporary philosophy of technology. In what follows, I argue that the most important of such features is a shared turn towards a critical and nuanced transcendental approach.

[13] Ihde writes:

> By beginning with the 'silence' of perceptual experience and by viewing language as expression, as the coming-into-being of significance, Merleau-Ponty in effect begins a phenomenology of speech. The

(1999: 38), yet he can be read as consistently privileging the Merleau-Pontian strand over the Heideggerian.[14] What this indicates for the exploration of 'postphenomenology' as a field of problems, however, is that there is rich potential for work to be done on the problem of language in relation to technology, especially if we can use the work of thinkers such as Foucault, Derrida and Deleuze to get beyond a consideration of it as a problem unduly indebted to Heidegger.

The second, and more important, reason why Foucault, Derrida and Deleuze have an arguably greater potential to take us further comes insofar as it is possible to situate their turn towards language in a much broader context: instead of viewing this turn, as some critics do, as a new form of scholasticism or 'linguistic idealism' (Badiou 1982: 204, 2005: 37; James 2012: 9), it is possible to view it as an instance of a broader critical or 'transcendental' turn to which a great deal of work in contemporary philosophy of technology, including that of both Ihde and Verbeek, is unduly hostile.[15] **[p 544]**

To develop this, consider the following from a seemingly tangential source:

> The investigation of the rules of the use of our language, the recognition of these rules, and their clearly surveyable representation amounts to, i.e. accomplishes the same thing as, what one often wants to achieve in constructing a phenomenological language (Wittgenstein 2005: 437).

It is arguable that Wittgenstein, in line with what has been said above, is already pointing further in a 'postphenomenological' direction here than either Ihde or Verbeek have since. This is because, whereas Ihde and Verbeek get on with constructing the language of 'postphenomenology', replete with concepts like 'hermeneutic relation' and 'material translation', Wittgenstein turns a more focused form of scrutiny to the conditions under which such a construction is possible. As with overwhelmingly many philosophers since the early twentieth century, this turn manifests itself in a turn towards language; what is arguably more important, however, is that it can be situated as part

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> subject struggling with language, to say the new, to express himself, is the focus of the perceptualist's immediacy. But by beginning with what has been said and by showing how we are used by our language and our interpretations, Heidegger begins with a phenomenology of language (1999: 38).

[14] Indeed, Ihde is often explicitly hostile to what he sees as the 'romanticism' generated by Heidegger's 'phenomenology of language' when it turns to reflect on philosophy of technology issues (see, for example, Ihde 1999: 103-115).

[15] Ihde and Verbeek are at the forefront of contemporary philosophy of technology hostility towards what they, following Achterhuis (2001), variously characterise as 'classical', 'transcendental', or 'dystopian' philosophy of technology (see, for example Ihde 2000: 66; 2008: 2; Verbeek 2005: 7-8). See below for more on this.

of a broader tendency that has been the hallmark of 'critical' philosophy since Kant – towards the 'transcendental' conditions under which thought and experience are possible at all.

Since an 'empirical turn' in the 1990s, philosophy of technology has not looked kindly on the 'transcendental'. Within the field, the term is often used negatively, to describe the tendency of so-called 'classical' philosophers of technology like Heidegger and Ellul to reify 'Technology' as an autonomous 'transcendental' force (see, for example, Achterhuis 2001, Ihde 2008, Brey 2008, 2010, Verbeek 2005, 2011). If we go back to Kant's sense of the 'transcendental', however, we find that it more straightforwardly describes a form of argument that is focused on conditions for the possibility of thought and experience (see, for example, Kant 1998: 149, Stroud 1968, Stern 2013): whereas the 'empirical' has to do with the facts of experience, the 'transcendental' has to do with the rules or conditions under which these facts become accessible to us. What distinguishes an argument as 'transcendental', in this case, is simply that it is focused on these conditions. As Stern writes:

> [T]ranscendental arguments are taken to be distinctive in involving a certain sort of claim, namely that *X* is a necessary condition for the possibility of *Y* – where then, given that *Y* is the case, it logically follows that *X* must be the case too (2013).

