

○ BIOCONSERVATISM, BIOLIBERALISM, AND THE WISDOM OF REFLECTING ON REPUGNANCE

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We consider the current debate between bioconservatives and their chief opponents – whom we dub bioliberals – about the moral acceptability of human enhancement and the policy implications of moral debates about enhancement. We argue that this debate has reached an impasse, largely because bioconservatives hold that we should honour intuitions about the special value of being human, even if we cannot identify reasons to ground those intuitions. We argue that although intuitions are often a reliable guide to belief and action, there are circumstances in which they are not reliable. Intuitions – including intuitions about enhancement – are subject to various cognitive biases rendering them unreliable in some circumstances. We argue that many bioconservative intuitions about enhancement are examples of such unreliable intuitions. Given this, it is unrealistic of bioconservatives to expect others to rely on their unexamined intuitions. Furthermore, refusing to engage in debates about the reasons and values that underpin their intuitions about enhancement will have the effect of making bioconservative voices less relevant in policy debates about enhancement than they would otherwise be.

1. THE CURRENT IMPASSE

The prospect of human enhancement – that is, the use of medicine and technology to raise our physical and mental capacities beyond the ‘normal’ level¹ – raises interesting questions about what is valuable in our lives and how we can expect our biological limitations to change as technology advances. Consequently, in recent years, questions about whether enhancement is desirable, dangerous, and ethical have been keenly debated. Much of the debate concerns issues familiar from discussions of other new technologies, such as safety and equality of access. Another aspect of the debate – and one which is the focus of this paper – questions whether there is something valuable about being human, which enhancement would destroy.

On one side of this debate are *bioconservatives*, whom we take to subscribe to two main claims: the moral claim that human enhancement – *qua* process that could undermine

something intrinsically valuable about being human – is wrong (we will call this the *human nature claim*), and the political claim that it should therefore be banned or severely restricted. Those who do not subscribe to the human nature claim, but nevertheless view the potentially undesirable consequences of particular enhancements as reason to restrict the use of those enhancements, we label *biomoderates*.² Biomoderates have not so far been very active participants in what has been a polarised debate. The chief opponents of bioconservatism, those who neither make the human nature claim nor view enhancement as unusually risky, and believe that enhancement should generally be permitted, we call *bioliberals*. A frequently discussed sub-category of bioliberalism, which we do not focus on here, is *transhumanism*, which involves not only the rejection of bioconservatism, but also the substantive claim that enhancement is desirable.

Unfortunately, current debate between bioconservatives and bioliberals has stalled before reaching any meaningful consensus. In general, whilst bioliberals recognise that the availability of new technology requires us to address important questions regarding what sort of changes would constitute improvements, and how we could best introduce new technologies into society, they are clear that the availability of at least some enhancing technologies will be good for at least some people. Nick Bostrom views enhancement as a gateway to richer, more meaningful lives:

Technologies such as brain-computer interfaces and neuropharmacology could amplify human intelligence, increase emotional well-being, improve our capacity for steady commitment to life projects or a loved one, and even multiply the range and richness of possible emotions (Bostrom 2003).

Bioconservatives are less clear about precisely why enhancement is objectionable. Leon Kass asks,

Why, if at all, are we bothered by the voluntary *self*-administration of agents that would change our bodies or alter our minds? What is disquieting about our attempts to improve upon human nature, or even our own particular instance of it?

It is difficult to put this disquiet into words. We are in an area where initial repugnances are hard to translate into sound moral arguments. (Kass 2003: 17).

And Michael Sandel writes,

When science moves faster than moral understanding, as it does today, men and women struggle to articulate their unease. In liberal societies they reach first for the language of autonomy, fairness, and individual rights. But this part of our moral vocabulary is ill equipped to address the hardest questions posed by genetic engineering. The genomic revolution has induced a kind of moral vertigo (Sandel 2004: 1).

These writers find it difficult linguistically to express their unease about enhancement because their objection to it involves an immediate, non-linguistic, gut-feeling reaction to the prospect of enhancement rather than the outcome of a process of reasoned evaluation about it. This reaction is a form of intuition, a ‘spontaneous intellectual seeming’ (Levy 2006).³ Whilst bioconservatives’ opposition to enhancement does not consist solely of appeals to intuition, their arguments are often built upon a brute insistence that there is something intrinsically valuable⁴ about being human, and that this would be undermined by enhancement. Sandel comments,

I do not think the main problem with enhancement and genetic engineering is that they undermine effort and erode human agency. The deeper danger is that they represent a kind of hyperagency – a Promethean aspiration to remake nature, including human nature, to serve our purposes and satisfy our desires. The problem is not the drift to mechanism but the drive to mastery. And what the drive to mastery misses and may even destroy is an appreciation of the gifted character of human powers and achievements (Sandel 2004: 5).

