Page Proof Instructions and Queries



Journal Title: Theory, Culture & Society

1178482

Article Number:

Thank you for choosing to publish with us. This is your final opportunity to ensure your article will be accurate at publication. Please review your proof carefully and respond to the queries using the circled tools in the image below, which are available in Adobe Reader DC* by clicking **Tools** from the top menu, then clicking **Comment**.

Please use *only* the tools circled in the image, as edits via other tools/methods can be lost during file conversion. For comments, questions, or formatting requests, please use T. Please do *not* use comment bubbles/sticky notes \bigcirc .



*If you do not see these tools, please ensure you have opened this file with Adobe Reader DC, available for free at get.adobe.com/reader or by going to Help > Check for Updates within other versions of Reader. For more detailed instructions, please see us.sagepub.com/ReaderXProofs.

No.	Query
	Please note that we cannot add/amend ORCID'iDs for any article at the proof stage. Following ORCID's guidelines, the publisher can include only ORCID iDs that the authors have specifically validated for each manuscript prior to official acceptance for publication.
	Please confirm that all author information, including names, affiliations, sequence, and contact details, is correct.
	Please review the entire document for typographical errors, mathematical errors, and any other necessary corrections; check headings, tables, and figures.
	Please ensure that you have obtained and enclosed all necessary permissions for the reproduction of art works (e.g. illustrations, photographs, charts, maps, other visual material, etc.) not owned by yourself. Please refer to your publishing agreement for further information.
	Please note that this proof represents your final opportunity to review your article prior to publication, so please do send all of your changes now.
	Please confirm that the Funding statements are accurate.
1	Thatcher, O'Sullivan and Mahmoudi, 2017: not in references; please provide details.
2	"The ability to work, length of railway tracks, marking time, and other numerical criteria were all said to provide a universal standard for assigning categories of (sub)humanity to peoples." I find this sentence confusing. Could you re-word please?
3	"Bonsu was offered a clock and an organ". Earlier, you said Bonsu was offered a musical box. Can you clarify please?
4	Scassa, Teresa and Perini, Fernando (2022): please provide page range for this article.



Theory, Culture & Society I–17 © The Author(s) 2023 Orthogonal Control of Control of

Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/02632764231178482 journals.sagepub.com/home/tcs



Rethinking Posthumanist Subjectivity: Technology as Ontological Murder in European Colonialism

Thomas Dekeyser

Royal Holloway, University of London

Abstract

This paper centres the colonial pre-histories of 'the digital' to complicate posthumanist theorisations of subjectivity. Posthumanism helpfully undercuts human exceptionalism by presenting subjectivity as always-already co-constituted by technology. However, this paper argues that it insufficiently engages the human as the historico-political effect of negating the assumed non-technological colonial Other. Focusing on liberal humanism between the 16th and 19th centuries, the paper theorises the modern human as bound up in 'technological onticide'. The presumed absence of technology became a (theocentric, ratio-centric, bio-centric) measure of the Other's sub-humanity, at the same time as this Other was expected to be humanised through its technologisation. An emphasis on technological onticide complicates universalist theories of subjectivity that take it as always a matter of human-technology co-constitution. The paper argues that, to confront the legacies of ontological murder, conceptual room needs to be made for *in*human, *counter*human or *un*human theories of subjectivity.

Keywords

colonialism, decolonisation, digitality, inhuman, posthumanism, subjectivity, technology

Introduction: Techno-colonialism

In the early 19th century, a consul for the British government landed on the shores of Cape Coast in contemporary Ghana. After a long journey through rain forests, Joseph Dupuis finally arrived at the palace of Osei Bonsu, the ruler of Ashanti. Dupuis unpacked a number of mechanical presents which he hoped would win over the ruler. The gifts

would, Dupuis expected, help open up the city of Kumasi to new British-Ashanti trade arrangements. Osei Bonsu had the presents laid out for inspection. His eye fell on a lathe, a machinic tool employed for cutting and drilling that was a source of great British pride. But, Dupuis (1824) writes in his *Journal of a Residence in Ashantee* (p. 101), Bonsu 'could not be prevailed upon to value it at a high estimation. It seemed to him too mechanical a royal present.' A watch and a musical box similarly failed to impress the ruler. Dupuis (1824: 101) complained that these 'required a degree of care foreign to the comprehension of the king'. For Dupuis, this was ultimately proof of Africa's vast distance from European technological mastery, the continent's standing as the anti-technologist *par excellence*. Despite the glorious palace and the lush surroundings, Joseph Dupuis saw in Bonsu but one figure: the 'savage' that dominated the European imagination of the African world.

This short fragment offers a glimpse of the ontological exclusions at the heart of contemporary technology's pre-histories. The aim of this paper is twofold. First, it aims to uncover the role played by technology in the colonial designation of colonised populations as, variously, sub-human: as either less-than-human, or as a lesser-human. Theorising subjectivity from the perspective of technology as one vector of 'onticide' (Warren, 2018) – ontological murder – it argues that the history of technology is one bound up with the animalisation and thingification of non-European Others. Second, it argues that, in insufficiently engaging this historico-political emergence of the notion of the 'human' vis-à-vis technology, contemporary posthumanist theorists of digital subjectivity run the risk of reproducing the very problem of universalism their framings seek to dismantle. In posthumanist scholarship on machine learning, datafied individuals, and other instances of advanced human-technology mediation, technology tends to be understood as irrevocably, and inevitably, co-constitutive of subjectivity. Against the lingering universalism of posthumanism, this paper argues that the 'human', as an onto-epistemological category that emerged with the birth of European colonialism, needs to be complicated, rather than simply stretched.

In outlining the limits of posthumanist ontologies, this paper is inspired by Hui's (2017a, 2017b) critique of the ontological turn apparent in the work of Haraway, Descola, and others. For Hui (2017a), this work celebrates the ontological pluralism that has been endangered by Western technology's spread throughout the globe by colonisation, but fails to address the question of technology. My own argument offers a divergence from Hui's claims, arguing that posthumanist scholarship *does* work through the question of technology – by way of a renewed emphasis on the ontological interdependence of humans, technology, and nonhumans – but neglects the ontological murder at the heart of techno-colonialism. To this end, I foreground the need to incorporate technology's negative ontological labour into conceptions of subjectivity, and consider what the conceptual implications may be for posthumanist theories of subjectivity in scholarship on the digital.

