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Review of *Transhumanism, Nature, and the Ends of Science* by Robert Frodeman

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Transhumanism, Nature, and the Ends of Science

Robert Frodeman

Routledge, 2019

160 pp.

Partly due to sustained and energetic promotion by transhumanist thinkers themselves (Bostrom, Kurzweil, More, Vita-More, Goertzel, Moravec, etc.), transhumanism and related topics such as human enhancement are by now widely known in academic communities that reflect on technology. For example, there is ongoing work on the ethics of biotechnology (e.g. responses to Savulescu) and there has been plenty of public discussion of Singularity scenarios and other transhumanist fantasies. This is less the case for the topics addressed by Robert Frodeman's recent book, which is located on the fascinating nexus between transhumanism, environmental thinking, and reflection on science and technology.

Perhaps the lack of attention for this area of inquiry is partly due to the enormous tension (and hence gap) between transhumanism and environmentalism. For example, in the US transhumanist political activist Zoltan Istvan is vehemently opposed to environmentalism. As Wesley J. Smith (2019) put it in his interview with Istvan in *The American Spectator* last year, 'while radical environmentalists unduly romanticize the natural world, transhumanism nihilistically scorns it'. For transhumanists like Istvan, nature is not sacred but a monster that needs to be subjected and controlled with the help of science and technology. Moreover, environmentalism is seen as the road to authoritarianism: transhumanists such as Istvan adhere to a radical libertarianism.

Environmentalists, on the other hand, see transhumanism as nothing less than evil: it seems the culmination of the idea that humans should wield unrestricted power over nature and turn humans, living beings, and the planet on which they live into artefacts of our own making. Transhumanism then equals the project of murdering Mother Nature, using enhancement technology to give it its ultimate blow. Furthermore, environmentalists tend to question the laissez-fair politics promoted by people such as Istvan: instead of enhancing the rich and powerful and continuing to support capitalism, we should change the system in order to protect people and the earth.

Frodeman's Projects and Loops

Although to some extent coming down on the side of environmentalists, Frodeman largely passes by this deadlock situation (as well as most of the transhumanism versus bioconservatism discussion and the political liberals versus conservatives debate) by asking fundamental questions about the goals of transhumanism and science and—importantly—about our culture and human nature. It offers a critique of transhumanism and current science. His main point is that transhumanism, like our technocientific culture in general, always wants more. It is a culture of excess and always wants to push limits. The alternative Frodeman proposes is attending more to the 'natural' limits of life, thus accepting the human

condition rather than wanting to change it, as transhumanists want, and promoting human flourishing.

Frodeman is not against modernity, but against a *reductio ad absurdum* of it (x) which only wants more progress. Without limits, science and technology end up as transhumanism, which believes that 'our actions have no natural boundaries' (2). However, the earth is limited and our bodies also have their natural limits. The problem is not just science, technology, or culture. It's also about what we want. Interestingly, he takes the issue to the psychological and philosophical-anthropological level: the problem is uncontrolled desire. We always want more. Ancient Greek or Buddhist philosophies are one of the sources we can use to deal with this problem.

While Frodeman also pays *some* attention to the social and political risks posed by transhumanism, his *first and main* project in this book is thus offering a thesis on what's wrong with our culture and with our goals and desires. Although environmentalism is not his main conversation partner, his view agrees with Bill McKibben and that strand of environmentalism: we have '*enough*' (29). Instead of wanting more gadgets, we should be concerned with the good life and the meaningful life. Furthermore, when it comes to philosophical resources, throughout the book he is inspired by Arendt and also remains in dialogue with ancient philosophy but also with Nietzsche, whose thinking he connects to transhumanism throughout the book until the end (132).

The book has the unusual structure of 3 chapters and two 'excursions' that comment on the practice of philosophy in relation to science, rhetoric, and policy.

Frodeman starts with commenting on transhumanism and science and the aim to surpass the human condition. I found chapter 3 particularly interesting, which comments on Aristotle's concepts of *episteme*, *techne*, and *phronesis*. Frodeman rightly criticizes his 'bright line between theoretical and practical knowledge' that makes it impossible to connect theoretical intuition and logical procedure to practical activity and *techne* (45). He suggests that *techne*, understood as the skill at making things to improve our lives, could be combined with *episteme* and could be seen as part of what it means to be wise (*sophia*), and that science and technology should be governed by wisdom.

Frodeman thus addresses a fundamental problem in the Western tradition of thinking about knowledge that is very relevant for the present discussion. Unfortunately, he does not really connect his point with other discussions about skills and tinkering in relation to wisdom, virtue, and environment, from Pirsig's book (1974) to contemporary treatments (e.g. Coeckelbergh 2015) We have to think harder about what kind of knowledge we need today, how we should relate to our environment, and what this means for technology and the sciences.

Another interesting ancient resource offered by Frodeman is Buddhism, which we find later in the book but loops back to his earlier point about desire. It seems to offer both an analysis and a cure. As the author nails it:

The urge for the technological fix expresses an attitude that's fundamentally anti-Buddhist in orientation. Buddhism sees desire as the cause of suffering, and provides skillful means for tempering our desires. Modern society has taken the opposite approach: to first stimulate and then satisfy our desires. Modernity runs on this cycle, using science and technology as the means for providing ever more powerful and entrancing repetitions of stimulation, frustration, and satisfaction—the behavior pattern of the addict (93-94).

