



TRANSHUMANISM, HUMAN NATURE AND CULTURE: A PRELIMINARY SOCIOLOGICAL CONTEXTUALIZATION

The main objective of the article is to present a preliminary contextualization of transhumanism on the basis of some of the classical motifs in social theory. In the first section, I critically refer to the most popular definitions of transhumanism and comment on some of the inherent discrepancies within its own techno-progressive agenda. In the second section, I briefly scrutinize some of the critical reactions against the concept of biotechnological human enhancement with regard to its paradoxical appeal to religion, its ambivalent stance towards education, and to the concept of human nature. Finally, I confront the cultural implications of transhumanism by applying Émile Durkheim's critique of modern humanism as well as Peter L. Berger's and Thomas Luckmann's theory of symbolic universes. In general, I interpret transhumanism as an anthropological paradigm shift that entails a cultural recentering of late-modern societies on the basis of a new, technology-centered symbolic universe.

Key words: transhumanism; human nature; religion; education; symbolic universe

Some introductory remarks and clarifications

The core proposal of this article is the following: the term “transhumanism” encapsulates an anthropological paradigm shift which implies a cultural recentralization of late-modern societies on the basis of a new, technology-centered symbolic universe. However, in order to clarify some of these notions and thus prevent major misunderstandings, this central proposition should be reinforced by the following auxiliary hypotheses: first, in direct opposition to many transhumanist declarations, transhumanism has to be understood as a genuinely *radical* endeavor that implies we should treat social reality as a “scientific testing ground” (Fuller, Lipińska 2014: 36) for a species-levelled alteration of human identity; secondly, despite its straightforward appeal to technology, transhumanism is better understood as an educational enterprise whose main objective can be adequately characterized in direct confrontation with its paradoxical

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The proofreading of the publication was funded by the Priority Research Area Society of the Future under the program “Excellence Initiative – Research University” at the Jagiellonian University in Krakow.

appeal to religion; thirdly, this substantially radical, educational and (quasi) religious character of transhumanism is confronted best by applying some of the premises of classical social theory, since these directly address the most fundamental questions regarding cultural integration and human nature within (late) modernity. This last point demands some further elaboration.

While contemporary social theory has successfully managed to link its main corpus of interests with some notions of critical posthumanism, transhumanism, on the other hand, remains fairly untouched within the sociological enterprise. As Gesa Lindemann (2009: 13) observes, social theory is currently on its way to questioning the basic anthropological premises which have hitherto functioned as the unquestionable prerequisites of social research. Consequently, social theory has largely adopted a post-anthropocentric worldview, or – to be slightly more precise – opts for a critical evaluation of our anthropocentric heritage. Thus, supporters of the posthumanist paradigm shift seem to regard their intellectual endeavor as a ‘correction factor’ to social theory whose “avoidance of technology,” so the arguments goes, “has a long history” (Matthewman 2011: 172). Once we “take technology seriously,” i.e. as a social-structuring force, society no longer seems to be “ultimately constituted by culture but by technoculture,” while we as humans turn out to “have always been posthuman” (Matthewman 2011: 173–176). Thus, contemporary social theory requires a set of conceptual frameworks that enable us to explore the “patterns of adoption, diffusion, and technological change” by emphasizing the polysemic nature of technology itself, “involving a relational mix of agency, systemic structure, discourse, and normative judgement” (Sovacool, Hess 2017: 706, 742). But, can we apply this *post*-humanist line of thought to the specific challenge constituted by the techno-progressive agenda of *trans*-humanism?

Both post- and transhumanism share a common view on humanity’s intrinsically flexible condition yet they fundamentally differ in terms of their evaluation of techno-genesis: while the former acknowledges this notion as an opportunity for a deepened and critical reflection upon the “non-separateness” of humanity and the technology, the latter seems to nevertheless cling to a “humanistic and humancentric” view that emerging technologies might serve humanity to overcome its biological limitations (Ferrando 2013: 27–29, 32). So, while posthumanism remains ‘in tune’ with the *anti*-humanistic tendency to de-center the human factor from the main focus of the discourse on the Anthropocene, transhumanism – in contrast – endorses an *ultra*-humanistic inclination for “rationality, progress and optimism” (Ferrando, 2013: 27, 32). However, it is precisely this straightforward affiliation for the enhancement of human agency that defines “the radical nature of the transhumanist challenge” (Fuller 2011: 160) which may eventually lead the techno-progressive agenda to transpire into *the* ultimate narrative of our late-modern era. Unlike posthumanism, which

attributes the value of agency to a variety of entities, i.e. humans, technologies, companion species, non-human organisms, environmental forces (Matthewman 2011: 15), the greatest challenge of transhumanism seems to rely on its emphasis on redefining our cultural understanding of human nature: through the application of advanced biotechnologies, our values gain direct access to our genetic code, i.e. through the advancement of emerging technologies, culture literally *embodies* itself on a microbiological level (Cole-Turner 1993: 10). Thus, despite its plain techno-centeredness, the transhumanist discourse itself is primarily “a contest over values, ideas, and imagined futures” (Lilley 2013: 77).

