## Post-Saps Light: A Review of Francis Fukuyama's, Our Posthuman Future

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It is said that Keeshonds have had all canine instincts bred out of them. The one remaining, if it could be called that, is for these canal barge dogs to bark at the approach of other barges. They thus function as a kind of automatic claxon on the waterways of the Low Countries. Their only other quality of note is a thick luxuriant fur that is resistant to shedding. This places them in the rather dubious niche of being ranched for their pelts that grace many if not most fur collared coats. Keeshonds will also absorb and model whatever behavior pleases their masters. In this they may well be the most humanlike of dogs; no real instincts save the social.

There is a point to opening this review of Fukuyama's latest book with a specific reference to breeding and instincts, for it carries as a premise, a fundamental confusion on this point that proves to fatally flaw the book. This confusion is not confined to Fukuyama, but seems to be popularly held. In short, it is the confusion over how much human behavior is determined from genetics and how much is learned.

There is still much agrarian folk wisdom that explains behavior as inborn. There is the "bad seed" school that runs deep in the primordial strata across the variants of human culture. We often fall back on being born with patterns of behavior to justify and thereby absolve, what we do as individuals.

Opposing this is the intellectually more fashionable view of the "tabula rasa" or "blank slate" of Locke and reinforced by B.F. Skinner and the behaviorists. This concept is featured in just about every Sociology and

Psychology 101 course ever taught for the past half-century. Apparently Fukuyama missed class that day.

Fukuyama's book opens with a promising reference to the most famous works by Aldous Huxley and also by one of his students from his teaching days at Eaton, Eric Blaire a.k.a., George Orwell; *Brave New World*, and *1984* respectively. Both books are among the most well-known and compelling models of dystopian writing ever done. The former featured a genetically engineered caste system, and the latter described a totalitarian surveillance society. Both works have had a huge and enduring impact among the intelligentsia and the public at-large. They were model cautionary tales that extrapolated their respective present-times into a future setting that made the issues safer to discuss for the times they were really addressing.

Fukuyama's focus on Huxley, the better written but lesser known of the two, is apt for its matter of fact descriptions of the upper-echelon decadence of the British class system that did, for a time, threaten to become the model for what is now known as globalization. Having pronounced "the end of history" as essentially the end of viability for Orwell's dystopian vision, it would only be natural to move on to Huxley's as the challenge still standing. What Fukuyama ignores is that Huxley himself left very much open, the role of nature vs. nurture in his book's extreme form of class stratification and the division of labor. The lower castes of *Brave New World* were not innately lower beings, but were marked by their form as cues to their status. They certainly behaved no worse than the elite castes that were

the natural focus of Huxley's implicit critique of the British class system on which he had unique access.

Fukuyama has no such ambiguity for he declares a genetic link with no less a concept as "human nature". He asserts that human nature was the key to resistance of authoritarian fascism and state socialism. For Fukuyama, the emerging biotech revolution is an unambiguous threat to human nature for it can literally be bred out of us and along with it, human freedom.

To be sure, the information revolution has had profound social impacts favoring liberal democratic tendencies, at least at first blush. It did, after all, not only knock the props from under authoritarian one-party regimes, but also out from middle management in just about every organizational context one can conceive. Informational technology has promoted, with surprisingly little struggle, workplace democracy by allowing line workers the ability to feed critical information and innovation back to executive management and even allow workers to take unprecedented initiatives under the passive gaze of bosses in what Shoshana Zuboff called, the "information panopticon".<sup>1</sup>

The biotech revolution, on the other hand, is seen as more sinister in its potential for unintended consequences. Here Fukuyama commences confusion by admitting behavioral-altering drugs into evidence. These pharmaceutical products of the chemical revolution induce guilt by association. Are not large tracts of biology devoted to the investigation of the biochemistry of behavior? One can even argue that court rulings compelling the administration of behavior-modifying medicines to inmates is nothing less than allowing the camel's nose in under the tent of state control over individual human behavior. This is not to accuse Fukuyama of begging the question of one of government's obvious functions, that of social control, but it feeds into the myth that there awaits to be discovered, the holy grail that will chemically or genetically alter the course of human history by diluting or removing our basic humanity and that such a project can be accomplished through public policy.

