


REVIEW ARTICLE

What Does It Mean to Be Human Today?

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Abstract

With the progress of artificial intelligence, the digitalization of the lifeworld, and the reduction of the mind to neuronal processes, the human being appears more and more as a product of data and algorithms. Thus, we conceive ourselves “in the image of our machines,” and conversely, we elevate our machines and our brains to new subjects. At the same time, demands for an enhancement of human nature culminate in transhumanist visions of taking human evolution to a new stage. Against this self-reification of the human being, the present book defends a humanism of embodiment: our corporeality, vitality, and embodied freedom are the foundations of a self-determined existence, which uses the new technologies only as means instead of submitting to them. The book offers an array of interventions directed against a reductionist naturalism in various areas of science and society. As an alternative, it offers an embodied and enactive account of the human person: we are neither pure minds nor brains, but primarily embodied, living beings in relation with others. This general concept is applied to issues such as artificial intelligence (AI), transhumanism and enhancement, virtual reality, neuroscience, embodied freedom, psychiatry, and finally to the accelerating dynamics of current society which lead to an increasing disembodiment of our everyday life. The book thus applies cutting-edge concepts of embodiment and enactivism to current scientific, technological, and cultural tendencies that will crucially influence our society’s development in the twenty-first century.

Keywords: healthcare ethics; medical humanities; phenomenology; philosophical anthropology; philosophy and psychiatry

When I began to read Professor Thomas Fuchs’ book *In Defense of the Human Being. Foundational Questions of an Embodied Anthropology*¹, I was conducting research on the Bayesian brain model in relation to placebo effects in clinical treatment contexts. While I still pursue scientific inquiries into the human brain and its role for human behavior or reaction, Professor Fuchs’ book has caused me to reexamine the orthodox functionalist assumption that the brain is the locus of human cognition, perception, and personhood. The gist of Professor Fuchs’ view is that the living human body needs to be reacknowledged in its indispensable constitutive role for cognition and, more broadly, for being human. The result is a daring and ambitious work that argues for an understanding of cognition and being human as necessarily embodied.

Following the praise and scholarly recognition the book has garnered since its initial publication in Germany in 2020², it has been translated into English in 2021. Professor Fuchs’ remarkable work is now accessible to an international audience and the Anglo-American scientific community. While a plethora of rigorous analytic approaches to ongoing controversies in medicine and healthcare ethics undeniably exist, scholars coming from an analytic background in philosophy begin to wonder if an alternative approach to underlying issues could be found in comparably new and uncharted territory, such as phenomenology and philosophical anthropology. Could their perspectives get to the bottom of the tension between clinical versus research medicine or the conceptual versus the pragmatic

methodological approach to healthcare issues? Professor Fuchs, who holds the Karl Jaspers Professorship for Philosophical Foundations of Psychiatry and heads of various clinical research sections at Heidelberg University's Psychiatric Hospital, provides readers with both a challenge and a unique chance to explore his unorthodox views on fundamental debates in the philosophy of medicine. *In Defense of the Human Being* epitomizes the marriage of the conceptual with the clinical by drawing on the author's comprehensive knowledge in clinical and research medicine along with his expertise in phenomenology.

Professor Fuchs begins his book by quoting Karl Jaspers: "The image of the human being that we hold to be true becomes itself a factor in our lives. It determines the ways in which we deal with ourselves and with other people, it determines our attitude in life and our choice of tasks."³ To borrow Hannah Arendt's "banality of evil," one could understand Professor Fuchs as warning us against the potential "evil of ignorance." It is a sort of ignorance that manifests itself in a dangerous neglect of our duty to take responsibility that concerns not only our actions but also our critical thinking, self-reflection, and attitude toward current technological and transhuman developments. The core of his critique seems to consist in the way we guide, or rather cede, our self-understanding to a form of self-reification enabled in the face of digitalization and the insouciant elevation of neuroscience. Professor Fuchs warns how the drift of our humanistic image toward the idea of man as a machine-like being, a product of data processed in the brain as its "center," is already happening. And, conversely, he is confronting us with what is at stake if we do not step back and scrutinize how current developments in the sciences and in our lives impact our self-understanding and social interactions.