As both of these notions, culture and human nature, imply various and at times contradictory meanings, it seems sensible to at least broadly circumscribe the specific understanding of these two terms within the discussed context. For the purposes of this paper, I will generally apply Peter L. Berger’s and Thomas Luckmann’s argument that “there is no human nature in the sense of a biologically fixed substratum” (1991: 67). The development of the individual’s “humanness” should rather be recognized as “socio-culturally variable” that is profoundly regulated by its interrelationship with the natural and social environment (Berger, Luckmann 1991: 66–67). Here, from a historical standpoint, it is important to stress that this perspective on humanity as a “self-producing being” marks the distinctive anthropological difference of a genuine sociological outlook in direct comparison to other academic approaches in the humanities and social sciences (Berger, Luckmann 1991: 220). By the term ‘culture,’ on the other hand, I will principally refer to what Margaret S. Archer (1996: 2, 11–13, 104) encapsulated in the concept of the cultural system, “the corpus of existing intelligibilia,” in order to distinguish the logical structure of ideas and concepts from the complex dynamics of socio-cultural integration. Thus I will limit myself to what I believe are some of the most crucial “objective contradictions and complementarities” (Archer 1996: 106) of transhumanism understood as a set of philosophically provocative and sociologically intriguing ideas which directly challenge the concept of human nature. I believe that through such a contextualization the beyond-technological, educational, and therefore *cultural* challenge of transhumanism will become accessible and thus gradually comprehensible.

However, before I reach the central topic of this paper, I would like to emphasize that I am fully aware that the very wish to “contextualize” a complex and controversial subject (transhumanism) within a highly diversified field of academic discourse (social theory) comes with a non-negligible risk: there will always be something “missing,” and this “something” will usually be quite a lot. The broader the problem, the greater the need for significant topical and referential selections that will quite naturally generate second thoughts regarding the choices made. Thus, I would like to emphasize that this attempt at a sociological contextualization of transhumanism is intended to be regarded as ‘preliminary’

in a twofold sense: first, my intention is to outline the most fundamental issues and controversies of transhumanism on the basis of some of its most popular works – its intellectual “flagship products,” so to speak; secondly, the theoretical framework will only comprise some classical sociological concepts which I consider particularly helpful in grasping some of the most important cultural implications of transhumanism. Thus, many issues will remain unsolved, others will not even be touched upon. It is by no means the ambition of this paper to deliver a systematic theoretical grounding of transhumanism – on the contrary. I kindly ask the reader to regard this essay as an invitation to intensify our intellectual efforts “to ponder a living phenomenon that is being invented as we think” (Casey 2005: 35).

The cultural significance of transhumanism

What is transhumanism? It is widely accepted that it was Julian Huxley who coined the term ‘transhumanism’ itself and thus gave it its contemporary relevance (Bostrom 2005a: 6; Hughes 2004: 158). While there has been some substantial confusion regarding the exact year of the coinage itself,¹ it seems to be rather out of the question that it is Huxley’s essay entitled simply ‘Transhumanism’ where we find the most commonly applied definition and affirmation of transhumanism as a “new belief” in humanity’s techno-scientific capacities for self-transcendence by which not only individuals may sporadically enhance their physical and mental capacities, but our species as a whole could eventually become the “managing director of the biggest business of all, the business of evolution” (Huxley 1957: 13–17). This bold assumption became the cornerstone for nearly all further attempts to clarify the meaning of transhumanism and to promote its techno-progressive agenda. “What all transhumanists,” as Giulio Prisco indicates, “have in common is the conviction that using advanced technologies to radically change the human condition is both feasible and desirable” (2013: 239). Blind evolution, as Riccardo Campa argues, is supposed to be transformed into a “self-directed, self-conscious evolution” (2009: 18). Thus, the generally shared aim among transhumanists is to enhance the human condition to the point of transcending itself towards the constitution of the “posthuman” (Ranisch, Sorgner 2014: 8).

The posthuman itself, however, remains a rather enigmatic concept: it might, for instance, refer to the rise of a wholly “new species” (Sorgner 2014: 30), or, on the contrary, denote a member of humanity who has acquired at least one

¹ As Peter Harrison and Joseph Wolyniak (2015: 465–466) were able to establish, Huxley (probably) made first use of the term in a 1951 lecture that was published in the journal *Psychiatry* in the very same year.

“central capacity” that would greatly exceed “the maximum attainable by any current human being without recourse to new technological means” (Bostrom 2008: 107). However, the posthuman can also be regarded as a post-biological entity that has completely parted with the natural environment and entirely relocated itself into cyberspace (Sorgner 2014: 30). Thus, transhumanist thinkers tend to passionately endorse an interdisciplinary perspective on evaluating the broad possibilities of enhancing the human mind-body by means of applied sciences such as: information technology, robotics, artificial intelligence, neurosciences, regenerative medicine, radical life extension, genetic engineering, and nanotechnology (More 2013: 4-5; Bostrom 2003: 493). Accordingly, techno-progressivists² endorse a broad concept of both morphological and reproductive freedoms (Bostrom 2005c: 203). The former notion refers to the prerogative to modify one’s body by applying advanced technologies (More 1993: 17; Sandberg 2013: 56–63), whereas the second is understood broadly as the right of parents to apply enhancement technologies for the sake of altering the genetic make-up of their children (Bostrom 2003: 503).

Roberto Manzocco seems particularly astute with his characterization of transhumanism as a “grassroots movement”, i.e. a set of rather loosely associated notions on enhancing the human condition by applying technological means (2019: 7). Could it thus not just be that the promotion of biotechnological human enhancement merely represents an exaggerated yet somewhat prototypical reflection of the capitalistic achievement-oriented dream of perpetual growth (von Becker 2015: 52)? Such a critical approach would correspond closely with Babette Babich’s Nietzschean evaluation of the techno-progressive agenda³ as the latest “instantiation of the ascetic ideal” in the shape and form of a quasi-religious cult loaded with both escapist and consumerist fantasies which already induce us to identify with our high-tech devices and their applications (2017: 107, 123). However, as much as such considerations might largely resonate with some crucial aspects of the techno-progressive agenda on the level of mass-culture, it is the general openness of transhumanist ideas to interact or even merge with various political ideologies and religious movements which not only defines its ideational complexity but also determines its ambivalent academic status.

While supporters of the techno-progressive agenda strive to acquire scientific credibility, the core of transhumanism’s premises and promises finds itself at

² I deliberately refer to the terms “techno-progressivists” (respectively, “techno-progressivism,” “techno-progressive agenda”) and “transhumanists” (respectively, “transhumanism”) as fairly synonymous concepts.

