

The Society of Enhanced Legal Scholars, Seven of Nine, and some regulatory challenges for future generations

by Roger Brownsword

INTRODUCTION

Developments in information and communication technologies have transformed the way that lawyers work. Nowadays, the electronic resources are so swift, comprehensive and convenient that researching the law only occasionally involves consulting the hard copy sources in the library. Imagine, though, that further developments of this kind, coupled with developments in biotechnologies and nanotechnologies, as well as in human brain/machine interfacing, reach a stage at which all legal source materials are on a tiny chip connected to the human brain. With such enabling technology, the lawyers of the future will be more than advanced, they will be enhanced. Should we welcome enhancing developments of this kind? Should we try to resist them or confine them? How should regulators respond? What kind of regulatory environment should be set for a community of potentially enhanced citizens, lawyers, and law-enforcers?

In *Rights, Regulation and the Technological Revolution* (2008), I identified three challenges that nation states face as they endeavour to put in place the right kind of regulatory environment for the development, application and exploitation of emerging technologies, an environment properly geared for risk management, for liability and compensation, for incentivisation, and for benefit sharing. These are the challenges of, respectively, regulatory legitimacy, regulatory effectiveness, and regulatory connection. On this analysis, regulators are liable to be called to account if the purposes or objectives that they are pursuing (or, the manner and means by which they pursue those objectives) are judged to be illegitimate; or if their interventions are ineffective and not fully fit for purpose; or if they have failed to make a timely, targeted and sustainable regulatory connection. In this short article, however, I will discuss just one of these challenges, that of regulatory legitimacy.

REGULATORY LEGITIMACY: THREE SCHOOLS OF THOUGHT

Where human enhancement is simply cheating by another name, we should obviously take a negative view. However, if the rules permit enhancement, or if the situation is not competitive, is a negative view still appropriate? If regulators permit (even encourage) physical and intellectual improvement, why prohibit technologies for human enhancement? Does it make sense, for example, to argue that regulators should permit the application of technologies to correct impairment (such as failing eyesight) but not to enhance human capacities (for example, to equip a person with X-ray or all-round vision)? How do we sort out the ethical wheat from the chaff? What is the appropriate standard of regulatory legitimacy?

Broadly speaking, ethical argument adopts one of three basic forms: namely, goal-orientated (consequentialism), rights-based and duty-based forms. Each form is a mould or a shell, open to substantive articulation in many different ways: different goals, different rights, and different duties may be specified. Nevertheless, in principle, the basic pattern of ethical debate, whatever the particular technological focus – whether it be biotechnology (and bioethics), ICT (and cyberethics), nanotechnology (and nanoethics), or neurotechnology (and neuroethics) – is governed by this matrix. Accordingly, when the questions concern human enhancement, with a variety of technological interventions being mooted, it is the ethics of consequentialism, the ethics of rights, and the ethics of duties that we can expect to be pleaded. More particularly, it is the ethics of utilitarian consequentialism, of human rights, and of dignitarian duty that will be pleaded because, in this context, these are the principal substantive articulations of the basic matrix.

In general, unless there are major safety concerns, utilitarians will assert the “green light” ethics of proceeding, a case of promotion (of the technology) modulated by a degree of precaution; human rights theorists will take an “amber light” approach insisting that the technological traffic pauses (to ensure rights, especially informed consent, clearance) before proceeding; and dignitarians will take a “red light” approach to those technologies (or their applications) that they judge to compromise human dignity.

Utilitarianism

For utilitarians, we do the right thing if we follow whichever option seems to have the best prospects of maximising welfare or minimising distress. Taking such a utilitarian approach, John Harris (*Enhancing Evolution*, 2007) has argued that regulators should treat human enhancement as permissible – enhancing measures being understood as those which

make us better at doing some of the things we want to do, better at experiencing the world through all of the senses, better at assimilating and processing what we experience, better at remembering and understanding things, stronger, more competent, more of everything we want to be. (at 2)

Indeed, provocatively, Harris has argued that “not only are [such] enhancements permissible but...in some cases there is a positive moral duty to enhance” (at 3).