Frodeman thus urges us to slow down, or even to stop: to break the vicious circle that traps us as addicts. He is not against science and technology as such, but he urges us to take it in moderate quantity. Otherwise the *pharmakon* may poison us. (94) (Some engagement with the work of Stiegler might be relevant here: he also uses the concept of *pharmakon* to talk about technology.)

By aiming at radically extending our lifespan, transhumanism also alters our 'temporal horizon' (117): commenting on Heidegger, Frodeman makes the interesting point that it tries to shift our temporal horizon against which we live our lives, thus radically changing humanity or even removing 'the conditions on humanity' (118). I think this suggests an interesting direction of inquiry: we should further investigate the relation between contemporary technology and temporality.

Moreover, in his excursions Frodeman further expresses his views on what philosophy should be and what philosophers should do. In line with his critical analysis of the Aristotelian view of knowledge, he stresses *practice*. Philosophers should not turn inward (57), but do 'field philosophy' (58) and go beyond academia: not because they are disciplined with all kinds of measures and forced to have 'impact' (for example to get tenure), but because this is at least one way they can contribute to society and, like the ancient philosophers, produce work that is interesting for non-specialists. This means that they can no longer work under 'ideal speech conditions' but have to use rhetoric and metaphor (64), just as Plato and Nietzsche did. Frodeman goes into the real world and talks about politics, series such as Black Mirror (83), and geology. And within the university, the humanities should embrace interdisciplinarity rather than staying in their silos.

Although in this book he offers little concrete advice *how* to change all this, these are directions that fit his overall *second* project of the book, which we can define as contributing to, or at least going in the direction of, no less than a transformation of knowledge and the sciences. What this means is not clear yet, but the book makes some good suggestions.

Finally, Frodeman images a medium-size catastrophe: 'an event that causes a shock to society sufficient to reset cultural attitudes without destroying that society' (133). He gives the examples of the plague of Athens and the Black Death. Unfortunately, and in ways that the author could not foresee, today we seem to face such a 'medium-size catastrophe': the COVID-19 (Corona virus) pandemic. Following Frodeman, we could ask: Will this 'reset' our cultural attitudes? Will it lead to a reevaluation of our values? And, faced with such

challenges, will everyone have a chance to enjoy ‘the consolations of geology’ (137) and nature, or only those who can afford to go out into the countryside and wilderness?

More Critical Discussion

It is hard not to sympathize with Frodeman’s main intuition about limits. The questions he asks are of tremendous importance and he offers interesting resources to deal with the problem. This book is a must read for anyone interested in the future of our civilization and, indeed, the future of the human and humanity. And that ‘anyone’ should include not only anyone thinking about science and technology, but also environmentalists and transhumanists, whose work could benefit from more dialogue with humanities approaches and other approaches in philosophy.

But it remains unclear what precisely Frodeman’s target is: is it really transhumanism, or is it a particular (modern?) science? Is it a particular culture? Is it particular goals and desires? Is it a particular view of the human being? Probably it’s all of these at the same time; this need not be a problem as such. Personally, I appreciate the looping style of the book: in every chapter Frodeman further deepens the discussion. This is a good way of doing philosophy. But readers who seek more clarity about his main target or expect a different kind of style (e.g. analytic philosophers from the transhumanist community or people working in science not open to humanities approaches) will likely be disappointed or ignore the book. This is a pity, especially since Frodeman is a well-known promotor of interdisciplinarity (see for example Frodeman 2019). But these barriers, also those within philosophy, are not just his problem.

His assessment of transhumanism is also a bit one-sided. The critique of the culture, ethics, and philosophical anthropology he offers can also be made while acknowledging that human beings have always transformed themselves and that technology is part of our culture and of what we are (Coeckelbergh 2013). Perhaps the Nietzschean desire to overcome ourselves, as persons and as humanity, is also part of what it is to be human. Talking about Nietzsche: in his discussions Frodeman ignores literature that makes a direction connection between transhumanism and Nietzsche (Sorgner 2009).

Furthermore, it is also not fair to accuse transhumanists of not being aware of the dangers of technology. Although I agree with Frodeman that their focus is far too limited –the danger of superintelligent machines taking over humanity, see for example Bostrom (2014) in which he has outlined existential risks related to technology—and that this is problematic, nowadays transhumanists are open to discuss this topic. Looking at their dark warnings, they rather seem to err on the side of pessimism, like, ironically, many traditional humanities people do when they defend the human and human values against the threats posed by technology. Frodeman ignores this more dystopian side of transhumanism.

In addition, while Frodeman criticizes ‘aggressive and often ill-tempered libertarianism’ (54) and mentions profit and capitalism, it remains unclear how his argument relates to critiques of the political and socio-economic context in which this discussion takes place.

Philosophers coming from a critical theory perspective may ask: is all this really a problem of our individual desires and goals, as ancient ethics suggests, or should we also look at the social-material environment that produces both our individual desires (always wanting more) *and* the transhumanism and the technologies and sciences Frodeman criticizes? Does his focus on psychology obscure *that* kind of discussion?

This critical discussion does not mean that he “gets it wrong”. If there is anything “wrong”, perhaps it is with our goals and our ways of thinking about technology, knowledge, nature, and ourselves (the human). For those who share this intuition, Frodeman’s book does not offer an answer that can quickly be consumed and digested, but that rather succeeds in making us reflect on *what* exactly might be wrong and in which direction we can look for an answer. This is a significant achievement.

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