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More Human than Human

DAVID LAWRENCE

Abstract: Within the literature surrounding nonhuman animals on the one hand and cognitively disabled humans on the other, there is much discussion of where beings that do not satisfy the criteria for personhood fit in our moral deliberations. In the future, we may face a different but related problem: that we might create (or cause the creation of) beings that not only satisfy but exceed these criteria. The question becomes whether these are minimal criteria, or hierarchical, such that those who fulfill them to greater degree should be afforded greater consideration. This article questions the validity and necessity of drawing divisions among beings that satisfy the minimum requirements for personhood; considering how future beings—intelligent androids, synthezoids, even alternate-substrate sentiences—might fit alongside the "baseline" human. I ask whether these alternate beings ought to be considered different to us, and why this may or may not matter in terms of a notion of "human community." The film *Blade Runner*, concerned in large part with humanity and its key synthezoid antagonist Roy Batty, forms a framing touchstone for my discussion. Batty is stronger, faster, more resilient, and more intelligent than *Homo sapiens*. His exploits, far beyond the capability of normal humans, are contrasted with his frailty and transient lifespan, his aesthetic appreciation of the sights he has seen, and his burgeoning empathy. Not for nothing does his creator within the mythos term him "more human than human."

Keywords: humanity; artificial intelligence; personhood; novel beings; posthuman; enhancement

> I've seen things you people wouldn't believe… Attack ships on fire off the shoulder of Orion, I've watched c-beams glitter in the dark near the Tannhäuser Gate. All those moments… will be lost in time, like tears in rain. Time… to die.[1]

So goes the soliloquy that closes *Blade Runner*, a film concerned in large part with humanity. The speaker, Roy Batty, is an android (or bioroid, as will be discussed later). Built as a combat model, he is stronger, faster, more resilient, and more intelligent than *Homo sapiens*. However, the above quote—Batty's last words—are intended to illustrate his fundamental humanity. His exploits, far beyond the capability of normal men and women, are contrasted with his frailty and transient life span, his aesthetic appreciation of the sights he has seen, and his fear of death. Not for nothing does his creator within the mythos term him "more human than human."[2]

A common refrain in bioconservative circles is a fear of the creation of races of so-called "posthumans" through genetic engineering, technological innovation, or the advent of artificial intelligences, giving a range of justifications of varying value. Some critics cry hubris,[3] some decry the trivialization of what they see as "human identity" and fear a new "genetic divide,"[4] and others still simply fear the unknown.[5] These theorized

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beings—organic or synthetic—may well be as or even more intelligent and conscious than *H. sapiens*. The question we must face is how we should treat these beings: as "other" or as we would ourselves?

There is much debate within forward-looking bioethics as to the nature of the human. I have discussed this at some length in my "The Edge of Human,"[6] in which I argue that there is no hard and fast mark delineating when a future being (once itself, or descended from, *H. sapiens*) may cease to be human and instead becomes something new, something "post-." Despite my confidence in this assertion, I may ruefully acknowledge that theory does not always translate easily into practice, and there is every possibility that legal and social barriers may interfere with the open acceptance that such beings warrant.

However, an enhanced *H. sapiens*—or a so-called "posthuman,"or whatever term one may choose to use[7]—has, at least, biological relatedness to point to in order that such a being might quiet any xenophobic opposition to its integration in human society, and its enjoyment of human rights. Even the most ardent advocates and detractors of enhancement and what it may mean for *H. sapiens* must acknowledge that the human community as a whole will not be able to enhance themselves or transition to whatever may lie beyond the human instantly. Some may take radical routes, leading to new forms or substrates, whereas others change only a little; what is certain is that all of these changes will take place only incrementally, as new technologies and new practices are developed. As such, it will be difficult to point at an individual and proclaim that being to be different, to say that such a being does not qualify as *H. sapiens,* or to ostracize such a being from society, simply for being slightly enhanced or more competent relative to the general populace. Trite as it may seem, I have made the point elsewhere[8] that we do not tend to cast out our star athletes, or our respected geniuses,[9] even though they fit the descriptions of various conservative commentators as being "significantly different"[10] from us.

