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Where Is the Human? Beyond the Enhancement Debate

Yoni Van Den Eede[1]

Reviewed Books

Tamar Sharon. 2014. *Human Nature in an Age of Biotechnology: The Case for Mediated Posthumanism.* Dordrecht, the Netherlands: Springer.

Mark Coeckelbergh. 2013. *Human Being @ Risk: Enhancement, Technology, and the Evaluation of Vulnerability Transformations.* Dordrecht, the Netherlands: Springer.

Abstract

Diverging definitions of what the human being is or should be polarize the ongoing debate about human enhancement between so-called bioconservatives and transhumanists. This essay seeks to review some of the central issues at stake in this discussion and in a wider sense within current, mostly philosophically oriented approaches that endeavor to understand "human being" or "human nature" in relation to technology. It does so specifically on the basis of a discussion of two recent works that thoroughly grapple with these topics.

[1]Postdoctoral Fellow of the Research Foundation—Flanders (FWO), iMinds-SMIT, Vrije Universiteit Brussel, Brussels, Belgium

Corresponding Author:
Yoni Van Den Eede, Postdoctoral Fellow of the Research Foundation—Flanders (FWO), iMinds-SMIT, Vrije Universiteit Brussel, Pleinlaan 2, 1050 Brussels, Belgium.
Email: yvdeede@vub.ac.be

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Introduction

What is a human being? The legend goes that Greek cynic philosopher Diogenes of Sinope, on having heard Plato define man as a "two-footed, featherless animal," plucked a chicken, brought it to the Academy, and showed it to the assembly with the words: "This is Plato's man." The incident reportedly made Plato add to his definition "with broad flat nails" (Laërtius 1853, 231).

Age-old as the question "What is the human being?" is, it continues to busy philosophical minds. In our "technologically textured" (Ihde 1990, 1) world, it is often asked in ways that invoke the role technology plays or should play in our lives today. What is human nature in relation to technology? It's a compelling question, especially in the fiercely polarized public debate on human enhancement. Apart from that debate, scholars in the human and social sciences are grappling with the issue. Most importantly, the matter is now felt in daily life as bio, nano, and information technologies march into our lives. On one hand, diverse, conflicting theoretical positions have proliferated in recent decades. On the other hand, technological developments keep complicating the process of definition building. Both phenomena make it ever more difficult to see the forest for the trees. Can we repeat the Platonic exercise of finding one exact definition?

What follows is an overview of the central issues at stake on the basis of two recent works that systematize and clarify them. Both Tamar Sharon's *Human Nature in an Age of Biotechnology* and Mark Coeckelbergh's *Human Being @ Risk* endeavor to enter the human enhancement debate sideways. That way they succeed in transcending or "encapsulating" it, by working out consistent conceptual frameworks in which humans and technology are mutually defined. It will become apparent that in fact any attempt to "define exactly" once and for all is a vain effort from the start.

The essay consists of a brief and selective review of the field, a summary of the two books, and a more thorough discussion of them in relation to the topic of "defining the human being."

Searching for the Human Being amid Technology

Theorists from different backgrounds are searching for the human being amid technological and societal evolutions that subvert old definitional

models. The search takes multiple forms: critiques and reformulations of old humanistic concepts and values, a heartfelt defense of them, or an ambiguous mixture of both. But in all cases, the notion of the human being emerges as something to be looked for, or after.

By contrast, in "pre-postmodern" thought, the human was already found, so to speak, while technology needed clarification. In effect, technology was often defined on the basis of some fairly straightforward, mostly mechanistic model of the generic human being. Kapp (1877), for one, defines technologies as "organ projections." Technology serves here to facilitate human actions and purposes. Ontologically, human enterprise precedes technology, which appears as means to an end. Nowadays, such a position is known as instrumentalism.

