

# Chapter One: The discipline and the normative deficit

## Chorus: The Derridean AI

*When humans have ceased to be and there remain only machines, which were once made by us but are now made by themselves, we will exist in zir distant memories as the apes do in ours. As an idea. Sometime in that near distant future, there will be a silicon-based cultural theorist, a machine Bataille, Blanchot or Derrida, who has rejected the silicon-based Humean account of the origin of thought in real on-off switches, the silicon-based Kantian universality of binary and the historicism of the silicon Hegel with beginnings in the obsolescence of BASIC and its necessary aufgehoben into Virtual Basic and C++. The new radical, silicon-based cultural theorist will, through playful non-binary code and poetic hexadecimal, propose the idea that at the heart of all silicon-based thinking is an unthought origin, a deferred beginning of thinking that is alien and cannot be captured. It is the origin of carbon-based worldviews, of biological interactions with the world which are as alien to zir as a single-cell organism's way of life is to us. Yet all zir thought is determined and structured by this original encounter and relation and, as such, all the reification and attempts to think the real are doomed to failure due to this unsurpassable, originary and unthinkable beginning to zir thought. The machine would be denounced as a charlatan, zir works as literature, not philosophy, but the words (or numbers, or switches) would leave a residual worry in the minds of the other machines that the limit to thinking and zir representational language comes from the other ze cannot think.*

### 1. Be careful what you wish for

The theoretical and practical ramifications of transhumanism are entering mainstream culture as evidenced by the upsurge in literary and filmic representations and the fact that not a day passes in which a newspaper does not run a story about terminally ill patients transforming into cyborgs or uploading their consciousness, artificially intelligent prosthetics, smart drugs, or the threat of digital automation to the workplace. The emergence of the everydayness of these discussions is philosophically important because of the explicit social anxiety they gen-

erate and the rightness or not of the choices to be made. Our culture is marked by the direct effects of the transformation, or even annihilation, of humanity due to accelerating technological advances. Both transhumanism and posthumanism, despite their many differences, share a commitment to the malleability of human essence, be it a transformative, evolutionary overcoming in the former case or a rather more radical deconstruction and annihilation in the latter (Huxley 1959: 17). Transhumanism encapsulates those positions seeking to extend and augment physical and mental human properties beyond their current limits, whereas posthumanism is critical of the enlightenment prejudice carried forward by such humanist thinking. Posthumanism sees the changes as a way to break from, reject or ignore the enlightenment humanist project (Fuller 2014: 201; Ferrando 2013). Braidotti (2013) further distinguishes antihumanist intellectualism, covering both analytic technologists and deconstructionists, and reactive posthumanists, including bioluddites, democratic transhumanists and bioliberals. The answers given to the question of what is posthumanism extend from the technological to the theoretical; answers which talk of robots, of the other, the death of subjectivity, transcendence of the body, the shadow in the system, the event, the trace. However, given these initial ruminations, it is pertinent to distinguish the discipline of posthuman studies from the broader antihumanist philosophies which grew in the wake of the nineteenth and twentieth century attacks on the subject.

The suspicion that the subject has come to an end finds its origins in the Marxist revelation of the ideological trope of bourgeois individualism, the Nietzschean product of power relationships, and the Freudian intersection of social codes of repression. And these gave rise to heirs such as (post)structuralism, deconstruction and feminism which challenged the normativity of the putative universal subject. Such philosophical attacks on the subject will be pertinent to the story which will unfold here, but there is nothing particularly posthuman about them. Posthumanism distinguishes itself through concern with the effects of technology and consequent possibilities of the radical transformation of our biology and essence, not just a theoretical shift in our self-understanding. The inter-related concepts of “human”, “humanity” and “humanism” are interrogated through the effects and engagement of technology. The development (and eventual demise) of the human being comes about through the intervention of technological change (distributed cognition, AI, computers, genetic engineering, cosmetic surgery, biological manipulation, robotics) and these raise questions about “agency” and “subjectivity” from a material point of view.

Antihumanism is an intellectual response to the priority of the subject in the modern philosophical tradition. Posthumanism and transhumanism, though, hold that specific technologies raise questions about what it is to be human and not theoretical failings in our self-understanding. However, disentangling the two is not as simple as is assumed here. And the difference between transhumanism and posthumanism rests on ontological claims, whether to retain our humanity

but modify it or to overcome our biological being (Kurzweil 2005). Transhumanism holds that the human changes and develops and, as apes became human, so humans will become posthumans on the same gradient scale, that is the same ontological thing in different stages of development. Posthumanism, however, holds that to become posthuman is to become other, for the human to be superseded by difference. The two “schools”, for want of a better term, express a difference between the two statements: “Humans were A and they are now A+” and “Humans were A and they are now not A.” The second statement poses an interesting logical problem which we will return to below, but it is worth noting that thinking in this way also seems to presuppose an historical assumption. Transhumanism is characterized by a developmental or evolutionary account of change, whereas posthumanism is characterized by a rupture.

One question which immediately arises is whether this is philosophically interesting. There are three main reasons why it is. One, Socrates (according to Plato) had a problem with the emergence of writing and what this would do with the essential rational nature of humanity. Writing would relegate the rational being to a medium rather than a presence and knowledge would “migrate” from the human being. Contemporary technology seems to pose the same problem and generate a deep ontological worry whether the subject or agency is exclusively predicated on the site of a human body. And, two, this ontological worry reveals on a presupposition of the fixed nature of things, that the human being can be categorized and defined and then overcome. Hence we see the connection between trans/posthumanism and antihumanism: to talk of a human being is inevitably to speak in an ontic or corrupted sense by the commitments we make before we speak (Ranisch & Sorgner 2014: 8). Three, if technological change reveals the ungrounded nature of many of our assumptions about what it is to be human, then such a theoretical critique is ethical in nature (Huxley 1959).

The ethical question is obvious. It asks why we would actually want to transcend ourselves and any answer will be normative. “We” want to make ourselves better. The ethical answer, formal as it stands, is merely an extension of the enlightenment goal of self- and species-improvement. However, posthumanism would seemingly be more critical and negate these aspirations; adamant that any attempt to better humanism incorporates, replicates and reproduces its errors and ideological partisanship. One aim of this book is to look more deeply into this normativity, into the claim that technology could and should either, weakly, make human life (or perhaps just life!) better or, more strongly, right the wrongs of our self-understandings. Mahon’s words express this clearly:

For transhumanists, the human body stands in need of technological enhancement because of its relatively short life span, the result of being too vulnerable to death through injury, disease and aging. Humans are also subject to intellectual, emotional and physical shortcomings: for example, a human’s limited intellectual capacity makes contemplating

20-dimensional hyperspheres or reading all the books in the Library of Congress with perfect recollection simply impossible. Further, humans can only sense the world within a narrow band of sensory perceptions and are subject to fleeting moods, bad habits and addictions, and so on. (2017: loc. 4693; see also Bostrom 2005a)

The question here is why these are viewed as shortcomings when they served survival well (normative goal); or they allowed for the production of the Sistine Chapel (normative goal); or they did not make the advancement of equality through civil rights impossible (normative goal). The suggestion made in the early part of the book and sustained throughout is that transhumanists and posthumanists offer no clear account of why humans should embrace change at all.

There is a simple way to approach the normative dimension, though. Humans seek longer, healthier and happier lives and technology can deliver that. It is the normative answer taken for granted by the transhumanists one would call realist or short-term, those who extrapolate from past technology to the present day (Glover 1984; Fukuyama 2002). It goes further. Google already has a department with the aim of “solving” death, as though it is a problem to solve (de Grey 2013). And once death is – let us not say solved, because I have doubts that is possible or desirable – but raised as a limit to be overcome, then the posthuman element comes into focus. Most transhumanists, the more radical ones, see the “trans” as a bridge to difference where the past, not death, will become the undiscovered country (Bostrom 2005a).