Kass, quoting from an earlier draft of Sandel’s paper, seconds his view (Kass 2003: 19); and Fukuyama expresses a related worry:

[T]he deepest fear that people express about technology is ... a fear that, in the end, biotechnology will cause us in some way to lose our humanity – that is, some essential quality that has always underpinned our sense of who we are and where we are going, despite all of the evident changes that have taken place in the human condition through the course of history (Fukuyama 2002: 101).

Those who do not antecedently share the bioconservatives’ intuitive belief that human nature (or some aspect of it) is valuable, however, find little in the bioconservatives’ ar-

guments to convince them that human nature should be respected and preserved. Kass makes little attempt to explain what is special about being human. Sandel does not adequately justify⁵ his assertion that human characteristics should be appreciated as ‘gifts’ rather than seen merely as advantages arbitrarily bestowed by the natural genetic lottery; and as a result, his ensuing argument is unlikely to convince anyone inclined to view human characteristics as mere arbitrary advantages that they should be respected and left unenhanced. Fukuyama attempts to spell out what is special about being human, but his answer is unsatisfactory: having claimed that ‘when we strip all of a person’s contingent and accidental characteristics away, there remains some essential human quality underneath that is worthy of a certain minimal level of respect – call it Factor X’ (Fukuyama 2002: 149), he concedes that ‘there is no simple answer to the question, What is Factor X?’ (Fukuyama 2002: 171).

The typical bioliberal response to this insistence that there is something special about human nature, and that therefore we ought not to tamper with it by enhancing, is to try to break down this reverence for human nature into its component beliefs and values, and to argue that these components are unwarranted, misconceived, or inconsistent with other deep-rooted beliefs and values. For example, Bostrom observes that it is not obvious that human nature should be respected and preserved, since ‘[o]ur own species-specified natures are a rich source of much of the thoroughly unrespectable and unacceptable – susceptibility for disease, murder, rape, genocide, cheating, torture, racism’ (Bostrom 2005: 205). Bioliberals also frequently challenge the moral relevance of the distinction between therapy and enhancement: those who find it morally acceptable to use medicines and technologies for therapeutic purposes, the argument runs, cannot coherently object to their use for enhancement (Bostrom and Roache 2007).

Bioliberals may also question unsubstantiated claims made by bioconservatives. For example, it is not obvious, as Kass and Sandel both claim, that people in general are uneasy about enhancement. The increasing use of cosmetic surgery to make medically unnecessary improvements to physical appearance suggests that at least significant segments of societies like the UK and the US are increasingly accepting of at least certain types of enhancement.⁶ Nor is it clear that, as Fukuyama claims, there is ‘some essential quality that has always underpinned our sense of who we are and where we are going, despite all of the evident changes that have taken place in the human condition through the course of history’. It is questionable whether a male university professor in the US today shares much sense of who he is and where he is going even with many of his fellow Americans, let alone with people from different countries or different historical periods.

Fukuyama's opponents may therefore suspect him of having over-generalised the homogeneity of the human species. Finally, even if the bioconservative claim that there is something valuable about being human is defensible, it does not follow that individuals who wish to enhance themselves should be prevented from doing so.

The bioliberal's analytic approach attempts to identify exactly what bioconservatives wish to protect from enhancement; to assess its value; to question whether enhancement poses a significantly greater risk to it than existing common and accepted practices; and to consider whether, even if it does, enhancement should be banned. If what bioconservatives are trying to protect cannot be properly defined; or if, having identified it, it turns out not to be worth protecting according to values and principles that even bioconservatives must recognise; or if enhancement poses no greater threat to it than existing, accepted practices; then – the bioliberal argues – bioconservatives' opposition to enhancement is irrational and should be dismissed. This approach to the debate is an invitation to bioconservatives to engage, to delineate their values and concerns, to analyse and reflect on their beliefs about human nature and its future, and to defend their opposition to enhancement as rationally justified.

Frequently, however, bioconservatives reject this invitation, and find the analytic approach taken by bioliberals objectionable. Kass has complained that

Bioethics was founded by people who understood that the new biology touched and threatened the deepest matters of our humanity: bodily integrity, identity and individuality, lineage and kinship, freedom and self-command, eros and aspiration, and the relations and strivings of body and soul. With its capture by analytic philosophy, however, and its inevitable routinisation and professionalisation, the field has by and large come to content itself with analysing moral arguments, reacting to new technological developments and taking on emerging issues of public policy, all performed with a naïve faith that the evils we fear can all be avoided by compassion, regulation and a respect for autonomy (Kass 1997: 18).

He argues against an analytic approach:

Can anyone really give an argument fully adequate to the horror which is father-daughter incest (even with consent), or having sex with animals, or mutilating a corpse, or eating human flesh, or even just (just!) raping or murdering another human being? Would anybody's failure

to give full rational justification for his or her revulsion at these practices make that revulsion ethically suspect? Not at all. On the contrary, we are suspicious of those who think that they can rationalise away our horror, say, by trying to explain the enormity of incest with arguments only about the genetic risks of inbreeding (Kass 1997: 20).