Quite possibly, some utilitarians (applying the same utilitarian criteria) might disagree. It has been suggested, for example, that the blurring of the boundary between man and machine might give rise to various feelings of distress, disorientation, and even existential panic. And, in the context of life-extension, Leon Kass (admittedly, no utilitarian) has remarked:

Even the most cursory examination of these matters suggests that the cumulative results of aggregated decisions for longer and more vigorous life could be highly disruptive and undesirable, even to the point that many individuals would be worse off through most of their lives, and enough to offset the benefits of better health afforded them near the end of life. Indeed, several people have predicted that retardation of aging will present a classic instance of the “Tragedy of the Commons”, in which genuine and sought-for gains to individuals are nullified, or worse, by the social consequences of granting them to everyone. (Life, Liberty and the Defense of Dignity, 2002, at 261)

Clearly, Harris and Kass read the runes in rather different ways and who can be sure which view is the more accurate? As Harris himself concedes, “unless we can see clearly how probable and serious the dangers are and have a realistic basis for balancing them against the probability and size of the benefits, we can have no basis for either precaution or enthusiasm” (at 17).

Dignitarianism

The most conspicuous opposition to utilitarian green-lightism comes from the dignitarians; and the most eloquent advocacy against human enhancement comes from Michael Sandel (*The Case Against Perfection*, 2007). It is not enough, as Sandel concedes, to intone that “enhancement, cloning, and genetic engineering pose a threat to human dignity” (at 24); while this might be correct, “the challenge is to say *how* these practices diminish our humanity” (ibid). In what sense, then, might we think that human enhancement compromises the duty to respect human dignity?

Dignitarians operate with a number of axioms, one of which is that it is wrong to commodify the human body. Some might think that human enhancement does involve commodification; that this compromises human dignity; and that this is precisely why regulators should intervene. For example, suppose that humans are equipped with nano-sensors monitoring their health and with drug release systems that are activated when problems are detected. According to Bert Gordijn ((2006) 34 *Journal of Law, Medicine and Ethics* 726):

[S]uch developments will contribute to a more technologically inspired image of the body as something very similar to a machine. The body will increasingly be regarded as a whole, made up of many different components that might be fixed, enhanced or replaced if necessary. Development, functions, and appearance of the body will seem less and less fixed by nature and less frequently accepted without change, and more frequently controllable by technology. Instead of being in charge of our own health we might increasingly trust technology to take over this responsibility. In the process however, the body will be treated almost like the inanimate material of a machine. Hence, the body might become increasingly de-hallowed and de-mystified. (at 729)

To the extent that nanomedicine adopts or encourages the functional view that is already evident in human genetics and the new brain sciences, this will compound dignitarian concerns about commodification. The promise of in vivo nanosensors and drug release systems, like the promise of regenerative medicine, sounds fine until it is set alongside the disaggregation of humans into their component parts. Is there really no distinction between humans and, say, a motor car or a computer – just so many parts, so many functions, so many models?

More broadly, dignitarians express concern about the cultural impact of emerging technologies. Famously, for instance, Francis Fukuyama (*Our Posthuman Future*, 2002) has argued that we need to be careful not to undermine the conditions that allow for the expression of the full gamut of human emotions. For unenhanced humans, there is no shortage of pain and suffering, and we are rarely left in any doubt about our considerable limitations and finitude – but, as Fukuyama would have it, this is no bad thing; for, without these features, humans would find no occasion for sympathy and compassion, courage and heroism, strength of character, and so on. In a similar vein, we find Bill McKibben railing against genetic engineering (*Enough: Genetic Engineering and the End of Human Nature*, 2003); and Michael Sandel has argued that, in addition to rejecting the giftedness of life, enhancement might violate human dignity by corroding the human sense of humility, solidarity and responsibility.

If dignitarianism is to be more than a partisan (and conservative) dogma, the claim that human enhancement should be prohibited because it might compromise human dignity needs further development; and this is a matter to which I will return.

Human rights

In Bloomsbury, Bentham and the spirit of utilitarianism still might persist; and, in some parts of Europe, dignitarian thinking is strongly entrenched. However, for the most part, the modern legal and political culture in Europe is that of respect for human rights and fundamental freedoms. Granted, there are some pockets of dignitarianism in European law – notably in the moral exclusions against patentability in the EC Directive on the Legal Protection of Biotechnological Inventions (Directive 1998/44/EC); and, from time to time, Strasbourg has to correct the UK's tendency to default to pragmatic or utilitarian positions (most recently in the *Marper* case). However, the headline commitment is to human rights. The most pressing question, therefore, is what regulators who are committed to respect for human rights should make of proposals for human enhancement.

I suggest that, in such a community, regulators should apply two tests. First, regulators should ensure that any proposed enhancement is compatible with respect for the recognised array of rights. Secondly, regulators should also be satisfied that any proposed enhancement is compatible with the community's aspiration to operate as a moral community – in other words, regulators (and, here, there are echoes of dignitarian concern) need to act as stewards in relation to the conditions that are conducive to a moral way of life.