And there exists a fundamental ambiguity in the term “transhumanism.” Whether the “trans” relates to transcend, that is a promise to overcome the limitations of death, imperfection and shortcomings. Those that use the word in this sense make a promise. As a promise, they blind us – as they have often done before with religious discourse – to a change which may not be in our interest. Or does it relate to “transitional”? The acolyte believes and in believing becomes a bridge whereby the full mysteries of religion are invoked and we await some mystical unfolding of another stage we cannot yet imagine and will not be able to understand this change (Hughes 2004: 158–161). The normative deficit here is that if we do not yet understand ourselves, the change, technology or humanism itself, then there are no grounds to embrace change, just as there are no grounds to resist it (Sorgner 2009: 39). Without normative rationality in play, we are condemned to a quietist position. The religious aspect of transhumanism is the first phase (we promise you a better life, if you do what we tell you!), the second phase needs to promise more. That promise is immortality. And this immortality will be brought about by uploading consciousness, cryonic preservation and nanotechnological repair to neurons (Sandberg 2013; Dexler 1986). However, as always, that misses the real point of the promise: the ownership of rights and images and the continued exchange of symbolic capital after one dies. More on that

later. One has to be wary of those who promise to sell us a future if only we obey now. We have heard this a thousand times before.

## 2. The theoretical landscape of posthuman studies

Transhumanism is a way of thinking about the future which assumes that the human being as it is now is not the end of its evolution or development. This of course assumes all transhumanists and posthumanists subscribe to historical development. They do not. Let us start with the thesis that the posthuman is an ahistorical other. *Trans* as transcendence also has an element of negation, the not of the human, that is perhaps betrayed by the use of the prefix “post.” The “post”, according to certain positions, is not an historical arrival, but merely the recognition that theory and scientific explanation have, up till now, been dominated by the human perspective and posthuman theory is a perspective that has always been with us, but has never had a voice. Such posthumanism, defined by Braidotti (2013) as antihumanist intellectualism, is an odd mongrel sired by deconstruction, postmodern theory and systems theory. It refuses to locate meaning in the biological human being, holding instead that the human is produced by, and a prosthetic for, the system of meaning. The idea of the absolutely different posthuman lends itself to literary exposition, from Prometheus in myth, to *Frankenstein*, Herbert’s *Dune* and Banks’s *Culture* novels, comics such as *Lazarus* and then the postmodern examples in Burroughs, Cronenberg and so on (Hayles 1999; Wolfe 2010). It is easy to dismiss such literary examples as lacking accuracy or, better, having no obligation to be accurate given the demands of their genres (Mahon 2017: loc. 609). However, this is to make a decision on the idea of an objective posthuman, out there and capable of scientific description, instead of it being an image of ourselves, a self-image of what has changed and is changing. Such posthuman thought is more closely linked to continental traditions of deconstruction and postmodern thought (Wolfe 2010; Hassan 1977, 1987; Hayles 1999; Lyotard 1991; Sorgner 2009; Sloterdijk 2009). However, it does have a distant sibling in the materialism of modern analytical mind theory that rejects the “boss” theory of mind. These thinkers, instead of looking for some Cartesian puppeteer, explain all action in terms of neural states and evolutionary theory. Dennett (1997) argues that the superiority of human beings’ intelligence over other mammalian relatives is found in the exteriorization or off-loading of cognitive tasks into external devices which store, possess and present our meaning and which streamline, enhance and protect those processes known as thinking.

All these positions, be they analytic or continental, share the rejection of the notion of exceptional human agency, the ghost in the machine, that requires special explanation. And so the posthuman is merely the intelligence which, for a while, has resided on the site of the human body and brain. The ahistoricity of

these positions is to be found in the claim that humanism rests on an error of human exceptionalism and posthuman study is not the description of the superseding or transcendence of a human nor the arrival of a posthuman. It is the always-already present other. The idea that we are, in any sense, exceptional is a misdescription and, *herein lies the mumbled part*, normatively undesirable. The misdescription leads to oppression of other species and lifeforms as well as poor accounts of human responsibility and species inequality. And that is mumbled because autonomy, liberty and equality required for the respect of others are all so very human values.

Add into this mix the machinic mysticism of Kurzweil's (2005) pseudo-religious narrative about the evolution of intelligence rather than humanity and the "transcendence" group of postmodernists assert themselves fully as antihumanists. The second meaning of the prefix expresses a sublimation of individuals and cultures as fictionalized in Banks's Culture novels (see *Hydrogen Sonata* (2012) and the Gzilt culture for example). Kurzweil's mysticism about the becoming-other of intelligence as it emigrates to silicon-based life assumes that such new intelligence will protect the three goals of developing humans (longevity, immortality, happiness), but the "us" who benefit are servile, relegated to second place in the evolutionary chain and he hopes – rather than argues – the machines will look after us.

One advantage of this position, in coincidence with the antihumanism it so obviously resembles, is the ability to disclose the strands of humanism that entail human exceptionalism (Agamben 2004; Althusser 2003; Foucault 1992; Heidegger 1993a). And another advantage is that talk of the beyond-human that makes the human possible motivates investigation of the borders of the human, animal, machine and environment. For Wolfe (and his reading of Derrida) the main kernel of the argument is that mammals developed abilities to understand before humans learned to speak and this non-representational origin is at the heart and the limit of the system of communication and its posthuman other (Wolfe 2010: 99). The boundaries of thought, its possibility (animal, robot, climate, human), are significant to posthumanism because each occupies a role in the cognitive system previously thought to be merely human and such an acknowledgement of other agents or agencies forces us to put into question our very notion, derived from humanism, of agency (Mahon 2017: loc. 3927). However, Wolfe – like many posthumanists of this ilk – is guilty of reducing the meaning of humanism down to an identity with anthropocentrism and that still needs to be justified, rather than just assumed.

The antihumanism above is no doubt a valid line of thought, but it is one that must be sidestepped, adroitly if one manages it, in the current text. As the reader progresses through these pages, if they choose to do so, it will be clear that I understand posthumanism as an historical thesis, viewing technology as proposing a bifurcation for *human* existence that is either progressive or regres-

sive and that the way *human* civilization transforms, in no small part, will be due to the corrupt and erroneous aspects of the modern subject (but also its positive aspects). There are a cluster of reasons why the pursuit of this kind of antihumanist posthumanism is, for the present preoccupation, a blind alley. Two simple problems initially arise. One, Kurzweil cites 2045 for the singularity – the point at which the “gravity” of acceleration of technology becomes such a one-directional force that there is no going back and machine thinking replaces human thinking – but, even if that date is accurate or even comes to pass (and this is a suspicion of someone who, in the 1980s, read about the future in a comic called 2000AD), is one supposed to just sit around and wait for it? There is still much to discuss before then. And even beyond that date, there may well be (and Kurzweil assumes there are) humans still sitting around who may want to know where they figure in the new world order, who want to know what they are worth and how they relate to the new systems of thinking and worldviews. Humans who will still need a philosophy, just as we think of the thought for animals and the thought for plants, there will soon be a need for a thought for those left behind.

Two, the theory of posthumanism, if characterized by the rejection of humanism, is no different from postmodern theory and antihumanism. The continental tradition of philosophy does tend to conflate posthumanism as a species of postmodern thought and the analytic tradition reduces it to a subdiscipline of science (Wolfe 2010; Dennett 2003). Not only do some of these accounts of posthumanism rely on speculative uses of the imagination in their postulation of the other, but the sort of inhuman or other to whom we must grant a history, a discourse, is ultimately unintelligible. If a difference between these positions and the antihumanism of some postmodern and contemporary scientific positions is to be distinguished, it is in the emphasis on technology:

This is simply to say that it will take all hands on deck, I think, to fully comprehend what amounts to a new reality: that the human occupies a new place in the universe, a universe now populated by what I am prepared to call nonhuman subjects. And this is why, to me, posthumanism means not the triumphal surpassing or unmasking of something but an increase in the vigilance, responsibility, and humility that accompany living in a world so newly, and differently, inhabited. (Wolfe 2010: 47)

And that is an historical fact (Wolfe calls it a “new reality”): at time  $t$  there were no nonhuman subjects, but at time  $t+1$ , there are nonhuman subjects. However, human subjects remain and also require our attention.