Fukuyama also rejects the bioliberal invitation. Motivated by the concern that '[d]enial of the concept of human dignity – that is, of the idea that there is something unique about the human race that entitles every member of the species to a higher moral status than the rest of the natural world – leads us down a very perilous path' (Fukuyama 2002: 160), he condemns the 'legions of bioethicists and casual academic Darwinians' who deny that there is anything special about being human. However, far from managing to articulate and defend the value of 'Factor X', he simply insists that Factor X exists and has value in spite of the fact that it cannot be analysed or defined:

[T]here is no simple answer to the question, What is Factor X? That is, Factor X cannot be reduced to the possession of moral choice, or reason, or language, or sociability, or sentience, or emotions, or consciousness, or any other quality that has been put forth as a ground for human dignity. It is all of these qualities coming together in a human whole that make up Factor X. Every member of the human species possesses a genetic endowment that distinguishes a human in essence from other types of creatures (Fukuyama 2002: 171).

Sandel, too, fails to take the analytic approach seriously: he fails to justify his view that our talents are gifts despite seeming to recognise the need to do so. In answer to the objection that 'to speak of a gift presupposes a giver' (Sandel 2007: 92–93), and that – on a secular view – our talents have no 'giver', he notes that '[w]e commonly speak of an athlete's gift, or a musician's, without making any assumption about whether or not the gift comes from God'. However, despite noting the possible objection that 'nontheological notions of ... gift cannot ultimately stand on their own but must lean on borrowed metaphysical assumptions they fail to acknowledge' – an objection similar to our observation that bioconservative arguments often rest on undefended intuitions – he steps out of the debate with the comment that '[t]his is a deep and difficult question that I cannot attempt to resolve here' (Sandel 2007: 94).

The debate between bioconservatives and bioliberals, then, stalls not just because the two sides disagree about the facts and values at issue, but because they disagree about

how best to proceed. Bioconservatives ask us to stop and appreciate something sacred, whose value we fail to recognise if we analyse it; whereas it is only through analysis and rational argument that bioliberals might become convinced of its value. This disagreement centres around intuitions: bioconservatives feel, without fully articulating, that human nature is sacred; whereas bioliberals (and biomoderates) lack this intuition.

Such disagreements based on intuitions are not unique to the enhancement debate. They often occur in debates between political liberals and conservatives. Haidt and Graham describe one such a disagreement:

On the July 25, 2005 episode of *The Daily Show*, liberal host Jon Stewart tried in vain to convince conservative U.S. Senator Rick Santorum that banning gay marriage was an injustice. Quickly realising the futility of this effort, Stewart remarked, ‘It is so funny; you know what’s so interesting about this is ultimately you end up getting to this point, this crazy stopping point where literally we can’t get any further. I don’t think you’re a bad dude, I don’t think I’m a bad dude, but I literally can’t convince you’ (Haidt and Graham 2007: 111).

Haidt and Graham argue that this disagreement was irresolvable because the two parties had different intuitions:

The stopping point Stewart felt was the invisible wall separating liberal and conservative moralities. Santorum’s anti-gay-marriage views were based on concerns for traditional family structures, Biblical authority, and moral disgust for homosexual acts (which he had previously likened to incest and bestiality). To Stewart these concerns made about as much sense as the fear of theta waves; it was impossible to see why a decent, moral person (or at least not a bad dude) would want to violate the rights of a group of people who weren’t hurting anyone.

Given that bioconservatives and bioliberals have reached a ‘stopping point’, what prospects are there for the debate about enhancement?

The answer to this question partly depends on what each side hopes to gain from the debate. Bioliberals want to move the debate forward and oppose misconceived opposition to enhancement; whereas bioconservatives do not wish to engage in an unacceptably analytic discussion. However, despite initial appearances, bioconservatives may have most to gain from moving the debate forward. Whilst bioconservatives sometimes

write as if only radicals are pro-enhancement, and as if the bioconservative anti-enhancement view characterises the default position, to be adopted if agreement on how to proceed cannot be reached; it is more plausible to see the bioliberal view as the current default position, and the bioconservative view a radical departure from accepted thinking. This is because, in most Western societies, people expect the state to intervene and prevent mentally sound citizens from pursuing a given activity only when it has compelling reasons to do so. Such reasons usually involve the possibility of significant harm to others. For example, it is impermissible to drive whilst drunk because of the increased possibility of harming others in a collision. Legislation to prevent people from pursuing activities unlikely significantly to harm anyone – such as legislation restricting the practice of homosexuality – is increasingly viewed as an unacceptable infringement on liberty, as attested by the increasing number of Western countries that legally recognise same-sex civil partnerships.