However, there is the question of the android: the synthetic human.[11]

Roy Batty is not *H. sapiens*. Perhaps in Linnaean taxonomic terms an "uploaded" consciousness in-silica[12] is not either, and an artificial superintelligence (AI) certainly fails to qualify. It might be easy—or easier—for a critic to exclude such a being from "human" society on the basis of it being patently "other." It is possibly unnecessary to point out, but similar attitudes have led to great travesties of justice throughout human history. In matters such as this, so-called "wisdom of repugnance"[13] is unlikely to be a reliable guide, nor is it particularly wise. It is within our animal nature to fear the unknown or the different, but what marks us as human (and what is a hallmark of that which we consider to be civilization) is our ability to act against base instinct, to evaluate and reason, and to determine the best course of action to arrive at the greatest good, however and by whichever normative theory one may choose to define it.

It would be foolhardy to reject or to subjugate such beings as Roy out of hand. To do so would betray our own human values, and, therefore, I contend that we must give due consideration to the nature of such a being before we can contemplate making judgments.

It is entirely possible—almost certain—that we will, in the near future, create (or cause the creation of) other sentiences. Present research into AI continues apace, and makes startling advances. Its entry into the mainstream media as an active issue for debate,[14] for example by such figures as Stephen Hawking and Elon Musk (men respected for their

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views on science and technology), in contrast to its prior perception as mere science fiction, speaks volumes.

Human enhancement technologies are already available to us, pharmaceuticals used increasingly by militaries, sportspersons, and students alike. Various interventions from pharmaceuticals and genetic technologies such as clustered regularly interspaced short palindromic repeats (CRISPR) or transcription activator-like effector nucleases (TALENs), to cybertechnologies and other implanted or external devices are at various stages of development and deployment into the world.

Here is not the place for a thorough review of either the state of enhancement technology or of robotics and AI. However, a few examples paint a picture that may either fill one with excitement about the possibilities, or fear for the future.

A survey of the 100 most cited academics writing on AI suggests an expectation that machines will be developed "that can carry out most human professions at least as well as a typical human,"[15] with 90 percent confidence, by 2070, and with 50 percent confidence by 2050. This earlier estimate is well within the feasible life span of many reading this article, and whereas it must be stressed that this is merely educated speculation, the prototypes and experimental robots extant today are more than impressive. The componentry and systems exist (although for now they are yet to be united in one machine) to emulate proprioception, tactility,[16] visual processing and object recognition, walking and running[17]—even on rough terrain and at high speeds[18]—and many more elements of human biology, even the high-speed recognition, analysis, and reaction needed to play table tennis.[19] Robots have long been a feature of the workforce; for example, in the automotive manufacturing industry, but are now in a position to start taking more subtle, customer-facing jobs. ASIMO, Honda's famous walking robot, has acted as a receptionist,[20] and has acted intelligently in concert with other ASIMOs as a team of office assistants.[21] Many industries live in fear of the encroachment of automation,[22] and robots are even expected to move into the "educated professions" such as law and medicine.[23]

As robotics have advanced, so too has the development of AI, in concert with the abovementioned and as a field in its own right. There are a number of subfields, each immensely complex, working toward elements of human-level intelligence. For example, a true, conscious AI would need to be able to perceive and understand information;[24] to learn;[25] to process language;[26] to plan ahead and anticipate (and thus visualize itself in time, an important point to which I will return);[27] to possess "knowledge representation"[28] or the ability to retain, parse, and apply the astronomically high number of discrete facts that we take for granted, and be able to use this information to reason; to possess subjectivity; and many, many more elements. A number of projects exist attempting to develop and integrate one or more of these elements into "artificial brains," using modeled or biological neural networks and other technologies; including Cyc,[29] an ongoing 32 year attempt to collect and incorporate a vast database of "commonsense" knowledge in a practical ontology, to enable reasoning. There is also the Google Brain,[30] a "deep learning" project focused on giving the AI access to Google's vast troves of data and allowing it to begin to parse things for itself; for example, the Brain, when given access to Youtube.com, learned unprompted to recognize human faces, and showed a partiality to videos of cats.[31] A third project, the well-known Blue Brain, has successfully modelled 37,000,000 synapses

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of a rat's sensory cortex[32] in an attempt to understand the "circuitry."