However, to understand what precisely could be at stake, we first need to question what it means to be human—and how this self-understanding could clash with modernity. *In Defense of the Human Being* is meant to delineate a response to the questioning or threat of the *humanistic image of man*. Most importantly, for Professor Fuchs, such a humanistic notion is fundamentally tied to the living human body. The opening chapter "A Humanism of Embodiment" introduces his main idea of a human person "as a physical or embodied being, as a free, self-determining being, and ultimately as an essentially social being connected with others."⁴ This embodied notion of humanism forms the backbone of his views on an impressive range of topics from the mind/body problem to the problem of consciousness, personhood, and reality.

The book consists of 10 chapters divided into three parts, A–C, according to the broader areas of examination and for the reader's convenience. In Parts A (*Artificial Intelligence, Transhumanism, Virtuality*) and B (*Brain, Person, and Reality*), Professor Fuchs warns his audience of a dangerous collective tendency that blurs or erases the boundaries between artificial versus human intelligence or interpersonal reality versus virtuality. After briefly referring to the well-known Turing test and its history, for instance, Professor Fuchs argues against defining thinking "in purely behavioristic terms, namely as the output of a computational system, be it the brain or the computer."⁵ Such a view would imply that whatever acts intelligently *is* intelligent. Professor Fuchs aims to illustrate our inclination to simulate what is real and to project our own desires and emotions onto a digitalized simulation so that we ultimately forfeit the "as-if" distinction that separates reality from virtuality. For Professor Fuchs, the explanation for the fascination with AI research "lies in the Promethean motif of the godlike creativity; but it may ultimately be found in unconscious desire to overcome death...by animating a dead body."⁶

Professor Fuchs insists that it is crucial to turn to what constitutes us as human beings, particularly in times of omnipresent seductions to escape our embodied reality by means of virtuality. Supported by explications of recent innovations in applied science, Professor Fuchs identifies a litany of potential pitfalls opened up by uncritical acceptance of technological disembodiment. Still, he does an excellent job in addressing the clear limitations of his own views. To give an example, after Professor Fuchs states that "[j]ust as the occurrence of optical illusions does not prove our visual perception as such to be an illusion, phantom limbs...do not allow the conclusion...that our bodily experience is generally virtual,"⁷ he likewise acknowledges that, in exceptional cases, "the discrepancy between the objective-bodily and the subjective-bodily space can...assume considerable proportions."⁸ The boundaries of the sensed body "are normally blurred and fluid" and may not correspond exactly to the physical body.⁹ Professor Fuchs' view on our necessarily embodied experience (which he refers to as "Life World" instead of "Brain World") is admittedly not flawless or generalizable without any limitations. Here, we arrive at central

questions belonging to the territory of the philosophy of mind and the mind/body problem that seem to pervade many discussions in the book. A virtue of the book is that it leaves the reader readied to challenge the exact nature of the boarders.

Professor Fuchs lays out his central arguments in Parts A and B for several of the key themes. They include:

- 1) *Corporeality* is not the same as having a body, but it relies upon the lived, embodied, and vital human being; what we refer to as our mind is essentially dependent on our corporeality.
- 2) *Perception* is constant senso-motoric interaction of ourselves as embodied human beings with our environment; the brain in and of itself serves an important role, but it does not exhaustively constitute what we refer to as mind, cognition, or perception.
- 3) The implicit *intersubjectivity* of perception and communication, which is dependent on contextual or cultural components, allows us to discuss and refer to phenomena we experience based on a shared common ground of conceptual understanding.
- 4) The idea of any *reality* or *objectivity* rests upon the requirement of such an intersubjectivity; reality is established only by means of intersubjectivity and the possibility to exchange about phenomena, objects, and concepts.
- 5) *The brain* is not a control center but an *organ of resonance and relations*¹⁰, an organ of the psyche as embodied and interactive life process.¹¹
- 6) *Intelligence*, from Latin “*intellegere*,” means to see, understand, and comprehend;¹² intelligence thus requires lived consciousness or reflexivity and, furthermore, experience. Consequently, the term *artificial intelligence* is as self-contradictory as the term *artificial life*.¹³
- 7) *Personhood* requires *consciousness*, which is constituted by experience and our interaction with the world and others. However, the ability to comprehend and be self-conscious does not necessarily require explicit learning, as most of our knowledge results from implicit, embodied interaction with the world and preconceptual bodily experience.