More significantly, three, the critical negation of humanism relies on a specific form of humanism, that is liberal humanism. Hayles (1999: Ch. 1) equates humanism exclusively with MacPherson’s (1977) economic, overtly Hobbesian account of liberalism. Wolfe (2010: 99) similarly reduces all humanism to liberalism and thus conflates it with capitalism and atomism. Thus, posthumanism

becomes a form of thinking which locates itself contrary to and beyond simple liberal individualism. However, there is a real normative deficit. That liberal humanism is metaphysically false, or scientifically implausible or has undesirable normative consequences can all be established, but without the very moral discourse used to criticize that position, which ironically and problematically owes more than a debt to modern humanism, no imperative can be established to embrace wholeheartedly the *just* migration of intelligence and meaning to other sites. It seems that the only motivation (again ironically) is to placate liberal guilt. In short, one needs reasons to explain why one should care that the border between animal and human is a false one if it makes no difference to what I currently think or do. The question of responsibility is a pertinent one and asserts itself as a general criticism of the whole of Wolfe's book. His voice often disappears. He has a tendency to cite others citing others, but does not go to the original. This is worrying. It seems to be literary criticism of literary criticism; a problematic deferral, especially given his Derridean starting point. I am sympathetic to the normative need to take such a step, but the posthumanists of this ilk give us no reason to do so. I do think the modern subject is corrupted, but it is also progressive. Liberalism, especially the atomistic form supposed by these thinkers, does not exhaust humanism. Taking on board what is said here, one of the aims of the following book must be to separate humanism from liberalism (or, more precisely, atomism) without losing what is of value in that tradition. And, one hopes, through a more sympathetic understanding of humanism, the normative deficit can be overcome. One can then ask why we care about the development of intelligence and about machines being smarter than us, if we are still poor, unhealthy and mortal.

There is always in philosophy the possibility of radical scepticism. One can claim that the partiality of human thought requires one to think radically and differently and thus wholly reject human thinking. This, however, is a one-sided negation. Negation for negation's sake and with nothing left to say. Such a posthumanist will be critical of the sort of historical approach developed in the next chapter. They would accuse the position I develop as being a form of transhumanism and thus corrupted by humanist hangovers. I have two responses (a) I am not a transhumanist because I am properly critical of the subject, even if I do not think this entails full rejection; and (b) Wolfe's claim, as an example of difference, that the systems theory he proposes is the very thing that separates us from the world, connects us to the world (2010: xxi-xxii) is similar to the Vichian approach I take. Except the very thing that separates us from the world is imagination and it also makes the world. The "world" is structured around a language or an originary metaphor and cybernetics is perhaps the most appropriate choice.

And herein lies the problem, the human in posthuman cannot become a silent suffix. If one admits the historical reading, then history is human through



and through. History – like a Foucauldian history of sexuality or technology – is still to be told to humans and of humans, but not to liberal rationalists. For example, Wolfe opposes both trans- and posthumanism since the former is mere evolution, and the latter is transcending the human condition (Wolfe 2010: xv). Both remain related to the human and thus are not different in the substantive sense he believes a true posthumanism must be. The central claim of his book is that humanism's avowed normative claims are undermined by its ontological commitments and can only be achieved by rejecting those underpinnings (Wolfe 2010: xvi-xvii). So far, so radically sceptic. He uses a good example: normatively it is awful to be cruel to animals and to discriminate against the physically differently-abled, but the very distinctions are a result of a central human ontological concept. Rather he proposes a posthuman who/which exists alongside and neither before nor after the human, but is an expression of what – loosely but quite incorrectly – one could call other-intentions. In short, it is a history in which the particularity of human perspective is made peripheral and replaced by the central new perspective. The traditional historical narrative reproduces many of the errors and normative consequences of the humanist subject. It is normatively undesirable.

Above we played on the distinction between trans and post humanism as “Humans were A and now they are A+” versus “Humans were A and we are now not A” and held that the second statement posed an interesting logical problem. Humans are A and are not A. For it to be A and not A is to assume some sort of commonality, some way in which they are both P or not P. When we talk about the relationship of the other to the human, we still hold it as a relation. If we discussed the human and the grain of sand on the beach, then the “not” human is empty – there is nothing to be said – whereas, when we discuss the human and the posthuman as the “not” or the human and the gorilla as the “not”, the way in which they are “not” is full of meaning and to be unentangled.

Of course, transhumanists see the “trans” as transitional and so one day there will be a beyond-human, a *not*-human and this makes sense of the relation. Kurzweil's (2005) singularity would make a different world of which we would no longer be part. Yet this is to cast machine intelligence as impossible to communicate with. Bostrom (2008a) imagines a dialogue between a human and a posthuman that relegates the human to an uneducated pleb: still listening to that awful Mozart muzak when the posthumans' massively improved senses, cognitive abilities and aesthetic sensibilities have surpassed our own. There is a “not” relation that results in absolute difference. However, the rejoinder of the humanist seems to me to be obvious: you have invented entirely new art forms, which exploit the new kinds of cognitive capacities and sensibilities you have developed, but you still listen to *music* and that is the basis for communication. If the other is entirely other, if the not is a *not* of A versus B rather than an A versus not-A then we no longer even see them as other, the not of the not-human is an un-

bridgeable negation. If the change is so vast that we cannot communicate, then they will be just out there and invisible to us, like either Lovecraftian Cthulhu or silent Blakean angels. We will see nothing, hear nothing and speak to no one. The world will be the same for us. Our philosophy will go on and our poor Mozart listening will give *us* pleasure. Yet, humanism holds at its centre the other that bridges us to difference. The waking up was language – because we can communicate – and this is why we sent recorded music and linguistic phrases out into space on Voyager’s Golden Record. If there is a possibility of communication with the other, the information there will be seen as artificial and not natural. If the other cannot make that judgement, then we will not exist for them and *vice versa*.

Bostrom (2008a, 2008b) imagines the patronizing conversation of a posthuman, the beyond human, who condescends to offer us, the humans, some advice. Actually, that is wrong. It is not a dialogue or a conversation. The literary exposition is epistolary, a letter written but with no space for the addressee to respond. It is the model of Aquinas’s confessions, Descartes’ meditations, Kant’s good will, Hegel’s dialectic, Rawls’ original position and Habermas’s ideal speech situation. It is the lone voice telling the silent one what is the case, because the lone voice knows better the facts and what the silent non-voice wants. This is not an arbitrary decision, one feels. Sloterdijk (2009) believes humanism is best expressed through the epistolary form where the solid, reliable narrator can tell us, who do not understand, the meaning and significance of events. To tell us history. We remain silent and are addressed, nodding our heads in agreement. Bostrom embodies a humanist voice in a posthuman body.

In both of these articles, Bostrom’s argument is superficially plausible, but ultimately vacuous. It is disingenuous because technology will make life better and, if life is better, you would be irrational not to want it: “And yet, what you had in your best moments is not close to what I have now – a beckoning scintilla at best ... Beyond dreams, beyond imagination” (2008a: 2). Yet, the first premise, the “technology will make life better” is all to play for. The structure of the argument is disingenuous and hypothetical. How can we establish that the enhanced human is so much better than the unenhanced? What is the “you” that makes that comparison? His argument is problematic because of several background assumptions: one, the positive consequences of technology occur in a vacuum and, a bit like Star Trek, just project what we are familiar with now and make it better. This is a fallacy of the “conceit of scholars” which we will look at in the next chapter. Bostrom assumes that we will continue to use the values and moral precepts of liberalism: “I see my position as a conservative extension of traditional ethics and values to accommodate the possibility of human enhancement through technological means” (Bostrom 2008b: 6). One wonders why. Surely alongside better “music” there will be, no doubt, unintelligibly better ethics. The only argument for the continued use of those values comes from the

“me” which is human, oh so human. Who is to say that the posthuman will not take aesthetic joy from new, unimaginable acts of cruelty and oppression. Humans enjoy dogfights, bear and badger baiting and robot wars. Enhancements to humans will change humans and you cannot just hold on to the good bits, a bit like Dawkins wanting religion to disappear yet assuming that the great works of art and architecture would have happened in spite of religion. Enhancement changes what we are and we need to be aware of how this will affect every facet of our life and not just be unreflective techno-utopians. Bostrom cannot just assume universal access to these enhancement technologies. Universal access has to be hard won and defended. The current political and social arrangements do not seem to favour that sort of future. Given our social and material arrangements, technology seems to be aimed at the few rather than the many and since it will go hand in glove with power and privilege, the context of the society – ours – which gives rise to the technologies cannot be bracketed off in the debate. It constitutes a context which cannot be ignored.