An ambitious recent announcement, building on synthetic biology research into the creation of novel lifeforms such as Venter's JCVI-syn3.0,[33] brings science fiction closer to reality. Synthetic biology involves "assembl[ing] components that are not natural (therefore synthetic) to generate chemical systems that support Darwinian evolution (therefore biological)"[34] in order to perform "rational design of biological systems and living organisms using engineering principles."[35] The *Human Genome Project—Write*,[36] a "sequel" to the original 1990–2003 project, aims to synthesize an entire human genetic sequence, with the stated intent of provoking discourse, stimulating the development of genetic technologies, and discovering the functions of the 98 percent of genes that remain a mystery. The signatories are careful to state in interviews[37] that the purpose is explicitly not the creation of a physical synthetic human.

However, the possibility could exist once the project is complete, and where there is scientific possibility, it is entirely likely that someone could attempt to attain it. One has merely to look at the experiments on human embryonic germline modification in China to prevent ß-thalassemia,[38] which both preceded and precipitated the now-granted application by the Francis Crick Institute[39] to begin similar experimentation, to acknowledge that with the advent of these technologies comes implementation. Someone will always try to "get there first."

This possibility is particularly interesting, with regard to the novel beings that might be engendered. Despite the nomenclature, there is clearly some difference between a novel being constructed from machinery, electronics, and supremely sophisticated programming, and a being "grown" organically, made from flesh, genetically designed, and constructed much like the synthetic biology understood today. Substrate is probably not significant philosophically, but a "bioroid" such as this latter concept is quite possibly more achievable in a shorter time frame than a true "synthezoid" or android built in the manner of today's robotics. Genetic design such as that used to create Roy and the other replicants is very much upon us. Man might very well make his own match.[40]

One might surmise, then, that arrival of truly intelligent novel beings is merely a waiting game, and it is not infeasible that they might walk among us in the (reasonably) near future. As such, we are faced with what is (possibly) a wholly new situation; that *H. sapiens* will no longer be the only "wise" or "knowing" being around.

I add the qualifier "possibly" for a reason. *H. sapiens* is very used to sharing its world and environment with other creatures—this much is uncontroversial—and some of these creatures are known to be far more intelligent than others. Theoretically, how we may interact with any given beings will be predicated on their moral status, a classification that is rarely if ever straightforward.

Charles Taylor states: "A person is a being with a certain moral status, or a bearer of rights. But underlying the moral status, as its condition, are certain capacities. A person is a being who has a sense of self, has a notion of the future and the past, can hold values, make choices; in short, can adopt life-plans. At least, a person must be the kind of being who is in principle capable of all this, however damaged these capacities may be in practice."[41]

One might assume that the type of sapient AI, cognitively enhanced *H. sapiens*, or conscious synthetic beings that are the object of such concern from some commentators are likely to possess self-awareness, moral agency, and

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continuous narrative. Otherwise, one might wonder, what is there to be feared?

An android that is not self-aware is simply a drone, operating solely to parameters preset (and presumably extensively tested and approved by layer upon layer of robotics firm management) by its makers and operators. The line here is blurred between "being" and "object." We do not have these existential concerns about camera drones[42] or about the sophisticated robots that build our cars. A debate is emerging around the "morality" of self-driving vehicles, and although recent surveys in *Science*[43] suggest a very murky public feeling (76 percent of respondents approved of the *idea* of a utilitarian morality sacrificing passengers to save others; but gave only a 19 percent likelihood of actually being willing to subject themselves to a utilitarian algorithm), the truth of the matter is that they, too, are not making any of the decisions themselves, but rather operating within the bounds of parameters set by the manufacturer. One might hope that as these autonomous vehicles become widespread, some supranational body would emerge to ensure that these parameters are globally compatible; although this raises some interesting social and ethical issues of its own that warrant further investigation elsewhere.

Although it is still possible for a being to have agency without being a moral agent, this only extends to a strict ability to act within an environment. If putative androids lack a sense of self, they could still undertake "goal-directed action,"[44] which is more or less what we might expect from any "smart" device that we have today. The very existence of these androids—and our having created them—would seem rather pointless if they could not. However, it does not make sense to fear reactiveness; for bioconservative worries to make sense, one must be imagining something more calculated, actions perpetrated with consideration and with the potential to be undertaken in contravention of "normal" moral parameters. Such an action could only be executed (or conceived of) by a moral agent.

