

A pervasive reaction to the idea of extreme or indefinite postponement of human aging – one heard from many professional bioethicists and also from a high proportion of the general public – is that aging differs morally from other causes of debilitation and death in a manner that exempts us from the duty to combat it that we perceive as so self-evident in respect of those other causes. Precisely what characteristic of aging underpins this alleged distinction? I argue here that it is in fact a false distinction, perpetuated only by unwarranted psychological forces posing as philosophical arguments. In particular, I note that even an argument based ultimately on the currently unpopular meta-ethical concept of non-cognitivism cannot logically permit one to regard aging as a phenomenon that we can morally desist from combating to the best of our ability. I conclude that a cognitivism-agnostic line of reasoning, based on reflective equilibrium, offers the best chance for influencing hearts and minds on this issue in the near term.

The pro-aging flight from reason

It is hardly necessary in this essay to enumerate the plethora of almost comically irrational defences of aging that are commonly encountered when the topic of extreme life extension arises in casual conversation (de Grey 2003). All that is really worth mentioning here is that the irrationality of most of these reactions primarily resides not in their inherent validity as concerns, but rather in the certainty with which their exponents present them as supposedly obvious proofs that the elimination of aging would make life not worth living. There is no doubt that a post-aging world will be radically different from today's, and indeed that some of the differences merit extensive forward-planning to minimise their drawbacks (particular the drawbacks that may accompany the *transition* to the post-aging state). Thus, if someone who may hitherto have applied only minimal thought to the topic raises concerns as to whether issues such as inequality of access, boredom or cognitive ossification might merit caution, they do not thereby identify themselves as having abandoned the respect for rationality that constitutes the central prerequisite for any productive debate. Rather, such people often turn out to be quite receptive (albeit perhaps not instantly) to the simple and highly compelling arguments, surely familiar to all readers, that demonstrate the moral equivalence of combating aging and combating the panoply of other causes of suffering and death that are rather more rarely defended in modern society. No – the problem is that, all too often, these conversations never attain the level of objectivity necessary for such arguments to be rehearsed at all. Rather, defenders of aging frequently exhibit from the outset a lack of sincere interest in the question: a determination either to change

the subject, or to restrict the conversation to an exchange of witticisms, or even to cast their interlocutor as a dangerous dreamer or ignoramus, so fixated by the lure of scientific and technological progress as to have abandoned all sense of ethical propriety.

When earnest debate is resisted, options for how to proceed are usually limited. In this case, however, the situation is in my view not so bleak. The feature that I perceive as providing a constructive and promising way forward is one that is popularly viewed as being just the opposite, an obstacle to progress. This is the presence in the debate of a number of highly articulate and prominent theologians and ethicists who sincerely propound the pro-aging position and claim to be able to defend it against the arguments alluded to above (President's Council 2003).

The paradoxical utility of bioconservatives

One might initially suppose that the ideal spectrum of academic opinion on a topic that divides society is a consensus in favour of the "correct" opinion. When the topic really does divide society, that may be true – but this is not such a case. The problem for those of us who are not in favour of aging is that, sad to say, there is an overwhelming preponderance of opinion (essentially a consensus) within society that aging is, if not a good thing, then at least something opposition to which must be viewed with grave suspicion. In this situation, I believe that the existence of a wide spectrum of opinion within academia is actually preferable to the alternative in which opposite consensuses exist within academia and among the general public, because that latter situation does not encourage anyone in either community to engage in sincere discourse. When academia is split, by contrast, such discourse will occur – and it will be public and publicised, so it will inform and eventually affect public opinion.

The above line of reasoning has become particularly apposite during the tenure of George W. Bush in the White House and the contemporaneous elevation of Leon Kass to a position of influence arguably not enjoyed by any bioethicist for a century. Kass has spent his entire academic career at the forefront of the battle against biomedical progress, starting with *in vitro* fertilisation in the 1970s (Kass 1971). His installation by Bush as chair of the President's Council on Bioethics surely resulted not only from this, however, but also from his exceptional skill at conveying his point of view in a language that the general public seems to find attractive.