Crucially, there is nothing here that commits us to reifying conditions for experience as if they were 'autonomous', otherworldly, or un-related to the empirical. To be sure, post-empirical turn wariness of the transcendental is justified insofar as certain philosophies do indulge a tendency to make conditions appear in this way (including, for reasons to be outlined below, Kant's 'transcendental idealism'). However, this wariness goes too far when it sanctions ignorance of the transcendental as a form of argument: what it forfeits, in this case, is the potential for an approach to philosophy of technology that would be dynamically focused on the relation between the empirical and the transcendental, not in favour of one reified term or another, but rather in favour **[p 545]** of rigorous critical scrutiny of our presuppositions on the conditions that constitute an empirical 'fact' at any given time.[16]

[16] It is possible, on the basis of an understanding of the 'transcendental' as denoting a form of argument, to argue for a revised sense of the specifically Kantian project of 'investigating and philosophically contextualising the most basic [*a priori*] constitutive principles defining the fundamental spatio-temporal framework of empirical natural science' (Friedman 2002: 188). This, for example, is what Friedman does in an attempt to arbitrate between the legacies of Quinean naturalism and Carnap's philosophy of 'linguistic frameworks' for contemporary philosophy of science. Following Reichenbach, Friedman distinguishes between two senses of the *a priori* in Kant: the strong and, he argues, illegitimate sense of 'necessary and unrevisable, fixed for all time', and the weaker and legitimate sense of 'constitutive of the concept of the object of [scientific] knowledge' (2002: 174). From here, he argues for a 'reconceived version of Kant's original philosophical

But how does this relate back to Foucault, Derrida and Deleuze? Well, while the commentary from Wittgenstein that we examined above arguably *points* further in a postphenomenological direction by highlighting, through language, the importance of a consideration of transcendental conditions, these thinkers arguably *go* further by critically engaging with these conditions.

Consider how carefully 'descriptive' Wittgenstein's commentary is: he aims to 'recognise' 'the rules of the use of our language'. Somewhat paradoxically, Wittgenstein undertakes to offer something like a 'phenomenology' of these rules (see Wittgenstein 2001). In contrast, what marks thinkers like Foucault, Derrida and Deleuze out as thoroughgoing 'postphenomenologists' is that they undertake, not merely to recognise or describe such rules, but to detect and contest the wider conditions of their emergence – whether historical, economic, social, or ontological, for example.

This turn towards a critical and nuanced transcendental approach is what unites thinkers like Foucault, Derrida and Deleuze. It is evident in Foucault's 'genealogy', which investigates the historical conditions for the language-games of power (in institutions like asylums (1976) and prisons (1991)). It is also evident in Derridean 'deconstruction', which deflates the pretensions of Western metaphysics by highlighting how *aporias* and paradoxes act as hidden conditions for this tradition (Derrida 1997, 2002). From a philosophy of technology perspective, however, it is perhaps best summed-up by what Deleuze calls 'transcendental empiricism'.

As we observed above, the transcendental tradition formally begins with Kant. In the *Critique of Pure Reason*, Kant advances a form of 'transcendental idealism' which takes human faculties of cognition ('sensibility', 'imagination' and 'understanding', for example) to be *a priori* conditions for the possibility of experience (Kant 1998). In philosophy of technology, post-empirical turn wariness of this kind of transcendental approach is justified insofar as Kantian transcendental idealism intends *a priori* in the strong sense of 'necessary and unrevisable, fixed for all time' (Friedman 2002: 174**). [p 546]** Such a strong sense of the *a priori*, however, is not definitive of transcendental approaches.

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project' that adopts a 'relativized and dynamical conception of *a priori* mathematical-physical principles'. Such principles, Friedman argues:

> …change and develop along with the development of the mathematical and physical sciences themselves, but … nevertheless retain the characteristically Kantian constitutive function of making the empirical natural knowledge thereby structured and framed by such principles possible (2002: 175).

Friedman's rationale for adopting this approach is to be better equipped than Quinean naturalism to account for conceptual discontinuities and continuities in 'revolutions within the sciences' (2002: 188). For the purposes of this paper, it is worth noting that Friedman's approach is entirely compatible with what Deleuze calls 'transcendental empiricism'.

Deleuze's 'transcendental empiricism', for instance, involves a radical critique of it. As Deleuze writes:

> What forces sensibility to sense? What is it that can only be sensed?… We must pose [such a] question not only for memory and thought, but also for the imagination…, for language …, and even for faculties which have yet to be discovered…. [I]t may be that some well-known faculties… are imposed…. It may turn out, on the other hand, that new faculties arise… [T]here is nothing regrettable in this uncertainty…: on the contrary, transcendental empiricism is the only way to avoid tracing the transcendental from the outlines of the empirical (2004a: 180-181).