Within this posthumanist scholarship, there is a partial neglect of those technologies that are in excess of the strictly 'digital' (binary computation), both in their past occurrence and in their ongoing contemporary presence. It tends to pay attention to the latest *digital* inventions – everyday and rare, mundane and spectacular – and their spatial, social, and political implications. What needs more attention, however, is a consideration of digital contemporaneity as emergent from a historical range of material-discursive practices, epistemological habits, and philosophical tendencies. Widening the empirical scope of contemporary digital scholarship in this manner may enable us to spurn the implicit divide between, on the one hand, 'neutral' technologies such as the radio, loom, or mills, and, on the other hand, the exploitative, dispossessive and discriminatory technologies characteristic of our digital era: 'smart', 'algorithmic', 'automated', and 'robotic'. Technologies operating outside of or preceding the logic of computational binarisation carry worlds that continue to co-constitute our present moment. The paper specifically argues for the need to trace the legacies of the ontological labour conducted by technology in the European colonial project that commenced in the 16th century. While it admires the work on contemporary forms of 'data colonialism' (Thatcher et al., 2017**[AQ: 1]**), the paper traces the ontological and epistemological lives of a technocolonialism that started four centuries earlier.

I begin by examining how technology came to be enrolled in the wider ontological exclusion of the 'savage' from the category of humanity across three separate but overlapping discursive-institutional theories. As we will see, it was first theo-centric (human in image of God), then ratio-centric (reasoned human), and later bio-centric (European cranial anatomy) theories of the human that came to create an image of the presumably non-technological Other as sub-human. The section that follows approaches these three strands as collectively adding up to one vector of ontological exclusion, where the subhuman Other functions as a limit-concept capable of constructing, and legitimising, the category of Man. Within the civilisation missions of European colonialism, technology helped secure the permanence of the colonial project by, paradoxically, serving at once as an ontological border and as a promise of transgressing it that is unrealisable because sub-humanity is, here, considered divinely or biologically innate. The fourth section brings the argument into the contemporary context of posthumanist theorisation. It presents the technological sub-humanisation of the colonised Other as a problematic for existing posthumanist theories of subjectivity. It particularly shows how the viewpoint of technological onticide complicates what I call the 'constitutive correlation thesis' in which the human and technology are conceptualised as, universally, recursively co-constituted. This universalist thesis, the paper argues, fails to account for the way technology is only selectively co-constitutive of subjectivity, and often ends up radically negating, by way of onticide, access to 'being'. A decolonial digital scholarship, the final and concluding section argues, requires a deepening hostility towards the figure of the human.

Techno-colonialism and the (dis)Figure of the Human

We begin by returning to Bonsu. His refusal of British technology, and his subsequent condemnation by the British Consul, needs to be understood within the colonial context that started three centuries earlier when Portugal and Spain set sail for the lands of Western and Northern Africa. Europeans hoped colonial endeavours would facilitate the diffusion of their tools and crafts. In the eyes of the colonial powers, the Americas and Africa presented unforeseen markets that could be flooded with European technologies and goods (Adas, 1989). Underlying attempts at technological diffusion was the assumption that, once presented with the coloniser's technology, local peoples would drop their

technological habits and take on the coloniser's. This strong confidence sparked the 'quick replacement' theory at the heart of many histories of technological diffusion (Ehrhardt, 2005). According to this theory, when indigenous communities and societies in Africa and the Americas entered into contact with colonial powers, they encountered superior technologies by which they were so enthralled that they rapidly adopted them, shedding their own technological past and moving into a more 'civilised' future.

Theo-centrism

The colonial argument for 'civilisation through technology' could, ultimately, only be justified and sustained through a series of conceptual interventions that are, following Wynter (2003: 264), constituted through (theological, philosophical, scientific) discourse, and grounded via colonial institutions. Adapting Wynter's (2003) terminology, I will call these interventions 'theo-centric', 'ratio-centric', and 'bio-centric'.

The first saw European theologians of the 16th century draw an ontological line between divine Self and non-divine Other. Within the monotheistic conception of 'Man', the non-European Christians encountered in the Americas and Africa were conceived of as driven by a willing divergence from Man in the image of God. As opposed to the European Christians who occupied the figure of a 'True Christian Self' (Wynter, 2003: 265), colonised peoples were sub-human 'Enemies-of-Christ' (Wynter, 2003: 293). What Christian theologians took as an absence of technology amongst indigenous populations - which, as historians (Arnold, 2005) have long confirmed, was a deeply flawed assumption – functioned as a particularly important designator of the drawn ontological lines.¹ To these writers, the lack of European technologies signalled a deep attachment to the environment, to the untouched wilderness, a landscape they considered to be 'the dwelling place of Satan' (Adas, 1989: 45), and one that the 'savage' failed or refused to shape to their needs. Puritan Christians, in particular, considered it to be their divine goal to subvert any contra-technological tendency, by force if necessary. They considered themselves to be on an evangelising mission, 'heeding God's injunction for man to turn the earth into his garden' (Adas, 1989: 45). Technology became one path of redemption: a step in the direction of salvation away from a sub-human existence towards a Christian image of the Human.

Christian missionary centres across the Americas and Africa arose to fulfil this supreme goal, teaching the European arts, sciences and technology in an attempt to root out Devilish ills and open the world to Godly influence. Spanish and English colonisers aimed to restrict nomadic modes of existence and to transform those into sedentary communities based on agriculture. A lifestyle centred on agriculture enabled, Christian Europeans believed, the uptake of superior tools (e.g. mattocks, hoes, and later plows) for working and exploiting, more fully, the rich lands of the Americas. Such a technological injection would elevate the savage not only above nature, but also above their own sub-human nature. Colonisers invoked the notion of *terra nullius*: 'empty' lands (i.e. not in the hands of a Christian prince) belong to anyone until they are cultivated (Wynter, 2003: 291). Refusing the coloniser's techno-colonialism – backed up by weapons – was, then, only an option if one is willing to sacrifice the lands that sustain one's very existence.