The rhetorical wisdom of the wisdom of repugnance

In 1997, Leon Kass published in *The New Republic* an essay entitled "The wisdom of repugnance" in which he presented his reasons for opposing human reproductive cloning (Kass 1997). In a nutshell, his core argument was that the objective reasons why this procedure is morally unacceptable are of secondary importance in the process of determining that it indeed is unacceptable. Rather, what matters most is that human reproductive cloning is "repugnant" and that this gut reaction can safely be relied upon to cast human reproductive cloning as morally unacceptable. In Kass's words, "repugnance is the emotional expression of deep wisdom, beyond reason's power fully to articulate it."

What are we to make of this position? It bears analysis for two sharply contrasting reasons.

The first is its meta-ethical status. A dominant view within ethics nowadays, cognitivism, is that propositions concerning the moral acceptability or imperative of particular actions have objective truth values, independent of the existence of minds that agree or disagree with those propositions. The opposing view, non-cognitivism, is that no such objective morality exists: a certain action may be morally unacceptable to one agent, acceptable to another and morally imperative to a third, without any of them being objectively incorrect. Now: either a cognitivist or a non-cognitivist could, *in principle*, either agree or disagree with Kass's position that repugnance is reliable, because that position concerns the methods by which we discover what is right and what is wrong, which is formally independent of whether such rightness or wrongness is objective. However, I would suggest that in practice a cognitivist cannot agree with Kass on this point. The idea that an objective truth can reliably be discovered by examining one's emotions is surely far-fetched. Thus, I claim that Kass is implicitly espousing a clear non-cognitivist meta-ethical position here – a position which, as just mentioned, currently enjoys little support within his field.

The second reason for examining Kass's reliance on repugnance is its rhetorical status. This particular essay remains among Kass's most high-profile publications; as such it may well have played a major part in his elevation to his current stature within the US political establishment. It may also, by the same token, have contributed substantially to President Bush's ability to strike a rapport on ethical matters with a sufficient proportion of the US electorate to facilitate his re-election in 2004, a result that many attributed largely to his ethical stance. It is a fact – perhaps a circular fact, but a fact nonetheless – that most people's gut feeling is that they should generally trust their gut feeling. To be told by an eminent professor that that's OK is probably rather comforting to most people, whether or not it actually should be.

Factoring out the cognitivism question: motivation and means

The alert reader may have noticed that I devoted the last section to highlighting an example of a situation that exhibits precisely the problem I described in the previous section: a disconnect between the consensus of the relevant academic discipline and that of the general public. Specifically, professional ethicists are generally cognitivists whereas, whether they know it or not, the public are generally non-cognitivists. Kass has done himself big favours by abandoning the consensus of his field, but this disconnect means that from the point of view of engendering constructive debate he has done no one else any favours at all. Naturally I do not restrict my conclusion on this matter to the topic of human reproductive cloning: it extends to all issues on which the public exhibit a consensus deriving more from psychological pressures than from dispassionate logic, and in particular it extends to the desirability of defeating aging.

It is worth spelling out explicitly what this sort of situation means in practice. The natural, and strong, and indeed quite logical, tendency when arguing a particular ethical position is to start from precepts that one regards as so self-evident that one's interlocutor is sure to agree on them, and to work forwards in sufficiently deliberate steps that one can be optimistic that one's argument will be persuasive. Cognitivists generally view cognitivism as just such a precept – and therein lies the problem. An argument patently founded on the idea that the moral status of particular actions is objective, and thus on the (so I claim) inescapable corollary that one's gut feeling (e.g., repugnance) is not reliable at all, will inevitably wash over an unabashed non-cognitivist like water off a duck's back: the precept is rejected, so the entirety of what follows it is ignored. Critically, this is so whether or not the recipient of the cognitivist's argument has ever heard the word "cognitivism," because no training in philosophy is needed in order to understand that trust in one's own repugnance is a personal choice that conflicts with trust in dry ethical logic. This is, in my view, a fatal flaw in the rhetorical strategies employed by many pro-technology ethicists when discussing many issues, including extreme life extension.