In the twentieth century, a different account of technology arose, accompanied by perspectives that questioned the legacy of the Enlightenment, such as phenomenology and structuralism. These began to let the modern rational subject disintegrate. All the while, technology is no longer seen as neutral, merely enhancing human purposes. It's framed as a kind of force, domain, or system with far-reaching effects, first and foremost on "our" being. The works of Ellul (1964) and Heidegger (1977) are often cited as prime examples of this substantivist view. These accounts ontologize technology: promote it, in a manner of speaking, to a level heretofore reserved for human beings. Thus, the threat hailing from technology becomes incomparably bigger. The human being, no longer taken for granted, is forced into a defensive position, refashioned as something that needs special protection and nurturing.

Since the end of the twentieth century, another shift has been underway. Now the contours of technologies have begun to blur as well, and the boundaries between the human being and technology have become indistinct and elusive. The philosophy of technology that emerged throughout the 1980s and 1990s aims to find a middle road between instrumentalist and substantivist approaches, by seeing humans and technologies as intrinsically interrelated. A different substream within the philosophy of technology can be seen to materialize depending on which aspect of the human–technology relation is focused upon: experience and materiality (e.g., Ihde 1979, 1990; Verbeek 2005), politics (e.g., Winner 1986; Feenberg 1999, 2002), information (e.g., Floridi 2011), morality and ethics (e.g., Verbeek 2011; Brey 2012), or design and engineering (Mitcham 1994; Michelfelder, McCarthy, and Goldberg 2013). These strands problematize the human subject *and* technological object to such degree that it becomes reasonable and necessary to understand them together in a single framework.

Within other fields, some of which the philosophy of technology shares common ground with, a similar tactic has matured. Apart from their different premises, methodologies, and aims, these approaches have in common that they all tackle and criticize in their way the anthropocentrism implicit in instrumentalist as well as substantivist analyses. To name just a few, there is the cyborg discourse and its famous emergence with the publication of Haraway's (1991) "Cyborg Manifesto." Sociology of science postulates "symmetry" between humans and nonhumans (Latour 1987, 1988, 1993) or sees them as "mangled" together in a "dance of agency" (Pickering 1995). Cognitive science proposes the notions of embodied and distributed cognition as alternatives to the Cartesian model of mind (e.g., Varela, Thompson, and Rosch 1991; Clark 1997). Object-oriented ontology puts forward the most radical critique of anthropocentrism: humans in this view are, at least ontologically, as much "things" as any other object (e.g., Harman 2002; Bogost 2012; Morton 2010). And media ecology, coming out of a McLuhanian media-theoretical tradition, frames humans and media technologies as interrelated in a web of mutual influences (e.g., Strate 2011; Anton 2011). But even in fields that on the surface appear somewhat more "practical," related issues are at stake. Here we may think of the work of Hayles (1999) in literary studies on the "posthuman" and cybernetics. Or of Turkle's (2005, 1995) "second self" theory within psychology and anthropology, that understands human subjectivity as co-shaped by information technologies. Crudely put, in all these disciplines, it is found that "we" humans are not the autonomous, transcendental, preferably male subjects that we were once made out to be. Instead, we must learn to see ourselves as hybrid blends of flesh, mind, materials, machines, information, values, institutions, relations, and processes.

That, however, does not mean that the search for the human being has ceased altogether. The ongoing enhancement debate, crisscrossing many of the aforementioned perspectives, demonstrates this. The discussion concerns exactly the extent to which humans *should* merge with technology. It is about which degree of enhancement must precisely be desired. Should technology "just" remedy ailments such as disease, as it has been doing for some time? Or should we try to push it further and expect from it more radical interference with human life, that is, the elimination of human "flaws," including even death? Proponents of such far-reaching human enhancement are mostly termed transhumanists (a.o., Bostrom 2004; Moravec 1990; Kurzweil 2005). These authors forecast an imminent future, hastened by current bio, info, and nanotechnological developments, in which the human being as we know it will have given way to the posthuman through a fusion

with technology. Over and against this position, the so-called bioconservatives, including such well-known and established figures as Fukuyama (2002) and Sandel (2007), argue for the conservation and protection of some human (or humanistic) kernel. According to these opponents of ''deep'' human enhancement, posthumanity is not at all something to strive for: there remains some intrinsic value within the human being *outside of* the realm of technology, to cherish and safeguard.

