



Surrogate monkey mothers. Given a choice of two surrogate mothers—a wire structure equipped with a milk bottle, or the same structure covered with cloth and with a milk bottle—infant monkeys unhesitatingly choose the latter. Humans and other primates have genetically determined needs for social interaction and for physical affection and warmth. Courtesy, Harry F. Harlow, University of Wisconsin Primate Laboratory.

About two-thirds of the mass of the human brain is in the cerebral cortex, devoted to intuition and reason. Humans have evolved gregariously. We delight in each other's company; we care for one another. We cooperate. Altruism is built into us. We have brilliantly deciphered some of the patterns of Nature. We have sufficient motivation to work together and the ability to figure out how to do it. If we are willing to contemplate nuclear war and the wholesale destruction of our emerging global society, should we not also be willing to contemplate a wholesale restructuring of our societies? From an extraterrestrial perspective, our global civilization is clearly on the edge of failure in the most important task it faces: to preserve the lives and well-being of the citizens of the planet. Should we not then be willing to explore vigorously, in every nation, major changes in the traditional ways of doing things, a fundamental redesign of economic, political, social and religious institutions?

Faced with so disquieting an alternative, we are always tempted to minimize the seriousness of the problem, to argue that those who worry about doomsdays are alarmists; to hold that fundamental changes in our institutions are impractical or contrary to "human nature," as if nuclear war were practical, or as if there were only one human nature. Full-scale nuclear war has never happened. Somehow this is taken to imply that it never will. But we can experience it only once. By then it will be too late to reformulate the statistics.

The United States is one of the few governments that actually supports an agency devoted to reversing the arms race. But the comparative budgets of the Department of Defense (153 billion dollars per year in 1980) and of the Arms Control and Disarmament Agency (0.018 billion dollars per year) remind us of the relative importance we have assigned to the two activities. Would not a rational society spend more on understanding and preventing, than on preparing for, the next war? It is possible to study the causes of war. At present our understanding is meager—probably because disarmament budgets have, since the time of Sargon of Akkad, been somewhere between ineffective and nonexistent. Microbiologists and physicians study diseases mainly to cure people. Rarely are they rooting for the pathogen. Let us study war as if it were, as Einstein aptly called it, an illness of childhood. We have reached the point where proliferation of nuclear arms and resistance to nuclear disarmament threaten every person on the planet. There are no more special interests or special cases. Our survival depends on committing our intelligence and resources on a massive scale to take charge of our own destiny, to guarantee that Richardson's curve does not veer to the right.

We, the nuclear hostages—all the peoples of the Earth—must educate ourselves about conventional and nuclear warfare. Then we must educate our governments. We must learn the science