In proposing a ban on enhancement, bioconservatives advocate the introduction of this sort of dubious legislation. Their anti-enhancement arguments appeal irreducibly to factors like the value of human nature, the infringement of which would not obviously constitute a significant harm to others. Where they do cite reasons to suspect that enhancement might harm others, such reasons tend to be highly speculative, ill-defined, or – as numerous bioliberal responses point out – unsuccessful in showing that the threat posed by enhancement is greater than that posed by various familiar and widely-accepted activities. As a result, in the context of societies like the UK and the US, bioconservatives’ anti-enhancement stance is radical.

This means that, if bioconservatives wish to convince the public and policy-makers to oppose enhancement, their case needs to be very strong. They have a vested interest in moving the enhancement debate beyond the current ‘stopping point’ and towards the anti-enhancement position. If they fail, it is likely that eventually the bioliberal position will win increasing acceptance; and bioconservatives will become – like the Amish – an isolated minority, their views occasionally interesting but neither appealing nor influential to the majority of people.

2. CONSERVATISM AND INTUITIONS

As we have seen, bioconservatives stress the importance of heeding certain moral intuitions. Their intuitive unease about enhancement, for them, justifies their opposition to enhancement; and they distrust attempts to explain away their unease by analysing it in terms of more basic beliefs and values. For bioconservatives, then, intuition plays a major

role in moral decision-making. This attitude contrasts with that of bioliberals, who typically believe that intuitions are useful as long as they can be justified by appeals to more basic moral beliefs and values.⁷ To understand bioconservative thinking about morality, and the importance to them of moral intuitions, it is helpful to consider how conservatives in general think about morality and its broader role in society.

Conservative political thinking is characterised by a lack of a specific ideological basis. One can be a monarchist conservative, a liberal-democratic conservative, and – in a Marxist-Leninist society – a Marxist-Leninist conservative. To be conservative is to seek to retain whatever aspects of a society that one values. An important set of such valued aspects is traditions: contemporary conservatives such as John Kekes and Roger Scruton emphasise the importance of traditions in enabling people to live good lives (Kekes 1998; Scruton 2001). Traditions are the customary beliefs, rituals, practices and conventions that evolve either spontaneously, like the tradition of sports fans barracking for their teams; or around and within our social institutions, like the various practices relating to our justice system. Because of the important role that participation in traditions plays in enabling good lives, contemporary conservatives wish ‘to have and maintain political arrangements that foster the participation of individuals in the various traditions that have historically endured in their society’ (Kekes 1998: 39).

Closely related to the traditionalism of contemporary conservative thought is the theme of pessimism (Kekes 1998: 41–45; 213–219). Since contemporary conservatives see societies as organic entities, in which the proper functioning of each part depends on the continued functioning of other, often apparently unrelated parts, they fear that grave and unforeseen social consequences may follow from interference with social structures. They are therefore pessimistic about the ability of societies to withstand radical change, and resistant to proposals for such change. Liberals, by contrast, prioritise individual freedom over speculative fears about social disruption, and weigh possible negative effects against expected benefits when deciding whether to support a proposed social change. As a result, they often find themselves in conflict with the pessimistic conservative.

According to contemporary conservatives, participation in certain moral traditions provides people with their sense of moral identity. Having a moral identity involves having knowledge of the moral conventions that make up a moral tradition. For the most part, this knowledge is intuitive. Kekes tells us that:

Intuition is a complex psychological process that has cognitive, emotive, and volitional elements. The cognitive element is what the agents believe about the situation: what the facts are and what moral significance

they have. Helping the old lady, disapproving of the colleague's lie, paying the bill, and regretting the student's suicide all involve beliefs that the agents take to be true and could turn out to be false. But when a situation is intuited a certain way, the agents' feelings are usually also engaged. They are alarmed on behalf of the stumbling old lady, made indignant by the lie, and feel sorry about the student (Kekes 1998: 119–120).

The emotion of disgust (alternatively, repugnance or revulsion) is a particularly important component of well-functioning moral agency, according to conservatives. Well-functioning moral agents feel disgust when they observe the gross violation of certain fundamental moral conventions: disgust is 'a reaction to seeing the unthinkable happen, to treating a person as no one should be treated, no matter what' (Kekes 1998: 106). Kekes tells us that disgust is important to proper moral functioning not only because it helps us identify gross violations of our moral conventions, but also because, when these occur, we sense a threat to our way of life; and Kass has claimed that there is wisdom in repugnance (Kass 1997). Appreciating the pessimism of contemporary conservative thinking is crucial to understanding the importance of disgust to contemporary conservatives. According to Kekes, 'when the revolting act is seen as done, there looms the dreadful possibility of the removal of all limits. The possibility of this happening is the ultimate object of the fear that is one essential element in moral disgust' (Kekes 1998: 106).