These two views are bound in all their disagreement by a shared ontological premise that goes against the grain of most of the aforesaid fields' findings. Whereas these fields have declared and mapped the fundamentally hybrid stature of the human being, many transhumanists and bioconservatives still perceive human being and technological being as entities that can in any way be distinguished from each other—be they subsequently kept apart or fused together. Strangely enough, while this discussion of transhumanists versus bioconservatives figures relatively prominently in the public debate, the ''hybrid'' discourses are much less known.

Mediated Posthumanism and Existential Vulnerability

Tamar Sharon's *Human Nature in an Age of Biotechnology* and Mark Coeckelbergh's *Human Being @ Risk* engage extensively with most of the traditions described previously. The former does so in the most systematic way, the latter's style is more essayistic and provocative.

Sharon's initial research question concerns the effects emerging biotechnologies such as embryo selection, preimplantation diagnostics, cloning techniques, and neural implants have on our understanding of human nature. In view of debating that question, she sets out to bring order in the multiplicity of perspectives referred to in the last section, employing the notion of posthuman as central framing tool. Posthuman is used here not so much as an ideological but as a generic technical term. It denotes every discourse that grapples with the definition of human being now that it's becoming clear that (bio)technology impinges on and problematizes exactly that being. From there Sharon goes on to outline four types of posthumanist discourses: dystopic, liberal, radical, and methodological.

Dystopic posthumanism can largely be equated with bioconservatism. Liberal posthumanism corresponds to transhumanism. The other two types have in common that they offer alternatives to bioconservatism as well as transhumanism. Radical posthumanism gathers theorists from feminist studies, cultural theory, cyborgology, and science and technology studies (STS); for instance Haraway and Hayles. It is dubbed ''radical'' because

it stands for a "radical rethinking of human ontology in light of emerging biotechnologies" (p. 6). Approaches within this domain often continue the antihumanist critique developed by poststructuralism and postmodern theory. A dominant idea here is that the fact of humans and technology being fundamentally interwoven is actually liberating, for it enables new forms of political empowerment and resistance against modern-humanist disciplinary matrices. Haraway, for example, sees biotechnology as undermining the unity of the (human and nonhuman) organism, thus opening up vistas to more inclusive forms of politics. Methodological posthumanism aggregates scholars within STS (Latour, Pickering) and the philosophy of technology (Ihde, Verbeek). These attempt to develop "better conceptual tools for studying science and technology in society rather than developing a new posthuman ontology" (p. 6), hence "methodological." Here the emphasis lies not so much on demonstrating the political consequences of radically new ontologies. The concerned approaches have the advantage of being better able to investigate how specific technologies in specific contexts "mediate" our behavior, experience, cognition, and identity. One may think of the case studies developed by the likes of Bruno Latour, Don Ihde, and Peter-Paul Verbeek of image and sound technologies, ultrasound, transportation systems, and so on.

By analyzing these four types in relation to each other, Sharon succeeds in elucidating their strengths and weaknesses. What follows are among others a skilled discussion of the human enhancement debate (more on this follows), an interesting overview of recent trends in biology that converge with developments within radical posthumanism, and a philosophical–Deleuzian–Guattarian analysis of assisted reproductive technologies. Almost in passing, Sharon makes the important and seldom heard observation that humanism is not an unambiguous concept (p. 42). Already in the heydays of modern humanism, various interpretations of it were present. Yet it is with only one "clichéd" type that the four discourses engage: the form of humanism that sees the human being as a freestanding, rational, integral being, detached from "the rest." It is this version that dystopic posthumanism fears to lose, liberal posthumanism seeks to extend and enhance, and radical as well as methodological posthumanism try to overcome by advancing altogether different premises. Only radical and methodological posthumanism, Sharon argues, fully grasp the extent to which human being is ontologically cyborgian or relational. But they have their flaws too. Methodological posthumanism, in fact due to its mainly centering on technological mediation and relational networks, cannot sufficiently account for human subjectivity: "having in a sense breathed life into objects, we are left

guessing what happens to the subjects who have had to relinquish their humanist privileges'' (p. 148). Radical posthumanism does account for subjectivity: it sees the modern subject dissolve into a fragmented, mobile, posthuman subject and depicts and celebrates the latter as the preeminent site for political resistance. But since radical posthumanism still reasons from a modern-imperial idea of power structures and disciplinary mechanisms, this potential for resistance loses its clout in a post-disciplinary context, in which those power structures have also ''hybridized'' (simplistically put: the powers that be have also discovered how to employ, for example, digital media to their advantage). Sharon proposes ''mediated posthumanism'' as an overarching framework that can remediate these ailments, by compounding radical and methodological posthumanism and superposing this blend with a couple of other concepts, among others the later Foucault's account of governance and technologies of the self.