THE FIRST TEST: RIGHTS COMPATIBILITY

Proposals for human enhancement surely will prompt some familiar debates. For example, it might be argued that technologies to enhance human eyesight will prove to be incompatible with privacy rights – it was after all the development of surveillance technologies that prompted much of the contemporary concern about privacy; that (expensive) technologies to enhance human intelligence will accentuate inequalities and invite unfair discrimination; and that technologies to enhance the human embryo, fetus, or neonate might prove to be inconsistent with autonomy rights – or, as Dena Davis (*Genetic Dilemmas*, 2001) has put it, with the right to an “open future”.

We might also expect, however, that the community's concern for human rights will take the regulatory debates into areas that, if not entirely uncharted, are at least not well charted. Let me suggest four such areas.

First, it is trite that emerging technologies are open to both (benign and beneficial) use and abuse. Regulators need to decide how they will deal with proposed human enhancements that are, in this sense, dual use. If there is a risk that a proposed enhancement technology might be abused (by being applied in ways that violate human rights), regulators should certainly leave regulatees in no doubt that abusive use is prohibited. However, if there is no guarantee that this would eliminate any risk of abuse (and regulators would rarely be able to give such guarantees), should all applications of the technology be prohibited? Even though this is a drastic measure, if regulators take a one-dimensional precautionary approach, they will intervene to prohibit the technology. But, this *is* extraordinarily drastic and, as Cass Sunstein (*Laws of Fear*, 2005) has persuasively argued, it is not rational – or, at any rate, it is not rational to take such precautionary measures unless there is no relevant sacrifice involved in giving up the non-abusive use of the technology. Accordingly, where a proposal for human enhancement is judged to have a beneficial and benign application, regulators need to factor considerations of proportion into their precautionary reasoning; and this, to put it mildly, introduces some quite complex calculations.

Second, it is common ground that, where competitive rules prohibit the use of enhancers, then regulators should apply the prohibitions. This invites the question: is the community able to distinguish clearly between competitive and non-competitive situations? To be sure, it should be possible to differentiate between those arenas in which there are explicit rules that govern competition and those arenas that are not regulated in the same explicit way; but this does not get to the conceptual distinction between competitive and non-competitive situations. Let me suppose, nevertheless, that the community is able to draw this distinction in a clear and workable way. This then prompts a third and a fourth debating point.

Following on from this second point, a third area for regulatory debate will concern the use of human enhancement in non-competitive situations. In such situations, where the proposed enhancement does not in any way impinge on particular human rights, there is no problem; but, where there is a possible infringement of rights, might the community overcome this by adopting zones for enhanced humans (licensed by consent)? On the face of it, this seems a possibility. If, say, enhanced eyesight gives rise to privacy violations, this can be squared where the affected parties consent. In the same way that parties consent to a state of undress on a nudist beach, might there be zones in which, by consent, enhancement (and, concomitantly, what would otherwise be rights violations) are permitted? In principle, at any rate, this seems unobjectionable. In practice, though, it might be a very different story. Even if we assume (as I have done) that competitive and non-competitive sectors can be clearly differentiated, would it be possible in practice to maintain a clear boundary line between those (non-competitive) zones in which rights-violating enhancements are treated as authorised and those where they are not? Moreover, if a particular enhancement is non-reversible or cannot be neutralised, does this mean that those who are so enhanced are to be imprisoned in their zones?

Finally, regulators need to address their approach to the use of human enhancement in competitive situations. Might there be some competitions that permit enhancement? From a human rights perspective, would there be anything unethical about, say, three classes of Olympic competition, one for the disabled, a second for the unenhanced able, and a third for the enhanced? Sandel wryly remarks that “cheating is not the only way that a sport can be corrupted” (at 35); and we certainly might prefer to retain Olympic competition as we now know it. However, in a community of rights, while citizens may vote their preferences, regulators should not prohibit human enhancement that violates no human rights simply because this is in line with majority preferences. What regulators need to consider is whether, by permitting enhancement in competitive contexts (including, say, in university law schools and professional settings), this not only creates a pressure to use enhancers but involves a violation of the rights of those who prefer to act without enhancement.

THE SECOND TEST: CULTURAL CORROSION

A community that is committed to respect for human rights is a particular kind of *moral* community. To this extent, it is no different to utilitarian or dignitarian communities. For each of these communities, albeit with their own distinctive moral criteria, there is an aspiration to do the right thing. It follows that regulators should check proposals for human enhancement to be sure that they properly respect the conditions that allow for the possibility of a moral way of life.