Similarly, without narrative (which, to avoid misunderstanding, let us take to mean an "internalized and evolving life story, integrating the reconstructed past and imagined future to provide life with some degree of unity and purpose"[45]) a novel being would also singularly fail to have the potential to live up to the monstrous visions of some commentators. It is entirely possible for a being to possess narrative identity and still be no great threat (the vast majority of *H. sapiens* embody this niche); however, without it, what possible motivation could there be? Such a being could not react to wrongs, perceived or real, and it could not "seek revenge" or seek to prevent future threats to its well-being. It would be no Skynet, no Magneto, no HAL 9000. In short, it would be, again, nothing to fear beyond whatever parameters or directives it operated within, and if it were unable to formulate these itself on the reasoned basis of past experiences or desires for the future, then it probably would not warrant the hyperbole or fear at its potential existence.

With these thoughts in mind, I will briefly consider the aforementioned nature of personhood. If personhood is to be broadly understood in the naturalist epistemological sense—that is, the possession of the abovementioned faculties and the ability to act self-deterministically (despite the various philosophical wrangles as to what exactly that entails or how it is realized)—then a being that lacked these, a being that was not really worth the critical rhetoric, would probably not qualify as a person. Conversely, if a being *were* worth considering in the ways conservative commentators would have

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us question, then it must possess these faculties, and as such, it would be hard to deny that being personhood, or some analogue. If so, then there is a true dilemma. The possession of personhood has a number of implications, chief among them that a person is afforded a range of protections enshrined in both domestic and international law.

It would be the work of a book—even several—to detail these in full,[46] that itself speaks volumes to the weight of protections one must consider. However, for the present purpose, a few general examples will suffice. Consider the Universal Declaration of Human Rights (UDHR),[47] which, although not a binding document in itself, is nonetheless a guiding light for bills of rights (and is the first recognizably global recognition of generally accepted entitlements),[48] and has been absorbed into many of the newer national constitutions that have arisen since its adoption in 1948. It holds itself "as a common standard of achievement for *all peoples* and all nations"[49] and this spirit of equality is key. It provides that all should be subject to liberty, security, freedom from discrimination, and more. The UDHR's companion in the International Bill of Human Rights is the International Covenant on Civil and Political Rights (ICCPR),[50] which provides rights of self-determination, the right to life and physical integrity, freedom from slavery, recognition as a person before the law, and equality before the law, again, among many more protections.

Moving to slightly narrower and more specific documents, consider the European Convention on Human Rights (ECHR).[51] This further reiterates the above-described sentiments in a very enforceable manner. As examples, Article 2 states that: "[e]veryone's right to life shall be protected by law"; Article 5 that: "[e]veryone has the right to liberty and security of person"; and Article 14 states that: "[t]he enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status."

There is no reason to imagine that "status," here, does not cover factors such as "origin," as in biological or synthetic.

Furthermore, one might like to think of the common law of England,[52] pertinent here as it can be considered the model for that adopted in the colonies of the British Empire, and that persists today in many of the Commonwealth nations and the United States. The common law has long conferred rights of bodily integrity and liberty, via the law of tort. Witting notes that "Tort law has always protected certain human rights"[53] notably by way of the action for trespass to the person.[54] The criminal law endorses the right to life; deriving from the writings of Coke CJ in the early seventeenth century,[55] murder in English law has been defined as follows: "The offence is committed when 'a person of sound mind and discretion unlawful kills any reasonable creature in being under the Queen's peace with intent to kill or cause grievous bodily harm."

All these instruments, it could be argued, were not written with novel beings such as are the focus here in mind. Most, if not all, were conceived long before the very idea of an android or a posthuman was anything more than purest fiction. However, this seems to be precisely a point in favor of inclusivity.