³ The evaluation of the relationship between transhumanism and Nietzsche’s philosophy remains controversially discussed among both adherents and opponents of the techno-progressive agenda (Tuncel 2017). I have deliberately left these considerations aside in order to prevent unnecessary misunderstandings.

constant risk of being consumed by “science fiction and wild speculation” (Manzocco 2019: 3, 286–288). Thus, for the purpose of this preliminary contextualization I will define transhumanism as a cultural movement which is mostly dedicated to transforming its multilayered life philosophy into an arena of intensified study and intellectual investigations (More 2013: 4), within and beyond academia. Such a broad description allows us to understand transhumanism’s aspiration to redefine our very understanding of human nature and thus reorganize the institutional framework of human development and normativity. It might be added that one of the intellectual precursors of the transhumanist movement, F. M. Esfandiary (better known as FM-2030, the founder of the futurist circle known as the UpWingers) defined the notion of the transhuman as a “transitional human” (Bostrom 2005a: 11). However, once we consider that the transhumanist movement deliberately refrains from delivering any kind of unambiguous circumscription of what the “posthuman” is supposed to be like, the idea of being “transitional” becomes even more problematic: transitional towards *what*, exactly? Consequently, transhumanists also remain highly ambiguous with respect to the potential socio-cultural implications of their movement.

Nick Bostrom, arguably “the most academically respectable transhumanist today” (Fuller 2019, p. 65), justifies what might directly appear as a profound theoretical shortcoming by claiming that we, contemporary humans, simply lack the intellectual capabilities to fully understand a qualitatively different, beyond- or supra-human existential condition of the future (2005b, pp. 4–5). Accordingly, Bostrom argues for categorical openness with regard to the variety of potential biotechnological augmentations that would become widely accessible to anyone willing to explore “the transhuman and posthuman realm” (2005b, p. 13). However, while the Swedish philosopher seems to have little doubt that such advances could be accomplished “without causing unacceptable damage to the social fabric” (2005b: 9–12), the very question regarding substantive changes of and within the institutional order, especially with regard to its normative foundation and justification, is rarely even touched upon within the transhumanist discourse itself. It may thus come as quite a surprise that Huxley himself, whose definition of transhumanism still remains a solid conceptual reference point for the majority of representatives of the contemporary techno-progressive agenda, provided the rather enigmatic, yet still somewhat unsettling quasi-sociological prediction that the implementation of his new belief “will begin by destroying the ideas and the institutions that stand in the way of our realizing our possibilities” (1957: 16). Therefore, the rather sweet-tempered declaration that transhumanism merely poses an extension of our “liberal democratic humanist tradition to a defense of our right to control our own bodies and minds” (Hughes 2004: xv) fails to give full credit to the ultimately radical character of the

techno-progressive agenda. In fact, transhumanism may temporarily disguise its own aspirations as merely “progressive” and thus effectively hide its *transgressive* nature only because of the still low-level development of the most controversial biotechnologies (Fuller 2011: 158).

It is in this context that Francis Fukuyama’s warning to not treat transhumanism “as some sort of odd cult, nothing more than science fiction taken too seriously” (2004: 42) becomes most relevant. The highly speculative and, at least in some respects, naïve techno-optimism of transhumanist supporters, should not deceive us from recognizing that the very basic doctrine of transhumanism, i.e. the conviction that biomedical advances will be exploited beyond their medical scope, is a quite realistic account of already pending tendencies within our technologically advanced societies. In other words: if we thus agree that transhumanism is most candidly defined as a promotion of a self-steered evolution, the crux of the matter has then to lie in the way we evaluate the very process of evolution itself. Although transhumanism seems to be “deeply rooted in the Darwinian understanding of evolutionary biology” (Bardziński 2014: 104–105) it is precisely this “Darwin Pose” which Steve Fuller and Veronika Lipińska regard as the major intellectual obstacle for developing a coherent philosophical foundation for the techno-progressive agenda. Indeed, the essentially “pro-actionary” aspirations of transhumanism to treat society (state or/and market) as a “scientific testing ground,” can only hardly be harmonized with Darwin’s “precautionary” view on humanity (Fuller, Lipińska, 2014: 6, 36, 63). As Steven Goldberg (2009: 5) argues, “a full-blown transhumanist movement” would not only embrace being analogous to religion, but may even consider to become *the* “ultimate truth,” which ought to be “publicly funded and taught in public schools.” What Goldberg seems to indicate is that the cultural implications of the techno-progressive agenda will constantly be misread, even by its own leaders and supporters, as long as its educational significance will be belittled by a one-sided focus on its technical dimension while overseeing the technological structure of the problem. This point gains further substantiation once we realize that the techno-progressive agenda should be regarded as a radical educational enterprise, i.e. a philosophically demanding proposal for rethinking and ultimately redefining the very concept of humanity itself. For otherwise, as we may ask in tandem with Goldberg (2009: 5): “why is transhumanism worth taking seriously?”