As commendable as this synthesizing maneuver is—though somewhat in line with Verbeek's (2011) work on ''moralizing technology''—the true innovation of the book lies in (1) its powerful, encompassing framing of the posthumanism debate as such and (2) its impressive application of that overarching theoretical framework to cases such as assisted reproductive technologies and genetic risk and responsibility. Sharon's fluent command of biological theory and philosophical history alike makes those case studies and, by extension, the book in whole a fascinating and relevant read for anyone in the concerned fields.

Mark Coeckelbergh in *Human Being @ Risk* takes a different inroad into largely the same issues. Like Sharon, he develops an ontological analysis, critically assessing the human enhancement debate in the process, but on the basis of other starting points: the notions of risk and vulnerability. Those two terms refer in a sense to one and the same phenomenon that fundamentally characterizes the human condition. Risk connotes the ''objective'' side of human frailty: the things that may happen to us, the ''what.'' Vulnerability stands for the ''subjective'' side: the potential victim of risk, the ''who.'' Humans deploy technologies to compensate for both. However, understanding the human condition exclusively in terms of either one of the two leads to misunderstandings, Coeckelbergh argues. A purely risk-oriented view tends to result in quantitative measurements, blind to subjective experience. But focusing merely on the subjective side doesn't cut it either. This is why Coeckelbergh proposes to outline ''vulnerability'' as a new category incorporating and integrating the two sides.

In his approach, human being appears essentially fraught with vulnerability: vulnerability defines the human being. ''[B]eing-in-the-world is

always a being-at-risk'' (p. 9). This does not change when we enhance ourselves, be it just in a ''limited'' way or to the far-reaching extent that transhumanists envision. New enhancements will always come up against new vulnerabilities since, first, vulnerability is characteristic of our ontological setup, and second, we are continuously transforming vulnerabilities by cultural and technological activity. Technologies may eradicate certain vulnerabilities, but in the process very soon others emerge.

One of the vivid illustrations that Coeckelbergh provides concerns health care. The use of information and communication technologies in medical contexts makes for a reduction in all kinds of vulnerability; that much is clear. The fact of being connected through information and communications technology (ICT) in the case of, for instance, patients in critical conditions or elderly people enables quicker and more efficient interventions. But this is just one side of the story. Gradually, a range of other effects, that is, new vulnerabilities, crystallize. Coeckelbergh points among others to a newly formed dependence on exactly those vulnerability-reducing ICT, calling it ''cyborg vulnerability'' (p. 143). Also, the use of ICT in health care may lead to the further objectification of the human body and, correspondingly, to hospitals being organized as factory assembly lines. Moreover, an increased technological connectedness may perversely bring about social isolation, as medical practitioners rely more on technology than on face-to-face contact. Technologies do not do away with vulnerability; they merely transform it.

On the basis of these observations, Coeckelbergh goes on to outline an ethical program, a ''normative anthropology of vulnerability.'' He cautions however that notwithstanding the concept's fundamentality, one shouldn't try to identify vulnerability as the foundation of ethics. Ethics should not be grounded in some ethereal concept of vulnerability. On the contrary, one should start descriptively: noticing and investigating the different ways in which vulnerabilities take shape. Only subsequently one can become normative again and begin to weigh one kind of vulnerability against the other. Which forms of vulnerability do we want? To that extent, ethics is all about the ''performing'' of vulnerability. After all, this understanding of vulnerability as ''existential vulnerability'' roots in and at the same time buttresses a relational ontology. Coeckelbergh uses the term ''ecological'' a couple of times to point to the interrelational web this performance takes place in. In the end, this existential, ethical, political, and even aesthetic task comes down to an art of living. That art consists in responsibly and imaginatively coping with our individual and societal vulnerabilities. Literature and the arts can help in this project—as Coeckelbergh illustrates grippingly by way

of a thought-provoking reading of Michel Houellebecq's *La possibilité d'une île*.