Aside from providing the reader with undeniably valuable insight on various topics, the book does an excellent job in provoking vivacious ideas and challenging the reader to engage with fundamental philosophical problems. At times, for instance, Professor Fuchs seems to venture dangerously close to collapsing the is-ought distinction; that is, finding values in the way things are. To give one example from his discussion of transhumanism, he writes, “[t]he fact that we are all damaged, vulnerable and finite in one way or another actually makes us human,” subsequently concluding that, while human imperfection might not be the best thing that could happen to us, it is certainly not the worst thing either.¹⁴ This concern of conflating is with ought runs through much of *In Defense of the Human Being*, and Professor Fuchs seems to be aware of it: “[s]uch an attempt [to justify human nature by its having developed this way] would be subject to the well-known ‘naturalistic fallacy,’ i.e., to infer from *being* like this that it *should* be like this.”¹⁵

How can we argue for a humanistic understanding of man as laid out by Professor Fuchs, emphasizing and preserving the natural *conditio humana*, without collapsing the is-ought distinction? Personally, I wondered if the humanistic image of man would not likewise imply the natural ability to progress and develop, based on human reasoning and the fact that we all are rational beings *sui generis*. In this respect, technological advancements are but another “natural” artifact. If the mere fact that an artifact is man-made automatically renders it normatively suspected, then we ought to eschew reading glasses. On the other hand, if some artifacts are unproblematic, then we need to spell out exactly why some man-made changes are acceptable and some not. The proverbial devil is very much in the details.

One does wonder whether technological enhancements differ in kind from other interventions that can provide positional benefits (e.g., access to better healthcare). In other words, how different are transhuman enhancements compared to ethically legitimate new treatment options when one slices through their ontological and metaphysical basis? Suppose by ingesting a capsule filled with nanobots, one can halt the deterioration of eyesight that we typically experience with senescence. Would this be an enhancement or a treatment for a (near) universal ailment? Suppose the nanobots can also alter our

germline cells so that our children will never have to struggle with deteriorating eyesight. How different is it from prenatal vaccination, or the standard treatment of naturally occurring Rhesus incompatibility during pregnancy, which includes a series of immunoglobulin shots to protect the unborn child from developing serious anemia? The line between (medical) treatment (e.g., for cognitive impairment) and optimization or enhancement is notoriously difficult to draw. Assuming that the line exists, how do we justify treatments and not enhancements without collapsing the is-ought distinction?

The need to provide a definition of “natural” that captures our complex normative attitudes might be a general problem arising from the philosophical background theories that Professor Fuchs’ arguments rest upon. It might even be an unavoidable downside of an otherwise rigorous and impressive warning against the threat of the humanistic image of man. However, the valuable contribution of Professor Fuchs’ arguments might be the demonstration of the moral significance of drawing a line, wherever it might be.

Another important issue that Professor Fuchs emphasizes throughout his book is the possibility of an increase in social (distributive) injustice as a result of limited access to technological innovations. Assuming that technological enhancements can be beneficial to the recipient, they can certainly exacerbate preexisting inequalities and raise fundamental questions about how they ought to be distributed. Professor Fuchs is correct that it is imperative that we solve these distributive justice issues rather than let them resolve by the forces of the marketplace. However, there are certain scenarios which could challenge his argument that permanent technological enhancements (which he differentiates from momentary ones), available to certain individuals only, inevitably lead to further social injustice. Consider a permanent enhancement for some individuals who score significantly below the statistical norm on a cognitive performance test but are not mentally impaired according to clinical definitions. Should they be denied access to the intervention because we have not figured out how to make it available to all? One can also consider these controversies from a Rawlsian point of view. Rawls claims that, although natural talents are distributed unevenly and they can provide significant positional benefits, these inequalities ought to be tolerated under certain conditions. One argument for this claim is that the high social costs of leveling up one individual (if it is possible at all) would not be in the interest of the least well-off according to basic principles of social justice. If enhancements can be done easily without leading to the disadvantage of others, however, enhancing those who have lost out on the natural lottery would seem to be obligatory according to the Rawlsian view.