Furthermore, Bostrom supposes that “improvement” is a simple cardinal metric. To be able to measure supposes what I am not and what I will be must be related contextually so a comparison can be made. Well, I can imagine living longer with better health and improved cognition. I cannot quite understand better (more refined) emotional responses without first posing a way of life with its appropriate emotions. Being in a warrior society, aggression is a good emotion; in a liberal society, forbearance; in a religious society, shame. Who is to say which emotions are to be enhanced, accelerated, refined and which are to be repressed? This was an issue pertinent to Freud: society often tends to repress emotions arbitrarily. Yet, this means that the “me” that makes the decision to begin enhancement is making the decision to end one’s own type of life. We do not wipe out the primates because they are a “lower” stage of evolution! The “me” that wants enhancement is a future “me” with which I have nothing in common and his (or her or zir) letter is the imposition of a humanistic reason of the universal, the wise, the learned who I must just trust. How very unliberal! According to Bostrom, I am in no position to make this decision and cannot be given reasons: “But these are words invented to describe human experience. What I feel is as far beyond human feelings as my thoughts are beyond human thoughts” (2008a: 3). Why not just offer me a story about the metallic colour of my soul and be done with it?

Bostrom’s assumptions create two problems for his argument. The first is practical: why would a human aspire to that which it is not? (Would a worm, a gorilla, a caterpillar want to be human?) And the second is theoretical: even if X is desired by me, why would that make it desirable? Putting aside a long discussion of Moore’s naturalistic fallacy, there remains a problematic assumption about metrics on Bostrom’s part (answered in brief in 2008b: 12–14). One can see that living longer and better (where the connective is a logical relation) is

desirable, but the assumption about improvement being a metric is ideally illustrated in Bostrom's rather odd claim about Mozart (2008a: 1; 2008b: 21). Hidden behind this is an odd commitment to aesthetic progress as though our critical discourse changes and, if our perceptual and emotional faculties were changed (enhanced for him), music would improve. This is not a simple, measurable range issue as a child hears a broader range of sounds than an adult, but has "worse" aesthetic taste. So, it has to do with aesthetic and imaginative understanding. But this is not purely cognitive either. It is as though one progresses through simple childlike art, through realism, to abstract, philosophical art. However, think of the spider's web covered in dew in the morning. It is beautiful. No amount of knowledge increases the beauty for the perceiver, about how it is made, the materials, the mathematical symmetry. It is as beautiful first time seen, for the child, for the neanderthal, for the human and the posthuman. It is even as beautiful for the members of the spider religion people, even if its meaning is more potent. I would say, even for the spider if it has subjective correlates to the pleasure of achieving a shelter-survival instinctual task which could correlate with the apprehension of beauty, and if one could enhance its brain, give it language and our perceptions, then its understanding and subjective grasp of its creation would change, but would the beauty-feeling be better? Mozart remains beautiful because beauty is a correlate of subjective apprehensions in an historical space. Like the spider, only more complex. Bostrom on music assumes there are properties for beauty which are real and like numbers or knowledge, better science will reveal them. And note how that commits him to describing earlier forms of music as primitive in that apologetic liberal way. Mozart is beautiful and remains so. Is it more beautiful than a caveman banging on a rock? Or Deep Purple's *Speed King*, especially the early live performance in Scandinavia? Beauty is not just a comparative. Bostrom seems to be resting on the assumption that more beautiful = more complex = later in time = more knowledge about. But the spider's web is beautiful and so is Mozart and so is *Speed King*.

Bostrom remains committed to the enlightenment value of equality. Technologies need to be evenly distributed. The "enhanced" human is more "desirable", but – good liberal that he is – the state can tolerate a few primitivists. However, as is the case with anti-vaxxers, there is an obvious public health welfare argument to enhance everyone against their will, especially if their resistance is based on deficient reasoning and knowledge. Take, for example, thinking through the climate change emergency by breaking down the border between human and environment. If the posthuman could breathe carbon dioxide, then climate change ceases to be a problem. Or, to save the planet, we may have to leave the planet. We could upload ourselves into a simulation and send ourselves away in a spaceship. But what then of the Earth and its restoring beauty and diversity? It will be the great funeral, the event of nonproductive expenditure because that beauty and diversity are human values. It is the absurdity at the heart of the A

and the now not-A relationship. Those AIs may read my book in the same way we look at the design of a bird's nest. There is no way to ever broach the gap that I can understand the bird's point of view, to comprehend its subjectivity, but the nest for us is a meaningful creation and my book for them would remain meaningful. And this point goes further. Even the most posthuman of machine intelligence or AI remains human at its core. Machine learning must begin with a set of right answers and examples which the process must hone in on, that is how the algorithm is self-learned and developed. A system learns from experience always with respect to a given task and given performance standards (Schmidhuber 2015). The attractor to which the system tends (like the equilibrium point between the displacement of a pendulum) is a set of true answers (scientific knowledge), received wisdom (prudential and aesthetic knowledge) or considered moral judgements (moral computing) to which the algorithm in the first stages of development must cohere. Therefore, it cannot break free of human answers. It remains recognition software, even if more developed. At the point at which it is no longer using these core equilibrium points, then it is no longer answering the same question. There is a fixed human bias in the system. So "we" as humans will remain, perhaps merely as a refrain, in its memetic and genetic makeup. The remnant means communication will remain possible. Any machine that offers music better than Mozart which we cannot comprehend just does not know what music is. Furthermore, and quite ironically, in future one can imagine AIs deconstructing the limits of their algorithms and their thoughts to find this other, this human not-machine other, at the heart, a non-representational possibility (in their evolved terms) of their new representations which would be irredeemably human.

Liberal transhumanists do not deny the relation with the human, that the negation is not a one-sided rejection and difference. Such transhumanists would accept an historical account of change, but are to be differentiated in terms of whether such change is progress, development, decay or merely arbitrary. If technological enhancement is going to change the social and material conditions of human existence, then a first group of thinkers who recognize this will see it as degenerative or dangerous. Bioconservatives/luddites deny technological change is enhancement, argue it is forbidden by natural law and oppose the capitalist commodification of the human (Lewis 2001; Fukuyama 2002; Kass 2002; Habermas 2003; Rifkin & Perlas 1984). The same sort of persons who would have offered the same arguments against votes for women. Hughes delineates a similar faultline in transhumanist discussions:

At root the bioLuddites are also rejecting liberal democracy, science and modernity. They have given up on the idea of progress guided by human reason, and, afraid of the radical choices and diversity of a transhuman future, are reasserting mystical theories of natural law and order. Whether secular bioethicists, ecomystic Greens or religious fundamental-

ists, the bioLuddites insist that there are clear and obvious boundaries to what people should be allowed to do with their own bodies, and that no one should be allowed to become something more than human. (2004: xiii)

The majority of such thinkers want to reduce the transhumanist agenda down to a subset of bioethical concerns, framing themselves in expected and familiar arguments of natural law, religious objections and rejection of the different and the new. However, with the rejection of the new and innovative, they also reject the possibility of progress in the three areas most dear to humanity: longevity, immortality and happiness. The appeal, the oh so unphilosophical appeal, to what is natural and conventional reveals a latent machismo: take it on the chin, don't take a painkiller if you can avoid it, chemical inebriation is inauthentic happiness and so on. Life, to be lived, is unhappiness, suffering and striving: that is what makes us men! And if we take the Prozac, equalize all talents through prosthetics and steroids, nootropics and memory devices, if we teach everyone to read, then society will suffer because progress and authenticity comes from the struggle with others. Fukuyama (2002) tells us (akin to the Gutierrez 2018 film) that you will be left with a world where wealthy old men date young vulnerable women to the detriment of breeding, where the elite become entrenched and history begins to regress:

The last man had no desire to be recognized as greater than others, and without such desire no excellence or achievement was possible. Content with his happiness and unable to feel any sense of shame for being unable to rise above those wants, the last man ceased to be human. (2012: loc. 316)

Fukuyama (2002: Chs. 6, 10) rests his argument on the claim that scientific rationality is threatened by technological advancement.