Ratio-centrism

With the conquest of the 'New World' in the 16th century, a second set of discourses on the nature of the 'savage' Other rapidly emerged. At this point, the purely theo-centric conception of the human determined by divine law began to encounter resistance and slipped into the field of the ratio-centric. What came to be known as the Valladolid debate helps illustrate what was at stake. Shortly after his arrival on American shores, Charles I, the King of Spain, created a jury to settle an important moral score in front of the Spanish court: are the indigenous populations of America capable of self-governance? On one side of the debate sat Bartolomé de las Casas, a leading member of the Christian Humanist movement who supported the theo-centric image of Man and the missionary movement that accompanied it. He argued that, because rationality was part of the Amerindian nature, self-determination was to be pursued. By contrast, for the Spanish philosopher Juan Ginés de Sepúlveda it will 'always be just and in conformity with natural law that these people be subjected to the rule of more cultivated and humane princes and nations' (quoted in Chamayou, 2012: 32). But what is this 'natural condition' which demands that some command while others obey?

With De Sepúlveda, who is generally described as the 'winner' of the debate due to the lasting influence of his position, Amerindian populations appear outside of a naturalised, or 'ratio-centric', theorisation of the human. De Sepúlveda had effectively re-drawn the ontological demarcations between the human European and sub-human Other. They became, at least partially, secularised, a question no longer of religion/irreligion but one of a binary between rationality and irrationality. In his Democrates Alter, the philosophical chronicler of the Spanish empire extends Aristotle's claim that slaves are 'designed by nature' to be slaves (Aristotle, 1932: 203), existing without the capacity for intellectual mastery, reduced as they are to their bodily instincts. In Aristotle's discourse, slaves are thus, by nature, animate entities possessed by someone else, the master. Like Aristotle's slaves of ancient Greece, the Indian Americans of De Sepúlveda remain defined by their subjection by nature. They are as easily swayed by 'their primitive and evil ways' (De Sepúlveda quoted in Fernández-Santamaria, 1975: 442) as Aristotle's slaves. It is, at the same time, nature which renders the Spaniards more human, and therefore not only naturally free, but as given the right to govern. De Sepúlveda presents us with an image of Amerindian populations as, by essence, 'barbarous and inhuman peoples, foreign to civil life and to peaceful customs' (quoted in Chamayou, 2012: 32). They are homuncul, diminished 'men', 'monkeys' almost 'in whom hardly a vestige of humanity remains' (De Sepúlveda quoted in Wynter, 2003: 283)

Not for all writers was the gap between 'rational life' and 'savage life' that clear cut. Early critics of Spanish conquest denounced the coloniser's enactment of brutish immorality through manhunts, torture and slave-taking, their becoming-savage, or, to use Césaire's (2000) term, their *de-civilisation*. But even amongst the early critics, a line is drawn between *acting* savage versus *being* savage, savage-by-exception versus savage-by-nature. The European, mirroring the savage's contra-rational customs and habits, temporarily approximates the position of the savage, but never fully inhabits it. What qualifies the savage is their full subjection to the condition of savagery, their default un-civil state.

A defining criterion of this ontological disjunction between the irrational Other and the reasoned European within the writings of many – but not all – writers of the early Enlightenment is, as it had been in the discourse of the Christian theologians, the presence/absence of technology.² Writing one century after De Sepúlveda's *Democrates Alter*, Hobbes (1998) speaks of Native Americans as governed by nothing but 'natural lust', an 'ill condition, which man by mere nature is actually placed in' (Hobbes, 1998: 84–6). He continues:

In such condition, there is no place for industry; [. . .] and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving, and removing such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society. (Hobbes, 1998: 84)

The perceived absence of science and technology, their living in a 'state of nature', renders it unimaginable for 'the savage people of many places of America' (Hobbes, 1998: 85) to join the ranks of civilisation, unless they were to submit themselves to the authority of an absolute ruler. But the Other is defined not only by the assumed failure to produce advanced technologies, but also by their very incapacity to do so in the first place. For instance, Thomas Harriot, an ethnographer and astronomer tasked with collating information about the New World, wrote that the burning glasses, mathematical instruments, guns, and other tools that the colonisers brought along on their conquest of the Wanchese and Manteo peoples of North America were 'so straunge unto them, and so farre exceeded their capacities to comprehend the reason and meanes how they should be made and done [sic]' (Harriot, 1972: 27).

The result is that technology becomes humanism's very measure, its secure grounding. Without the drive of technology, it seems, the human slips into a register of unreason that is altogether bestial. '[S]carcely protected from the wind and rain of [a] tempestuous climate', writes Darwin (2009), the peoples of the Americas 'sleep on the wet ground coiled up like animals' (p. 236). He adds: 'Viewing such men, one can hardly make oneself believe that they are fellow-creatures, and inhabitants of the same world' (Darwin, 2009: 235). Without the assumed leverage of technology, the Amerindian suffers a repulsive attachment to nature as a site of both passion and vulnerability.

Bio-centrism

Following the onto-theological circumscriptions of American peoples by way of technology in theo- and ratio-centric discourses, attempts were soon made to provide a more secure footing attuned to the deepening secularisation taking place in parts of Western Europe.

The first push towards the scientification of the discussed discourses can be found in 17th and 18th century social evolutionism, which classified and hierarchised races and regions according to their stage of Savagery, Barbarianism, or Civilisation and, employing polygenetic theories, according to their assumed different origins in the history of humanity. If there was a generalised distinction drawn between people in Europe and colonised peoples, the latter were assigned varying degrees of sub-humanity within the

Western classificatory treatment. Black Africans, notably, were less-than-human, and thus assigned to the lowest rank in the Chain of Being, below the Amerindian *homunculi* described by De Sepúlveda. They occupied 'the "missing link" position [...] between rational humans and irrational animals' (Wynter, 2003: 301). By the 19th century, philosophers and anthropologists began to claim that taxonomies of (sub)humanity could be based on 'the sacred facts of science' (Reade quoted in Adas, 1989: 145). The ability to work, length of railway tracks, marking time, and other numerical criteria were all said to provide a universal standard for assigning categories of (sub)humanity to peoples [AQ: 2]. But only with the birth of phrenology did practising (pseudo-)scientists get involved. Only at this point, and further secularising the theo-centric and ratio-centric conceptions of human-technology relations, did we fully enter the terrain of bio-centrism.