In which way can Professor Fuchs’ critique of our changing image of humankind provide valuable insights for healthcare professionals, philosophers, and other scientists? What are the pragmatic or conceptual implications for clinicians? In Part C: *Psychiatry and Society*, he offers some answers to these questions. Here, Professor Fuchs refers to an aphorism of the British psychiatrist Sir Martin Roth, who eloquently describes the bridging role of psychiatry as “the most humane of the sciences and the most scientific of the humanities.”¹⁶ Professor Fuchs suggests we understand psychiatry as “*comprehensive relational medicine: as the science and practice of biological, psychological and social relationships and their disorders.*”¹⁷ The components of such an integrative concept, namely environment, organism, and brain as a dynamic unity, reside on three levels: the *macro-level* comprises psychosocial processes or the interaction of persons, the *meso-level* the interactions between environment, organism, and brain, and the *micro-level* the neuronal and molecular processes taking place within the brain as an organ.¹⁸

In this part of the book, it becomes clear that Professor Fuchs as a clinical psychiatrist is not rejecting the importance of investigating brain functions and underlying processes; amongst others, he notes that all psychological processes are also biological processes—and “without doubt, all the biological processes involved belong to the terrain of psychiatry.”¹⁹ Furthermore, he points out that the understanding of the brain as a central mediating organ and the contribution of social neuroscience to comprehending possible mechanisms involved are indispensable. However, since psychiatry is a form of relational and integrative medicine, the importance of research on brain function and neuroscience rests upon the requirement of an *ecological theory of the psyche*²⁰—which, “as the overarching form of the relations between organism and environment, between person and world, would be suitable to substantiate such a relational medicine.”²¹

In his chapter *The Virtual Other: Empathy in the Age of Virtuality*, Professor Fuchs introduces three kinds of empathy that could help to understand psychiatric and psychological states and potential pathological changes from both a conceptual and a clinical perspective, namely:

- 1: *implicit and intercorporeal empathy*,
- 2: *explicit and imaginative empathy* we engage in when wondering about others, and
- 3: *fictional empathy*, which concerns fictive persons or nonpersonal agents; for example, in films, theater, novels, or when interacting with computer systems.

However, even in the case of fictional empathy, there is a latent consciousness that allows the individual to be aware of the ambiguity of both reality and simulation.²² Professor Fuchs clarifies that, “while imagining fantasy worlds we are still aware of our own imagination *as* imagination,”²³ which he coins the “*as-if*”-perspective maintained in healthy individuals. At the same time, he emphasizes that “[t]he split awareness is, however, a cognitively sophisticated achievement...that remains precarious and can also be lost—in which case the “*as-if*” gives way to an illusory reality.”²⁴ Consequently, Professor Fuchs adverts to psychopathology, where psychosis is usually associated with a loss of the “*as-if*” and indicates the transition to delusion²⁵—he explicitly refers to the special significance of this phenomenon of transitivity in cases of schizophrenia.²⁶ In the context of patients interacting with addictive computer gaming, he points toward the emergence of “delusional empathy” which can be observed in numerous cases.²⁷

The crucial question seems to be this: Could some forms of intentional delusion or even delusional empathy as part of a more comprehensive treatment approach based on virtuality and a digitized healthcare environment be justified, given the empirical evidence of the benefits of some innovations? Consider the robotic seal “Paro” invented to support the treatment of demented persons.²⁸ A recent study by Lillian Hung et al. suggests that there are advantages to robotic support animals like Paro over medical professionals or real therapeutic animals.²⁹ The robotic animals can make use of what Professor Fuchs refers to as “body memory”—the pre-reflective consciousness and implicit memories acquired during our lives. “Paro” can help individuals remember implicit memory and reestablish long forgotten vocabulary by evoking empathy in the interaction; and this, in turn, might improve other symptoms related to their condition.³⁰

