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State Biophilosophy (Or, why are state bureaucrats conducting the 'public' debate on biotechnology?)

By Eugene Thacker

Eugene Thacker looks at the biotech debate being waged between writers Francis Fukuyama and Gregory Stock.

[IMAGE]

As readers may be aware, two recently-published books on biotechnology have caught the eye of the media: Francis Fukuyama's *Our Posthuman Future*, and Gregory Stock's *Redesigning Humans*. Each book has been promoted as being 'controversial', and Fukuyama and Stock are often pitted against each other in a debate over the social and political meanings of emerging biotechnologies. A recent event in London served to formalise this controversy and this debate (<http://www.instituteofideas.com/Events/past/docs/fukuyama.html>). Sponsored by pharmaceutical giant Novartis, the Wellcome Trust, the Discovery Channel, and Profile Books, the event proved to be more an occasion for PR than public debate. Titled 'A Posthuman Future?' it presented talks by both Fukuyama and Stock, as well as panel of respondents (an ethicist, a scientist, and a health care administrator).

Both authors present us with rudimentary examples of a new sociobiology: social problems, genetic solutions. The Fukuyama-Stock debate is worth analysing because it represents a growing trend in the biotech industry (including both corporate and governmental branches): the continued attempt to formalise the 'public' discourse on biotech through a political lens. The books by Fukuyama and Stock are by no means politically challenging or deeply thought-provoking. They do, however, participate in an effort to define the ways in which 'life' and 'the human' are changing, and this is for one reason: to discover the connections between politics and biology which biotech makes possible, and to group these connections within the domain of either conservatism or liberalism.

That being said, you will save yourself a lot of time by not reading these two books. Their arguments (if they can be called arguments), do not require entire hardcover books, book tours and signings, and staged debates. If you want to get a sense of each writer's position, there are a number of interviews and short articles online which encapsulate their respective positions much more efficiently. Fukuyama's book wastes most of its time broadly describing new technologies that are not new, and which have been covered previously in similar books (such as Jeremy Rifkin's equally problematic *The Biotech Century*). In Stock's case it is exceedingly difficult to get past his gee-whiz rhetoric to glean any relevant information about biotech research; its main message is the empowering capacity of biotechnologies and the optimism of the unbounded potential it holds.

In a nutshell: Fukuyama's position is that biotechnology poses a potential threat to our human nature, and that we should proceed with extreme caution, which, in his case, means government regulation. Stock's position is that biotechnology poses as much promise as it does threats to human nature, and that we should entrust the difficult decisions of biotechnology to individuals. Fukuyama and Stock both believe in an essential human nature, and they tie this human nature to a vague notion of political rights. However, in their different assertions for an essence to human nature, they are unable to definitively provide a definition of what exactly it is. For Fukuyama human nature is encapsulated in 'Factor X,' his sci-fi name for our innate (genetic) ability to reason; for Stock, human nature is encapsulated in our boldness in facing the unknown, and in doing that, 'changing ourselves' for the better. Fukuyama and Stock both believe in scientific-technological progress. For Fukuyama this carries a great deal of risk and thus necessitates State intervention; for Stock there is also risk, but after

all every investment has risk. To ventriloquise Fukuyama: Biotechnologies are scary, if used improperly they could transform our very biological makeup, forever altering what is most essential to us as human beings, especially the rational-moral grounds of our rights as citizens. Stock: These are scary times, but they're also exciting times, filled with possibility; we've lived through other similar challenges before and we should meet this one with all the bravado and humanitarianism which we've met with previous challenges.

Before analysing the possible meanings of this debate and these popular books, several things should be noted about both authors. Fukuyama is also known for his book *The End of History*, published just after the fall of the Berlin wall, which argued that liberal-democracy has in fact prevailed over other governmental forms, in effect realising Hegel's notion of a universal history. More significant is that Fukuyama is a member of President Bush's Bioethics Commission, a committee that has been known for its conservatism regarding virtually all matters pertaining to biotechnology (excepting of course research into biowarfare). Fukuyama is a professor at Johns Hopkins University, and has in the past been associated with the RAND corporation and the State Department. Stock is the director of UCLA's program in Medicine, Technology, and Society, and has served in an advisory capacity on bioethics committees which favour a more liberal stance; he is a former advisor to President Clinton on bioethics and biotechnology.