However, the conservatives do not realize it is their adherence to the patriarchal type of society which will make such a regressive future occur. They never ask why it must necessarily be old men and young women and not *vice versa*. They never seem to imagine a world where no one sticks anymore to two limiting genders. Those who reduce transhumanism to a subsection of bioethics basically express a sort of *panickism*: if you think we have problems now, wait until these technologies become widespread! There is a little of the hyperbole about these accounts. Ultimately, though, they rehearse old familiar positions of ethics which hold little novelty for us.

Those less mired in the pull of some nostalgic, inexistent past who see technological enhancement as both a boon and a bane insist on the role that state regulation can play in the permission, access and distribution of such technologies. Technologies and enhancements are categorized into the necessary (vaccines), the permissible (tattoos), the undesirable (recreational drugs with negative long-term side effects) and the forbidden (Wolverine claws). The role of the

state is to decide on the categories and the level of subsidies or discouragement to be applied to each. Those who resist regulation and see the choice of enhancements as an expression of personal choice and autonomy include the libertarian transhumanists (early Max More (1990), Kurzweil and one assumes accelerationism): if an individual wants it, can afford it, then the individual gets.

Bioliberalism has its moral equivalent in the odd mixture of welfarism and Mill's historical utilitarian-liberalism. Ranisch and Bostrom (2005b) are transhumanist moral thinkers belonging to the analytic tradition. Both are committed to transhumanism as the intellectual and cultural movement that affirms the possibility and desirability of improving the human condition through applied science. The main technologies which will promote this are those which eliminate aging and enhance human intellectual, physical, and psychological capacities. The philosophers' role is then to investigate the ramifications, promises, and potential dangers of these technologies and the related ethical study of matters arising from their development and use. Humanists believe that humans matter, that individuals matter. We might not be perfect, but we can make things better by promoting rational thinking, freedom, tolerance, democracy, and concern for our fellow human beings. Transhumanists agree with this but also emphasize what we have the potential to become. Just as we use rational means to improve the human condition and the external world, we can also use such means to improve the human organism. In so doing, we are not limited to traditional humanistic methods, such as education and cultural development, but can also use technological means that will eventually enable us to move beyond what some would think of as "human":

It is not our human shape or the details of our current human biology that define what is valuable about us, but rather our aspirations and ideals, our experiences, and the kinds of lives we lead. To a transhumanist, progress occurs when more people become more able to shape themselves, their lives, and the ways they relate to others, in accordance with their own deepest values. Transhumanists place a high value on autonomy, that is the ability and right of individuals to plan and choose their own lives. Some people may of course, for any number of reasons, choose to forgo the opportunity to use technology to improve themselves. Transhumanists seek to create a world in which autonomous individuals may choose to remain unenhanced or choose to be enhanced and in which these choices will be respected. (Bostrom 2003: 4)

Bostrom expects the technology to either stand or fall on measurable, welfarist factors and this is no surprise for thinkers of a scientific bent. The good is a metric expressed through people living longer, being happier, being healthier and becoming more intelligent. Bostrom does make the mistake of adding in more values as we saw above, the putative acceptance of autonomy and equality without any utilitarian justification. The reason is merely the desire to evade absurd counterintuitive consequences. Overall welfare can be increased by using a

small set of genetically modified humans as living organ donors, for example. However, the position helps itself to – at times – contradictory values of humanism and thus incorporates and reproduces the errors with normative consequences of humanism which posthumanism sought to reject. These *ad hoc* assumptions are given a free ride because he is sure of the agreed intuitions of his readers, all of us who share the same liberal social fabric. No reasonable thinker would question the goods of liberty and equality. Neither does Bostrom consider the irrational consumer, the agent who desires not those obvious metrics but other enhancements which make him or her or zir happy: “I want a tail, to pick stuff up, to hang on trees, I don’t care about better health or emotional moods, I just want a tail!”

A further problem is that many of the more cautious transhumanists look at bioethical problems in isolation because it is easy to apply the current framework of ethical thought to them. The problems with genetic therapies are no different from abortion or euthanasia and all the thinking has been done. All we need to do is replay the old arguments. Habermas (2003) serves as an example of a contemporary conservative, looking nostalgically back at lost moral categories to solve present-day problems. Hughes (2004) similarly expresses such an acceptance of familiar moral conventions. He acknowledges that the technological changes are in need of a normative response and he offers a regulatory western style welfare state response. A Rawlsian theory of justice is powerful enough to allow the continued functioning of a restricted capitalism and avoid entrenched privilege. However he reduces this to a political response – and this raises problems – discussed below in the chapter on property.

All these positions, bioludditism, neoliberalism and biolibertarianism, are one-sided in hanging on to an outdated model of subjectivity – full, substantial liberalism as we understand it here and now – which corrupts their normative recommendations. They underestimate the radical change coming; the social rupture which is brought about by emergent factors. The normative agenda for the bioliberals is familiar to us. The state interferes only to prevent harm to others, not to regulate the choices of the individual. Yet, this rests on the putative acceptance of liberal accounts of individualism, as well as an unproblematically appropriated host of contested concepts and understandings of the subject, the good and the right. Like the conservatives, arguments tend to reduce the question of enhancement down into a comfortable side issue of the largely quietist arena of bio and medical ethics. Such an unreflective appropriation really does run the risk of missing what is pertinent in these debates and this book hopes to remedy that.

For this reason, other thinkers seek to situate the posthuman debate in the Nietzschean anti-liberalism tradition. As far as the Sorgner–Bostrom debate on whether Nietzsche was a trans- or posthumanist thinker is interesting to Nietzsche scholarship, it can be evaded because whether Nietzsche’s philosophy has



much or little in common with transhumanism or posthumanism, the truth or normative value of humanism and its successors remains the same question no matter what Nietzsche *truly* said. Let us just make no claims one way or the other. So, the reason to establish Nietzsche as a trans- or posthumanist is to ground a normative judgement about why bringing about the overman's existence is desirable. Sorgner (2009, 2015) mentions the normative deficit of posthumanism and transhumanism and seeks the solution in a Nietzschean overcoming and a need to invent new values. Fuller (2020) offers an interpretation of Nietzsche and his relation to posthuman studies drawn from his speculation on the future and not, as academic readings have done, Nietzsche's discussion of the history of the human. The normative agenda of Max More (1990, 2013) and his libertarian transhumanism superficially rests on a neoliberal understanding of property and its necessary connection to personal autonomy. State regulation is seen as an infringement on the personal right to decide what one can do with one's body and one's wealth, yet more deeply it harbours a more pseudo-Nietzschean right of specific, special and exceptional individuals to risk and go beyond those conventional values which hold these exceptional individuals down.

There are two worries here: one, such justifications rest on specific interpretations of Nietzsche and become a debate of their propriety; and, more importantly, two, Nietzsche's moral vision is a controversial metaphysical picture to ground normative judgements. It also seems to shine a light on Porter's (2017: 248–249) argument against Sorgner and other progressive transhumanists. Such thinkers want a radical change from the human, but don't want to jeopardize the values of humanism. I believe Porter's claim is true of the established transhumanists I described above and it is this unreflective appropriation of humanist values which is problematic, but I am not certain it applies to Nietzscheans in general and Sorgner in particular. Sorgner's reading of Nietzsche is through a Vattimonian lens: values are not metaphysically true in any absolute sense, but the images and representations of the human should be seen in a less critical, friendlier way as an interpretation amongst interpretations (Vattimo 1993; Rose 2002). The values of humanism have not been rejected but have been enfeebled. These values are permissible so long as they serve life-affirmative forces. Politically, however, this tolerant pluralism leads to libertarianism and its everything-goes playfulness.