In contrast to transcendental idealism, 'transcendental empiricism' posits that faculties are capable of arising and disappearing, *a posteriori*. What is exciting about this, in turn, from a philosophy of technology perspective, is that it challenges the field to be much more 'empirical' than ever before: as aspects of the experienced world, technologies are implicated in the arising and disappearing of faculties; perhaps, however, they are implicated in much more nuanced and complex ways than common sense conditions us to recognise.

This relates to Deleuze's remark on 'tracing'. By 'tracing', Deleuze means the process of sanctioning the world of 'good' and 'common' sense (that is, of '*doxa*'), to the exclusion of that which is complex, 'other', different, or paradoxical. With reference to Kant, he elaborates on this as follows:

> …of all philosophers, Kant is the one who discovers the prodigious domain of the transcendental. He is the analogue of a great explorer – not of another world, but of the upper or lower reaches of this one. However, what does he do? [He] traces the so-called transcendental structures from the empirical acts of a psychological consciousness: the transcendental synthesis of apprehension [in 'sensible intuition' (see Kant 1998: 228-229)] is directly induced from an empirical apprehension, and so on. In order to hide this all too obvious procedure, Kant suppressed this … in the second edition [of the *Critique of Pure Reason*]. Although it is better hidden, the tracing method … nevertheless subsists (2004a: 171).

Here, Deleuze criticises Kant for turning what he presupposes to be obvious, common sense, or 'self-evident' features of empirical consciousness into transcendental conditions for the possibility of experience. Deleuze's criticism of 'tracing', however, is much more radical in scope than this: what he calls 'tracing' is the gesture of reifying literally any feature of the empirical that common sense presupposes to be obvious or 'self-evident' into a transcendental condition: whether, for example,

'Consciousness' or 'Mind' in the case of idealism, 'Matter' in that of materialism, 'Life' in that of vitalism, or, indeed, 'Technology' in the case of technologically deterministic philosophies.

This raises an important question for us: to what extent is contemporary philosophy of technology, by virtue of its post-'empirical turn' constitution, also culpable of a form of 'tracing'? **[p 547]**

One feature heavily endorsed in philosophy of technology since the empirical turn is attention to 'case studies' of technologies in development and action (see, for example, Achterhuis 2001, Brey 2008, 2010, Ihde 2000, 2008, and Verbeek 2011). To the extent that recent philosophy of technology also disparages and ignores the 'transcendental', however, it risks 'tracing' aspects of these technologies into normative standards (their novelty, popularity, or ability to attract funding, for example). At the very least, this carries the danger of establishing overly rigid presuppositions on the conditions that constitute a worthy empirical 'case study'; at worst, it carries the danger of turning 'philosophy of technology' into a shallow and uncritical field, parasitically dependent upon developments in industry.[17]

The constitution of contemporary philosophy of technology sanctions ignoring the relation between the transcendental and the empirical. In contrast, Deleuze's 'transcendental empiricism' posits a more radical form of relation: one that goes beyond the mere tracing of resemblances and generalities from the empirical into the transcendental, in order to emphasise more nuanced and complex relations. As Deleuze writes in *Logic of Sense*:

> We seek to determine an impersonal and pre-individual transcendental field, which does not resemble the corresponding empirical fields, and which nevertheless is not confused with an undifferentiated depth. This field cannot be determined as that of a consciousness…. What is neither individual nor personal are, on the contrary…, singularities…. Singularities are the true transcendental events…. Far from being individual or personal, singularities preside over the genesis of individuals and persons (2004b: 118-119).

The key concept outlined in this extract is that of 'singularities'. By 'singularities', Deleuze means relations between the transcendental and the empirical that are literally '*para*-doxical' (that is, 'against common sense') in that they escape common sense presuppositions on what constitutes the 'empirical'. The reason this is an important concept for contemporary philosophy of technology, in turn, is that it provokes the field to consistently re-examine its presuppositions on the conditions constituting a 'technology' or a related 'faculty'.

[17] To what extent, we might wonder, is contemporary philosophy of technology disproportionately invested in Zeitgeist-seizing technologies such as drones, biotechnologies or ICTs?