The above-cited legal instruments are united in a term: "everyone." This article is not the place for a full legal analysis of the term;[56] however, there are several clues as to the spirit of its usage. The first is context. As is made abundantly clear in the ECHR Article 14, there ought be no grounds on which discrimination is acceptable. The Convention

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is meant to protect all those whom it possibly could encompass, and leave room for those the drafters could not think of: *"or other status."* It seems likely that the origin of consciousness is not the exception to this rule. Consider the animal personhood cases to be discussed subsequently. Those that failed did not do so expressly because they concerned beings that were not *H. sapiens*, but rather because these beings failed—in themselves—to meet the personhood standards considered necessary by the court. Relatedly, "person" is used frequently throughout these and any other similar document, in reference to those subject to the article being stated. From the ICCPR (in which "person" appears no less than 38 times, 35 as the subject): "All persons shall be equal before the courts and tribunals."[57] From the UDHR: "no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs."[58] It may be possible to suggest that the use of "person" in these documents is meant to indicate "human person," another term that appears (although less frequently), although the distinction here is unclear. I have argued extensively elsewhere[59] that there is no good reason to assume that this biological understanding of humanity is either relevant or helpful in these types of debate, and, therefore, this objection can probably be safely discounted given that I am discussing matters of a community of moral value and not those of taxonomy. The entire reason for wishing to provide these laws is that we consider the group subject to them to be of a certain moral value worthy of protection; as such, one cannot suggest that the philosophical interpretation of personhood is irrelevant.

Persons, then, must be understood as the subject of broad legal protection. This concept is the cornerstone of a number of longstanding conflicts in bioethics; foremost among which is the issue of fetal personhood and whether or not an embryo qualifies as "human" (again, here read "person"), when faced with destruction (either by abortion or in research). A vicious argument with huge investment and emotion on both sides, this example serves well to illustrate the primacy of the regard in which we hold personhood in Western society. Equally, there exist the range of legal cases in recent years aimed at securing personhood for non-*sapiens* animals. This phenomenon warrants a brief diversion.

The majority of animal personhood cases have been aimed at primates, with rulings covering "great apes" in general. These started with national recognitions, such as in Germany's constitution, that animals should be subject to guaranteed rights.[60] Subsequently, New Zealand introduced specific protections to certain species of ape, particularly against their being used in research or testing.[61] Following this, a number of nations, including the United Kingdom, have banned research on great apes outright, although they fall short of granting legal rights as in New Zealand. More recently, groups such as the Great Ape Project[62] have advocated for a wider adoption of these basic legal rights in a "United Nations Declaration of the Rights of Great Apes," for the release of great apes in captivity, and for a cessation to research and testing on them.

More specifically, in 2015, an Argentine court appeared to grant an orangutan, Sandra, "non-human person rights" to life, to freedom, and to protection from harm, in order that she could be released from captivity and moved to a sanctuary;[63] however, it is unclear as to whether this was merely semantics or a declaration of status. In New York, a 2014 case[64] expressly denied that a chimpanzee, Tommy, was a legal person for whom a writ of habeas corpus

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could be filed; however, a year later in 2015 (briefly) just such a writ was granted with regard to two more chimpanzees, Hercules and Leo, in order to compel Stony Brook University to defend its keeping them in captivity.[65] Mention of the writ was later struck from the record;[66] however, precedent has nonetheless been set after a number of other failed previous attempts. It is not only hominids that are the subject of such rulings; in 2013, India banned the captivity of cetaceans, including dolphins. on moral grounds, mentioning that they could be considered persons, but stopped short of declaring that they should be *treated* as such.[67]

It is not expressly because of their nature in dealing with non-*H. sapiens* creatures that these cases have mostly failed. The fact that they have been considered at all—and in some instances been successful to greater or lesser extent—speaks volumes. There is no good reason to assume that a novel being or consciousness should not be subject to reasoning related to that used in these cases.

As has been discussed, there are cases in which it is judged that some animals have become, and others are capable of becoming, persons in the sense that they have acquired or attained levels of cognition relevantly comparable to that of at least some properly so-called human persons. We are also comfortable with the idea of *H. sapiens* that do not qualify as persons. Those with severe cognitive disabilities—either congenital or imposed on them through illness or misadventure—or in persistent vegetative states, are seen, philosophically,[68] as nonpersons.[69] Admittedly, in normal discussion, we generally grant such beings both the term "person" and the relevant protections, if modified, for reasons of consent and practicality; but for their disability/illness, these beings would almost certainly qualify as persons in all of the ways I have discussed.

