

Bioethics and Life Extension*

We all have a vested interest in matters related to biotechnology. In particular, we should be especially interested in how government and government advisory bodies are looking at biotechnology. Whether we like it or not, our future is in the hands of government and government advisory bodies that determine through legislation and regulation what is or is not permitted. A good example of how legislation and regulation impact us as individuals is the Food and Drug Administration (FDA) [See <http://www.fdareview.org/>]. This agency literally has the power of life and death over each of us through the exercise of its authority to regulate what we consume whether it is nutritional or medicinal in nature and without regard to what our personal wishes may be. For example, the FDA has denied terminally ill patients access to experimental drugs because they may have dangerous side effects. What could be more dangerous than a terminal illness? Recently, I spent some time on the site for the President's Council on Bioethics (See <http://www.bioethics.gov/>) because I think that this advisory body will significantly impact future legislation on and regulation of biotechnology.

One area that has been a concern of and subject to the attention of the President's Council on Bioethics (PCB) is the divide between what it terms *enhancement* as opposed to *therapy*. This distinction is made in a book length report on ethical considerations in biotechnology (<http://www.bioethics.gov/reports/beyondtherapy/index.html>) that was released in 2003. Therapy is viewed as current and future interventions directed at curing or controlling diseases (e.g., AIDS) and correcting defects (e.g., cystic fibrosis) as traditionally understood. Enhancement on the other hand is viewed as potential interventions directed at improving natural conditions (e.g., life span) and abilities (e.g., memory). The PCB addresses age-retardation and life extension in a working paper prepared for its members (http://www.bioethics.gov/topics/ageless_bodies_index.html). What the PCB has to say on life extension has the potential to impact our personal efforts to enjoy and extend our lives.

One of the concepts mentioned in the discussion of bioethics by the PCB is the *precautionary principle*. "Over the past few decades, environmentalists, forcefully making the case for respecting Mother Nature, have urged upon us a "precautionary principle" regarding all our interventions into the natural world. Go slowly, they say, you can ruin everything. The point is certainly well taken in the present context... (Emphasis added)"

The precautionary principle asserts that any action or policy that is potentially harmful, especially to the environment or to human health, should not be taken unless there is a scientific consensus that there is no danger. Thus, the burden of proof is on those who propose an action. Critics of this principle point out that since science cannot prove a negative, the criterion stipulated in the principle would essentially give regulators absolute discretionary power. Thus, a powerful tool for blocking scientific progress in many areas, including biotechnology and nanotechnology would be placed in the hands of groups with political and ideological rather than scientific motivations.

We should be alert to attempts to incorporate the precautionary principle into legislation and regulations that bear on research and development in biomedicine and related fields. If this principle should become the guiding light for government regulation of biotechnology research, it may be much longer than any of us have imagined before advanced biotechnology techniques for life extension are developed and implemented, if ever.

A second, distinction made by the PCB is between the impact of life extension on individuals and the impact on society. The Commission admits that there is likely much potential good to be gained by individuals from biotechnology. “Powerful as some of these concerns are, however, from the point of view of the individual considered in isolation the advantages of age-retardation may well be deemed to outweigh the dangers.”

The Commission goes on to take the view that the impact of life extension and biological enhancement in the aggregate of individuals comprising society are another matter altogether. The PCB contends that society composed of citizens who are the beneficiaries of life extension may suffer as a whole even though each individual is personally benefited. “...If individuals did not age, if their functions did not decline and their horizons did not narrow, it might just be that societies would age far more acutely, and would experience their own sort of senescence—a hardening of the vital social pathways, a stiffening and loss of flexibility, a setting of the ways and views, a corroding of the muscles and the sinews...”