Before tackling the crucial connection between the religious dimension of the techno-progressive agenda and its educational implications in the next section, I would like to outline the ‘seriousness’ of the transhumanist concept of the posthuman as a potential “ultimate truth” to which Goldberg implicitly refers to by applying Ulrich Beck’s famous concept of “reflexive scientization” (Beck 1992: 158–163). As Beck argues, the modern model of “primary scientization”

was based on a historical naivety which allowed to limit methodological skepticism to the objects of scientific inquiry without applying these intellectual procedures to the very foundations of scientific knowledge per se (1992: 163). As a consequence, modern science could grant itself the privilege of being internally skeptical while remaining externally dogmatic (1992: 164). However, in the route of a “reflexive modernization”, science forced itself gradually to abandon its dogmatic nature along with its strong, “near-divine” truth-claims (Beck 1992: 166–167). This development entails two fundamental risks. First, multiple non-scientific criteria for common knowledge gain crucial significance since the “hypercomplexity” of social reality needs to be “mastered in any case” (Beck 1992: 168). This condition leaves the door wide open for “*new alchemists*” who seem to be “oddly immune to the critique of science, since they found their «truth» and their supporters not before science, but in interaction with it” (Beck 1992: 169). The second risk is that “techno-science” finds itself trapped within a condition to which Beck refers to as a “striking new contradiction”: while science has become a fortress of institutionalized self-skepticism, technology, on the contrary, remains “isolated against skepticism” (1992: 177). Beck interpretes this tendency as the return of a dogmatic understanding of knowledge which “flourishes under the pressure on the engineering sciences to take action” (1992: 177).

The status of transhumanism within this constellation is ambivalent as there are at least three options which need to be taken into consideration. First, transhumanists could be identified as “new alchemists,” whose futile attempt to domesticate the abandoned truth-zone of our contemporary culture will cause their agenda to collapse under the pressure of ‘real’ science. An adequate exemplification of such a viewpoint seems to be Monika Singer’s argument that medical advances have rendered the techno-progressive ideology redundant by exposing its agenda as substantially naïve with regard to the latest crisis caused by the coronavirus (2020: 13–15). Secondly, transhumanists could be regarded as rather dangerous upholders of the “striking new contradiction” which prevents humanity from critically reflecting the axiological status of technology itself. This seems to be the standpoint shared by George J. Annas, Lori B. Andrews and Rosario M. Isasi, who claim that some of the riskier techno-progressive proposals should be regarded as potential “crimes against humanity” and thus banned internationally (Annas et al. 2002: 153–154). However, there is also a third option which is more optimistic: transhumanists could be seen as a group of intellectual pioneers who consciously engage in amplifying the process of “reflexive scientization” by formulating options for a *reflexive technicization* of human life and development. Such a perspective might not only successfully compel transhumanists to critically confront their own agenda but should further urge representatives of the humanities and social sciences to reach epistemically

beyond the realm of techno-science and relate transhumanism to the two other essential cultural components of social life that Goldberg referred to: religion and education.

Playing God, or not? The transhumanist challenge to human nature, education and religion

The major premise for the following two sections will be Goldberg's aforementioned assertion that a well thought-through analysis and evaluation of transhumanism cannot avoid referring its agenda to the challenge it poses to both religion and education as the institutional frameworks of human identity and, more generally, social normativity. However, in order to fully recognize the relationship between the techno-progressive agenda and those two socially profound aspects of culture, it is necessary to further explore the challenge that the transhumanist philosophy poses to the concept of human nature. Mostly due to its metaphysical connotations, however, the very concept of human nature remains "largely underexplored" within the realm of sociological thinking (Chernilo 2014: 340). Yet, since arguably the most relevant sociological inquiries can be recognized as being philosophical in their very nature, a philosophically inclined sociological reflection, as Daniel Chernilo argues, should aim at revealing the linkage between "implicit notions of human nature," on the one hand, and "explicit conceptualizations of social life within sociology," on the other (2014: 340). A very analogous statement can be made with regard to transhumanism: despite its rather obvious and straightforwardly promoted techno-centeredness, it is its essentially anthropological implications that mark the very foundation of its controversially discussed agenda of human enhancement. In order to validate this claim, I would like to briefly recall Fukuyama's famous and controversially discussed diagnosis that transhumanism is the 'world's most dangerous idea' (2004: 42–43).⁴

Above all, Fukuyama renders the basic doctrine of transhumanism, i.e. the conviction that biomedical advances will be exploited beyond their medical scope, as a quite realistic account of already present tendencies within our technologically advanced societies. Yet, what the American political scientist

⁴ Despite the fact that Fukuyama's claim was formulated almost two decades ago, his general line of argumentation and main thesis remain one of the main critical reference points for many apologetic approaches to transhumanism itself (a good illustration might be: Sorgner 2020). I believe this is mostly due to the fact that the American political scientist did not make his general train of thought dependent on specific biotechnological aspects but rather focused on the most fundamental anthropological, ethical and legislative implications of transhumanist philosophy.

seems to be mostly concerned with are not the technological applications of those advances itself, but the political implications that these procedures may constitute to the notions of human equality, nature, and dignity. Fukuyama is convinced that we might be able to at least explain the very persistence of the modern belief in the universality of human dignity by grounding it in the concept of human nature, i.e. by referring dignity to “the nature of nature itself” (Fukuyama 2002: 149–151, 156). Here, Fukuyama makes the important claim that the majority of the cultural codes which have denied different groups of people their “share” in human dignity turned out to be founded on prejudices that have been exposed by the scientific understanding of nature (2002: 156). In other words: the enshrinement of human rights as a general principle deriving from human dignity would certainly not have been achieved without the rise of the “empirical sciences” which caused a dissolution of previously upheld prejudices on a socio-cultural level and thus opened the way for recognizing the universality of “human nature” that became the pillar for a gradually growing belief in human equality (Fukuyama 2002: 156).