The fact that we acknowledge this distinction is indicative of the general, if unconscious, acceptance of a "threshold" concept of personhood.[70] If we are willing to entertain the notion of a human who fails to meet the threshold as being a nonperson, and the idea that animals that have traditionally been considered to fall below the threshold, but perhaps display the necessary qualities to surpass it, as possibly being persons, then it does not seem any more of a stretch to apply the term to other beings that meet or surpass the requirements. In short, to deny personhood to an intelligent being provably in possession of the necessary qualities—including sentience, self-awareness, moral agency, and narrative identity—would render the basis of our understandings of personhood meaningless.

I will return to the android example, Roy. The mythos of the film refers to him and his fellows as "replicants," a term the writers preferred to "android" so as to avoid preconceptions. They define it, in the fiction, thus:

> REPLICANT \rep'-li-cant\ *n.* See also ROBOT *(antique)*: ANDROID *(obsolete)*: NEXUS *(generic)*: Synthetic human with paraphysical capabilities having skin/flesh culture. Also: Rep, skin job *(slang)*: Off-world uses: Combat, high risk industrial, deep space probe. On-world use prohibited. Specifications and quantities—information classified.[71]

It would appear that the replicants are intended as a labor force, particularly in dangerous, unpleasant, or undesirable roles.[72] This does not seem to be too different from the roles in which we use—or intend to develop the use of—robotics today, as tools. Onoe must note, too, the slang words, and consider further that

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the (very broad) plot synopsis of the story is that of an enforcer hunting down and "retiring"—for which read "killing"—replicants that have escaped to Earth. Patently, these beings are not seen as equals to the *H. sapiens* populace. They are not given the protections discussed earlier that are warranted by persons, neither are there advocates for their rights fighting in courts. The replicants are seen as little more than animate and useful objects. Perhaps "slaves" would be an appropriate term. There are many parallels, particularly inasmuch as they are shown to be capable of desiring better for themselves.

Throughout the film, Roy Batty shows himself to possess all the qualities of personhood that I have discussed, all the qualities that some commentators would have us fear in a novel being; his entire motivation as the putative antagonist stems from them. Roy is self-aware, and his actions are self-determined. He chooses to go on the run, to land on Earth, to seek out his creator. Unlike the drones or self-driving cars described earlier, Roy operates outside any master's parameters. He chooses freedom, knowing the suffering and hardship he and his group will endure in the attempt. He is, very definitely, a moral agent. He performs calculated acts. In one example, he manipulates one of his designers, Sebastian, behaving with kindness toward him until he is led to kill him, apologetically. He knows he is morally wrong to do this and that Sebastian is a good man and never intended the suffering Roy has undergone. He kills his creator in a rage born of fear and frustration when that creator cannot provide that which he so desperately desires and he chooses to show mercy to Deckard, who has hunted him throughout the film and "retired" his companions, because he knows that Deckard knew no better. Only a being of rationality could feel and express guilt about war and murder:

> *Batty looks down in a sudden, uncharacteristically humble posture and speaks with guilt in his voice.*
>
> BATTY
> I've done questionable things.[73]

Roy's possession of biographical identity is perhaps his defining feature, and is the key to his character. As he says in the quotation that opens this article, when he expires "all [his experiences] will be lost in time, like tears in rain."[74] His motivation in returning to Earth is to seek out Eldon Tyrell, his creator, in order to find a way to extend his 4 year lifespan. He knows that his end is nigh, and seeks to avert it, because he wishes to continue to experience life (or existence). In other words, he can envisage his future, and is motivated by the memories of his past.

Roy, then, seems to embody the novel beings in question. He is, or would be, undoubtedly, a person. If, as discussed, personhood conveys a certain threshold of moral value, then it might be reasonable to suggest that Roy would also possess this, and ought be subject to the relevant protections associated with it. Roy, then, is an effective cipher for the type of being I have established as being worth discussion.

Granting Roy personhood, however, is not the end of the story. The necessary criteria for personhood may be fulfilled, but as mentioned, these novel beings could be found to fulfill them to levels beyond that which we are able, purely as a result of enhanced—or artificial—cognition. Would they therefore warrant being labeled as being beyond us in some meaningful way?