Bioconservatives who stress the importance of intuition in moral judgment take a standard conservative approach. We have seen that they are hostile to the analytical approach to moral issues taken by bioliberals, whom they see as over-reliant on rational argument and under-appreciative of moral intuitions. As we saw in section 1, Kass complains that bioethics has been captured by analytic philosophers who assess moral claims by identifying underlying beliefs and values, without regard for unanalysed moral intuitions. However, this characterisation of analytic philosophy as fixated by argument and unconcerned with intuition is a caricature. In fact, a noteworthy feature of contemporary analytic philosophical reasoning is that appeals are frequently made to intuitions, informed by reflection, to assess arguments and to flag where concepts have over-reached their appropriate domain of application. A famous instance of an appeal to intuition by a philosopher against a reasoned argument is due to Judith Jarvis Thomson. Thomson asks us to imagine the following scenario:

You wake up in the morning and find yourself back to back in bed with an unconscious violinist. A famous unconscious violinist. He has been found to have a fatal kidney ailment, and the Society of Music Lovers has canvassed all the available medical records and found that you alone have the right blood type to help. They have therefore kidnapped you, and last night the violinist's circulatory system was plugged into yours, so that your kidneys can be used to extract poisons from his blood as well as your own. The director of the hospital now tells you, 'Look, we're sorry the Society of Music Lovers did this to you – we would never have permitted it if we had known. But still, they did it, and the violinist now is plugged into you. To unplug you would be to kill him. But never mind, it's only for nine months. By then he will have recovered from his ailment, and can safely be unplugged from you' (Thomson 1971: 48-49).

Appealing to intuition, Thomson suggests that, although it would be generous of you to accede to the wishes of the hospital director, 'you would regard ... as outrageous' the suggestion that you are morally obliged to do so. Having identified this intuition, she uses it to inform and calibrate anti-abortion intuitions, by employing the former to rebut the 'plausible-sounding argument' that a fetus's right to life outweighs its mother's right to decide what happens in and to her body, and that therefore abortion is wrong.

Contrary to Kass's conception of them, then, analytic philosophers do not dismiss moral intuitions. Typically, they are concerned with reconciling moral intuitions with reason.⁸ An influential approach to this task is the method of 'reflective equilibrium' described by John Rawls (Rawls 1951; Rawls 1971), which involves an ongoing revision and reconciliation of new and existing beliefs, reasoned judgments, intuitions, and observations in order to maintain a maximally coherent set of beliefs.

Although Kass is wrong to suppose that analytic philosophers systematically deny intuitions a justificatory role, he is right that conservatives generally give greater weight to intuitions in the justification of morality than non-conservative philosophers, including many bioliberals. Because many bioliberals are political liberals, they are committed to the justification of moral generalisations taking place in the public sphere through open debate. This is disadvantageous for appeals to intuition in at least two ways. First, it is often hard to articulate moral intuitions and relate these to other moral concerns. Second, the act of articulating a moral intuition in public can undermine its authority. Yuval Levin tells us that

The very fact that everything must be laid out in the open in the democratic age is destructive of the reverence that gives moral intuition its authority. A deep moral taboo cannot simply become another option among others, which argues its case in the market place. Entering the market and laying out its wares take away from its venerated stature, and its stature is the key to its authority. By the very fact that it becomes open to dispute – its pros and cons tallied up and counted – the taboo slowly ceases to exist (Levin 2003: 59).

Despite this, Levin concludes that conservative bioethicists who wish to help shape policy in a democratic society have no alternative but to participate in public debate and attempt ‘to develop and articulate a coherent worldview’ (Levin 2003: 64). Effectively, this means that bioconservatives should attempt to establish a conservative reflective equilibrium, and thereby adopt the method of debating and assessing intuitions favoured by most bioliberals. That the bioconservatives whose views we have considered here are unwilling to do this suggests that they are positioned at the more extreme end of the conservative political spectrum.

3. THE LIMITS OF INTUITION

Some hard-line bioconservatives, such as Kass, appear to believe that – at least in certain cases – when reason and moral intuitions are in conflict, reason should defer to moral intuition. Less hard-line conservatives and most philosophers advocate a compromise between moral intuitions and reason in some variant of reflective equilibrium; and a few highly rationalistic philosophers, such as Singer, urge us to reject moral intuitions completely. Singer objects to the method of reflective equilibrium on the grounds that it ‘assumes that moral intuitions are some kind of data from which we can learn what we ought to do’ (Singer 2005: 346). This is an odd complaint because, on very standard views in psychology, intuitions are exactly this sort of data. They are transmissions of information from non-conscious parts of the mind to consciousness, in the form of spontaneous intellectual seemings, which have evolved to help guide our decisions (Haidt and Joseph 2004). However, Singer argues that the usefulness of moral intuitions is doubtful, since they evolved in our ancestors to meet the demands of life in small social groups, and most people today live in much larger social groups (Singer 2005: 347–348).