The Human Shadowplay

At times the public debate between Fukuyama and Stock was more embarrassing than confusing. Consider their discussion on genetic sex selection. Fukuyama argues for government regulation because, if left to their own devices, individual couples might make choices determined more by self-interest than by the good of the State. His example? The 'less developed' countries such as China, where there are no laws against sex selection. He noted a statistical increase in the number of males vs. females due to abortions and access to inexpensive sonograms. His concern? That, when these children grow up, they will not be able to find a 'mate' because there will not be equal numbers of 'boys and girls.'

Stock's counter-argument fares no better. His rationale for sex selection is predictably against government intrusion, and leaving the choice to individuals. His counterexample? In the 'far East' many couples have 'perfectly good' reasons to want a boy instead of a girl, since, once the girls are married, they are absorbed into the boys' family, as dictated by cultural tradition. Implication?: Sex selection is ok for reasonable needs, such as continuing one's lineage in the name of 'family,' though in this example the genetic 'family' is identical with 'culture.'

As another example, consider the following comment on human nature from Fukuyama: 'Human nature is the sum of the behaviour and characteristics that are typical of the human species, arising from genetic rather than environmental factors.' Which leads him to make the following assessment: 'We do not want to disrupt either the unity or the continuity of human nature, and thereby the human rights that are based on it.' By contrast, Stock states that 'we are on the cusp of profound biological change, poised to transcend our current form and character on a journey to destinations of new imagination.' It is not uncommon to hear superficial resonances of Adam Smith and John Stuart Mill in Stock's pro-technoscience rhetoric, just as we hear echoes of Thomas Hobbes in Fukuyama.

In short, one of the popular forms which the discourse on biotech is taking is what we can call, borrowing from Gilles Deleuze, 'State biophilosophy'. Put simply, State biophilosophy is thought and action in the service of certain, often ambivalent, political views, which are formulated at the level of foundational thinking, or the formulation of problematics – in biotech this means the recurring, nagging question 'what is life?' (and its offshoot, 'what does it mean to be human?'). State

biophilosophy's main work, however, is not in the kinds of responses it poses, but rather in how it sets the very terms of the debate, how it materialises a backdrop against which all ensuing discussion is made possible, how it legitimises certain modes of thinking and acting, while foreclosing others. For Deleuze, State philosophy reinforces the two philosophical notions of identity and representation, and we can say something similar for the current discourse on biotech: State biophilosophy has as its aim the continued naturalisation of the liberal-humanist subject (undergirded by genetic science), and the assumption that biological or living matter is both the foundation of and separate from the social-political domain (a new sociobiology).

This form of State biophilosophy indicates to us that the public discourse on biotechnology is taking the form of a two-party system and in this it follows the political climate of U.S. politics (Fukuyama-Bush; Stock-Clinton) In this, there is no 'debate.' Apparently, we all agree: people are people and biotech is more or less good for people. The differences between Fukuyama and Stock do not amount to a debate or a controversy, but to problems of micromanagement. On one side, we can't trust human nature, we need the State to be the caretaker of individual citizens to ensure the safe, good use of biotech. On the other side, we can't trust governments and institutions, we need to become inspired by the magic in the fact of existence, and bravely make decisions ourselves as free consumers in the healthcare market. In political terms this is conservatism vs. liberalism. But one suspects the differences are only linguistic.

What happens to 'the human' in the midst of all this biotechnical innovation? Though Fukuyama and Stock disagree on the exact definition of human nature, 'the human' is defined by both in explicitly contradictory terms. On the one hand the human is ontologically distinct from the machine, for this allows us to view biotechnology as a tool for human use (even if what is being used is human biology). On the other, the human is also identical to the machine, since human biology, like nature, provides for a resource for medical technologies and therapies (even though question of 'life' are not entertained). The human-as-human pole enables consumer health care, technology transfer, medical application and diagnostics. The human-as-machine pole enables broad patent claims, bio-IPRs, and the exercise of new forms of medical normativity.