However, as much as Fukuyama seems to be quite on point with his historical assertions regarding the generalization of the concept of human dignity and its impact on the development of human rights, it is precisely at this point that he fails to recognize that the concept of human nature is a double-edged sword with regard to the concept of equality. Techno-progressive thinkers not only promote the idea of a general accessibility of medical and technological instruments to improve the potential well-being of all people but argue further that it is the very belief in the existence of “human essence” (labelled by Fukuyama himself as “Factor X”) that stands in the way of the universal distribution of these goods to everyone who desires such augmentations (Bostrom 2004). It is the very assumption of a “unique” human essence that not only poses an “anachronism” from the perspective of evolutionary science, but further legitimizes the morally problematic procedure of attributing “intrinsic value” exclusively to members of the human species – a way of thinking which James Hughes deliberately refers to as “human-racism” (Hughes 2004: xv, 78). As a result, the concept of human nature understood as “human essence” turns out to be quite ambivalent: while it is undoubtedly the case that the concepts of human rights and human dignity jointly compose the normative axis of contemporary secular societies, it is also hard to deny that the very belief in our species-levelled superiority may be the ideational source for the disasters caused by humans, such as those on an environmental level.

While Fukuyama’s criticism of transhumanism focused mainly on its political and legal implications, Habermas’ main concern was dedicated to the parallel that the techno-progressive agenda draws between cultural refinement and human enhancement, i.e. the supposed fusion of the organically “grown”

with the technologically “made” which might lead to an overall disruption of humanity’s “ethical self-understanding” based on mutual self-recognition of all members of the human species as moral subjects (Habermas 2003: 71). This brings us directly to Goldberg’s aforementioned challenge that transhumanism poses to the concept of education which, at least from a humanist perspective, has hitherto been perceived as the sole basis on which any member of the human species could achieve *humanness* in a full, i.e. ethical and anthropological sense (Ruhloff 2012: 7–19). And although transhumanists assure us that biotechnological enhancement should not be recognized as a direct threat to the classical procedures of education, the latter seems to be regarded as a historically essential, yet less effective form of refining human nature which might eventually become outdated due to the opportunities raised by genetic stewardship (Fuller, Lipińska 2014: 130–131; Klichowski 2015: 136–138). However, in order to recognize the cultural significance of the opportunities afforded by technoscientific progress, it is important to distinguish once again the very spirit⁵ of transhumanism itself from the sweet-tempered claims made by “self-declared transhumanists” who tend to reduce the techno-progressive agenda to the matter of individual moral choices (Fuller, Lipińska 2014: 1). In fact, as Mark Sagoff notices, the very idea of radically extending a healthy lifespan as well as altering inherited features adds “weight to the metaphor of playing God” (2005: 74) and thus renders theological considerations “unavoidable” (Sandel 2007: 10). Fuller and Lipińska present the techno-progressive agenda as a historical offspring of “the two most enduring Christian heresies” of late antiquity, Pelagianism and Arianism, and Christianity’s most radical versions of self-empowerment, “championed by the Protestant Reformation,” understood as *theomimesis*, i.e. “God-playing” (2014: 45–48).⁶

In arguably one of the major founding papers of transhumanism, Max More addressed religion directly as an “entropic” force which holds humanity back from realizing its “extropian” potential of entering a more advanced stage of existence (More 1990: 6–12). Subsequently, however, More would also acknowledge the significant role that religion has played throughout the ages in delivering “meaning and structure” to human existence and thus argued that transhumanism may become its scientifically-based equivalent that will allow us, humans, to eventually “outgrow our current interests, bodies, minds, and

⁵ ‘Spirit’ understood in a Weberian sense (Weber 2005: 13–38).

⁶ Philip Hefner’s theological concept of “the Created Co-Creator” (1993) has been at times addressed as a Christian approach which can be applied to some transhumanist aspirations. However, Hefner and Ann M. Pederson addressed transhumanism directly in a throughout critical manner by accusing it of upholding a “gnostic contempt for the human body” which is incompatible with Hefner’s own approach to the human being as a “body-self.” See Hefner, Pederson, Barreto 2015: 6–7.

forms of social organization” (1990: 9–10). The very idea of finding a functional substitute for religion is nothing new – genuinely, this enterprise seems to be one of the key characteristics of modernity. As Jürgen Habermas stated in his famous lectures on the *Philosophical Discourse of Modernity*:

Since the close of the eighteenth century, the discourse of modernity has had a single theme, albeit under ever new names: the weakening of the forces of social bonding, privatization, and diremption – in short, the deformations of a one-sidedly rationalized everyday praxis which evoke the need for something equivalent to the unifying power of religion (1987: 139).

Langdon Winner attests that throughout the 20th century we have become accustomed to the problematic view that the only dependable source for enhancing the human condition stems from new technologies and that therefore the “next wave of innovations will surely be our salvation” (Winner 1986: 5). Transhumanism not only intensifies the “positive link between technical development and human well-being” (Winner 1986: 5), it actually managed to top these inclinations by simply equating technology and salvation, as Robert Geraci points out: “Technology, which once appeared as a tool that would help religious practitioners bring about their divinely ordained salvation, has now become a religious end of its own” (2016: 908). In other words, a sociological contextualization of transhumanism has to recognize the soteriological and eschatological implications of bringing “the pursuit of meaning into the sphere of technology” (Leidenhag 2020: 7). However, as much as it is tempting to apply the rhetoric of “playing God” in order to encapsulate our acquired biotechnological powers, the truth about genetic engineering might turn out to be less dramatic: Instead of taking the whole process of evolution into our own hands, our co-evolutionary process with other species and the whole of our environment will rather enter a radically new phase – the ultimate question would then be: “to what end?” (Cole-Turner 1993: 8, 42, 48, 50).