Singer’s conclusion that moral intuitions are in general unreliable is too strong. Moral intuitions play an important role in our thought and action. One might doubt

whether we could form any moral beliefs whatsoever without relying, at some level, on intuition; and at the very least, in cases where we can make a decision informed by intuition or solely by rational deduction from first premises, attending to our intuitions frequently helps us make sensible decisions far quicker than we could by relying solely on rational deduction, as those persuaded by Thomson's defence of abortion could no doubt attest. Furthermore, intuitions can enable us to make more accurate decisions, under some circumstances, than we could make by relying chiefly on conscious reason (Kleinmuntz 1990). However, Singer is correct that when moral intuitions designed to aid decision-making under one set of circumstances are put to work under new circumstances, they can mislead us (Sunstein 2005). In such circumstances, relying on intuitions can lead to various, well-documented cognitive biases (Gilovich et al. 2002). For example, our intuitive judgment that incest is morally wrong is plausibly explained as the outcome of a heuristic that functions to prevent us having inbred children. However, people continue to intuit that incest is morally wrong even in circumstances where a consensual incestual act between adults would have no chance of leading to the conception of a child (Haidt 2001; Sunstein 2005).

Whilst such biases are not uncommon, it remains true that intuitions are useful and generally reliable when employed in the right circumstances. For this reason, rather than conclude with Singer that we should abandon intuitions, we suggest that the correct way to approach intuitive thinking in moral debate is to make use of the insights that intuitions can enable us to make, whilst being aware of their potential to mislead and remaining vigilant in identifying potentially misleading applications. Identifying misleading applications of intuition is not always easy, but there are various clues that can help flag them. These include judgments that are obviously false, inconsistent, difficult to articulate or defend, or at odds with one's fundamental beliefs. Kekes also suggests a number of factors that may detract from the reliability of intuitions, including cases where intuitions are not of 'everyday moral situations' (Kekes 1998: 123). Several of these factors point to the possibility that moral issues relating to enhancement might be an area in which our moral intuitions could be misleading: bioliberals often accuse bioconservatives of drawing conclusions about enhancement that are obviously false, inconsistent, and at odds with more fundamental principles (Bostrom 2005; Bostrom and Roache 2007; Glover 2006; Savulescu et al. 2004); bioconservatives confess that their unease about enhancement is difficult to articulate (Kass 2003: 17; Sandel 2004: 1); and both parties would agree that enhancement is not an everyday moral situation. There are, moreover, reasons to believe that popular intuitive aversion to enhancement – which grounds much bioconservative thinking – is distorted by the influence of specific cognitive biases.

Misleading intuitions might be responsible for the common fear that the widespread use of enhancement technologies will lead to a dystopic outcome, such as that described by Aldous Huxley in *Brave New World* (Huxley 1998).⁹ According to Tversky and Kahneman, we commonly use an availability heuristic when estimating the likelihood that a given event will occur. That is, we base our estimate on ‘the ease with which instances or associations come to mind’ (Tversky and Kahneman 1973: 208). The ease with which a given instance or association comes to mind is influenced by both the ‘ease of recall’ and the ‘content of recall’ (Schwarz and Vaughn 2002). In Western culture it is relatively easy to recall *Brave New World*: the novel itself is well known, and the evocative phrase has pervaded our culture to such an extent that when we put it into the search engine Google on 8 June 2009, it retrieved approximately 9,700,000 hits. By contrast, the utopian alternative described by the World Transhumanist Association, in which the enhanced and the unenhanced live in harmony, is currently little known.¹⁰ As a result, when asked to envisage a future society in which enhancement is widespread, we suggest that people today are much more likely to call to mind *Brave New World* than the utopian alternative, and can accordingly be expected to judge *Brave New World* to be the more likely outcome.

Another relevant factor in explaining why people may associate widespread enhancement with dystopic scenarios such as *Brave New World* is the influence of the affect heuristic. Using this heuristic, the perceived desirability or undesirability of a possible scenario shapes people’s judgments about how likely it is that the scenario will occur (Slovic et al. 2002). As a result, lay judgments of an outcome as desirable or the reverse are correlated with assessments of, respectively, lower and higher risks of the outcome’s occurring.¹¹ Since *Brave New World* and other dystopic future scenarios are maximally undesirable, we can reasonably expect that the affect heuristic will cause assessments of their likelihood as an outcome of widespread use of enhancement to increase greatly.

Although we acknowledge that the evolutionary history of some moral intuitions casts doubt on their reliability given the discrepancy between our current lifestyle and our circumstances when these intuitions evolved, and that some moral intuitions may be distorted by cognitive biases, we do not think that these are sufficient grounds to reject moral intuitions in general, as Singer proposes. As we have seen, some of our moral intuitions remain relevant to our current circumstances. And, although there is evidence that some applications of moral intuitions are subject to bias, we are not convinced that these are sufficiently pervasive to justify the rejection of moral intuitions outright; espe-

cially when we consider that it may be possible to learn to correct for bias (Wilson et al. 2002; Haidt et al. 1993).