Is there an alternative? I believe there is. It derives from a concept which has become associated with the noted ethicist John Rawls under the moniker "reflective equilibrium" (Rawls 1971). Rawls observed that a reasonable approach to determining whether something is morally unacceptable, acceptable or imperative is to develop *principles* – generalisations summarising what *types* of things are unacceptable, acceptable or imperative – and to see whether those principles cover the case under consideration. In order to work optimally, however, one must revisit these principles in the light of any case of a situation in which other putatively trustworthy routes to an opinion on what is right and wrong (such as examination of one's repugnance) lead to conflicting conclusions. If only isolated situations exist in which one's intuition and one's stated principles conflict, the indicated way forward is to reject one's intuition in favour of the principles. If there are many such situations, on the other hand, one should seek a modified set of principles that better match one's intuition. (From a scientific standpoint one can regard this as very similar to the principle of Occam's Razor in prioritising scientific hypotheses.) Reflective equilibrium is, therefore, simply a method for discovering the moral status of actions, and in this regard it is one of many alternatives, reliance on repugnance being another. What distinguishes it from other such methods – critically distinguishes it, I would contend – is its possession of two key characteristics:

- it is agnostic on the cognitivism/non-cognitivism issue;
- it seems to be the algorithm that modern societies, even if not necessarily most of their constituent individuals, actually execute in shifting their ethical positions over time.

I will not elaborate much further on the first of the above assertions. I merely note that the convergence of a set of moral precepts towards what one might call its "centre of moral gravity" is something that can

happen whether or not the location of that centre is preordained by objective truth. Unlike the case of individual gut feelings about individual situations, it seems just as reasonable to suppose that the centre of gravity of an entire society's views on the entire universe of ethical issues is reliably in accordance with objective morality (which exists) as it is to suppose that that centre is arbitrarily located (and objective morality does not exist). Simply put, we would probably not be as happy as we are if *most* of us weren't already "right" about *most* moral issues. In other words, one can, I claim, be either a cognitivist or a non-cognitivist and still have no qualms about society's tendency to find its moral way using reflective equilibrium.

Reflective equilibrium in recent history

It may be valuable, on the other hand, to elaborate a little on my second assertion above – that modern societies actually use the reflective equilibrium algorithm as their main mechanism of moral exploration and progress.

There are many conspicuous issues regarding which contemporary Western society generally takes a different moral view than it did a century or two ago. Slavery, universal suffrage and homosexuality constitute a representative selection. In all these cases, the view that originally prevailed was overturned because the arguments for the status quo were eventually seen to come down to no more than a fear of the unknown, a faith in the "natural order" and other similarly unrooted emotions, whereas the arguments for change consisted of appeals to the incompatibility of the traditional position with agreed moral stances on matters that were claimed, and eventually agreed, to be inescapably equivalent (in moral terms) to the disputed one.

There may be a temptation to regard the success of reasoned arguments in these cases as supporting cognitivism, or at least as supporting the view that arguments that ethicists find appealing are likely also to be influential in the wider world. I dispute these conclusions. My interpretation is that these episodes are merely examples of reflective equilibrium in action, and thus, for reasons outlined above, say little about either the cognitivism/non-cognitivism question or the interest of the general public in what professional bioethicists think. The key point, I feel, is that the inescapability of an alleged equivalence between an issue on which the moral position is agreed and one on which it is initially disputed is not something that can be determined deductively: rather, it is a consequence of the acceptance of one or more principles (ethical generalisations, as described above) that encompass both issues. These principles, I claim, are not shown to be objectively true merely by their use in a successful reflective equilibrium process.