Professor Fuchs offers several concerns against the implementation of AI and robotic systems in healthcare. Most importantly, he worries that artificial interactions would replace genuine interpersonal interactions over time and machines would become “relationship artefacts that would...cheat people out of real communication. It should therefore be one of the basic requirements for AI systems that they identify themselves as such and do not deceive people who are dealing with them in good faith.”³¹ According to this response, the usage of a robot like “Paro” would not meet the basic criteria, even if the robot identified itself as artificial: for the demented person would still likely interact with it based on temporary deception, not always able to maintain the split awareness that is present in healthy individuals. To me, it seems crucial to differentiate between the purpose of replacing genuine interpersonal interactions and supportive elements that help medical professionals to understand their patients better. Whether interactions with a robotic animal like “Paro,” along with other artificial helpers, could be justified deserves more attention and openness.

When Professor Fuchs explicitly discusses mental diseases like Alzheimer’s dementia and philosophical problems of personhood and identity in demented persons, he rightly criticizes common misinterpretations that consider autonomy, reflexivity, and explicit memory as indispensable prerequisites for personal identity. Professor Fuchs clarifies that, according to his account, reflective self-consciousness is a sufficient but not a necessary condition of being oneself.³² Professor Fuchs grounds this claim upon the pivotal distinction between the *self-as-object* versus the *self-as-subject*, concluding that, what Auguste Deter reported as “having lost herself” when diagnosed by Alois Alzheimer as the first dementia patient in 1901³³, it only concerned the loss of knowledge about herself as object, but not herself as subject.³⁴ Her statements about her own feelings and experiences require a basic and fundamental sense of selfhood, which is preserved even in cases of severe dementia or other mental illness.

Professor Fuchs emphasizes the importance of pre-reflective self-awareness that precedes the self-as-object.³⁵ In this respect, our personal identity remains continual even without explicit self-consciousness and (auto-)biographical memories. His views on the phenomenology of the bodily subject as expressed by Merleau-Ponty, who described the lived body as natural subject and foundation for all conscious and reflective acts, further buttress the conclusion.³⁶ According to an embodied anthropology, lived corporeality manifests itself in what Professor Fuchs refers to as *body memory*.³⁷ Using a detailed phenomenological account of dementia, which acknowledges the loss of reflexivity and meta-perspective as substantial pathological features, Professor Fuchs argues for the continuity of personal identity on the basis of preserved body memory even as the patient loses other cognitive abilities.

In the last chapter of his book, *The Cyclical Time of the Body and the Linear Time of Modernity*, Professor Fuchs draws out the implications from our increasing reliance upon external structures that are not in line with the naturally cyclical and periodical rhythm of our psyche and body. A linear understanding of time dominates and structures our lives, and it carries great implications for medical practice and psychiatry. As Professor Fuchs elucidates, the tension between the cyclical temporal structure of the body and a linear understanding of time superimposed by institutions of modern life can result in multiple pathologies like burnout, manic and depressive illness, and others. Psychiatric pathologies can likewise be regarded as a consequence of a modern world, requiring us to be available continuously, alert and active, and, in some way, imprisoned in our own dispositive.

Professor Fuchs' aim in writing this book is not to foster dystopian predictions about our future and strengthen misanthropic ideas, as he himself clarifies multiple times. Instead, he urges us to reassess and to reflect carefully upon the human being in its human condition that is threatened by uncritical adoption of AI and the failure to appreciate the embodied nature of being human. Professor Fuchs' warning reveals his faith in humanism and our ability to shape our future.

Although some parts of *In Defense of the Human Being* can be difficult to comprehend for readers not familiar with phenomenological texts, I would not only strongly recommend the book to researchers in healthcare ethics and related areas but also to a much broader audience—for the topics discussed concern the core of our self-understanding. In addition, the book can be easily integrated into academic curricula, judging from my own experiences. At the University in Tübingen, a weekly seminar to discuss chapters of the book open to both students and senior scholars of all disciplines was held, initiated by Niels Weidtmann, Director of the College of Fellows. The gatherings generated lively conversations bringing together physicists, clinicians, and philosophers. The conclusion we all shared was that we ought to question what it means to be human today. More importantly, our critical abilities and our curiosity are the most valuable traits we possess.

