

- The Devil and Occam's Razor -  
The Molecular Sword  
Of Nanotechnology

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"Suppose you are a young married woman and have just found out that you carry BRCA1 - the gene that brings an 85 percent chance of getting breast cancer. You wanted to have children, and now, feeling suddenly mortal, you're especially eager. But you don't want to pass the gene on to them and you realize there is no way to avoid that...."<sup>1</sup>

*Will you have the choice?*

Is there any limit to the magnitude of consequence of a single decision, such as the decision to have a child? Genetic research, if it's all it's cracked up to be, will put into the hands of governments and multinational corporations the power to determine who or what is given the chance to run in the race for survival of the fittest, before the starting gun is even sounded. But what will be the consequences?

Who will make the vital selections that determine the preliminary finalists for the chance at life outside the womb? In the brave new world of the geneticist, it is unlikely it will be the geneticist him or herself. Perhaps if we look at the labs where genetic research goes on, we will see who controls the geneticist and the dawn of specialized knowledge like 'psycho-genetics' and 'socio-biological-immunology'. Do you think it will be the PARENTS of the zygote<sup>2</sup> that will make the ultimate choice about its chances for life? Unlikely, for the men who own the corporations of hospitals, the doctors, who control and pressure parents to make their life altering decisions, are the same men who own the pharmaceutical corporation, the lab, and the scientist who supplies the information on which the parents' choices are made. It is the man who makes the lab for the scientist, that makes the bed for the parents, that determines the

environment of the child outside the womb, that will ultimately make decisions bearing on a child's life in the womb, even in vitro! These men are the owners of the corporations that supply life, and they are the ultimate middlemen on the planet. They determine what goes into the solution holding the super cooled embryos before in vitro fertilization, and what instruments are used in the act of in vitro fertilization, and what goes into the medicines routinely administered to the laboring mother. These men determine, ultimately, the advertisements and 'expert' endorsements, telling what is 'good' for the baby to eat. It is those same men who decide what the manufacturer puts into the food the mother buys for the baby to eat. Who are these men?

The men at the 'top' are really the ultimate middlemen of the world. They are an elitist minority who band together and concentrate as much wealth for themselves as possible. When they trade amongst themselves, the economic systems of nations are thrown into turmoil, governments are overthrown in coups like television dramas, epics of news orchestrated by the corporate media which these men own. When they fight amongst themselves there are world wars. There have been two world wars this century. The second has lingered on as a 'cold war', and now emerges as the dragon of the 'new world order' which will be, preserved by the likes of George Bush and the CIA by the cause of the multinational corporations which these same men own. These new spokesmen are giving us the same old lines, revamped. They are the lines of the military-industrial complex, of the stockmarket giants, of the men who hold the plunder of the industrialists of the last century, like David Rockefeller, the grandson of John D. Rockefeller Sr. Their family lines meet with those of other men who rule this world by the sheer mass of wealth, an aphrodisiac, a sort of magical power that keeps the order thriving on. This is the line of the neo-industrialists. They supply the money for transistor research, for the distribution of the newest, most powerful computer technology, by the likes of Intel Corp and Motorola, and they provide the capital for the largest businesses that employ, by far, the great majority

of the laboring force - be they white collar, blue collar, skilled or unskilled. Through the voice of global advertising, right down to the radio in your living room, and the television in your bedroom, they tell you what you need to have so you can get what they want to sell you. They buy your skills when you sell yourself in the job market. And they may ultimately determine what color your grandchild's eyes will be, the color of her hair, what your great granddaughter will eat for breakfast, and what your great grandson will need to be happy, and what he will have to sell to survive.

John Davison Rockefeller developed his billion dollar fortune (in the late 19<sup>th</sup> and early 20<sup>th</sup> century), by 'relentless' attention to the details of acquiring wealth and the accumulation of profit. John D. Rockefeller Sr.'s flagship company was Standard Oil. He began with a \$10,000 investment, and wrestled the company into his solitary hands. He edged out all competitive interests in the drilling, refinement, and distribution of oil, until Standard Oil Company was the Standard Oil Trust. He was not a champion of labor by any means. His tactics included breaking any and all union activity, to the point of hiring 'Pinkertons'<sup>3</sup> to disrupt, beat, molest, or even kill the perpetrators of labor organization. He extracted profit from the laborer by enforcing the lowest possible wages. He was not concerned about the living condition of the laborer, or the happiness of the working man, in fact, John Rockefeller Sr. believed that sickness and poverty were the result of inherent inferiority in the genes of the laboring class. Mr. Rockefeller's knowledge of genetics and medicine were primitive by today's standards. Little was known about 'the gene', which was newly discovered in his time, and Mr. Rockefeller placed his medical confidence in homeopaths who practiced a now defunct 'sect' of medicine. But John Rockefeller Sr. was interested in the health of his worker for another reason - to squeeze more hours from the laborer. Rockefeller deemed it wise to invest a bit in keeping the workers free of debilitating disease, when he could collect