In its excellent report, *Beyond Therapy* (2003), the US President’s Council on Bioethics – a Council informed by a dignitarian approach – cautions against the administration of methylphenidate (Ritalin) and amphetamine (Adderall) to children whose conduct is outside the range of acceptability:

Behavior-modifying agents circumvent... [the process of self-control and progressive moral education], and act directly on the brain to affect the child’s behavior without the intervening learning process. If what matters is only the child’s outward behavior, then this is simply a more effective and efficient means of achieving the desired result. But because moral education is typically more about the shaping of the agent’s character than about the outward act, the process of learning to behave appropriately matters most of all. If the development of character depends on effort to choose and act appropriately, often in the face of resisting desires and impulses, then the more direct pharmacological approach bypasses a crucial element... By treating the restlessness of youth as a medical, rather than a moral, challenge, those resorting to behavior-modifying drugs might not only deprive [the] child of an essential part of this education. They might also encourage him to change his self-understanding as governed largely by chemical impulses and not by moral decisions grounded in some sense of what is right and appropriate. (105-106)

Now, while this is a plea against a certain kind of social control, we might imagine the same drugs being used by the healthy and well-adjusted to sharpen their competitive edge. Or, we might imagine that enhancers can be used to improve our moral character. Let us suppose that, with the appropriate enhancing supplement, agents either find it much easier to empathise and sympathise with others (their moral will is boosted) or they find it much easier to do the right thing because the intensity of their immoral inclinations has been reduced or suppressed. Would this corrode the essential conditions for moral community?

We might recall Mustapha Mond’s conversation with the Savage in Huxley’s *Brave New World*, where Mond points out that, in place of all the effort associated with hard moral training, anyone can be moral by swallowing a small amount of soma. As Mond puts it, “Anybody can be virtuous now. You can carry at least half your morality about in a bottle. Christianity without tears – that’s what soma is.” Back in a community of rights, would such a regulatory strategy (assuming that it is known that this is what regulators are doing) be problematic? One thought is that such an approach might be judged to interfere with the realisation of authentic, unaided, moral action; yet, even if we intuitively prefer that moral action is unaided rather than artificially assisted, it is not at all easy to give a coherent sense to the idea of authenticity (see, eg, Neil Levy, *Neuroethics*, 2007, Chs 2 and 3).

If, instead of boosting the moral will, regulators target their strategy at suppressing the inclination to defect, would

this make any difference? Let us suppose, once again, that a regime of smart drugs will have the desired effect. On the face of it, this does not seem to be materially different from the first approach. If the suppressants are so powerful that they eliminate all desire to defect, then there might be a question mark against such an intervention; and, we might also question this approach if we harbour a sense of moral virtue that involves a certain degree of overcoming (where the intervention, if not eliminating the desire to defect, suppresses it to a level that makes it simply too easy for the agent to claim any merit in doing the right thing).

There are many more questions to be asked about the way in which enhancing technologies impact on the conditions for moral community (see Roger Brownsword and Karen Yeung eds, *Regulating Technologies*, 2008); but the issues can be expressed even more sharply when we turn from the prospect of enhanced citizens or enhanced lawyers to that of enhanced law-enforcers.

ENHANCED LAW-ENFORCERS

If regulators were able to enhance their enforcement apparatus and their agents so that either (a) they have comprehensive powers of detection (all crimes and offenders are unfailingly detected) or (b) they can (and do) actually prevent the commission of crime (there are no violations), we would seem to have the perfect solution. Or, would we? While such an enhanced regime of law enforcement would tick all the boxes for regulatory effectiveness, would it pass muster relative to the tests of regulatory legitimacy? Even if we assume that the substantive criminal code that is so enforced is judged to be legitimate, would the way in which the code is enforced satisfy the legitimacy test? This is a question that takes us back to the basic conditions for moral community.

Enhancement qua perfect detection

Imagine a panopticon regulatory apparatus, a super surveillance society, including enhanced enforcement agents. Every violation will be detected; every offender will be corrected; and every citizen knows that this is the case. Provided that the code is human rights compliant in its substantive provisions, what objection might there be?

The problem with such a regulatory regime is that agents in a community of rights expect to make a choice between compliance and non-compliance with their legal-moral criminal code. To be sure, panopticon observation presents agents with the paper option of non-compliance, but the reality is that agents who do not obey most certainly will pay. Echoing the concerns of the chaplain in Anthony Burgess' novel, *A Clockwork Orange*, this state of affairs might be thought to interfere with the development of agent virtue, particularly the virtue of choosing to do the right thing for the right reason. For, if agents comply only because they fear certain detection and punishment, there is little room for the promotion of the desired virtue.