In Defense of the Human Being sounds a strong and urgent appeal—or even a collective duty—to reassess underlying concepts while making technological and scientific advances in an increasingly digitized world. The book urges us not to abandon too eagerly our corporeality, vitality, and social relations. It reminds us that it is our individual, inimitable embodiment, and the bodily experience we have accumulated that forms an indispensable, frequently forgotten part of our personal identity. Ultimately, our lived interaction with the world around us and our social relationships provide us with a unique chance to live a life in accordance with humanism.

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Notes

1. Fuchs T. *In Defense of the Human Being. Foundational Questions of an Embodied Anthropology*. New York, NY: Oxford University Press; 2021.
2. Fuchs T. *Die Verteidigung des Menschen*. Berlin: Suhrkamp; 2020.

3. Jaspers K. *Der philosophische Glaube*. Zurich and Munich: Artemis; 1948:56.
4. See [note 1](#), Fuchs 2021, at 2.
5. See [note 1](#), Fuchs 2021, at 19.
6. See [note 1](#), Fuchs 2021, at 23.
7. See [note 1](#), Fuchs 2021, at 151.
8. See [note 1](#), Fuchs 2021, at 151.
9. See [note 1](#), Fuchs 2021, at 151.
10. Fuchs T. *Ecology of the Brain: The Phenomenology and Biology of the Embodied Mind*. New York, NY: Oxford University Press; 2018.
11. See [note 1](#), Fuchs 2021, at 188.
12. See [note 1](#), Fuchs 2021, at 29.
13. See [note 1](#), Fuchs 2021, at 16.
14. See [note 1](#), Fuchs 2021, at 78.
15. See [note 1](#), Fuchs 2021, at 53.
16. Cawley RH. Psychiatry is More than a Science. *The British Journal of Psychiatry*. 1993;**162**(2):154–160:159.
17. See [note 1](#), Fuchs 2021, at 190.
18. See [note 1](#), Fuchs 2021, at 189 and Fig. 8.1:189.
19. See [note 1](#), Fuchs 2021, at 190.
20. See [note 10](#), Fuchs 2018.
21. See [note 1](#), Fuchs 2021, at 190.
22. See [note 1](#), Fuchs 2021, at 89.
23. See [note 1](#), Fuchs 2021, at 89.
24. See [note 1](#), Fuchs 2021, at 91.
25. Fuchs T. The “as if” function and its loss in schizophrenia. In: Summa M, Fuchs T, Vanzago L, eds. *Imagination and Social Perspectives. Approaches from Phenomenology and Psychopathology*. London: Routledge; 2017:83–98.
26. See [note 1](#), Fuchs 2021, at 92; or, for a more thorough account, see Fuchs T. Pathologies in intersubjectivity in autism and schizophrenia. *Journal of Consciousness Studies*; 2015;**22**:191–214.
27. Mason OJ, Stevenson C, Freedman F. Ever-present threats from information technology: The cyber-paranoia and fear-scale. *Frontiers in Psychology*; 2014;**5**:1298.
28. Shibata T, Wada K. Robot therapy: A new approach for mental healthcare of the elderly - A mini-review. *Gerontology*; 2011;**57**(4):378–86.
29. Hung L, Liu C, Woldum E, et al. The benefits of and barriers to using a social robot PARO in care settings: A scoping review. *BMC Geriatrics*; 2019;**19**:232.
30. Kang H, Makimoto K, Konno R, Koh IS. Review of outcome measures in PARO robot intervention studies for dementia care. *Geriatric Nursing*; 2020;**41**(3):207–14.
31. See [note 1](#), Fuchs 2021, at 44.
32. See [note 1](#), Fuchs 2021, at 199.
33. Maurer K, Volk S, Gerbaldo H. Auguste D and Alzheimer’s Disease. *The Lancet*; 1997;**349**(9064):1546–9.
34. See [note 1](#), Fuchs 2021, at 199.
35. See [note 1](#), Fuchs 2021, at 198.
36. Merleau-Ponty M. *Phenomenology of Perception*. (Colin Smith, Trans.: 1st. ed.). London: Routledge & Kegan Paul; 1962.
37. See [note 1](#), Fuchs 2021, at 200.