While the cultural significance of transhumanism would consist of its potential to promote new narratives with regard to the process of integrating the revelations of technoscience within the realm of social reality (whether in the shape and form of a ‘new alchemy,’ a poorly reflected techno-optimism, or a *reflexive technicization*, as we have seen in the first section), a closer look at transhumanism’s challenge to the concepts of human nature, education and religion raises further questions as to how the institutional framework of our societies might be reframed due to a fundamentally altered understanding of what it *means* to “be human” as such. In other words, it should not be overlooked that, for its most part, the techno-progressive agenda is less about giving specific instructions on how to make proper use of emerging technologies, but more of an educational program on how new opportunities for human development and

species-levelled self-empowerment might significantly change our very notion of humanity and thus imply the establishment of new normative structures for a posthuman society. Bearing all these difficulties in mind, it might emerge as an even greater irony that the transhumanist denial of “human essence” and the challenge it herby poses to the concepts of education and religion is not as controversial as both supporters and opponents of the techno-progressive agenda seem to believe it is. As a matter of fact, as I will try to illustrate by means of just a few prominent examples, the non-essential concept of human nature has been one the most fundamental and elementary premises of sociology since its inception in the 19th century.

Towards a sociological contextualization of transhumanism

In this third section I would like to synthesize the manifold threads that have been discussed so far and propose a critical contextualization of transhumanism with regard to some of its socio-theoretical implications which I regard to be fundamental. Here, in a final and conclusive step, I will interpretate the transhumanist anthropological paradigm shift as a cultural enterprise that not only fits into the overall transitional condition of our late-modern institutional order, but intrinsically aspires to become a social fact in a Durkheimian sense. I will combine these two threads of socio-philosophical reflection by applying a notion of Berger and Luckmann’s, namely “anomic terror” (1991: 121). I am aware that such a paradigmatic selection might come as a surprise and provoke some fundamental doubts so I would like to justify this choice by offering a very brief explanation.

Since its coinage at the end of the 19th century, the very concept of a social fact “has been a source of some puzzlement” (Gilbert 1994: 86). One may even argue that Émile Durkheim’s methodological corpus dedicated to revealing the very nature of social phenomena is in at least some major respects “indecisive” (Lukes 1972: 228). Nevertheless, while I believe that the very intuition that amongst all social phenomena we may distinguish those “manners of acting or thinking” that should be characterized by their capability “of exercising a coercive influence on the consciousness of individuals” (Durkheim 2003: 13), it remains a solid reference point with regard to our discussed problem. As Robert A. Jones points out: “For once we recognize that social facts are real things, external to and coercive upon human beings, it becomes clear that no human need or desire, however imperious, could be sufficient to such an effect” (2003: 198). Thus, I consider that the specific epistemic value of Durkheim’s perspective relies on its profound capacity to safeguard us from the teleological pitfall of attempting to explain a social phenomenon (transhumanism) on

the basis of individual intentions (which is precisely what the majority of both followers and opponents of transhumanism do alike). Thus, by claiming that transhumanism aspires to become a social fact, I merely wish to emphasize that this *new belief* intrinsically tends to constitute “a system of representations and relations which are fixed in signs, crystallized in institutions and various forms of social morphology” (Jones 2001: 135).

Although I generally agree with Archer’s interpretation that social theory has been hitherto somewhat under the spell of two divergent and, subsequently, erroneous “social ontologies” (“upwards” and, respectively, “downwards” conflation) with regard to agency and structure, I nevertheless contest Archer’s explicit ascription of Durkheim’s intellectual legacy to the “downwards” tradition which is based on the denial of human powers being indispensable to the making of society (1995: 2–3). I consider this to be an oversimplification of Durkheim’s complex notion of the individual (Giddens 1971: 223). However, I endorse Archer’s critical reading of Berger and Luckmann’s phenomenological-constructivist approach. She sees it as being “an idealist version” of “central conflation” which also deprives their respective autonomies of both agency and structure, yet not through reciprocal reductions, as in the case of upwards and downwards epiphenomenal conflation, but by entwining these two categories inseparably (1995: 13, 101). Thus, I would like to risk a combination of those lines of thought: as I insisted earlier, I understand the Durkheimian concept of the “social fact” as an adequate paradigmatic background against which I will address both Durkheim’s critique of humanism and Berger’s and Luckmann’s theory of symbolic universes which I recognize as particularly helpful for a preliminary contextualization of transhumanism on the basis of social theory.

As a starting point, I would like to focus on Émile Durkheim’s critique of humanism in the context of his reflections on *The Evolution of Educational Thought* – a work which Archer, interestingly enough, considers to be “Durkheim’s best and most neglected studies” (1995: 231). The French sociologist regarded modern humanists as being entirely deceived by their vain effort “to teach children about human nature in general, for there is no such thing” (Durkheim 2005: 133). According to Durkheim, human nature cannot be understood as a “specific reality” that would hold a “tangibility of its own” but is rather “an arbitrary construct” of the human mind that eludes any efforts of determining its materiality and structure (2005: 133). Thus, what modern humanism has established as the only valid anthropological and educational ideal occurs to be nothing more than a product of a cultural synthesis of various ancient ideals: Christian, Roman and Greek (Durkheim 2005: 134). However, Durkheim did not stop at proclaiming the historical arbitrariness of the modern human ideal as such, but went significantly further by attesting that the only constant feature of what could be righteously addressed from a scientifically sound perspective as

“human nature” is its irreducible diversity (2005: 134). Thus, whilst relying on anachronical images of humanness, we usually fail to appreciate humanity “as an infinitely flexible, protean force” that is “essentially transitory in character” (Durkheim 2005: 135). One of the reasons why we, modern people, tend to cringe away from novel social ventures – an attitude to which Durkheim refers to as “neophobia” – is our “narrowly and rigidly circumscribed” conception of human nature (Durkheim 2005: 135).