on his investment in the form of sustained production at his refineries. John Rockefeller Sr. decided to go into the charity business for this reason, and he set up a foundation to achieve his aims. Through the hand of his trusted captain of philanthropy, John Gates, money was always distributed selectively to further the Rockefeller cause. Funding was always restricted to societies that furthered the Rockefeller interest of creating a professional medical class of doctors whom would oversee the administration of medical practice to keep the worker healthy so the worker could work more hours on a more consistent basis. Money was also given to newly emerging scientific organizations which researched the causes and remedies of illness so as to create a fund of knowledge which could be used to sustain the apparently healthful aims of the Rockefeller trust. In fact, the American Medical Association (AMA), founded around 1870, was not funded by Rockefeller until the organization adopted strict standards of admission based upon rigorous and select education, the practice of professional medicine limited to the admitted, and the support of 'scientific' medicine based upon the rigorous full-time research of academic doctors who were to administer education in the new medical schools which were accredited by boards of physicians and reformers, also who were members of the AMA. These imperatives were Rockefeller imperatives, and they were adopted by the AMA, around 1920, after Gates had selectively driven all but the 'professional' medical sects bankrupt. The Homeopathic sect of medicine was however spared because John Rockefeller Sr. believed in the vital benefits of Homeopathy. The funding for homeopathy was later eliminated by John Rockefeller Jr. on the basis that scientific medicine, the pole thwart of the AMA, Gates, and Rockefeller, was more effective as a remedy for illness.

John D. Rockefeller Sr. was a premier of a small group of capitalists that included Andrew Carnegie, captain of a world-wide steel firm, and William and Cornelius Vanderbilt, the railroad magnets. These men determined the flow of money, the interest and withholding of capital, the environmental disposition of

the laborers who had interests and were capital by themselves, and what they produced, and what, where, and when it was sold, and for how much. But it was not Rockefeller's nor Carnegie's, nor Vanderbilt's capital in the form of raw money that made these industrialists the dictators of global enterprise and monopoly, it was their power over the laborer. Labor was a two edged sword, a kind of capital the Rockefellers of the world could wield, and at the same time labor took a cut of what was produced. Labor as capital demanded the attention of the Rockefellers, the Carnegies and the Vanderbilts. Historically, labor might revolt at anytime if the capitalists' drum of profit was beaten too rapid or loud, and sometimes it did. There was the anarchist who shot President William McKinley, and there was the Haymarket Square Bombing, and the Pullman Strike. Labor was thinking it was not getting its fair share of the capital. Labor contested the balance of wealth when thousands labored for a few to consume, those being the capitalists. Labor as capital posed that problem for the capitalists. It was the hoarding of capital by the capitalists that might upset the interest of the worker, resulting in revolution, at any time.

There is every reason to think the neo-industrialists who succeed the capitalists, will seek to control the new fruits of genetic science with money and military force. The new scientific technologies will actually produce laborers and warriors from the crib, not just weapons and machines. Genetic science is the juicy missing link between the means of production, the capital, and the laborer. The working man owns little capital but the shirt on his back, but soon the capitalists will determine whether that back is stocky or slim, white or black, blonde or blue, male or female, possessing longevity, or free from illness. To make a man a laborer, is something the capitalists have done psychologically and economically already, but the neo-industrialists will not rest until they determine the workers biological 'suit' from crib to grave.