The bodies of those inhabiting the bottom ranks of (sub)humanity, phrenologists claimed, were innately anti-technological. Travelling zoologists fixated on and compared the brains and skulls of Africans, apes, and Europeans. In 1830, an anonymous author writing in *The Phrenological Journal* summarises one such study conducted by the anthropologist Julien-Joseph Virey. The anthropologist 'compared the capacities of Negro skulls and European by filling them with fluids, and the latter exceeded the former sometimes even by nine ounces. [. . .] The hemispheres are smaller, and the cerebellum is proportionately larger, as well also as the spinal cord' (*The Phrenological Journal*, 1830: 401). These particular deviations are all signs, Virey (1837: 3) wrote, of 'a degradation towards the *ape genus*'. The uncanny resemblance to the ape's spine-brain-skull triad explained the underdevelopment of the Other 's faculty of reason, their less-thanhuman intelligence. By extension, the Other fails to achieve the rise above bodily instincts necessary for self-reflection, 'never achieving the distance required in order to contemplate the self' (Jackson, 2020: 10).

James Hunt, a fellow adventurer in the racist science of phrenology and a self-proclaimed 'anti-abolitionist', claimed that the biological fault of the 'savage' body lay in the 'premature union of the bones and skull' (Hunt, 1866: 8). The result: the savage Other is a biological victim of arrested development, their skulls and brain incapable of advancing beyond the age of puberty. In fact, Hunt suggests, contrary to European craniological development, 'the older [Africans] grow the less intelligent they become' (Hunt, 1866: 8). The Africans' biological curvature is that of a collective unconscious regression. It was no surprise, then, phrenologists like Hunt and Virey declared, that the Other lacked the ability to invent or master technical devices beyond their seemingly infantile creations. What the Other reveals in its strong mental capacity for temporal return - 'showing great powers of memory' (Hunt, 1866: 16) – it lacks in futurity. Their gaze is biologically directed towards the past. But also towards the ground: unlike the European 'celestial plant' of Plato, who stands erect, gazes up at the sky, and lives by the head, that 'sanctuary of the soul', the African, with an ape-like gait, 'stoop[s] humbly towards the earth, to feed and remain on it', as if falling away from bipedalism, that triumph of anthropogenesis (Virey, 1837: 100-1). In the phrenologist's hands, the African Other's assumed technological inferiority thus became less a question of religious or social discourse and instead became one of zoological inscription: anti-technologism as spinal, cranial, cerebral, endocrine, and glandular. The ancient nature of the colonised, once again, resembles a pre-technological animal.

Technological Onticide

The discussed discursive-institutional measures (theo-centric, ratio-centric, bio-centric) each, according to their own particular functionings, instrumentalise technology within the logic of 'ontological murder', or 'onticide' to use Warren's (2018) term, of African and Amerindian life. Like Divinity, Reason and Intelligence, technology is weaponised as a violent negation, as the rupture from the existential coordinates and ontological grounds foundational to any claim to humanity, for any relation to Being (Warren, 2018: 130; Jackson, 2020). But unlike this trio, technology has an immediate material form. As a result, it serves a unique contribution to onticide: 'observable' via travelogues and 'measurable' through lists and taxonomies, technology stands out as materially quantifiable, and this, I argue, helps explain its status as a popular referent for ontological distinctions between the human and its negative Others within colonial writings. In the eyes of the coloniser, technology gave analytical access to the 'ontological zero' (Jackson, 2020), the sub-humanity, of a people, giving it a material form that could be observed, noted, mapped, and compared. It is its status as an ostensibly measurable determinant of (sub)humanity that made technology influential in animalising and objectification discourses. As we have seen, for Darwin, without the grandeur of technology (i.e. European technology), the Other remains in a bestial state – that of living at the mercy of nature, in all its overwhelming force, incapable of rising above it in a humanist feat of mastery.

But more than facilitating this destructive impulse, technological onticide helped solidify the colonised Other as negatively constitutive of the category of the human. As a limit-concept, technology enables the human to be constructed by way of negating what it is not. As such, in defining the limits of an ontological category ('the human'), technology manifests itself as a 'prop' (Jackson, 2020: 4) to erect Man. In tracing the bounds of what it means to be human, technology gives it form. Without its ontological negative, Man would encompass all and any form of existence, and would thereby render itself at once all-encompassing and redundant. In other words, European humanism *needs* its (non-technological) Other in order to sustain itself. For this reason, it is not surprising, as Yusoff (2021: 665) writes, that 'the birth of humanism is also the birth of Europe's colonial project'.

Indeed, if its origins and modes of operation are philosophical, the results of technological onticide are profoundly material. Not only does it legitimise and sustain its physical variant – the theft and murder of both land and people, alongside the forced submission to European models of life, technology and commerce. Importantly, it also justifies its status as being without ending. Technological onticide starts from the indigenous community's obligation to collaborate in the duty to technologise but, at the same time, as we have seen, it is underpinned by the belief that there is a (divine, spiritual, or biological) innate failure to do so. Dupuis' condemnation of Bonsu's refusal of European devices, with which we opened this paper, makes this clear. Bonsu was offered a clock and an organ**[AQ: 3]**, but the British Consul seemed already aware that he would lack 'a degree of care' required to make use of the tools. Because his presumed anti-technologism is considered to be ingrained, Bonsu would logically fail to appreciate the technical objects. This paradox – of expecting collaboration *and* its failure – is not a challenge to technological onticide but part of its driving logic: the implicit understanding that the European civilisation mission would never come to a logical conclusion, bound as it is by 'the infinite deferral of the savage's graduation to becoming "Man"' (Erasmus, 2020: 59). The colonised would always remain less-than-human, or at the very least, a lesser-human. In short, in presenting the possibility of elevation *and* its undoing, technology needs to be understood as one weapon in making permanent colonial subordination.

Posthumanist Subjectivity and Constitutive Correlation

In underscoring the ontological exclusion of certain humans by way of technology, the notion of technological onticide shows that human-technology relations cannot be taken for granted as simply a matter of 'usage', 'mediation', 'domination', or 'prosthesis'. As such, I argue, it poses significant questions to contemporary ways of understanding digital subjectivity.