Ruth Hubbard (professor emerita of biology at Harvard University) and Elijah Wald, 1993, address this point head-on in their book, *Exploding the Gene Myth: How Genetic Information is Produced and Manipulated by Scientists, Physicians, Employers, Insurance Companies, Educators, and Law Enforcers.*<sup>2</sup> Their thesis does not dispute that the genetic revolution won't be as profound a shift in individual and social life as anything the preceded it, but they patiently and persistently point out that such a shift will be much more a social invention as anything that is a genuine genetic property.

The confusion boils down to this; genetics deals in traits and not behaviors. While memory, physical form, and even aspects of intelligence might potentially be manipulated, the effects can only be manifested in aggregate and not predicted individually. Nothing short of a neo-eugenics movement undertaken over several generations is likely to change the actual proportional distribution of traits available to the human genome. In the time it would take to fully undertake such a project, the public would come to learn that trait is not fate. A new eugenics movement would vield only literal cosmetic changes to the species. In a way this would be a good thing. It might finally expose us to our prejudices towards the congenitally disabled. We would learn that "people like that" better not born would include such victims as Ludwig Von Beethoven, son of a syphilitic and abusive father; and Abraham Lincoln, post-morbidly diagnosed with Marfan syndrome, a dominant genetic condition for which predictive tests are being created. They would come to know that Physicist Stephen Hawking, severely disabled with amyotrophic lateral sclerosis (ALS, or Lou Gehrig's disease) said, "My disability hasn't been a serious handicap."

Will the genetic revolution hand to keys of evolution from nature to culture? Indeed it will. Will we profoundly change as a species? Absolutely. Will human consciousness, human nature and perhaps human liberty be threatened? Probably not, or rather, no more than the propagandists of the information revolution

have now and then stampeded the public into unwise choices. This is because human consciousness, human nature and human liberty are no more genetic traits than the mind is the brain.

There is much in Fukuyama's book that is just silly. For instance, he cites research from evolutionary psychologists Martin Daly and Margo Wilson that report domestic homicides take place much more frequently between non-kin family members (spouses, step parents, step children) than between blood relatives. Given the self-evident instability of reconstituted family units, it is small wonder that they would be more likely to be at each others' throats. It hasn't come to this author's attention that the Human Genome Project has yielded up a kin-kill inhibitor sequence.

This is all pretty hot-button stuff and for writing on such a controversial topic, perhaps Fukuyama is to be commended for at least extending the number of people exposed to the social implications of the genetic revolution. That said, it isn't all that helpful to beat the dead red herring of genetic determinism. At the end of it we are, in fact, left with technologically abetted cultural determinism instead. Better works on the social impacts of the genetic revolution are available including Jeremy Rifkin's, Biotech Century,3 which points to the corporatization of evolution following the key 1980 Diamond v. Chakabarty decision by the U.S. Supreme Court that ruled that new life forms created by genetic engineering firms are property and thus patentable. There is also Soothana Goontukulake's, Merged Evolution;<sup>4</sup> a book that provides a marvelously logical and tightly woven case for how the information and genetic revolutions may synthesize a Post-Homo Sapiens order. Either book provides a less squeamish assessment of our evolutionary prospects.

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## Notes

- 1. Zuboff, Shoshana. 1988. *In the Age of the Smart Machine: The Future of Work and Power*, Basic Books, New York.
- 2. Hubbard, Ruth and Elijah Wald. 1993. Exploding the Gene Myth: How Genetic Information is Produced and Manipulated by Scientists, Physicians, Employers, Insurance Companies, Educators, and Law Enforcers, Beacon Press, Boston.
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- 4. Goonatilake, Susantha.1999. *Merged Evolution: Long-Term Implications of Biotechnology and Information Technology*, (World Futures General Evolution Studies, Volume 14), Gordon and Breach, Amsterdam.