"If we can create a manufacturing technology that can precisely manipulate individual atoms, we can improve virtually every product made"<sup>4</sup>. Such technology would have a greater impact on our lives than the industrial or the electronic revolutions, indeed, it would be a neo-industrial revolution. "In a darker vein, the same technology could produce agents that could kill humans while discriminating between friendly and hostile forces"<sup>5</sup> or cancerous cells. These are the aims of the neo-industrialists, and the name of the technology for which they fight to win is "Nanotechnology"<sup>6</sup>. Nanotechnology combined with genetics is science called "molecular genetics". Molecular genetics is a very fine sword that the neo-industrialist military powers of the World will someday wield. The winners of the wars they fight, and who survives them, and those who live to buy and sell in the wake of those wars, and what will be traded, will most likely be owned and determined by the men who own the militaries, and the scientists, and the hospitals, and the in vitro fertilization, and the food banks of the world - of course, the neo-industrialists.

But just how might neo-industrial interests act to customize your baby? Well, suppose the winners of the war for the controlling interest of molecular genetics decide that they would prefer a large force of brown-haired blue collared workers and a relatively small force of blonde-haired white collared workers, in order to create a palpable division between managerial and laboring classes. The capitalists would begin manipulation of their most powerful ideological weapon - television. The corporate media would broadcast steadily, maybe over years, with increasing frequency, the many advantages of having blonde hair emphasizing that one can get a job like all the blonde heads do on television. Then the neo-industrialists would eliminate the dark-haired workers from the white collar class with the weapon of mass-discrimination, and stereotyping, which is encouraged, especially for the blonde haired workers who want to keep their higher paying positions (which are 'guaranteed' to them on the television). Finally, to sort out the blue collar and white collar classes,

the neo-industrialists would begin introducing "tiny molecular medical machines"<sup>7</sup> into the food supply or into the blood stream, at routine doctor visits such as immunizations. Immunization molecule machines would be mixed with the 'genetic-hair-color-determiner-medical-molecule-machines'<sup>8</sup> supplied by the neo-industrial pharmaceutical corporations. If that sounds all too complicated then imagine this. Consider the "Atomic Force Microscope" which is used by IBM:

"This device uses a diamond tip, no larger than a single atom, to take pictures of atoms based on electronic forces between atoms. Researchers found that the atomic force microscope can also be used to move individual atoms. As an example, researchers at IBM's Almaden Research Laboratories in San Jose have used an atomic force microscope to place individual (atoms) on a (nickel) to spell out the company's logo."<sup>9</sup> The same men who invest in the coffers of the nanotechnologists are the same men who invest in genetic science. Nanotechnology is "the mother of all technologies" as one member of the think tank Nanothinc put it<sup>10</sup>. The 'think-tankers' estimate the dawn of the neo-industrialist, nanolithic age as circa 2010-2030 A.D. These men with their thinking caps on note that the world is ill prepared for the nanotechnic revolution, and they ponder what will happen to the international economy, and they wonder what the military-industrial complex will do with the power of Nanotechnology behind it.

"For the military not to be involved would be irresponsible, since they have to make sure no technologies can threaten them. The military also has the money, it has a long term view, it has the capabilities to research and develop technologies and products relatively cheaply (they are the only organization taking a long-term view on Nanotechnology)."- Dr. Eric Drexler, coined the term "Nanotechnology" in the 1980's.<sup>11</sup>

Who owns the controlling share of Nanotechnology? It is the men who own the labs and pay the researchers, it is the owners of the companies, like IBM, that apply the research and use the technology, it is the suppliers of the military-industrial complex, and they supply this world with the means of

production and transportation of food; but when it's your choice and you want to feed your baby, you can get it at the local store, and when the food is prepared with care right down to the very molecule, and it feeds your baby right down to the genes that live in the cells in the marrow of the bones, then the birthright of your grandchildren, if your baby has the choice to have them, will be to hold a very tiny but life riveting share of stock, in the Nanolithic age of the neo-industrialists.

### Footnotes

1 Robert Wright, SF Examiner, Oct 1994

2 Zygote - the cell formed by the fertilization of an egg and a sperm.

3 Pinkertons - security police organization that protected, among other persons, President Abraham Lincoln.

4-6 Tom Foremski, SF Examiner, 10/16/94

6 Tom Foremski, SF Examiner, 10/16/94

7 Tom Foremski, SF Examiner, 10/16/94

8 coined by Ross Tobia, 1994.

9-10 Tom Foremski, SF Examiner, 10/16/94

11 Tom Foremski, SF Examiner, 10/16/94

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Annotation: 'Nanotechnology' definition, outline, foreseeable future; an interview with Eric Drexler, the man who coined the term.