Contrary to the hype concerning the genome projects, there is no direct opposition between public and private interest in biotechnology; rather, there is an implied consonance between government and corporate investments and the centrality of biotechnology as the future of medicine and health care. Given this, an individual's choices with regard to biotechnology, medicine, and health, are: either subjecting oneself to governmental regulation (Fukuyama's State-form), or participating in the consumer health care market (Stock's commercial-form).

Biomass

How can we understand the implications behind this formalisation of the biotech discourse? The current State biophilosophy – exemplified by the two-party discourse of Fukuyama and Stock – is a perfect example of what Michel Foucault has referred to as 'biopolitics.' For Foucault, biopolitics emerges as 'the endeavour, begun in the eighteenth century, to rationalise the problems presented to governmental practice by the phenomena characteristic of a group of living human beings constituted as a population: health, sanitation, birth rate, longevity, race...' At the root of modern forms of political power is the notion of 'governmentality,' or the 'techniques and procedures for directing human behaviour' in a variety of contexts, including political economy, the clinic, and policy formation. In the context of biotech, the strategies of biopolitics are key to an understanding of the ways in which 'life' is articulated biologically-medically, and how that articulation is already embedded within a political framework. The central question within any biopolitical situation is not 'what is life?' but rather 'how does life – biomedically articulated – relate to politics?'

In his later writings on biopolitics, Foucault had begun to outline a shift in emphasis in modern power relationships, from models of sovereignty (the Machiavellian ‘art of governing’), to models of discipline (forms of coercion through ‘docile bodies’ in various institutions), to models of governmentality (forms of regulation and management in the ‘reason of State’). Again, far from being a simple historical progression of power structures, Foucault emphasises the way in which each model poses the problem of governing bodies to itself in a different way. What is specific to biopolitics is the way in which the question of governing bodies is posed within a biomedical framework that stresses the importance of the population as an entity that is at once biological and political.

Biopolitics ‘tends to treat the ‘population’ as a mass of living and coexisting beings who present particular biological and pathological traits and who thus come under specific knowledge and technologies. And this ‘biopolitics’ itself must be understood in terms of a theme developed as early as the seventeenth century: the management of state forces.’ This correlation between the biological and the political is mediated by a whole set of medical technologies with a basis in quantitative analysis and informatics: demographics, health care records, statistics, epidemiology, and so forth. In the current context of biotechnology, we might add: genome databases, computerised health data, medical diagnostics (CT, MRI, etc.), pharmaceuticals and drug development, and ‘lifestyle’ management conducted through medicine.

Biopolitics functions via three directives, as outlined by Foucault, and we can see explicit connections to the biotech industry today:

First, biopolitics defines an object of governing, which is the population. ‘Population’ does not just mean the masses, or groups of people geographically bound (that is, ‘population’ is not the same as ‘territory’). Rather, the population is a flexible articulation of individualising and collectivising tendencies. This includes the individual subject-patient, with their health insurance, birth/death certificates, registration of births and marriages, and a range of medical records in different medical-professional institutions. But it also includes collectivities defined by gender, ethnicity, employment, residence, and active drug prescriptions. A visit to the doctor illustrates this: a form that is filled out requests information identifying a person as an individual and as a member of several pre-defined groups (previous illnesses, profession, HMO, etc.). Increasingly, the population defined not only biologically but genetically is becoming important. The various genome projects currently underway point to this same twofold tendency: to enable highly differentiated individualising (SNP analysis for genetic screening and custom-designed drugs) as well as modes of collectivising (the controversy surrounding ‘ethnic genomes’).

Second, biopolitics defines a means of knowledge-production surrounding its object (the population). This means asking how information pertinent to the regulation of the health of the population (and therefore the State) can be extracted from the biological-political population. The ‘vital statistics’ of reproduction, mortality rates, spread of disease, and other time-based factors become a means of keeping tabs on the population as a single entity. This interest in bio-monitoring the population in real-time has undergone the most development in medical-genetic diagnostics. Hand-held DNA microarrays, Assisted Reproductive Technologies, bioinformatics, and an array of more familiar medical technologies (X-rays, blood tests, urinalysis) all work towards the agglomeration of biological data for the population (individual/collective) as a dynamic entity.