I will consider, for a moment, the types of beings that we as a society are likely to be dealing with. Enhanced *H. sapiens* is

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likely to be rather similar to "baseline" *H. sapiens, but for* his or her enhancements. Whether these render these beings biologically distinct is, again, a moot point; what matters is that they would not be so divorced from us that we would not recognize them instinctively as being "one of us," increased capacities or no. Androids, however, do not have this luxury, nor do AIs more broadly conceived. The term "android" is derived from the same root as the modern term androgyny: the late Greek *androeidēs*, meaning "manlike,"[75] possibly better translated in context as "humanoid." This refers to more than these beings' musculoskeletal format. Androids are designed specifically to resemble *H. sapiens*,[76] and should the technology continue to advance, we might assume that they could become indistinguishable from us, like those in the film. This idea is further complicated if one considers the realities of the technology, as mentioned earlier. Although it is entirely possible for a true "synthezoid"—a wholly artificial (in the sense of being inorganic) humanoid—to emerge, we are more likely to encounter "bioroids": wholly designed, organic beings. Appearance is far from a significant factor in moral status, but it would very much come into play in social attitudes, and it is the combination of these that are likely to dictate how we ought or will treat novel beings.

It is to this latter class of humanoid that Roy belongs, and it is no accident that the motto of the Tyrell corporation in *Blade Runner*, the creators of the replicants, is "More Human Than Human."[77] As mentioned previously, I have examined the nature of the human more extensively elsewhere, but some small points bear repeating now. One of the most common and most interesting ways in which we generally label something "human" is in reference to a moral community of beings who we consider to possess a certain value or status; who possess humanity. Humanity, in turn, could be considered to be a state of aspiration and of motivation; broadly describable as a collection of desirable characteristics, qualities, and ideals that we hold about ourselves, with a conscious or unconscious drive to live up to these being the primary driving force in our lives. To possess this aspiration and motivation, one has to be a person; without narrative identity, aspiration has no meaning; without self-determination or moral agency, we cannot act to try to fulfill them.

Consequently, one must ask an important question of Roy. I have already mentioned that his primary motivation is to continue living, a motivation that is, itself, very human. It might be assumed that any novel being possessed of personhood might have similar motivations. But do his capacities beyond those we ourselves possess make him more than just our physical or cognitive better?

This question is at the heart of the matter. If a novel being is not the same as we are, then one might assume that surely it must be "other." However, whether or not personhood is a threshold concept or hierarchical[78] is, likely, not important for the way in which we treat a being. If Roy fulfills the same minimum criteria for a given moral status as we do, or if he surpasses us and is somehow of a greater moral value, there is probably no real difference made in terms of what ought determine our treatment of him. If a being has the same moral status that we do, then it makes sense to treat that being as such; affording that being the relevant protections and respect that we do ourselves. Because we give ourselves primacy over other beings of lower moral status, and because it would be difficult to conceive of what more protections we could afford ourselves (in theory,

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if not practice) than those of life, liberty, and self-determination, it is unclear as to what better treatment we could offer a being of higher moral status. In practical terms, the potential for increased capacities merely grants the possessor the ability to enact the motivations and realize the aspirations that make up "humanity" to a greater degree than we can. If this changes anything, then perhaps it is to give such beings a greater claim to being human than our own.

Because, we might suspect, we would not wish to give up our status as humans— downgrading ourselves to allow these novel, more capable beings to occupy our previous status niche—it appears there are only two methods of recourse. One is distasteful and, as mentioned, would belie the high ideals we hold about ourselves, truly rendering us as something less than human. We would be on the verge of, if not actually emulating, the acts of history's most vilified figures if we were to create intelligent novel persons with the intent of enforcing the exploitation of their potential utility, as were the replicants of the film; or if we brought them to existence and consciousness but also wished to deny them the exercise of their personhood, as one may expect fear and conservatism might demand, labeling them "subhuman." It should be stated at this point that nobody (or at least no academic) is actively calling for potential future beings to be denied the exercise of their (probable) rights: however, this seems to me to be inevitable, and is a scenario that cannot be dealt with effectively if allowed to take hold.

