"THE END OF THE (DREYFUS) AFFAIR": (POST)HEIDEGGERIAN MEDITATIONS ON MAN, MACHINE, AND MEANING

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ABSTRACT

Determining the implications of the thought of the German phenomenologist Martin Heidegger (1889-1976) for postmodern technology is arguably as difficult a task as determining his standing in Western academic philosophy: On the one hand, Heidegger is (generally) regarded as an intellectual charlatan of consummate proportion (and extremely dubious moral standing) by members of the Anglo-American philosophical establishment; on the other, he is (largely) revered as a genuinely original thinker who has contributed both profusely and profoundly to the enrichment of Continental philosophy. Similarly, on the one hand, Heidegger's later thought, in particular, his assertion that "the essence of technology is by no means anything technological" (Heidegger 1977), has been regarded by non-technologists as establishing grounds upon which to mount a universal critique of technology (classical, modern and/or postmodern); on the other hand, certain Heideggerian insights have been embraced by technologists in an attempt at resolving intractable problems of long standing. Although the claim that Heidegger has contributed significantly to the debate on the meaning and scope of technology is not, in itself, in question, determining the precise nature of his contribution(s) - in particular, the implications of his thought for the development and critical evaluation of postmodern technology - is problematic because there are many ways to interpret and appropriate his meditations on this issue by appealing to different 'aspects' and 'phases' of his phenomenological inquiry into being.

In this connection, Dreyfus' (1972) seminal critique of 'GOFAI' (Good-Old-Fashioned-Artificial-Intelligence), which makes extensive use of the 'existential analytic of Dasein' (or human being) presented in Heidegger's Being and Time (1927) in order to contest the sufficiency of disembodied, a-contextual, symbolic computation as a means by which to instantiate real yet synthetic intelligence, plays an important, perhaps even decisive, role in the lead up to the engagement between postmodern technology - more specifically, what Simon (1969) refers to as the 'sciences of the artificial' - and Heideggerian thought. It is crucial to appreciate at the very outset that Dreyfus' approach to AI critique was philosophical and not technological, being driven by a desire to draw attention to the perceived failings of an extant technology. Dreyfus' primary concern was not - and, arguably, could not be, given his lack of technical expertise - to develop alternative technological solutions to the problems of AI; this task was left to the technologists among his later followers. Connectionist approaches to cognition (Globus 1995, Clark 1997), robotic approaches to artificial life or A-Life (Wheeler 1996, Prem 1997), and the (re)conceptualisation of the information systems paradigm in terms of communication rather than computation (Winograd and Flores 1986, Coyne 1995) have all benefited from Dreyfus' engagement with Heidegger.

There are (at least) two points to note in connection with the above: First, the 'Dreyfus affair' provides a relatively recent example of the social determination of technology, the specifically philosophical character of the determination calling into question more conventional theses on technological determinism; second, perhaps what is most significant and yet often overlooked, is the fact that Dreyfus' critique of AI was only finally acknowledged and subsequently integrated into technology theory and practice because it could be so incorporated. In short, it is maintained that Dreyfus - and thereby Heidegger - was eventually taken seriously by technologists because his interpretation of Heidegger allowed the technological project to continue. While this appears to reverse the order of determination described previously, it is not this fact that is especially interesting since the reflexive nature of the relations of determination between society and technology has long been appreciated by sociologists and philosophers of technology. Rather, what is interesting, is the fact that Dreyfus' critique was ultimately regarded as both valid and important because it was (taken to be) grounded in an instrumentalist-pragmatist interpretation of Heidegger's thought, an interpretation coming out of the 'sensible' early period that preceded 'The Turn' in his philosophy when concern (allegedly) shifted from existential analysis of the meaning of Being (as intelligibility) to historical inquiry into the truth of Being (as 'concealing unconcealment'). However, as Blattner (1992), Fell (1992), and, significantly, Dreyfus (1992) himself, have shown, instrumentalist, pragmatist and/or behaviourist interpretations of Heidegger's thought are both limited and 'dangerous' because partial and hence, distorting. It is, therefore, somewhat ironic that Dreyfus, who has been charged with misappropriating Heidegger's thought, for example, with respect to the question of whether or not Heidegger is a naturalistic anti-representationalist (Christensen 1998), himself

ends up being misappropriated by practitioners of technoscience (AI, A-Life etc).

Heidegger's thought is relevant for cognitive technology, interpreted as artifactual (synthetic, man-made) means by which meaning might be extended in the interaction between humans and machines, in (at least) two ways: On the one hand, (1) the identification of Being with intelligibility or meaning, viz. Sein as Sinn (sense), (2) the grounding of Being in Dasein (being-in-the-world), and (3) the phenomenological claim that being-with (Mitsein) other Daseins is a constitutive existential structure of Dasein provide the foundations of a conceptual framework which can be used to address what Janney (1997) has identified as the 'schizophrenic' nature of computer technology, viz. its radical separation of emotion from cognition. On this basis, it might be argued that it is necessary to shift the goal of cognitive technology from constructing 'instruments of mind', that is, what Heidegger would identify as Dasein-centric equipment, to constructing the 'minds of instruments', that is, (artifactual) Daseins as such; on the other hand, Heidegger's later 'nonsensical' thought provides a basis upon which to mount a critique of such a project by (1) calling into question the relation between Being as Dasein-centric sense (meaning) and non-sense (for example, does non-sense entail meaningless-ness, that is, the absurdity of the non-human (or non-Dasein) world ?), and (2) contesting the validity of the functionalist thesis underlying the notion of 'artifactual Dasein' by distinguishing between natural and artificial (as artifactual) phenomena on the basis of 'poietic modality', that is, the way in which such phenomena come-to-be (Ali 1999).