Let me put this in a slightly different way. In traditional regulatory environments, the coding is normative; regulatees are directed that they ought to act in certain ways. The reasons supporting such normative signals are either moral (one ought to act in the particular way because this is categorically the right thing to do) or prudential (one ought to act in a particular way because this is in one's self-interest). For a community with moral aspirations, it is important that the signals in the regulatory environment appeal to moral reason. Hence, the problem (for an aspirant moral community) with enhanced detection is that the overriding reason backing the regulatory signals becomes that of self-interest.

Enhancement qua perfect prevention

Imagine that the enhancement of enforcement agents is even more formidable; they are able in a wholly reliable and accurate fashion to exclude or preclude the possibility of crime. There are a number of objections to such a regime.

First, if such exclusionary enhancement operates in a way that regulatees do not appreciate that they are being channelled away from what would otherwise be the commission of crime, then there are problems about the transparency of the regulatory regime.

Second, there is, so to speak, the abandonment of the normative. If perfect detection entails a shift from the moral ought to the prudential ought, perfect preclusion entails a shift from what ought to be done to what can (or cannot) be done. With panopticon enhancement, there is no real chance of doing the right thing for the right reason; with exclusionary enhancement, there is literally no chance of doing anything other than the right thing (as determined by the regulators). It is true that exclusionary enhancement might leave some space for private moral decision-making; and the possible significance of leaving such space merits further consideration. However, by excluding the most public of moral matters, exclusionary enhancement yields only an ersatz community of rights.

Third, there is also the precautionary thought that, even if today's regulators and their enhanced enforcement agents are committed to the right moral script, there is no guarantee that this will always be the case. Just as regulatees might abuse their enhanced powers, so too might regulators.


CONCLUSION

Proposals for human enhancement are on the near horizon. How should regulators respond? My overall conclusion is that, while there are some poor arguments against human enhancement, we need to go further than asking whether the ostensibly enhancing technological feature improves a particular human capacity – or, at any rate, this further inquiry is essential in a community of rights.

In such a community, two key questions need to be asked. One is whether the existence and exercise of the enhanced capacity is compatible with agents' rights; and the other is whether the enhancement is compatible with the conditions that are essential for a prospering moral community. Each proposed enhancement would need to be assessed against these criteria. Only if a proposal satisfies each limb of the test should it be given regulatory clearance.

Recently, John Harris has joined others in arguing for a *responsible* approach to the development and use of technologies of human enhancement ((2008) *Nature* (December 7) 702). In a community of rights, no one would dissent from this proposition. However, the focus of that responsibility would be on the community's substantive commitment to rights and its underlying commitment to a moral way of life. In such a community, while the presence of a Society of Advanced Legal Scholars would seem to be an unqualified good, we might need to think twice before we inaugurated a Society of Enhanced Legal Scholars.

Coda

At the end of the talk on which this article is based, the Chair, Professor Avrom Sherr, remarked that the discussion evoked recollections of Seven of Nine. Not being a Trekkie, I was at a loss to respond. However, thanks to the wonder that is Wikipedia, I now know that this character, having been born human, was assimilated by the Borg (which I can now say in a knowing kind of way) before having the majority of her cybernetic implants removed, and thereby reasserting her humanity. Speaking of Seven of Nine's personality, Wikipedia, having reported that she shows "paradoxical displays of arrogance, warmth, passion, wit, and vulnerability", then adds that "[s]he is largely incapable of perceiving 'shades of gray' – something is strictly one way or entirely another." And just when I was beginning to think that this was the perfect cv for a prospective member of the Society of Enhanced Legal Scholars. 

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Library News



LIBRARY WINS HALSBURY AWARD

For the second year in a row, the IALS Library has received an award for excellence at the annual conference of the British and Irish Association of Law Librarians (BIALL).

The IALS Library was presented with the award for Best Legal Information Service (non-commercial) on June 18 at the conference in Manchester. The award was received on behalf of the IALS by Jules Winterton, Laura Griffiths and Hester Swift.

Jules Winterton, Associate Director and Librarian of the IALS, said: "The IALS Library is honoured to have received such a prestigious award which is a tribute to the special expertise and hard work of the library staff." Halsbury's Awards "recognise, celebrate and reward the dedicated performance and outstanding service given by legal information services, law libraries and those teams managing legal collections and resources."