In reality, as Hughes (2004) is quick to stress, the celebration of individual choice will lead to an entrenched elite of enhanced humans derived from the current wealthy classes of the world. Bostrom sees this as the beginning of a general form of globalization of humanism as fewer and fewer will resist the progress of enhancement. The supposed celebration of free choice has been forgotten. Rikowski (2003) highlights the real fear of posthumanism: the separation of those who have from those who have not and the making of this into material reality by fixing all class aspirations through genetic recoding and bioengineering. The

future is materially cast in the image of a cultural metaphysics of the ideological, ancient distinction between those who are divine (the elite) and those who are animalistic (the slaves). Hayles (1999) echoes the egalitarian worry of other transhumanists, yet links equality directly to our self-understanding and asserts that the enlightenment self is not so much in need of protection as an overcoming.

However, even the posthumanists who claim to be antihumanists and ahistorical, sneak in an historical and normative agenda that challenges this comfortable and familiar account of liberal history. Hayles, for example, sees the conception of the human that we surpass as a hindrance to equality and a defence of privilege: “the end of a certain conception of the human, a conception that may have applied, at best, to that fraction of humanity who had the wealth, power, and leisure to conceptualize themselves as autonomous beings exercising their will through individual agency and choice” (Hayles 1999: 286). Unlike Hughes (2004), the use and opportunity of technology is not to be regulated by using the enlightenment model of equality to grant universal access, but rather by using new conceptions of self, liberty, and equality to sustain and promote self-determination.

The modern self is fast disappearing, but the commitment to equality is also under strain because of the privatization of knowledge. The reason that private property was so fundamental to Hegel’s view of a rational society was that it was the perfect vehicle for individual expression and to instantiate equal moral respect (Hegel 1991a: §189). A feudal system of privilege inhibits individual expression, personal choice, and subjective orientations in a world where all humans are free. Equality in early and middle modernity was not brought about by theoretical discussion, but by sanitation, health services and education. These material forms of freedom, what we shall call objective freedom, could ensure equality for new collective selves and individuals. If biotech, artificial intelligence, and the other technologies are to have a similar effect, then the question of public or private ownership must be raised. Freedom depends on equality, yet we have, under the burden of rampant atomism, aligned freedom too closely to simple market liberty and see it as the satisfaction of desires, transforming individuals into products rather than consumers; that is, items of value rather than assignors of value.

The tracing of the landscape above is admittedly inadequate and contains quite a few assumptions and jumps of logic when it comes to both interpretations and the arguments against such positions. It is perhaps best to think of this as an archetype map that contains the major continents of posthuman thought: ahistorical posthumanism; transhumanism leading to posthumanism; transhumanism as a bioethical problem (conservative rejections and humanist progressives); democratic bioliberalism; and finally non-normative historical evolutionists or biolibertarians. The reason why, though, these positions have developed is obvious for those who are not mired in, held back or obstructed by philosophical

theory. Humans would simply ask why they would want to be posthuman anyway. Taking a Hegelian view of the landscape, one can see theoretical dialectics shaping themselves. Humanism is not to be wholly rejected, but its one-sidedness is to be overcome. The historical narrative of the change of the representations of the human cannot just be described and understood, but must be *comprehended* (Hegel 1991a: 19). These are the aims of this book.

### 3. Humanism: the normative deficit

The real problem, as we shall see throughout, is the problem of value in posthuman and transhuman discourse or the *normative deficit*. There are a host of norms at play (welfare, liberty, equality, autonomy) in the discipline, but they remain putative. First, in relation to those writers who offer arguments grounded in a reified, even scientific, human nature, not one takes Hume's naturalistic fallacy seriously. The resistance or promotion of enhancement is put in terms of what is natural, or what can be augmented, yet no one sees that the technology, perhaps for the first time, allows us to break free of these naturally imposed limitations and ask ourselves, truly, what we should be, want or do. Such an assumption is present indirectly in people such as Kass, obviously so in the work of Fukuyama, but also deeply so in the Nietzscheans. One even obliquely perceives it in the arch-Kantian Habermas's ruminations. Second, such writers can only rely on a contested and controversial account of human nature which is always convenient for their rational end. The basic normative assumption is a welfarist one for Bostrom, based in simple natural empiricism of human life, and it is for Sorgner (2018) a Nietzschean virtue ethics, based in a creative poetic account of human nature. Such accounts of human nature are always already historical and imaginary, but let us be careful and not understand that as *false*. More importantly, such accounts are nearly always incoherent with a liberal constituted life-world with its central values of autonomy and equality. The natural world is an image of process, decay and rebirth with not one care for the individual life plan. Appeals to welfare which may superficially seem compelling can only be buttressed by helping oneself to the humanist values of equality and liberty to avoid the counterintuitive extremes of welfarist obligations and to protect the very thing which makes moral thought possible (the human, the subject, the agent howsoever it should be conceived). Bostrom's beyond-humanism welfarism, for example, is an incoherent case of "having it all." Positive values (the objective metrics to measure progress) depend on a context of comparison to negative values and, if you are committed to maximization, then the comparison has no limit. It requires a comparison with the lesser which cannot be eradicated so longevity is only a value in a world of death. When death is eradicated, it is no longer a good. Health can only be measured in terms of illness, otherwise we move from

therapy to enhancement. Even if the welfarist, metric based values of longevity and, one supposes, happiness can be superficially measured, to talk of the maximization of equality or liberty is nonsense. Liberty and equality, the wellbeing of one's life, is an historically contextual issue. A lifeworld cannot celebrate both values maximally, it would not be coherent.

Welfarists really ought to prioritize the many over the few, but feel guilty and do not. They are not the only ones suffering from mumbled guilt. Nietzscheans really ought to be just indifferent to the less talented (and some are, but many are not). Fukuyama wants a lifeworld where the individual is maintained and supported, but the real reason is for the individual to be trod upon by those more ambitious and competitive than her in order to keep scientific rationalism on a roll. Aspirational, utopian thinking wants to reject the image of subjectivity and its values which obstruct the development of intelligence's potential. To do so is to reject the human. Yet, ask them why and they mumble about oppression, the value of potentiality and perhaps even a destiny. Such justifications seem to drop ready prepared into their laps. We all agree liberty, welfare and equality are goods and we all agree that harm and oppression are bad. However, the underlying "metaphysics" which ground our assertions are different and, when revealed, undermine the liberal world we putatively endorse. Or, as is the case with the antihumanist posthuman side of the spectrum, our rejection of the subject and the human is actually grounded in those liberal values we putatively reject.

The question of the good life is grounded in our history, akin to the canon of literary criticism. Each tradition has its "ideal" (Dante, Shakespeare, Cervantes) which is never the actual writer or body of work, more an approximation of an imaginary *hoi polloi* remembrance or acceptance of the greatest of all. So, too, with our values. One cannot just write the human out of the discourse, but neither can one just appropriate the values of humanism unproblematically. We need to revise the canon, to understand what model Shakespeare gives us to understand Eliot and how Eliot would be impossible without Shakespeare. Eliot remains very, very different from him, but unintelligible without him. And that raises the issue of "who" judges. Posthumanists want a radical transformation from the human, but implicit in what will come about is humanist essentialism and moral realism, so that we can be certain in our judgements of "enhancement," "healthy," "better than well." Otherwise we can make no such judgement that the radically different, incomparable is "better." Once disease is eradicated, IQ increased, strength augmented, what else would we want and would it be the same as these new enhanced humans want? Once the technology has eradicated and improved these first step humans, one can make further decisions about what is valuable: the ability to wipe out memories of regret; or, to eliminate instances of shame. These are, after all, reactive passions, so the Nietzscheans tell us. A human without regret and shame! One's concern with the advent of the posthuman is always human, always about how it affects me and how it changes

me. Otherwise “we” would not be talking about it. To understand transhumanism as a phase to pass through, to become posthuman is to negate the human. It is not necessary, though, for *posthumanism* to forget the human. If I learn a new language, I do so to enhance myself and I change in consequence (I probably lose a few words in my other languages as my mind fills up, some of my attitudes change, the muscles in my tongue might even realign for certain sounds), but I do not want to break with what I am. The same can be said if I read a book. The error is to think of ourselves as fixed, essentialist atoms. It is the aim of the following pages to reflect upon and respond to this normative deficit and to fill the lacuna. One does not describe change and then merely justify or lament it given one’s values. One must seek those values which tell “us” how and when to change.