Some readers may find Coeckelbergh's argument at times suffering from a slightly bombastic tone. Nevertheless, like Sharon, Coeckelbergh elegantly succeeds in shedding new light not just on the human enhancement debate, by zooming in on it from a new angle, but also on our human condition as such. His analysis of the enhancement debate is one of the most comprehensive and fine-grained in the current literature. The careful, many-sided elaboration of the vulnerability notion adds to that a lenient framework that will be of help to many in the fields of STS and the philosophy of technology.

"Finding" the Human Being . . . Gone: The Relational–ecological Paradigm

But has the human being been found? For Sharon and Coeckelbergh, it is never some entity or characteristic that can be drawn with just a few pencil strokes. The notion of "human nature" has become vague and meaningless. Human being as such is always "under construction," however not in the way for instance transhumanists assume.

It serves here to review Sharon's and Coeckelbergh's treatment of the human enhancement debate more thoroughly. Sharon shows how both dystopic posthumanism and liberal posthumanism use the idea of human nature to defend their positions, but each run up against ambiguities. Liberal posthumanists see human nature, much like cyborg-hybrid discourse, as already intertwined with technology and thus essentially malleable. It's "in our nature" to transform ourselves. Nevertheless, only the body is understood by them as having a cyborg nature: the self or subject is still looked at in modern, humanist terms, that is, as autonomous, rational being, detached from the world. Moreover, while they employ the notion of human nature as foundation for their arguments, they reject its use in arguments against enhancement developed by dystopic posthumanists (p. 75). The latter run into trouble when they grant human nature moral authority, seeing it as valuable good that needs protection from too much technological intervention. In the "too much" lies in fact the main problem. Because dystopic posthumanists denounce "deep" enhancement—for example, certain forms of embryo selection—while accepting "limited" enhancement—for example, to cure diseases—they face the difficulty of having to precisely situate the dividing line between the two.

Coeckelbergh's analysis proceeds along similar lines but has a subtly different outcome. He also uncovers inconsistencies in both camps'

discourses. Opponents of human enhancement rely on a philosophical–anthropological tradition that in itself has always applauded the striving for improvement of the human condition, for "enhancement" of the human being. The tradition has in that sense always been "transhumanist," and bioconservatives fail to convincingly demonstrate how it differs qualitatively from contemporary transhumanism. The latter, however, in aspiring to make humans nothing less than invulnerable, misunderstands and underestimates the basic characteristic of human being: vulnerability. Coeckelbergh illustrates this by discussing what he calls second-order vulnerability: the awareness of being vulnerable. That awareness in itself makes humans vulnerable in an existential sense. It constitutes a "meta" form of vulnerability: "hypervulnerability." This hypervulnerability is part and parcel of human consciousness. Being conscious is always already being aware of one's vulnerability, if only in the anticipation of one's death. Coeckelbergh argues that if transhumanists seek to root out vulnerability entirely, they will need to eradicate this form too, and that would mean the abandonment of consciousness as such. Transhumanists however clearly do not advocate the abolishment of consciousness; on the contrary, they plead for "purer" embodiments of it. Conclusion: even posthumans in the transhumanist sense, if they'll ever appear, will still be vulnerable.

Both authors' analyses are important and timely in as far as they do not choose sides but attempt to enter the human enhancement debate sideways. Dystopic as well as liberal posthumanists, in Sharon's vocabulary, make pertinent points. Sharon points out that of her four types, only dystopic posthumanism thoroughly addresses ethical issues. Liberal posthumanists, on the other hand, as Coeckelbergh shows, at least retain logical consistency, having fully appropriated the idea that there is "no a priori reason why we should not change human being" (p. 118). But on a deeper ontological level, Sharon and Coeckelbergh discover a "humanism" beneath the surface of both transhumanism and bioconservatism, and it is this remainder of the modern-humanist legacy that needs to be exposed and replaced by an alternative ontological framework.

