

THE LAST WORD

by Marvin Rogul

WHAT RIFKIN REALLY WANTS

Jeremy Rifkin is the most vocal and, to date, the most publicized critic of genetic engineering and its application. At his behest, the courts have issued an injunction against the deliberate release of a genetically engineered organism. The implications of this ruling are not yet be entirely clear; meanwhile, Rifkin's name, if not his position, is becoming more and more widely known. Who is he? Is he sincere or opportunistic? What does he have against genetic engineering? Who does he represent? Should he be censured or stopped?

Most of us would probably agree that Rifkin should be confronted on the issues and not attacked personally. Unfortunately many of the scientists who have debated Rifkin have yielded to temptation and criticized him as a dangerous, egocentric opportunist. It is his point of view that we will consider here.

Rifkin is obviously a product of the sixties. One can hear it in his rhetoric. But don't mistake him for a mindless sloganeer or reckless sixties revolutionary. On the contrary, he is a sophisticated social critic and theorist. Two of his books, *Algeny* and *Who Should Play God*, offer a very good idea of how he views history and what he thinks is wrong with society.

He begins by exploring the historical interpretations of what is natural and what is not. He explains that, in past cultures, mankind viewed the universe and its origin in a way that reflected and made legitimate the society as it existed then. By so doing, man could make himself more comfortable in a world not always supportive. If the society revolved around hunting and warfare, its cosmology—the set of metaphors by which it ordered daily experience—was based on hunting and weapons were sacred. Rifkin contends that pretechnological civilizations had to live in harmony and empathy (a key word to Rifkin) with nature, because they could not readily manipulate it. Not so after the industrial revolution.

Here Rifkin starts building his basic case: The new industrial tools reshaped our physical and social world and changed our whole outlook on and interpretation of the universe. Rifkin makes a crucial observation: Whenever mankind dominates, manipulates and controls an element of nature, that element eventually ceases to be sacred and becomes instead profane. Machines made us less dependent upon the tides, the seasons, the weather. Humanity was no longer constrained to live in harmony or empathy with nature; Neptune, Persephone and Zeus no longer reigned in our cosmology.

The industrial revolution was in full swing when Darwin was born. Society was changing from an agrarian base to a base that was extractive, pyrotechnological and commercial. Rifkin believes that Darwin was thus as much a product of his time as a leader of prevailing thought; Darwin naturally fashioned his theory of evolution in terms of his Victorian society and the industrial revolution. According to Rifkin, nothing could have pleased the nobility and upper classes more than a theory which

implied that they were the "most fit" and had survived in their society because they had been selected by Nature. Even in the factories it was obvious that new machines were replacing obsolete machines and even people. Society worshipped the new and strong; it discarded the obsolete and weak. In this setting only the fittest could survive and ultimately, if it came to that, subdue Nature. Only the most predaceous and fit could win out.

Rifkin believes that the extractive, pyrotechnological, industrial epoch is ending; a new age, an age of computers and biotechnology, is dawning. This period will require a powerful new cosmology of its own from which we can derive legitimacy, new working hypotheses, and a sense of direction. For the first time, we are in control of our inheritable destiny. Simple Darwinism is longer a sufficient foundation for building a new world. So Rifkin must discredit the old theories of evolution before initiating the new philosophical cosmology which better reflects Rifkin's intuitive view of natural history and humanity's destiny.

As Rifkin sees it, people divide into two groups, according to the cosmology they espouse. On one side stand genetic engineers and their adherents. They have the ability to change humankind and the rest of the world. But, he asks, who wants to entrust the world to people who still believe in Darwinian evolution, with its stress on competition and predation? Should these people, Rifkin asks, decide what is natural and right? And will we allow them to trivialize the things that we should hold most dear and sacred?

On the other side are social activists, analysts, ecologists, philosophers, and others who want a moratorium on genetic engineering, pending a new definition of what is "natural" in the biological and physical world. Such a new cosmology would allow us to live in harmony and empathy with the world, before we literally engineer the seeds of our own destruction. Rifkin's actions leave little doubt where he stands.

In this context then, the court battle against disseminating non-ice-nucleating bacteria is only a minor skirmish. In Rifkin's view, even this small experiment portends such disasters as ecological upheaval, conversion of this new science for germ warfare, and tinkering with our inheritable germ plasm to make us more predaceous than we are now. Rifkin doesn't appear to have any anodyne—save delay—for these dangers. He is certainly unwilling to let genetic engineering proceed until he gets the opportunity to develop a benevolent, empathetic cosmology—a coherent set of moral ideas that will govern the computer-biotechnology age, rather than the other way around.

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