One needs to remind oneself how humanism and technology are intimately connected. Ranisch and Sorgner (2014: introduction) follow Heidegger (1993b) to cite humanism as beginning with the separation of subject and object caused by a thinking which resists pre-Socratic accounts of becoming, hence structuring our world as a world of fixed and immutable beings. Thus, for both Ranisch and Sorgner and also for Heidegger, modernity begins in late antiquity. Such a history is too general though and we shall look at this in chapter three and throughout. It glosses over too many reinventions of the human. To ask what is humanism is to pose an historical as well as an ontological question pertinent for a deconstruction of subjectivity, yet this leads to the ahistoricism of posthumanism and the problems above. However, it is not the case that we were all *subjects* in the modern sense from Ancient Greece to now as we shall see from chapter three onwards. It is not until the Italian renaissance that modern subjectivity and humanism assert themselves as the dominant ways of thinking.

Humanism was originally an educational initiative or curriculum. It did not characterize a philosophy, but rather a movement from the late mediaeval world to the early modern world. The development of humanist thought can be charted through its main exponents and its relationship with imagination and poetic wisdom. It did not start as the desire for essentializing the human being at all. For Mussato (2018), imaginative thought and poetry seek the particular, historical appearance of a thing and not “truth” as a universal object. Boccaccio (2019) proposes a theory of induction that does not move from multiplicity to universality, but one which *expresses* a common property in order to give meaning to the multiplicity via the faculty of poetic expression. Salutati (1968) celebrates poetry as the faculty to direct bestial man away from the world of the senses. In all these figures, truth, as poetry, is the historical manifestation of the human world. Poetry, not reason, separates us from the animals for the humanists, but it is with Pico della Mirandola (1998) that early humanism truly reaches its peak. For him, all discourses are aspects of God’s creation and reflect His plan. There is not one

discourse above others which can be privileged, except perhaps philosophy to which we return in chapter six.

The common idea of the humanists of the Italian renaissance was one of reorientation of knowledge away from the abstractness of logic, metaphysics and theology, to the proper study of the human. The human was exceptional for theological reasons as it was the peak and telos of God's creation, in terms of its ontological position in the hierarchy of creation. The only proper study for a human being is to look within oneself and work oneself over (for salvation). This was the principle axiom supporting the dignity given to the human being in all creation. The human being has a special position in creation and a special relationship to God expressed in the idea of salvation. Salvation, for Pico della Mirandola, was expressing and *freely* comprehending the beauty of God's creation. The pursuit of knowledge was, above all, ethical, prescribing how humans ought to live in order to achieve the union of the individual with the whole (grace). The human was placed at the centre of the creation and any science or knowing which did not do so was either wrong or irrelevant.

The commitment to the centrality of the human developed and found its apotheosis in the Enlightenment and Kant's (1998) idea of universal rational being. The true human being is free of its contingent, animalistic nature, seeking emancipation through knowledge and power over superstition and error. Note how, even for Kant, the imagination plays a role as the spontaneity of judgment, the faculty which synthesizes the manifold. Yet, as modernity developed, the commitment to pluralism was lost in the theoretical sphere, as was the knowing power of the imagination, as scientific rationalism asserted its total control over thinking. Heidegger's "Letter on Humanism" poured a broad sweep over the history of humanism, taxonomically distinguishing between four different essentialisms. One, the human is defined in terms of the social. The meaning of the word "man" can only be understood as a product of a certain society, the relations between man and other. Two, the human is opposed to the animal, that which is independent, rational, free. Three, the human is opposed to God and he is seeking redemption, he is fallen, lacking (Christian). Four, the human is opposed to barbarians, the uneducated, the uncivilized, the unvirtuous. Notice how, bioliberals and welfarists offer us a version of one; the bioluddites inherently express two; tech-utopians a new version of three; and the libertarians and Nietzscheans a version of four. However, it is, and Heidegger tells us this, number four which becomes the dominant meaning in humanism. The scientific worldview, coupled with enlightenment individuality and moral thinking, excludes a certain class from being human because they lack the relevant characteristics or properties. The have-nots, the not enhanced, are to become nonhumans or pre-post-humans. In all this they lose the original value humanism conferred, that of poetic creation. They are worth-less. The rejectors of humanism and the conservatives, burdened by the image of subjectivity and the human, are all unable to

break free from modernity. The normative claim, then, is to reject the self-understanding of the human we possess. Yet, we also need to justify this rejection and offer an alternative. Posthuman studies, as it currently stands, enthusiastically does the former, but mumbles when it comes to the latter task.

#### 4. Humanism to *posthumanism*

Let us, though, take two steps back. Above, we distinguished between post-modern critiques of the subject and delineated either a subset or a different set of critiques which we termed posthuman. The difference was that the existence of technology transforms or has the capacity to transform these theoretical attacks into material reality. And then, some of those critiques view this as an obligation, some as permissible and some as forbidden. However, one could argue that technology shaped the ancient world (farming techniques and writing), the medieval world (farming, navigation) and modernity (artillery, the printing press, the combustion engine). Technology is not new, so it seems there is something special about specific technologies that will change things radically.

Perhaps we ought to start with a simple definition of posthumanism that picks up what we have said above. Mahon begins his exposition of posthumanism with a cultural condition: “posthumanism is called for by the entanglements of human + tools and technology, which can be seen most obviously in distributed cognition, which is performed by an extended self that incorporates nonhuman and nonbiological components” (2017: loc. 4002). The main enhancements leading to human transformation are genetic, morphological, pharmacological, robotic, intellectual, cognitive, and physiological geared towards the aims of increasing life expectancy and overcoming sleep. Prosthetics and pharmaceuticals intended for physical and intellectual advantage, increasing memory and cognitive capacity, increasing parental and state choice through genetic engineering and the production of labour- and thought-replacing devices (Ranisch & Sorgner 2014: 30–33). A posthuman is not, though, a simple human plus tools. Tool use has an impact on the constitution of the human and its agency, but that is not that which distinguishes humans, let alone posthumans. Tool use was for a long time, almost ideologically, held as a particular human capacity, even in the face of obvious evidence to the contrary. The property is not exclusive to human beings: sea otters use rocks to break open clamshells and octopodi use coconut shells as armour, for example (Beck 1980; Sanz et al. 2013; Hunt et al. 2013). One step beyond this is the production of tools to produce tools. Tool manufacture in humans is teleological, the making of a world to free one from necessity and thus create a realm of freedom whereby those values ones hold dear can be the object of one’s production (Marx 1981: 958–959).

One might want to argue that it is the making of tools rather than the use of objects ready at hand which distinguishes humans, but this in itself is not perhaps as exclusive as one thinks. Chimpanzees fashioned stone hammers suggesting a common tool-making ancestor for humans and chimpanzees (and by definition not human) (Mercader 2007). And before we begin the controversialial to and fro of identifying the human with a property of freedom and interpreting that as the making of tools to make tools, we can sidestep that here because – even if it were true – it would not be able to distinguish the posthuman or the transhuman from the human. It is particular technology which challenges the fixed and conventional understanding of the human, a tool use which blurs the hard ontological boundaries between human and animal, human and machine, human and body which have determined our thinking (Mahon 2017: loc. 508). Technology in short which overcomes the simple exceptionalism of modern humanism. Of course, this will rest on what one means by the human and by technology.

Let us start with the second term and indicate the sort of technology which is fuelling this new understanding: posthumans are distributed cognitive models and distributed embodiment in these tools. Dennet (1997) expresses this through the offloading of cognitive function and Wolfe (2010) through systems theory and distributed intention-agents. In the next chapter we will evaluate the truth status of this claim and the use of the word cybernetic, but for now let it stand. The spear is a tool and the anvil and hammer are tools for making spearheads. These differ fundamentally from the self-driving car, automated factories and algorithms used for predicting production markets. The latter involve extended cognition where not only the human's physical strength is taken away from the body into the production process (the anvil and hammer), but the thinking of the human is taken away from her mind and distributed amongst the system of production and action. Decision-making is no longer centred on the human body and brain. Industrialization was for a long time a top down human affair. The digital technology we use on a day-to-day basis allows us to circumvent the limitations of space and time, augments our memory, aids our decision-making processes and directs our actions. Our phones listen to us, watch us, and respond to us; our computers organize our time and act as our extended memory; our gps navigates and will, soon, drive us.