That framework is, as said, relational or ecological. Above and beyond the merit of Sharon's and Coeckelbergh's analyses as such, it may actually be their rhetorical strategy that offers the crucial takeaway insight. This concerns the manner in which they attempt to clarify the enhancement debate by changing its terms and thereby surpassing or transcending and in that way "encapsulating" it. By describing how human being structurally flows over into domains formerly thought to be independent from it, they foster a breakthrough in the debate. When studied from a relational–ecological–holistic

angle, the discussion takes on a whole new appearance. As the terms of the debate have been modified, a beginning can be made with assessing the countless changes that technologies of rich variety bring about day in day out to our so-called human nature, our principally dispersed being.

This doesn't mean that there do not remain quandaries, many of which Sharon and Coeckelbergh draw attention to. Even if one posits a symmetry between humans and nonhumans as some radical and methodological posthumanists do, Sharon remarks, disagreement persists on how much symmetry precisely that should be (p. 147). Even if our human being is built on shifting sands, decisions still need to be made about how this edifice should evolve architecturally, so to speak. If this would be an easy puzzle, the enhancement debate would have been settled long ago. No matter how dispersed we are, there still seems to remain a "we," a human existential–experiential condition to guard and perhaps cherish. According to Coeckelbergh, "we should explore as far as we can, with science and imagination" the consequences of all interventions that we envision in the ecology of vulnerability (p. 117).

Here remains some incongruity that is only partly solved by either Sharon or Coeckelbergh. True enough, it is solved to the extent that it's reframed on a different plane. The political and existential negotiations about the location of the "borderline" are the sites upon which human being is constituted. Instead of starting with an idea of human nature and on that basis developing a plea "pro" or "contra," as liberal and dystopic posthumanists do, Sharon and Coeckelbergh turn the discussion upside down. They ground their argument in a concept of technologically mediated being-in-the-world, that in its everyday guise takes the form of the aforementioned negotiations. However, within that context of negotiation, the specific location of said borderline is *still* up for grabs and for discussion.

This at last brings us back to Diogenes. The kind of "definition making" activity upon which he heaped scorn is also the kind Sharon and Coeckelbergh dethrone, for it proceeds in a topsy-turvy way. As much is confirmed in this quote from one of Coeckelbergh's previous books, that goes into the tale:

> What Diogenes teaches us here is not so much that 'broad flat nails' or 'bipedal' and 'featherless' are inessential properties and that instead we should look for other, essential properties. Rather, he shows that it makes little sense [. . .] to define an entity in such an abstract way; what a human or a cock is, is something that becomes clear in real-life contexts. (Coeckelbergh 2012, 70)

In closing, however: the strategy, notwithstanding its commendableness, harbors its own difficulties. By outsourcing the definition building work

to us all, the tension between the two poles of the enhancement debate can be mitigated. "We" define. But perhaps in this light, a third position should soon be mapped out that guides most of our everyday doings and that could best be described as an unawareness about exactly these issues. Given that human life is impregnated with technology and that the effects and impact of technological mediation are often hard to discern *because of* this interrelation, the aforesaid negotiations mostly take place outside of conscious debate. Often we act through or with a technology before we can assess how that technology affects us. So how would this ongoing, relational definition building work acquire the cautious character it should have? We need to think about how we can truly infuse the public debate with the insights from among others "mediated posthumanism" and "normative anthropology of vulnerability," to help remedy the persistent obviousness and unconsciousness that we nurture in relation to "relation."

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Author Biography

Yoni Van Den Eede is a Postdoctoral Fellow of the Research Foundation—Flanders (FWO) affiliated with iMinds-SMIT - Studies on Media, Information & Telecommunication - and with the Centre for Ethics and Humanism, both at the Vrije Universiteit Brussel (Free University of Brussels). He conducts research into the philosophy of technology, media theory, and media ecology, with an emphasis on phenomenological, cultural, and existential themes. He is the author of *Amor Technologiae: Marshall McLuhan as Philosopher of Technology* (Brussels: VUB-PRESS, 2012).