As Schatzki (1992) has shown, Heidegger is an empirical realist: On his view, what something is 'in itself' is what it is independently of its actually being encountered by a Dasein. (Kant, by contrast, is a transcendental realist: On his view, what something is 'in itself' is what it is independently of any possible knowledge of it.) It is important to appreciate that this implies that the Being of all beings, both human and non-human, is, in principle, publicly accessible to Dasein (human being) because this fact assumes critical significance when the 'other-minds' problem, that is, the problem of determining whether or not other beings are capable of consciousness (first-personhood, ontological subjectivity, private experience), is considered. The Heideggerian solution to this problem involves recognising the following as existential facts: (1) Being-with other Daseins is a fundamental (or constitutive) structure of Dasein; (2) Dasein (as being-in-the-world) has primacy over consciousness; (3) both Dasein and consciousness are linguistically-constructed. On this basis, the other-minds problem is discharged by observing that because (1) Daseins share language and (2) there are a plurality of Daseins, hence, a plurality of consciousnesses (or minds) is possible. However, it is important to draw out the full implications of this approach to solving the other-minds problem: Heidegger is forced to conceive subjectivity in objective (or public) terms because, on his view, the subjectivity of a subject is disclosable, in principle, to and by other subjects. Since it is only Daseins that share language, only Daseins can become consciousnesses (or first-person, private subjects). Crucially, on his view, nature as it is in-itself (that is, independently of Dasein) discloses itself 'in a barren merciless' as ontologically objective and hence, 'absurd' or meaningless. Heidegger (1927) insists that this view of nature is not grounded in a value judgement but reflects an ontological determination that follows from the fact that it is Dasein alone who gives Being (intelligibility or meaning) to beings (Fell 1992).

However, this position is contestable on (at least) four grounds: (1) It is not at all clear that consciousness is a (purely) linguistic phenomenon; (2) more importantly, it does not follow from the fact that since Daseins are the only beings that share language, therefore only Daseins are capable of conscious (or at least some degree of private, subjective) experience. According to Krell (1992), life constitutes a sufficient existential condition for being a 'clearing' or 'opening', that is, a space of possible ways for things (including human beings) to be. While it might be conceded that the Being (sense or meaning) of beings disclosed by Dasein is of a significantly higher order than that disclosed by (other) beings themselves, it simply does not follow from the shareability of language peculiar to Dasein that disclosure of Being by other beings is impossible; human-centred meaning is not necessarily coextensive with meaning as such. In short, Heidegger's position appears untenably anthropocentric; (3) the view that nature is fundamentally 'vacuous' or non-experiential is an assumption which is undermined by the empirical fact that while experiential beings are known to exist, it is unclear whether any non-experiential beings have, in fact, ever been encountered (Griffin 1998); (4) Heidegger's dualism of meaningful subjects and meaningless objects gives rise to the 'hard problem' (Chalmers 1996), that is, the problem of explaining how ontological subjectivity can arise from an ontologically objective substrate. Heidegger cannot avoid this problem because his empirical realism commits him to the view that science can, in principle, causally explain how things came to be the way they are (Dreyfus 1991); clearly, this includes explaining

how the human brain - which Globus (1995) identifies as a necessary condition for Dasein - can give rise to consciousness. Emergent-materialist solutions to the 'hard problem', which view consciousness as an irreducible systemic property arising from the interaction of components, none of which possess this property in isolation or in other systemic complexes, are problematic because they disregard the principle of ontological continuity, arguably a cornerstone of scientific naturalism (Griffin 1998).

In questioning concerning the implications of Heidegger's thought for cognitive technology, it becomes necessary to 'end' the 'Dreyfusian' encounter with his thinking in order to consider the Being of nature from a 'post-Heideggerian' perspective. On Whiteheadian panexperientialism, for example, nature is held to be relationally-constituted and experiential at its most primitive ontological level. However, this does not imply that all beings are experiential in the same way (that is, ontological monism does not entail ontical monism); rather, complex beings enjoy a higher-level of experience relative to simpler beings. In addition, all complex beings belong to one of two kinds, experiential individuals or non-experiential aggregates, depending on the nature of their internal (or constitutive) relational structure.

If Whiteheadian panexperientialism is the way that nature is in-itself then the possibility of constructing a Dasein is radically undermined because artificing (construction, making) involves an ontological orientation in which 'subjects' stand in opposition to 'objects' (Heidegger 1977), thereby 'rupturing' (Ladrière 1998) the nexus of internal (subjective, constitutive) relations constituting natural beings and so as to establish external (objective, non-constitutive) relations between 'primitives' (components) in the artifactual systemic complex. To the extent that Dasein is, ontically-speaking, a natural phenomenon, its being must be internally-constituted; however, artifactuals are externally-constituted which implies that they cannot provide the necessary ontical (causal) substrate for Dasein. In short, genuine Mitsein, arguably the solution to the schizophrenia problem associated with cognitive technology, cannot be solved artifactually. On this basis, it becomes necessary to consider alternative substrates for cognitive technology other than the computer, which is the paradigmatic exemplar of artifactuality (Ali 1999).

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