

Leo Marx has so many things to be angry about:

(1) He is upset with the Chicago Museum of Science and Industry for organizing a conference whose title implies that society is going where science and technology are going.

(2) He is bothered that the public still trusts "in a scientific-technological solution or 'fix'" to our problems and that it believes "that a causal nexus exists between progress *within* science and technology and the general progress of humanity."

(3) He is unhappy with my article's taking a too rapid transition from a discussion of progress in chemistry to a rueful, uncertain conclusion as tacit evidence of a "vestige of the old expectation . . . that . . . achievements of molecular science will be translated into social progress."

(4) And he is unhappy with President Reagan.

What does Professor Marx advise that we do about all this? He suggests that scientists and engineers not only must be implicitly skeptical of the myth of progress but also must explicitly repudiate their role as heroes of the old myth. We should take an active part in ridding the world of that myth of progress. I can conjure up a nice mental image of this process—scientists standing with heads bowed, saying *mea culpa*, perhaps being carted around in dunce caps, much as some intellectuals were during the Cultural Revolution in China. Having abjured our omniscience, power, and belief in progress, we would then turn to . . . humanists, social scientists, perchance Marxist theoreticians for all the solutions.

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Ire, a lack of positive prescriptions, and an unrealistic image of scientists as "heroes of the old myth" or as sources of cultural power and authority pervade Leo Marx's analysis. To me, however, it seems amusing that anyone would think of scientists and engineers as heroic figures. The public and the forces that seek to influence it create an image of scientists to satisfy certain psychological needs (and fears) and to suit certain political and economic ends. And a component of omniscience, super-rationalism, and progress is certainly one piece of the public image. This is the component exploited in, for example, television commercials; it is a convenient fiction to sell, say, dioxin or to convince people that any amount of dioxin, no matter how small, is harmful. Another component of the public image of science, one ancient in origin, is impracticality. There are also dark, sinister views, the Dr. Frankenstein or Sivana model. These and many other images blend to form a quite ambivalent image of science and scientists.

Although I think that Leo Marx's analysis is faulty, there *are* many things about which he and I agree. Perhaps these areas will be clearer if I say now what I should have said in the Chicago paper, in between my report on the state of chemistry and my pessimistic conclusion.

"These are the achievements of our science, the contributions that scientists have made to understanding our small piece of the universe. They are remarkable testimony to the power of the human mind and hands, and there is no sign that the brilliance of these achievements will fade or that our pace of acquiring knowledge will abate.

"But will our ability to understand and manipulate the material aspects of the world improve our life as human beings? Will it remove social