Much contemporary scholarship on digital media, artificial intelligence, machine learning, algorithmic cognition, and other digital phenomena tends to approach, more or less explicitly, subjectivity via varying posthumanist framings. While marked by considerable internal differentiation, posthumanist theories of subjectivity each pursue the displacement of liberal humanist figurations of the subject as a unified, sovereign, and exceptional entity (Hayles, 1999). In this universalist figuration, which Hui (2017a) refers to as 'naturalist', the human subject exerts rational control over, while maintaining its separation from, technology in order to dominate nature. The subject of liberal humanism is a 'one' whose cohesion and autonomy remains intact despite the extensive use of technology (Amoore, 2019b). Against such universalist theorisations, posthumanisms tend to propose their own theories of subjectivity in which the human subject no longer belongs solely to itself. For all their divergences, what particularly binds posthumanist accounts of subjectivity together is an insistence on what I call the 'constitutive correlation thesis': the conceptual argument for the human subject and technological nonhumans (including technical objects, interfaces, codes, algorithms) as recursively co-constituted. More than underscoring the deep material connections between human subjects and technical devices (e.g. in practices of infusing or implanting), the thesis foregrounds their inextricable co-emergence on two levels. On a first level, the thesis is granted a transcendental status. For Derrida, it enjoys an originary status:

The natural, originary body does not exist: technology has not simply added itself, from outside or after the fact, as a foreign body. Certainly, this foreign or dangerous supplement is 'originarily' at work and in place in the supposedly ideal interiority of the 'body and soul'. (Derrida, quoted in MacKenzie, 2002: 6; cf. Stiegler, 1998)

In this reading, subjectivity can only ever be thought of as always already imbued with technical others that co-constitute it. On a second level, the thesis is historicised. Katherine Hayles, for instance, acknowledges that the constitutive correlation of human-technology is originary, whilst simultaneously positing its contemporary specificity, where 'the integration of humans with intelligent machines [becomes] more extensive and at the same time more diverse in its implementations, effects, and significance' (Hayles, 2004: 311). For Hayles (2012), it is particularly the cognitive

systems of cybernetic computation that deepen the constitutive correlation of the human and technology. Likewise, in Haraway's (2003) argument, while none of the human-technological partners ever pre-exist their relational ensemble, cyborg subjectivity announces a renewed dynamism. Subjectivity, in this argument, is engendered increasingly in the interplay of human life, code, software, and hardware (Haraway, 1991). Echoing Haraway, Braidotti (2019) posits subjectivity as a collaborative effort that takes place transversally, in the in-between of nature/technology and sociality/ materiality divides, in ways that are both transcendental, and intensified by the digital era of 'high technological mediation' (p. 43).

By way of their transcendental-historical accounts of the constitutive correlation thesis, posthumanist theories trouble any liberal humanist theory of the subject as an autonomous self - independent from the technical environment - and propose, instead, a symbiotic theory in which subjectivity is commonly referred to as emergent from the 'entanglement' (Hayles, 2004), 'collaboration' (Amoore 2019a), 'coupling' (Hansen, 2004), and 'co-operation' (Braidotti, 2019) of human life and technical objects. Conceptualising subjectivity in terms of the constitutive co-emergence of the human and the technical is presented as a crucial assault on the colonial sub-humanisation described in this paper. For the geographer Gillian Rose, posthumanist theories of subjectivity offer 'a necessary corrective to centuries of Western philosophizing that attributes agency only to a specific kind of human: the male, white, heterosexual sovereign subject, capable of rational thought unencumbered by material objects, whether tools or his body' (Rose, 2017: 782). The constitutive correlation thesis, in this argument (Braidotti, 2013), promises to displace the fantasy of the autonomous and sovereign self at the heart of the theocentric, ratio-centric, and bio-centric separations from, and political domination over, sub-human 'Others'. Against the liberal humanist theory of the subject that makes possible discursive-institutional practices of sub-humanisation, it promises a radical theory of subject formation centred on ontological co-dependence, one that, in turn, translates into an ethics of mutual interconnectedness and affectivity (Amoore, 2019a; Braidotti, 2013). If subjectivity is constitutively correlational – that is, emerges only in relation with technical others – than our ethics, too, must start from, and seek to promote, the primacy of relations.

The premise of posthumanist theories of subjectivity as engendering a disruptive force at odds with the violence of liberal humanism is appealing but partial. I argue that the ontological and bloody erasure enabled by technological onticide presents a powerful challenge to the universalist impulse behind the constitutive correlation thesis. Underpinning its theory of subjectivity is, as we've seen, a conception of relations between the human and technology as *always and necessarily* a matter of co-constitutive emergence. From the viewpoint of technological onticide, however, the co-constitutive nature of human-technology relations cannot be assumed. Technology at times appears as exactly the reverse of constitutive correlation: as enabling a *destituent* relation to the human, as the casting-away of the human. To be more precise, in the case of technological onticide, the encounter of human and technology features not as the co-production of subjectivity but subjectivity's radical negation that ends up functioning as a constitutive ontological outside for Man. What is a component of recursive co-constitution of subjectivity for some is the destitution of subjectivity for others. When posthumanist scholars

write of the originary technicity (Mackenzie, 2002; Stiegler, 1998) or contemporary technicity (Haraway, 2003; Hayles, 2004, 2012) of human life, they fail to acknowledge that technology is only selectively – rather than universally – co-constitutive of subjectivity.

This conceptual lacuna facilitates two universalist tendencies in posthumanist theories of subjectivity. The first tendency pertains to relations amongst humans. Ignoring technological onticide leads to the assumption that, despite subjectivity's co-constitution, there remains a shared ontological ground for the human. But the human has ontobiological lives: a life can be both onto-epistemologically and biologically human, yet this simultaneity is not a given. Alongside Warren's (2018) theorisation of Black ontology, we can think of the insistence on a shared foundation ('being human') as a tentative conflation of human 'being' (ontology) and human 'existence' (biology). As theories of onticide (technological or otherwise) show, what has a human existence does not universally have human being or, in Palmer's (2020) terms (p. 254), has access to Beingin-the-World. For Warren (2018), the Black enslaved and colonised constitute 'a laboratory that functions biologically, but is dead ontologically' (p. 118). In conflating the biological and the ontological substrate, existence and being, posthumanist theories of subjectivity run the risk of carrying their own universalism, even if their noted aim is to render such a humanist tendency inoperative. The attempt to inoperationalise the problematic legacies of Man can be found most clearly within the important acknowledgement of the differentiation of technological experiences, affects, perceptions, and meanings; what Rose (2017), following Stiegler, terms a 'posthuman diversity' enacted by the 'difference-in-repetition [...] through technics' (pp. 785, 784). By troubling the constitutive correlation thesis, technological onticide challenges us to push beyond the recognition of purely lived, material, or experiential distinctions at the heart of technological life, and to venture into the realm of onto-epistemological separation. There is an urgent need to refuse the containment and reduction to sameness of radical alterity, in this case ontological alterity: the difference between being and existence. What technological onticide demands is a theory of subjectivity that not only acknowledges the realm of human diversity but, more significantly, the discrepancy between belonging and not belonging to (a shared) humanity.