However, it would be a profound misunderstanding to read Durkheim’s quite proto-transhumanistic account as a post-anthropocentric, and thus *post-humanist* approach to our socio-cultural reality, since quite the opposite seems to be the case here (Ross 2017). It is noteworthy that while Durkheim wholeheartedly attested to the flexibility of human nature, he also emphasized that human nature from the outset has been associated with the idea of the “soul” which in turn has always been regarded as something sacred and divine (1995: 242, 265). Still, while it is an essential feature of all human traditions and cultures that the human being is considered an entity that is ontologically divided into its profane-corporal dimension, on the one hand, and a sacral-spiritual part, on the other, Durkheim makes it unambiguously clear that in order to rationally reflect upon this apparent dualism, there is absolutely no need to perceive the concept of the soul as a “mysterious and unrepresentable substance opposed to the body” (1995: 267). The “objective basis” of the soul is indeed not some “mysterious” essence, a ‘Factor X’ which Bostrom appropriately rejects as scientifically untenable, but, as Durkheim indicates, social reality itself, which, above all, can be regarded as “active cooperation” between individuals (1995: 274, 421). However, Durkheim would also rigorously emphasize that it is not all kinds of cooperation which equally contributes to the distinctive features of humanity as a distinct species. The most central areas of social action that have historically contributed to the evolution of humanity’s specific self-understanding as soulful beings, i.e. humanness, are religious rituals, in particular “cults” (Durkheim 1995: 421). Further, even the most basic categories of thought, including science itself have, as Durkheim indicates, “religious origins” (1995: 421).⁷ Therefore, no scientifically motivated movement should oversee that the authority of “concepts” is neither solely nor predominantly grounded on the cognitive-objective value of applying scientific methods. Concepts, in order to be believed in, have to remain in harmony with the whole of society’s collective representations – belief-systems and moral codes, alike. The socially inclined willingness to believe in a scientific worldview is structurally no different from faith in religion, since the value society attributes to scientific theorems is not

⁷ Unfortunately, this assumption has led to considerable confusion and numerous misinterpretations of Durkheim’s epistemological argument (Rawls 1996).

measured on the basis of its truthfulness, but rather on the function it plays in life (Durkheim 1995: 439).

Thus, as we can see with regard to transhumanism, it is no coincidence that the techno-progressive can only hardly detach itself from its both religious and educational implications: any scientifically motivated movement demands a supra-scientific legitimation which itself cannot be deduced from scientific methods and paradigms alone but has to correspond to what Peter L. Berger and Thomas Luckmann address as “symbolic universes” (1991: 110). Symbolic universes are constituted by their major function of justifying society’s institutional order by introducing theoretical structures that consolidate various spheres of meaning and thus enfold the institutional system in a “symbolic totality” (Berger, Luckmann 1991: 113) – in short: by applying educational procedures. Thus, it is within and through those educationally transmitted and reproduced symbolic universes that the entirety of social reality starts and continues to “make sense” for the socialized individual (Berger, Luckmann 1991: 121). The term “sense” is directly opposed to the condition of “chaos” which – due to humanity’s flexible nature of existence – constantly threatens to take over and dissolve the institutional order: “The constant possibility of anomic terror is actualized whenever the legitimations that obscure the precariousness are threatened or collapse” (Berger, Luckmann 1991: 121).

Could we refer the inner confusion of transhumanism, on the one hand, and the excessive reactions caused by techno-progressive ideas, on the other, to the “anomic terror” that constantly endangers modern society in one way or another? In other words, does transhumanism primarily constitute a radical expression of the “anomic terror” of late modernity? Or, on the contrary, would it not be more appropriate to contextualize transhumanism as a religiously loaded intellectual movement that aims to counter the modern crisis of social institutions by introducing a promising equivalent to the unifying power of religion – an ultimate truth for an age of ultimate confusion? Here, it is crucial to stress two substantial aspects of symbolic universes as such. First, the integration of the whole of social affairs is realized by delivering “a general theory of the cosmos and a general theory of man”; secondly, at least under regular circumstances, symbolic universes do not require further legitimation themselves (Berger, Luckmann 1991: 114, 122). However, one of the main characteristics of our late-modern era is that literally nothing can be regarded as regular in a way that would allow us to “live naïvely” (Berger, Luckmann 1991: 122). To be fair, Berger and Luckmann stress that no society, and thus no symbolic universe, can be “totally taken for granted” since social integration is never, once and for all, completed and permanent (1991: 123-124) – but what makes late modernity, sometimes still addressed as “postmodernity,” so unique is its persistence in upholding a state of anomic terror as its most characteristic feature. It is

therefore no coincidence that no other field within the late-modern socio-cultural reality expresses this condition better than the anthropological crisis, articulated most straightforwardly as the “death of man” (Foucault 2005: 373, 421–422). Therefore, the condition of symbolic universes in the times of late modernity is not “incipiently problematic” (Berger, Luckmann 1991: 124) – being problematic, specifically with regard to an absence of a universally valid image of humanness, is *the* specific trademark of late modernity. Hence, as I would like to argue, it is this “being problematic” on the supreme level of institutional legitimation that constitutes the socio-cultural basis for any adequate contextualization of the transhumanist agenda.

I believe the observation made above is particularly important, not only with regard to the most prominent opponents of the techno-progressive agenda, but also with respect to transhumanism’s own philosophical self-identity. If one were simply to accept Fukuyama’s or Habermas’ criticism of transhumanism as an ultimate threat to our human identity, one would have to ascribe to the techno-progressive agenda the status of being a “deviant version” (Berger, Luckmann 1991: 124) of humanism – however, nothing could be further from the truth of the matter. Although transhumanists seem to occasionally embrace the status of “heretical group” (Berger, Luckmann 1991:124), they merely echo what is both well-known and quite well-established within the scientific discourse itself. By adopting this perspective, transhumanism may lose some of its controversial nature, but its main postulates gain considerably in terms of scientific credibility.