Nor are we convinced that moral intuitions are so reliable as to be accepted without question. We expect mainstream contemporary conservatives to agree with us that moral intuitions should be subject to rational assessment. Kekes points out that moral intuitions are fallible and should sometimes be rejected by mainstream contemporary conservatives (Kekes 1998: 121–123). Citing the views of W.D. Ross, he tells us that moral intuitions

establish no more than a *prima facie* case for the moral significance of a situation. This feature should be contrasted with the infallibility that used to be attributed to intuitions. It was dogmatically supposed that nothing could overrule the deliverances of *bona fide* intuitions. It is more reasonable, however, to allow for the possibility that there may be good reasons for doubting the reality of even *bona fide* intuitions. Ross restricted this possibility to cases in which moral intuitions conflict with each other, and he thought that in such cases reflection must replace reliance on intuitions.¹²

So Kekes, following Ross, advises conservatives to adopt an approach to contested intuitions akin to reflective equilibrium, the approach favoured by many liberals. Bioconservative intuitions about human enhancement are, as we have seen, contested by bioliberals. Furthermore, we have seen that there are good reasons to think that intuitions about human enhancement are subject to the distorting influences of cognitive biases. As a result, we would expect mainstream conservatives to place intuitions about enhancement among those which should be questioned and reflected upon.

Moral intuitions, then, should not generally be adhered to uncritically when challenged, and the same is true of moral intuitions about enhancement. But neither should they be rejected outright. In cases where contested intuitions about the dangers of enhancement can be supported with sound argument, we have reason to take those intuitions seriously. As a result, whilst we cannot endorse Kass's faith in the 'wisdom of repugnance' (Kass 1997), we concede that there may be such a thing as the 'wisdom of reflecting on repugnance'.

4. MOVING THE DEBATE FORWARD

Given that bioconservatives, led by their intuitions, subscribe to the human nature claim and bioliberals do not, how can the debate best proceed? To answer this question, let us consider again what the major participants in the debate are trying to achieve. Bioconservatives are interested both in establishing the human nature claim, and in developing policies that ban or heavily restrict enhancement. Biomoderates do not subscribe to the human nature claim, although they urge caution in the face of potential risks from enhancement. Bioliberals reject the human nature claim, and do not view enhancement as unusually risky.

Currently, some enhancements are restricted or banned. For example, drugs like Ritalin, Modafinil, and Prozac are prescribed for therapeutic treatment (respectively, the treatment of attention-deficit hyperactivity disorder, narcolepsy, and depression), but not for their cognitive- or mood-enhancing effects¹³; and performance-enhancing drugs in professional sport are banned. The reasons for restricting or banning these enhancements include concerns about health, regulatory issues, and fairness. Where such concerns do not arise, or where the risks posed are not judged sufficiently high to warrant legislative restriction, enhancements are permitted. For example, whilst cosmetic surgery procedures can be risky, patients are allowed to calculate the acceptability of the risks themselves, with an expectation that surgeons will act responsibly in making them aware of what the surgery involves. To our knowledge, no enhancement is currently restricted or banned because of concerns about its impact on human nature.

This means that, in the absence of a marked policy shift, bioliberal ideas can reasonably be expected to prevail in Western liberal societies. As we saw in section 1, those living in such societies expect their governments to legislate against only those activities that pose a significant threat of harm to others. In the absence of concerns about how the enhancement of some might harm others in society, we can expect negative moral emotions about enhancement to decline in strength. This is because our intuitions tend to reflect our social circumstances (Haidt 2001; Haidt and Graham 2007). Conservatives recognise this: Levin warns us that ‘repugnance fades with habit’ (Levin 2003: 56); and both Levin and Kass cite Dostoevsky’s Raskolnikov, who warns us that ‘man, the beast, gets used to everything’ (Levin 2003: 56; Kass 1997: 18). As intuitions about the wrongness of enhancement decline in strength, those bioconservatives who refuse to engage in debate lose any chance of significantly shaping public policy, because participation in such debate is a necessary step in influencing policy in liberal societies.

If there is no policy shift in Western liberal societies, bioliberalism will win the policy debate by default. As enhancements become available, some non-bioconservatives will choose to enhance, intuitions about the repugnance of enhancement will decline in strength, biomoderate opposition to enhancement will become increasingly focussed on specific enhancements that involve specific risks, and we will find ourselves in an increasingly bioliberal society. To win the policy debate, bioconservatives need either to convince bioliberals and biomoderates to treat intuitions that they are unlikely to share as sacrosanct, or – more realistically – they must join Levin in accepting that their intuitions need to be assessed in the open market place of ideas, even if participating in this process deprives those intuitions of some of their authority.

Our conclusion may seem a bitter pill for bioconservatives to swallow. Nevertheless, we think it worth their while to swallow it. As we saw in section 2, conservatives are characterised by their concern to retain certain aspects of the societies that they live in. So conservatives are primarily concerned with political goals. Because bioconservatives are conservatives, they will find little solace in holding what they take to be the moral high ground if they are unable to influence policy.