Not accounting for the destitution of technological onticide leads to a further universalist tendency in posthumanist theories of subjectivity, one that unfolds with regard to the question of human-nonhuman relations. Posthumanist theories of subjectivity are commonly articulated as an ethical challenge to the liberal humanist theories of the autonomous and rational self, and specifically, their reliance on the Cartesian legacy of human/animal distinctions. Alongside 'reason', 'creativity' and 'responsiveness', 'toolmaking' is operationalised within the liberal humanist legacy as an external 'supplement' to separate the beast from the human (Braun, 2004). The beast, here, is machinic, is 'animal-machine', only to the extent that it operates without capacity for thought, consciousness and speech – where it holds *res extensa* (corporeal substance) but lacks *res cogitans* (mental substance). Posthumanist ideas of subjectivity take clear aim at the structures of thought enabling this mechanisation of animal life, and the discourses of human sanctity, self-containment, and exceptionalism that spring forth from them (Haraway, 2003; Wolfe, 2010). But what is forgotten, and technological onticide foregrounds, is that not 'all humans are privileged over all animals by virtue of being included in humanity' (Jackson, 2020: 16-17). As a force of sub-humanisation facilitating the presentation of the presumably non-technological Other as naked animal at the mercy of 'wilderness' (Darwin, 2009), technology helped put the colonised and enslaved to labour as animals, as machines (Erasmus, 2020), or as 'object-commodities' (McKittrick, 2014: 17). The technological sub-humanisation of the colonised, as ontoepistemological tropes in the service of theft and enslavement, precludes their inclusion within the category of speciesist humans that Braidotti (2013) and other posthumanist theorists of subjectivity (including Haraway, 2003; Wolfe, 2010) argue requires 'decentring' through an emphasis on ontological interdependency. They were, already, decentred. In light of technological onticide, strategies of 'displacement' outlined by posthumanist scholars lose their connection to an emancipatory premise. What Braidotti calls 'becoming-animal' or 'becoming-machine' ceases to be a strategy of liberation underpinned by 'an ethics of joy and affirmation that transforms negative into positive passions' that 'engenders possible futures' (Braidotti, 2002; Braidotti, 2009: 530, 531; Erasmus, 2020). Such a strategy is not inherently flawed, and is presumably a distinctly ontological one, but it needs to be careful to actively ward against conflating animality with emancipation by working through how it can account for technological onticide. Ultimately, the conceptual work that requires undertaking, but is currently wanting, is a detailing of what the decentring – by asserting ontological co-constitution – of Man might look like for those who never experienced the privilege of access to humanity in the first place.3

Without a confrontation with the negative ontological labour of technology, we will not only fail to acknowledge and work through the specific technological dimensions of past colonial expansion. We also run the risk of overlooking, and thereby failing to understand and undermine, the *contemporary* violence of technological onticide, where racialised people continue to be much more likely to be treated as machines, waste, or data. From this viewpoint, neither a liberal humanist theory of Man, nor a posthumanist theory of subjectivity, are currently capable of sufficiently working through and against the full scale of the ontological violence of colonialism.

Conclusion: Post-, In-, Counter-, Un-?

The aim of drawing out conceptual challenges has not been to disqualify that posthumanist theories of subjectivity can ever be decolonial in thought, methodology, and epistemology, let alone to re-assert the human as a figure that requires clean delineation, but to force into view some of the complex problems posed by technology as a vector of ontological exclusion. The paper has argued that technology, as a historically and politically situated category, has long helped facilitate the exclusion – what I've called the 'technological onticide' – of non-European and indigenous populations across the Americas and Africa. Three overlapping modes of such onticide were brought to the fore: a theo-centric theory in which the presumed nontechnological Other is taken as a willing divergence from the human in the image of God; a ratio-centric view that takes this Other as the unreasoned antidote to the technological self; and the bio-centric paradigm of scientific phrenology that grounds it in bodily (cranial-spinal-cerebral) deficit. Through these measures, technology fixated the colonised into a position of sub-humanity whilst, at the same time, presenting a manner of escaping this position. This paradox, I have argued, functioned as a foundational limit-concept to the European colonial concept of Man, used as it was to legitimise both its invention and its incessant functioning.

This paper has argued for posthumanist scholars of digitality to take seriously this negative labour of technology. This involves posing a series of conceptual problems for theorisations of subjectivity vis-à-vis technology, emphasising in particular the argument for subjectivity as the constitutive correlation of the human and technology. The paper argued that posthumanist theorisation, in looking to 'correct' the liberal humanist idea of Man, ends up producing its own univeralist tendencies. First, it fails to take the idea of 'differentiation' amongst human life beyond the experiential and affective into the ontological distinctions between human 'being' and human 'existence' enabled by technological onticide. Second, it insufficiently considers the way that 'decentring' the human is only ever emancipatory as a process of animalisation or thingification for those not at the receiving end of onticide.

Working through these two tendencies offers a way of circumventing the lure of universalism that posthumanist theories of subjectivity claim to work against. If posthumanism is a challenge to humanist Man (white, male, able-bodied), then what remains unclear is how the 'posthuman' works through, and more importantly, against the ways technology, alongside other vectors of onticide, facilitates the radical rejection of subjectivity. The path offered to us by most posthumanist thought on the digital is an extension, or 'correction' (Rose, 2017), of the category of subjectivity to include not only non-human co-constitution, including the technological, but also those forms of human existence that have, traditionally, been eradicated from access to humanity. What is uncertain, however, is how this, on the one hand, actively confronts the past violence and its contemporary afterlives of this exclusionary category and, on the other hand, does not simply temporarily displace the ontological boundaries of the human in order to draw a universalist line elsewhere, for instance by conflating human existence with human ontology, or by conceptualising all humans as tied up in the category of speciesist humanity. This is important because the human, as we have seen, always requires a sub-humanised Other as a limit-concept in order to sustain and legitimise itself, in order to keep its 'metaphysical world intact' (Warren, 2018: 6). To this end, a deeper conceptual fracturing of subjectivity is needed that is, conceptually, attuned to technology's role in the negation (rather than simply co-constitution) of subjectivity and that, politically, wards off the threat of new onticidal universalisms. How this remains to be done is an open question, but I finish this paper by sketching three preliminary queries (in-, counter-, and un-human) into alternative theories of subjectivity for scholars of the digital. My aim is not to overdetermine the kinds of technocultures that could be imagined if one takes technological onticide seriously, but instead to offer three potential ontological starting points for such an investigation.