Third, biopolitics, after defining its object and its method, reformulates the role of the State in terms of ‘security.’ At the individual level, this is what health insurance is meant to offer, just as broad health care and medical policy decisions do at the level of government. Security is as much an economic notion as it is a military one; certainly the most evident militaristic example is the recent scare over biowarfare (the budgetary boost in the U.S. biowarfare research program). But biopolitics also remains

consonant with neo-liberalism in its notion of a medical-economic security in the form of health insurance, home care, outpatient services, and the development of biological ‘banking’ institutions (sperm/ova banks, blood banks, tissue banks, etc.). In this sense the ‘pure war’ of the bioterrorist scare served both governmental-military and a pharmaceutical-economic interests.

Despite these aspects of biopolitics, the relation between life and politics within a technoscientific frame is never obvious, nor stable. In both sovereign and liberal political formations we find what Giorgio Agamben calls a ‘zone of indistinction’ between ‘bare life’ (biological life) and the qualified life of the citizen (the political subject). In other, more contemporary situations, we find what Michael Hardt and Antonio Negri refer to as ‘living immaterial labour’ (the ‘intellectual labour’ of IT industries, technoscience, media industries). Biopolitics is therefore never an ideology, but rather a particular problem emerging within organised power relations about how and whether to distinguish ‘life’ from ‘politics.’

An important point to make is that, for Foucault, biopolitics was most sharply differentiated from the sovereign model by its generative characteristics. If the sovereign was defined in part by the right to condemn to death, biopolitics is defined by the right to foster life. The ‘positive’ dynamic here is functionally, not morally positive: the panoply of technologies centred around the health of the individual and the collective are geared towards an efficient regulation of the population as an index of State health. The ‘biomedical subject’ is a particular formation of contingent bodies, economic interests, shifting standards of medical normativity, and universalist notions of ‘the human.’ It is above all a product of biopolitics, not its cause.

Theses on Tactical Biomedia

Instead of endlessly debating the slippery slopes of human therapeutic cloning or the use of human embryonic stem cells for research, we can make a horizontal cut between these issues, and see the connections between, for instance, stem cells, political economies, juridical notions of the human subject, and modes of directed intervention into the debate over such issues. These shifts in perspective are transversals, which, while acknowledging the formation of separate disciplines, also articulate differences of all kinds across disciplines. In biotechnology; ‘biological’ would refer not to an isolated knowledge of living organisms in nature, but rather to a ‘bio-logic,’ a means of working with living matter as information, of approaching DNA as a computer, of materialising studies of metabolic networks, of databases and microarrays that differentiate and standardise the individual patient – in short, biotechnical practices which ‘subjectify’. We can begin with some theses on the problem of how to effectively problematise:

First, the digital divide applies to biotech, in a ‘biotechnical divide.’ But the have’s and have-not’s are divided along several lines. Access to information (privatised databases), access to means of education (ok, you got access, now what does it all mean?), access to practices (lab techniques), and access to specialised communities (‘oh, you’re an artist...what are you doing here?’).

Second, the possibility of transformative debate and discussion will depend on how ‘bio-knowledges’ are framed, distributed, and mediated. Critical Art Ensemble has used the term ‘bio-knowledge’ to refer to the complex of specialised understandings of the body (genomics, stem cell research, regenerative medicine), understandings of the institutional networks in which those understandings are housed (research institutes, universities, pharma corporations, etc.), and the understandings of the broader socio-cultural impact of biotech (SF films, ads, pop science books, etc.).

Third, a question: will the PC happen to biotech? We can look to personal computing as an example. Recall the proliferation of computer hobbyist subcultures in the 1970s: magazines such as Creative Computing (with their left-coast liberalism and trippy graphics), computer kits such as the Altair 8800. We know what happened: black-boxing of computers, Apple and Microsoft. What would happen to biotech and to our bodies, if biotech became as ubiquitous in certain developed areas as the PC?

The figure of the tactical media practitioner, amateur, or hobbyist, becomes centrally important here. Between our current stage of government-industry regulation (the Human Genome Project is the equivalent of the ENIAC), and the increasing consumerism of biotech (the PC-ing of biotech), the need for a tactical understanding of this newest of new medias is all the most pertinent. This is perhaps our limit or our 'virtuality' concerning biotech, one of the dominant discourses on the body, biopolitics, and the question of 'life.'

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