Those bioconservatives willing to seek out arguments to support their intuitions will probably not succeed in persuading society to ban all enhancements. However, this does not mean that bioconservatives cannot influence policy about enhancement at all. Conservatives regularly take part in policy debates, even when the issues under discussion challenge their fundamental assumptions about how society ought to be regulated. Writing in 1998, Kekes cites the debate taking place in American society about sexual matters: ‘family, monogamy, contraception, homosexuality, AIDS, pornography, the relation between the sexes, abortion, and so forth’ (Kekes 1998: 130). He observes that

One highly significant feature of the disputes about the morality of these changes is that all parties argue their cases by appealing to the moral views of the people whom they wish to enlist on their side. The conflicts about the relation between the sexes is debated in terms of the more basic values of equality, respect, and justice; the controversy about abortion takes for granted a shared commitment to the value of life; one issue about homosexuality is how far the undoubted values of freedom and privacy should extend; and so forth. In all these cases, the proposed changes in the moral tradition involve the reaffirmation of its more fundamental aspects.

Likewise, policy changes prompted by the development of enhancement technologies can be made in ways that reaffirm the fundamental aspects of our moral tradition; and conservative thinkers can contribute to ensuring that changes are made in these ways, and not in other ways that might damage society. As such, our conclusion is not the bitter pill it may initially appear: in urging bioconservatives to engage in debate about their intuitions, we are not urging them to abandon their conservatism, but to join the mainstream of conservatism. In doing so, they would greatly increase their chances of influencing policy concerning the regulation of particular enhancement technologies.

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ENDNOTES

1 Whether any level of human functioning can coherently be described as ‘normal’ is contentious (see, for example, Bostrom and Roache (2007)), but we hope our use of the term conveys broadly what is involved in enhancement.

2 Selgelid (2002) is an example of a biomoderate.

3 (Levy 2006: 567–587). We will follow Levy’s definition of intuition here, which is incompatible with a broad range of uses of the term in philosophy and psychology. As Levy notes, some intuitions are modified by reflection overtime. Nevertheless they remain intuitions provided that they are experienced as occurring spontaneously.

4 Bioconservatives do not explicitly claim that the value of human nature is intrinsic, rather than extrinsic or instrumental. We infer this from the fact that they do not mention external or instrumental factors in their discussion of the value of human nature.

5 Either in Sandel (2004), or in Sandel (2007).

6 In 2005, 22,041 cosmetic procedures were carried out in the UK, compared to 16,367 in 2004: an increase of 35%. Cosmetic Surgery Consultants, ‘Recent Cosmetic Surgery Statistics 2005’. [Internet]. Available from: <http://www.cosmeticsurgeryconsultants.co.uk/recent-surgery-of-2005.htm>.

7 This is not to say that bioliberals insist that we so justify every intuition before relying on it. Rather, intuitions are assumed to be a good guide to belief and action until their usefulness is challenged, in which case those who maintain that a challenged intuition is reliable bear the burden of showing it to be reliable by appealing to basic moral beliefs and values.

8 Not all analytic philosophers value intuitions and emotions. Some utilitarians, such as Richard
Brandt and Peter Singer, are dismissive of moral intuitions and emotions, wishing to ground
morality on reason alone (see Brandt 1979; Singer 2005). These philosophers more closely
approach Kass's stereotype, but they are in the distinct minority in contemporary analytic
philosophy.

9 References to Huxley's dystopia appear in Fukuyama (2002) and Kass (2003). Fukuyama's
book begins with a discussion of the novel. Recently *The New Atlantis*, a prominent outlet
for bioconservative scholarship, published an article on the occasion of the 75th anniversary
of the publication of *Brave New World*, discussing the enduring importance of the book.
See Nicol (2007).

10 This utopian vision is outlined in Bostrom (2003). See especially <http://www.transhumanism.org/index.php/WTA/faq21/73/>. Bostrom's utopian scenario, or others like it, may become
better known in time. If so, we can expect lay assessments of the risks associated with
enhancement to alter accordingly.

11 In fact, the picture is more complex than this. Judgments about the likelihood of a given
scenario's occurring depend on a variety of factors, of which its desirability is only one.
Other relevant factors include whether the activity that might lead to the scenario is voluntary,
whether it is perceived as controllable, and whether it is familiar. See Starr (1969).

12 Kekes (1998): 121, citing Ross (1930).

13 For details about the cognitive-enhancing effects of Ritalin (methylphenidate), see Elliott et
al. (1997); and for a news report about how the drug is increasingly used by students to
improve examination performance, see 'Exam Students "Rely on Ritalin"'. BBC News 19
June 2007 [Internet]. Available from: <http://news.bbc.co.uk/1/hi/england/oxfordshire/6766847.stm>. For details about the cognitive-enhancing effects of Modafinil, see Muller
et al. (2004); and Turner et al. (2003). For a discussion of the mood-enhancing effects of
Prozac, see Kramer (1993).

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