The Commission spends some considerable time lamenting the possible corruption by biotechnology of what it means to be human. The essence of this concern is captured in these comments from the conclusion to the working paper referred to above, “...Is human life, as our ancestors understood it and as our faiths and our philosophies describe it, really just a problem to be solved? The anti-aging medicine of the not-so-distant future would treat what we have usually thought of as the whole, the healthy, human life as a condition to be healed. It therefore presents us with a questionable notion both of full humanity, and of the proper ends of medicine (Emphasis added).”

The former Chairman of the PCB, Leon Kass, has offered the following opinions about the mortality of man, 1) “Mortality as such is not our defect, nor is bodily immortality our goal...the human soul yearns for, longs for, aspires to some condition, some state, some goal toward which our earthly activities are directed but which cannot be attained in earthly life...Man longs not so much for deathlessness as for wholeness, wisdom, goodness, and godliness.” 2) “The finitude of human life is a blessing to every individual, whether he knows it or not.” (Both quoted in Liberation Biology by Ronald Bailey http://www.prometheusbooks.com/catalog/book_1747.html). Apparently, for Kass it is not possible to have a truly meaningful and satisfying life while bound to the material world. Thus, Kass would appear to have no qualms about pressing on you the blessings of a short life so that your soul can achieve godliness.

In Liberation Biology, libertarian author Ronald Bailey points out that bio-conservative opposition to biotechnology can be found on both the left and right ends of the political spectrum. Joining Leon Kass on the political right are such figures as John Hopkins University professor Francis Fukuyama. Fukuyama has been prominent thinker among neo-conservatives but has drifted somewhat out of that orbit recently as he has become disenchanted with the war in Iraq. In his book, Our Posthuman Future: Consequences of the Biotechnology Revolution, Fukuyama argues that biotechnology will lead to radical inequality and poison the political process. Neo-conservative editor of the *Weekly Standard* William Kristol also fears biotechnology and supports restrictions on its development. Kristol acts on his fears in various ways including giving bio-conservatives a platform such as the following book. Writing about the stem cell debate in The Future is Now: America Confronts the New Genetics edited by William Kristol and Eric Cohen, Fukuyama claims "...the need for an institutional framework for the regulation of all human biotechnology, and not just research funded by the federal government." When asked in an interview if the government had a right to tell its citizens that they have to die, Fukuyama replied, "Yes, absolutely."

The political left has also produced a number of bio-conservatives and activists against biotechnology. One of the earliest to emerge on the left was Foundation for Economic Trends president and author, Jeremy Rifkin. In his book The Biotech Century, Rifkin presents a catalog of reasons why we should fear biotechnology and argues that in spite of obvious potential benefits the risks far outweigh the benefits and development of biotechnology must be restrained. Another left-wing, bio-conservative is Marcy Darnovsky the Associate Executive Director of the Center for Genetics and Society based in Oakland, CA. Darnovsky, among other things, is concerned with the social justice aspects of biomedicine and argues that "...we need ways to apply the brakes..." on designer medicine and designer babies. She argues that these are technologies that will only benefit the wealthy and leave the rest of us as second-class citizens. She suggests that there are far too many more mundane problems that need resources to waste them on low priority projects such as biomedicine. A final example from the left is Daniel Callahan, Co-founder of the Hasting Center, which is has a focus on bioethics. The following quote illustrates his thinking on life extension; "There is no known social good coming from the conquest of death... The worst possible way to resolve this issue is to leave it to individual choice."

Advocates for life extension should adopt as a guiding principle the words of John Stuart Mill; "Over himself, over his own body and mind, the individual is sovereign." One might ask, which political philosophy (<http://davidcenter.com/Political-Dictionary.php>) best embodies the above principle? In my view, the libertarian philosophy comes the closest to advocating Mill's principle. Unfortunately, the libertarian political philosophy has not had much success in making the transition to politics. From the above discussion it is clear that there is potential opposition to life extension from both the left and the right. Thus, life extension advocates should take care to support candidates from any political party whose views are consistent with their objectives. They should also be watchful for legislation that could serve to block progress toward life extension and actively lobby against it. One certainly cannot afford to ignore politics!

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