One such way of re-examining presuppositions is to view technologies, not as an instances of a general type (for example: an ICT, a weapon, or a vehicle), but rather in terms of singular and unrepeatable events or 'encounters' within a complex situation (for example: the ICT through which crushing or exalting news is learned, in a given place, at a given time, or the weapon or vehicle which one is forced to rely upon in a life or death situation (see Deleuze 2004a: 176)). Another way is to admit stranger and more paradoxical artifacts into our consideration of what counts as 'empirical' (for example: impossible or merely imagined technologies, both of which can have empirical repercussions as great as, or perhaps even greater than, artifacts that common sense more easily recognises as 'empirical').[18] Another way is to become more nuanced in **[p 548]** our consideration of how technologies are related to faculties. It is, for example, a common sense presupposition that the same technology can be present to different faculties (for example: the same ICT as touched, seen, imagined, or remembered); transcendental empiricism, however, calls this into question. It does so by emphasising the encounter between singularities and faculties as something potentially violent and capable of 'unhinging' the faculties:

> Each faculty is unhinged, but what are the hinges if not the form of a common sense which causes all the faculties to function and converge? [Through the encounter] [e]ach one, in its own order and on its own account, has broken the form of common sense which kept it within the … *doxa*…. Rather than all the faculties converging and contributing to a common project of recognising an object, we see divergent projects in which, with regard to what concerns it essentially, each faculty is in the presence of that which is its 'own' (Deleuze 2004a: 177-178).

It is a key gesture in philosophy of technology to emphasise different ways of relating to the same artifact (Heidegger's distinction between 'present-at-hand' and 'ready-to-hand' (1962), for example, or Ihde's conception of 'embodiment' and 'hermeneutic' relations (1990: 72-108)); transcendental empiricism provokes us to take this further by re-examining how deep the normative 'hinges' of common sense go, and to what extent they condition us to implicitly privilege the 'same' or 'general' in encounters with the 'different' or 'singular'. The paradoxical consequence of this, in the context of philosophy of technology, is that what common sense takes for one and the same technological artifact (or for one and the same instance of a general type of artifact), turns out to be a series of

[18] A perpetual motion machine, the philosopher's stone, and Maxwell's demon are impossible technologies, and Vannevar Bush's 'memex' is a merely imagined technology (Nyce and Kahn 1991); all alike, however, have exerted powerful inspiration on real-world technological developments.

different artifacts divergently related to distinct faculties, some of which they engender or promote, others of which they inhibit or atrophy.[19]

It may objected, with some legitimacy, that aspects of Deleuze's transcendental empiricism are too rhapsodic or pejoratively 'metaphysical', or even that it tends towards what Ihde calls 'generic continental philosophy' in terms of how it draws on figures such as Kant. Nevertheless, transcendental empiricism forces us to reflect on **[p 549]** some of the basic articles of faith underpinning philosophy of technology's post-empirical turn constitution: To what extent do case studies in contemporary philosophy of technology privilege generalities over 'singularities'? To what extent does the field have overly rigid presuppositions on what can count as an empirical 'case study' at all, to the exclusion of significant, but paradoxical, artifacts? And, to what extent does the field simplify divergent relationships between technologies and faculties?

What engenders questions like these is a misunderstanding of the 'transcendental': since the empirical turn, philosophy of technology has rightly criticised certain 'classical' philosophers for reifying 'Technology' into a monolithic transcendental force; the political constitution of contemporary philosophy of technology repeats a similar mistake, however, where it takes such approaches to be definitive of the 'transcendental'. As rigorously postphenomenological approaches like Foucault's 'genealogy', Derrida's 'deconstruction' and Deleuze's 'transcendental empiricism' demonstrate, attention to the transcendental need not lead to the reification of any term whatsoever (not 'God', 'Consciousness', 'Mind', 'Matter', Life' 'Being', 'Language', or 'Technology'); rather, what counts is attention to the relation between the empirical and the transcendental, a relation between 'facts' and their conditions that must be persistently scrutinised and re-invigorated through critique.

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[19] Consider, for example, the faculty of reading in the context of this remark from Deleuze:

> Each faculty must be borne to the extreme point of its dissolution, at which it falls prey to a triple violence: the violence of that which forces it to be exercised, of that which it is forced to grasp and which it alone is able to grasp, yet also that of the ungraspable (from the point of view of its empirical exercise) (2004a: 180).

As authors as different and Wittgenstein (2001) and Hayles (2012) have observed, the faculty of reading changes in nuanced ways in relation to the context conditioning it. What transcendental empiricism offers is a series of provocations to take investigation of this further. In the context of reading, for example, 'that which forces it to be exercised', might be a pamphlet, a novel, a contract, or an ICT, each of which forces different norms of perception upon the reader; 'that which [reading] is forced to grasp', in contrast, might be a political message, a new style of literature, or the terms and conditions of a prospective employment, each of which, again, forces a different reading; that which is 'ungraspable', in contrast, might be all of printed literature or the entire content of the Internet, to which the act of reading in question is related, but only 'virtually', as an 'ungraspable' background condition.

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