Cognitivism-agnostic promotion of indefinite life extension

This brings me to the crux of this essay. I take the view that the inexorable loss of vitality and rise in risk of death that we call "aging" is among – indeed, possibly foremost among – the sub-optimal features of life as we currently know it. Thus, I am necessarily keen to combat aging as much as possible as soon as possible. Since society in general does not share my fervour on this matter, and since the required technological advances will undoubtedly require very considerable investment of time and money, my efforts to hasten the defeat of aging must perforce incorporate not only direct, scientific, contributions to the development of that technology but also contributions to the effort to bring society around to my way of thinking, thereby causing these resources to be brought to bear (de Grey 2005a, 2005b). The considerations discussed above seem to me to give rise to a clear recommendation for the way forward on this matter, and it is one that does not always dominate the contemporary approaches of those commentators who already agree with me that aging is undesirable. It goes like this.

Since reflective equilibrium (a) often succeeds in changing people's minds and (b) is cognitivism-agnostic, we will benefit from constructing arguments that accelerate the reflective equilibrium process. We will benefit less, I feel, from arguments that purport to start from the objectivity of morality and thus from the unreliability of gut feelings, because such arguments fail at the outset with the many people who accept the wisdom of repugnance.

The difference between a cognitivism-agnostic argument and one starting from assertions of objective morality is subtle, which is doubtless why it seems to be easily overlooked. Essentially it comes down to

the style of wording of introductory precepts. A line of reasoning that begins “As a starting-point, can we agree that *X*?” is cognitivism-agnostic, whereas one that begins “As a starting point, there is no doubt that *X*” is cognitivist. *X* is typically a moral position on a specific issue; the reflective equilibrium process then suggests a principle that “explains why” the agreed moral position is correct, and then that that principle also applies to the disputed issue. Typically either the principle, its applicability to the original agreed issue or its applicability to the disputed one are then challenged; third and subsequent issues then come into play. But the critical point is that at no stage in this process is the interlocutor’s often deep-seated respect for his or her own gut feelings confronted head-on: rather, it is gradually and systematically undermined piece by piece. By this avoidance of a defensive reaction, success becomes, if not necessarily likely, at least possible.

Moral acceptability versus moral imperatives

In respect of combating aging, possibly the most important feature of a cognitivism-agnostic approach is that it lends itself quite readily to the conclusion that aging is not merely something we should let people combat if they wish but actually something that we all have a moral duty to help combat. The principles that one naturally brings to bear on this question when applying reflective equilibrium to it are ones supporting the moral equivalence of aging with phenomena that society has firmly decided that we do all have a duty to combat – most obviously, age-related diseases. It would be electorally unwise for a political party to campaign on a manifesto that committed it to abolishing public funding for research on cancer, diabetes and Alzheimer’s disease and making commensurate tax cuts; this is because society overwhelmingly considers that expenditure on such research is a collective responsibility, not one that should be funded only by voluntary charitable donations. Arguments based on objective morality often lack this useful characteristic, because they tend to place more emphasis on speculations concerning what a post-aging world will be like, which are only as persuasive as the listener’s inability to postulate contrary speculations permits.

This is not to say that “merely” persuading society that combating aging is morally acceptable is a failure, and that only the complete victory of persuading society that it is a moral imperative will do. Not only is the latter goal implausible in the short term, it is also unnecessary: in the first instance the support of only a small (though preferably wealthy) minority of society is required to allow the relevant science to proceed as rapidly as it can. As regards the rest of society, a muting of their opposition to such a goal is all that is needed. But this is a classic case of the “suitable outrageous extreme” – in any debate, one tends to have a much better chance of shifting one’s interlocutor part-way towards one’s own declared position than the whole way, irrespective of how far apart the two initial positions are. If, by arguing cogently that combating aging is a duty, we can convince quite a few active opponents (not least the theologians and bioethicists highlighted at the start of this essay) that it is at least an acceptable activity, we will have achieved much.

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DR.RUPNATHJI(DR.RUPAK NATH)