A second option is less reactionary, and far more in keeping with the human ideal. Because it has been established that these novel beings are as qualified as we are to be members of the same community of value—the "human community"—and almost certainly warrant the same protections (and therefore would be subject to our same legal and social responsibilities), then it makes sense to simply accept that, and abandon "human" as a term of biology used interchangeably with *H. sapiens,* relying instead on the other, more meaningful understandings of it. Roy Batty, life span notwithstanding, could finally be seen as human. Enhanced *H. sapiens*, or whatever binomial name such persons might warrant, would not be subjected to prejudice or "othering" on account of either life choices they made themselves, or choices that were made by their parents before they were born. Even a disembodied AI could be seen as human under this reasoning. Where John Searle's "Chinese Room"[79] is intended as a means of refuting the idea of "strong AI,"[80] as he puts it, having a genuine mind; the argument hinges on the idea that the entity within the Room could be either human or machine, responding to instructions. If, in conversing with the entity, one is able to hold this "conversation," then the experiment simply falls foul of practicality, as exemplified by "Alder's Razor,"[81] which states that: "we should not dispute propositions unless they can be shown by precise logic … to have observable consequences" or, more simply, if we cannot distinguish between the two, then the division is frivolous.

This, then, is the answer to the key question on novel beings. Bearing in mind the twin factors of moral value and of societal attitude, I will undertake a quick thought experiment. Most examples of such concerned with consciousness or AI enjoy the motif of a room or box, so far be it for me to buck the trend. Within our room sits Roy, our novel being. Outside is an *H. sapiens* observer, possessed of fully realized personhood and with all faculties intact.

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Neither being is forced into the situation; there is no particular malice. The two beings are able to communicate by any means, but are not able to see each other. As has been established, Roy is, effectively, human. In discussion with the observer, Roy is likely to come across as erudite, passionate, and equally curious as the man or woman outside the room. It is reasonable to assume, therefore, that the two persons would be capable of establishing a relationship, of identifying with one another much as we do with other members of our species whom we do not know. If we remove the walls of the room, the two beings are face to face. The realization (if there is one, in the case of Roy, or *H. superior*[82] in which it would not necessarily be immediately obvious) that she or he was not in fact talking to another being of the same type as him or herself does not affect the foundations of the relationship that was built. There is potential for a very practical example of this experiment to emerge. Various scientific and amateur groups continue to search for extraterrestrial signals, for contact from distant alien species. The distances and times involved, should such a signal be found, are such that we are unlikely to ever meet such beings in the flesh; therefore, any relationship, and our judgments on whether they might qualify as persons or indeed any other type of being, and any action that might require, would be based solely on contact much like that with the occupant of the room detailed preiously.

Different observers may react differently to this; some may be victims of the "yuck" factor, and some may fear what they see. On the other hand, some may be unfazed by the revelation. The wisdom of repugnance—the "yuck" factor—is very rarely a sound basis for judgment, despite the arguments of Leon Kass[83] and his adherents. Xenophobia, too, is hardly significant; it is a product of some animal instinct, the same that leads to racism and extreme nationalism today. Reasonable humans do not allow such opinions to color their views on other races, cultures, or creeds with whom we may share everything save one insignificant factor. The same ought hold true for novel persons, particularly those who warrant this kind of discussion.

Some readers will question the point of these considerations. There are many issues in bioethics of more immediate concern: organ shortages, patient's rights, and biorisk, to name but a few. However, although all are important, they may not have quite the potential that the introduction of novel beings of equal or greater intelligence, capacity, and (perhaps) moral value would to disrupt our society. It is highly likely that such life forms will emerge in the reasonably foreseeable future, and if we are to avoid disruption, then it is imperative that we act with foresight, preparing the way and not scrambling to try to keep up or prevent something that has already happened. If we do not consider the possibility now, and develop policy to approach and handle the matter, then we truly will end up creating an "underclass." The evidence of the way we see ourselves as persons and humans; the ways in which we consider ourselves of value; and the increasing weight of opinion toward extending rights to other beings—only on the day of writing, legal scholars have suggested the need for robot rights[84]—implies that there is no good reason not to apply similar considerations and protections to novel persons. To do otherwise would fly in the face of the human ideal. A being worth this type of discussion would, necessarily, be more human than human, particularly if we were to cast that being out.

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