Let us put this complex relation in a more historical context. Personal identity in premodern times, which can never be separated from humanness as a central factor of any stable symbolic universe, was largely grounded on external pre-definitions and fixations. As Hartmut Rosa points out, it was mainly religion and tradition that would indicate the premodern individual “its place in the world and in society” (2013: 226). Therefore, personal identity would quite firmly rely on predefined and fixed patterns on what it means to be human and how one is supposed to realize one’s humanness within the scope of social relationships. However, along with the rise of modernity, personal identity gradually became a “temporal project,” i.e. the individual was burdened with the task of planning and realizing herself in a new, remarkably dynamized and detraditionalized social reality. Nevertheless, despite the existential trouble arising from the “setting-in-motion” of one’s own identity, the modern individual could still count on the “reliability of social institutions” that would ensure specific “identity-clusters” in the form of typical learning processes, professions, life-forms or political sympathies that would eventually guarantee a “normal biography” (Rosa 2013: 228–229). For this very reason, Beck postulated the somewhat odd, yet quite typical for modern societies parallelism between individualization on the one hand, and standardization, on the other: “Individualization thus means

precisely *institutionalization*" (1992: 130–132). Paradoxically, the removal of traditionally imposed identities is structurally "accompanied by a uniformity and standardization of forms of living" (Beck 1992: 132).

In what way does the late-modern context differ qualitatively from the modern one and how can we relate this condition to the ambitious program of transhumanism to biotechnologically reshape our human condition? Pre-modern and modern "identity building blocks" which previously served as the institutionally grounded foundation for a dynamic, yet stable self-identity, are now, as Rosa observes, "almost freely combinable and revisable" (2013: 232). It is thus not very surprising that once all of the significant parts of the institutional order became revocable, whether it be family, profession, religious affinity or political preference, a rigid definition of what it means to be "human" could only hardly be maintained. As a consequence, the coherence and continuity of personal identity turned into a multitude of context-dependent identifications which lack any substantial basis (Rosa 2013: 238). Although one may interpret this development as a qualitatively new opening for individual freedom, Rosa indicates that from the individual's perspective this late-modern condition is rather experienced as an uncontrolled "drifting" which in turn leads to a feeling of an essential loss of autonomy (2013: 244–245). As Rosa attests, human identity became "*transitory*" (2013: 233). Eventually, late modernity merely confirms Durkheim's assertion that humanity is "essentially *transitory* [emphasis added] in character" (2005: 135).

We seem to be back to square one: while our late-modern social condition positively validates the image of a profoundly flexible human nature, it is still far from fully embracing Durkheim's concept of humanity as a "protean force" that is constantly subdued by "neophobia" determined by a rigidified image of human nature and humanness (2005: 135–136). In other words, we are, at least in some respects, not only still far away from constructively moving beyond the great discoveries and revelations of the 19th century – actually, we are even having a hard time keeping up with their progressive ideas. To paraphrase Nietzsche: despite our vividly proclaimed and proudly promoted post-humanistic propensity to question the basic anthropological premises of social theory, our classical thinkers still remain to some extent untimely. And it is precisely this theoretical untimeliness that hinders us from conceptualizing transhumanism, whose basic claim is to draw an utterly radical and risky conclusion from the scientific image of a naturalized humanity: a cultural recentralization of late-modern societies on the basis of a new, technology-centered symbolic universe – a "last grand narrative" (Nahm 2013: 20).

Instead of a conclusion – one last conclusive remark

As the promotion of biotechnologies gradually gains greater cultural significance on a global scale, it seems that we cannot afford to dwell any longer in the “sterility” of modern thinking on technology which constantly strengthens the “deceptively reasonable notion” that technological artifacts should be regarded as axiologically neutral (Winner 1983: 250–251, 262). As Timothy K. Casey points out: “In our confusing and at times chaotic world, science and engineering are still looked to as standing above the fray, concerned with matters far from the messiness of human affairs and the contingencies of historical particularity, paradox, and anomaly” (2005: 54). This still current state of affairs – or, rather, state of mind to which Winner famously referred to as “technological somnambulism” (1986: 5–6) – hinders us from a deeper reflection upon the transhumanist agenda: while the majority of its chief-representatives seem to describe emerging technologies as mere tools for future human enhancements, many of its opponents seem to apply an altogether deterministic and fatalistic view on enhancement-strategies which allows them to characterize transhumanism straightforwardly as the “world’s most dangerous idea” (Fukuyama 2004), and attack transhumanists personally as a “handful of freaked-out intellectuals” who allegedly strive for a revival of “a very German ideology” (Habermas 2003: 22, 44). Bearing this in mind, it seems to be from a researcher’s perspective neither desirable nor even possible “to hide behind the veil of objectivity and value neutrality” (Casey 2005: 55). The sociological perspective in particular has to render transhumanism as “radical” in a quite literal sense: its bold premises and claims regarding human enhancement force us to ‘go back to the roots’ and reconsider the fundamental questions raised by classical social theory about the very foundations of cultural integration and its linkage to the concept of human nature.

Transhumanism, despite its propensity for wild speculation, seems to be an intellectually promising, yet highly risky attempt to address the late-modern crisis of symbolic universes, whose diminishment is caused by an anachronistic adherence to modern humanism that relies on a scientifically outdated concept of human nature. From this perspective, the postmodern rejection of grand narratives could be interpreted as a necessity rather than a choice: it is precisely this incongruity between social reality and anthropology which upholds the “anomic terror” that causes the individual to experience her own existence as a crippling exposure to “drifting” within an axiological and normative void. Transhumanism aims to overcome this anomic terror by proposing an anthropological paradigm shift based on a techno-centered symbolic universe that would imply a new, “proactionary” view on human identity and social life. And while it remains true that one of the major functions of symbolic universes is to grant people the opportunity to “live naïvely,” we should also not forget that the very

constitution of a symbolic universe requires “theoretical reflection” on the part of those who approach the institutional order as something inherently “problematic” (Berger, Luckmann 1991: 122). I cannot help but think that sociologists and other representatives of the humanities and social sciences could be the appropriate addressees for such an intellectual enterprise.

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