First, we could look to the knowledges of the very communities colonised by De Sepúlveda and his armies of soldiers and missionaries to trace the possibility of an *in*humanist theory of subjectivity that starts not from the human, technological, and

nonhuman as elements co-producing subjectivity, but instead begins from an impersonal 'soul' that brings worlds into being (Viveiros de Castro, 2004). Rather than correcting theories of the 'human', certain Amerindian epistemologies take as their starting point an intricate cosmology of animate objects, prosopomorphic prototypes, and natural phenomena with humanoid masters. An inhumanist framework would foreground such 'cosmotechnics', looking to overcome the humanist opposition between culture and technics (Hui, 2017b) whilst refusing the posthumanist celebration of human-technology co-constitution.

Second, against the theoretical position of more-than-human subjectivity, thinkers within the Black radical tradition propose a *counter*humanist rather than a *post*humanist position (Erasmus, 2020). Instead of reworking and stretching the colonial conception of Man and its subsequent reconfigurations by European thinkers by underscoring ontological interdependence, these writers draw from early 20th century Black critique, critical theory, and arts practices. At least two divergent paths into counterhumanism could be carved. On the one hand, against the universalist idea of a shared humanity – biological or ontological – the counterhumanist proposes, with Sylvia Wynter, a conception of the human – a *genre* of the human (McKittrick, 2015) – which does not just include but actively starts from those negated from its scope, thus taking ontological negation as the ground from which to construct anew. On the other hand, another counterhumanist approach would withdraw from the urge of conducting conceptual labour, of initiating a new grounding for subjectivity, arguing that what is required is, first and foremost, the unspeakable destruction of the world that made (techno-)onticide a possibility in the first place (Palmer, 2020; Warren, 2018).

Third, and at odds with both posthumanist framings and the inspiration found within the inhuman or counterhuman, an *un*human approach would banish the perspective of the human altogether. Within such an unhuman conception of life, the human loses its salience as site of meaning in the face of the overwhelming indifference of the cosmos (Thacker, 2018). An unhuman politics would not seek recourse within a dialectical move that would abolish one conception of the human in order to replace it with another, however extended, but would attempt to strike more deeply at the lure of humanisation. For Thacker (2018; see also Dekeyser, 2020), as long as we fail to grasp the unintelligibility at the heart of human and nonhuman life, any conception of the human, and by extension, of the digital, is ultimately already compromised. The unhumanist opens up the possibility of impossibility, of a posthuman that has neither ground nor destiny, and that is, ultimately, but a speck of agency in the unhumanity of our (technologised) world.

Each of these conceptual trajectories are likely to circumvent some of the problematics outlined in this paper, while succumbing to and generating others. The task for thinkers of digitality lies perhaps less in the purist search for a perfect alternative to posthumanist framings, and more with a dedication to the crucial task of offering conceptual tools for working through – theoretically, empirically, politically – the legacies of technological onticide. Within our contemporary digital world, certain populations remain, after all, much more susceptible to the violences of datafication, thingification, and objectification, with their destituent encounters with technology, as labourers and consumers, being at least as material as they are ontological.

Acknowledgements

I wish to thank the TCS Editorial Board and the anonymous reviewers for their generous engagement and useful comments on this article. Additionally, I would like to thank Andrew Culp, Sasha Engelman, Harriet Hawkins, Thomas Keating, Antje Scharenberg, and attendees at the RGS 2022 Conference session on 'Rethinking the (Post)Human in Geography' for comments on, and conversations about, earlier drafts. This article was generously supported by a British Academy Postdoctoral Fellowship.

ORCID iD

Thomas Dekeyser (D) https://orcid.org/0000-0002-3809-313X

Notes

- 1. Arnold (2005) shows that indigenous technologies (such as medicinal plants and well-sinking techniques) were not only abundant, they were even widely taken up and implemented by colonial powers.
- Most famously, and against his 16th-century contemporaries, Montaigne (1958) wrote in *Of Cannibals* of American indigenous peoples as neither savage nor barbarous, showing instead how they had become a convenient deflection by which Western nations covered over their own cruel incivilities.
- 3. Further work is to be done to consider this within the context of the wider ontological labour of technology upon the figure of the 'human'. While the colonised are disproportionally affected by theo-centric, ratio-centric, and bio-centric interventions of technological onticide, to engage the online world is, unavoidably, to enter into contemporary regimes of data production and accumulation that fracture the self into nonhuman pockets of value for a much wider population (Cinnamon, 2020). In this context, it is the colonised, who were already on the side of the nonhuman, that are disproportionally affected by having least access to the behavioural data they themselves have produced (Cinnamon, 2020; Scassa and Perini, 2022).

References

- Adas, Michael (1989) Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance. Ithaca, NY: Cornell University Press.
- Amoore, Louise (2019a) Doubt and the algorithm: On the partial accounts of machine learning'. *Theory, Culture & Society* 36(6): 147–169.
- Amoore, Louise (2019b) Introduction: Thinking with algorithms: Cognition and computation in the work of N. Katherine Hayles. *Theory, Culture & Society* 36(2): 3–16.
- Aristotle (1932) Politics. Cambridge, MA: Harvard University Press.
- Arnold, David (2005) Europe, technology, and colonialism in the 20th century. *History and Technology* 21(1): 85–106.
- Braidotti, Rosi (2002) *Metamorphoses: Towards a Materialist Theory of Becoming.* Cambridge: Polity Press.
- Braidotti, Rosi (2009) Animals, anomalies, and inorganic others. *PMLA/Publications of the Modern Language Association of America* 124(2): 526–532.
- Braidotti, Rosi (2013) The Posthuman. Cambridge: Polity Press.
- Braidotti, Rosi (2019) A theoretical framework for the critical posthumanities. *Theory, Culture & Society* 36(6): 31–61.
- Braun, Bruce (2004) Querying posthumanisms. Geoforum 35(3): 269-273.