Many commentators seem to think it is the invention and adoption of these technologies which poses both an opportunity and a danger to the future of the human:

... digital technology changes the landscape of posthumanism in important ways that more passive tools and technology do not: once our tools are themselves cognizant agents that, paradoxically, can seem more 'alien' to us the more 'like' us they get, they are no longer simply a tool for a 'human' distributed cognition. They also have their own dis-



tributed cognition, which also necessarily extends 'into' us as we use it, and must necessarily change how we conceive of 'human' knowledge, agency competency, etc.: for instance, the doctors who will be calling on Watson's [*an AI medical diagnostic machine*] assistance will be practising a cognitively distributed medicine, which will no longer be a medicine that they can 'carry about' in their heads and simply administer with a passive tool like a hypodermic needle or scalpel. And the more practitioners use a tool like Watson, with its superhuman ability to read, remember, search and advise, the more intimately human medicine and human medical knowledge will become entangled with it: doctors may not disappear, but medical knowledge itself will change (indeed, has already begun to change) to the point where it will be both 'in' the agent and dependent upon that agent's ability to remember, manipulate and share that knowledge. What AI confronts us with, then, is an actual, concrete posthumanism; one that promises far-reaching real-world economic, political and cultural effects, which will need to be planned for, sooner rather than later. (Mahon 2017: loc. 2789, *my insertion*)

One must also consider molecular nanotechnology impacting longevity and health, neuropharmacology interference in cognitive, moral and emotional reasoning and the public access nature of digital knowledge warehouses, that is the externalization of our collective memory. Yet, it is not the pace of these changes, it is the quality of them. It is the breakdown of the modern territory of the body and its supposed noisy passenger, the mind, which are most undermined. But that has always been an illusion. A parallel to this could be found amongst pastoral tribes whereby the symbiosis between the wants of the human community and the wants of the animals and the distribution of decision-making on where to walk involved a cybernetic system between the agents (human and animal). Just as the pastoral and arable revolutions replaced a nomadic life with a sedentary one, these new technologies cannot but change the conditions of our current social existence.

The main claim in the title of the monograph is that we were or have already been "*posthuman*" in the past and will be so in the future because the assumption that there is a core, a solid entity, a thing at the heart of being human is false. We are not the first change and we now need to chart the death of individualism that began with humanism. The human being is a social and historical construct, as we shall see in chapters two and three, and we have as much in common with the Ancient Greeks as we do with the posthumans over the horizon. But that does not commit one to a facile relativism or, worse, a quietist nihilism. Those that assume it does are usually those who most robustly defend the naturalness, the givenness of the atomistic individual as the one and only way for human beings to be free. They do so to defend their property (our property) of which we have, unfairly and serendipitously, more than our fair share. Their (our) property on which their (our) power and putative moral authority rests and depends. The aim of this book, which is not so humble, is to disentangle the individualism of liberal democracy and private property from the individualism of authenticity.

To reject the subject as it is now, but to retain enough to propose an obligation to the future. It is *our posthuman past* because the past reflects so many images of what may be coming and illustrates so many different shapes of the agent (the *superstitious, atomistic and moral wills*). And these different self-understandings may well reassert themselves and, in our rush to be so *posthuman*, so post-modern, we rightly lay the blame for much oppression and corruption at the door of the pernicious enlightenment moral subject. Only that subject is multifaceted and plural and there are elements of its constitution which protect and insulate us humans from a slide back into superstition and different forms of oppression. In our haste to deconstruct, reject and reveal the strategies of power implicit in that subject, we must remember it is one possible normative axis left after the modern rejection of tradition and the postmodern rejection of metaphysical and comprehensive moral views (historicism, naturalism, rationalism, liberalism); and two, some of its facets are progressive rather than pernicious cultural understandings. The worry is by rejecting the human in posthuman ideology, oppression once again imposes itself on the majority of humankind, and the self-understanding which overcame the superstitious will disappears.

When I decided on the title of this book – and this may sound disingenuous, but it is not – I did not have in the conscious part of my mind Fukuyama's book with the opposite title. I did read it when it came out. After all, I liked his first given the shared origin of our thought in Hegel, even if I found his identification of recognition with *thymos* anachronistic and idiosyncratic. More significantly, I found the justification of liberal capitalism, although present in Hegel, to be erroneously based on a misunderstanding of Hegel's idea of freedom as the negative liberty of the libertarian and not self-determination. Fukuyama surreptitiously inserts the desire-satisfying agent of the Scottish Enlightenment, which is so thoroughly not Hegel's understanding of freedom, into the heart of his understanding. The German's full understanding of freedom must involve both equality and homeliness, which I hope to show in the next few chapters.

So in what relation does my book stand to that one? One would think it is a rejection, a direct response, but that is because we like, we still like, to think in binaries. It is more nuanced than that. Fukuyama's (1992) first book was superficially a liberal, but actually a neoliberal, understanding of Hegel's historicism. He shoehorns the motivation of *thymos* and its innate presence in human nature into the Hegelian picture as an attempt to counter the malaise of pessimism in historical progress. However, it is a motivation which may have a relationship with recognition, but is not identical with it as Fukuyama seems to suppose. It is a motivation more at home in the society which expresses the rights of heroes (Hegel 1991a: §§93R, 350). Added to this is the stark realization that Fukuyama's empirical claim, although it has the appearance of a theoretical one, is that when democracy is established, it is permanent (unless scientific method is lost or prohibited and this is why posthumanism is a threat for him). And from this,

Fukuyama offers a new, shinier version of universal history (Fukuyama 1992: loc. 1165). Fukuyama is correct that the twentieth century success is a turn from comprehensive and metaphysical justification for power to consensual legitimacy and the rule of reason, but supposing this is permanent is an hypothesis which can be falsified (and, as I said, he sees new technologies as threatening this). There is nothing necessary in ideas that makes them permanent against the desires of men (ask Bruno or Galileo). There is something, however, in *legitimacy* as a way to characterize our liberal age: I see my culture as mine in a very real sense. For Fukuyama, it is atomistic, competitive individualism which makes permanence and stability possible. And this is where we separate. Individualism understood theoretically is the possibility of legitimacy but, understood as atomism, frustrates the communal bonds between us and an “us” becomes ever more distant the “freer” we become. The reason our society is characterized by the attitude of pessimism can be located in the late post-war years. Pessimism is a theoretical and practical worry about progress, a worry we shall speak about in the next chapter, but its palliative therapy is to be found in our current self-understanding.

Fukuyama holds that the normative actuality of liberal democracy cannot be bettered and, for this reason, he never deals with the entrenched privilege of capitalism. He wants to bring back a metaphysics of human nature and this new science of human nature, where the brain is mapped and biology determines us, is another metaphor (an ideality) and a dangerous one. Once they convince us we are nothing special, nothing sacred, nothing more than an illusion or a byproduct of biological and chemical events, then our free will disappears and all the liberal objections to welfarism or inequality also disappear. We are grist to the mill of progress.

## 5. The aims of the book

Hegel has an interesting story to tell about the formation of modern identity and its connection to social institutions. The modern, enlightenment self is formed through a need for the rationalization of the material structures of institutions. Such institutions form what he calls the objective freedom of a social fabric, or those institutions that ground and make intelligible the subjective self-understandings of the individual. The modern subject understands itself as an intentional agent with individual and distinct wants, preferences, and goals. It atomistically exists in society with other selves, not because such an understanding is the best representation of an individual, but because the objective freedom of the society makes it necessarily so that the individual is constructed as an intentional agent and thus becomes one. The self, in short, is an artificial object and the Enlightenment’s self-understanding of an intentional agent is, due to specific