Césaire, Aimé (2000) Discourse on Colonialism. New York, NY: Monthly Review Press.

- Chamayou, Grégoire (2012) *Manhunts: A Philosophical History*. Princeton, NJ: Princeton University Press.
- Cinnamon, Jonathan (2020) Data inequalities and why they matter for development. *Information Technology for Development* 26(2): 214–233.
- Darwin, Charles (2009) Journal of Researches into the Geology and Natural History of the Various Countries Visited by H.M.S. Beagle. Cambridge: Cambridge University Press.
- Dekeyser, Thomas (2020) Pessimism, futility and extinction: An interview with Eugene Thacker. *Theory, Culture & Society* 37: 367–381.
- Dupuis, Joseph (1824) Journal of a Residence in Ashantee: Notes and Researches Relative to the Gold Coast, and the Interior of Western Africa. London: Henry Colburn.
- Ehrhardt, Kathleen (2005) European Metals in Native Hands: Rethinking Technological Change 1640–1683. Tuscaloosa, AL: University of Alabama Press.
- Erasmus, Zimitri (2020) Sylvia Wynter's theory of the human: Counter-, not post-humanist. *Theory, Culture & Society* 37: 47–65.
- Fernández-Santamaria, José A (1975) Juan Ginés de Sepúlveda on the nature of the American Indians. *The Americas* 31(4): 434–451.
- Hansen, Mark (2004) New Philosophy for New Media. Cambridge, MA: MIT Press.
- Haraway, Donna (1991) A cyborg manifesto: Science, technology, and socialist-feminism in the late twentieth century. In: Haraway, Donna (ed.) *Simians, Cyborgs and Women: The Reinvention of Nature*. New York, NY: Routledge, pp. 149–181.
- Haraway, Donna (2003) The Companion Species Manifesto: Dogs, People, and Significant Otherness. Chicago, IL: Prickly Paradigm.
- Harriot, Thomas (1972) Briefe and True Report of the New Found Land of Virginia: The Complete 1950 Theodor de Bry Edition. New York, NY: Dover Publications.
- Hayles, Nancy Katherine (1999) *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics.* Chicago, IL: University of Chicago Press.
- Hayles, Nancy Katherine (2004) Refiguring the posthuman. *Comparative Literature Studies* 41(3): 311–316.
- Hayles, Nancy Katherine (2012) *How We Think: Digital Media and Contemporary Technogenesis.* Chicago, IL: Chicago University Press.
- Hobbes, Thomas (1998) Leviathan. Oxford: Oxford University Press.
- Hui, Yuk (2017a) Cosmotechnics as cosmopolitics. e-flux 86: 1-11.
- Hui, Yuk (2017b) On cosmotechnics: For a renewed relation between technology and nature in the Anthropocene. *Techné: Research in Philosophy and Technology* 21: 319–341.
- Hunt, James (1866) *The Negro's Place in Nature: A Paper Read Before the London Anthropological Society.* New York, NY: Van Evrie, Horton & Company.
- Jackson, Zakiyyah Iman (2020) *Becoming Human: Matter and Meaning in an Antiblack World*. New York, NY: New York University Press.
- MacKenzie, Adrian (2002) *Transductions: Bodies and Machines at Speed.* New York, NY: Continuum.
- McKittrick, Katherine (2014) Mathematics Black life. The Black Scholar 44(2): 16-28.
- McKittrick, Katherine (ed.) (2015) *Sylvia Wynter: On Being Human as Praxis*. Durham, NC: Duke University Press.
- Montaigne, Michel de (1958) *The Complete Essays of Montaigne*. Stanford, CA: Stanford University Press.
- Palmer, Tyrone (2020) Otherwise than Blackness: Feeling, world, sublimation. *Qui Parle* 29(2): 247–283.

- Rose, Gillian (2017) Posthuman agency in the digitally mediated city: Exteriorization, individuation, reinvention. *Annals of the American Association of Geographers* 107: 779–793.
- Scassa, Teresa and Perini, Fernando (2022) Data for development: Exploring connections between open data, big data, and data privacy in the Global South. In: Robinson, Pamela and Scassa, Teresa (eds) *The Future of Open Data*. Ottawa, Canada: University of Ottawa Press. [AQ: 4]
- Stiegler, Bernard (1998) *Technics and Time 1: The Fault of Epimetheus*. Stanford, CA: Stanford University Press.
- Thacker, Eugene (2018) Infinite Resignation. London: Repeater Books.
- The Phrenological Journal (1830) Thompson versus Montgomery on the Negroes. *The Phrenological Journal and Miscellany* 6: 398–410.
- Virey, Julien-Joseph (1837) Natural History of the Negro Race. New York, NY: Wiley & Long.
- Viveiros de Castro, Eduardo (2004) Perspectival anthropology and the method of controlled equivocation. *Tipití: Journal of the Society for the Anthropology of Lowland South America* 2(1): 3–22.
- Warren, Calvin (2018) *Ontological Terror: Blackness, Nihilism, and Emancipation.* Durham, NC: Duke University Press.
- Wolfe, Cary (2010) What is Posthumanism? Minneapolis, MN: University of Minnesota Press.
- Wynter, Sylvia (2003) Unsettling the coloniality of being/power/truth/freedom: Towards the human, after man, its overrepresentation – An argument. CR: The New Centennial Review 3: 257–337.
- Yusoff, Katherine (2021) The inhumanities. *Annals of the American Association of Geographers* 111(3): 663–676.

Thomas Dekeyser is a British Academy Postdoctoral Fellow at the Centre for the GeoHumanities at Royal Holloway, University of London. His research focuses on refusal, technology, and affect, and is directly inspired by critical theory, pessimist philosophies, and abolitionist politics. He is finishing a monograph titled 'Techno-Negative: A History of Refusal' on the extensive histories of technological refusal, and has co-directed the experimental documentary *Machines in Flames* (2022; 50 min.) on the bombing of computer companies in early 1980s France.