## Peace through Change: The Risk and Promise for Man's Future

Hubert H. Humphrey

The only mistake that history does not forgive in people is to scorn their dreams.—Maurice Schuman, 3 November 1971.

To speak of peace is to speak of change. One is a part of the other. Their inseparability is rooted in their common allegiance to the progressive development of man's welfare within a compatible society. A condition of general peace, where institutions are controllable and people comprehensible, is, in my opinion, an ideal situation for effecting change. Not only is it ideal, it is a necessary condition.

Any other situation would create over time a perilous limbo between a repressive sort of inertia and the extremes of violent outbreak. We may very well be in that threatening kind of impasse today. Peace is shockingly absent when the war in Southeast Asia continues and is able to snuff out serious efforts for comprehensive reform in our own society. The desire for change is, I believe, as real as it ever was in the human mind, but the failure to bring about significant change frustrates all of us.

There is, therefore, as much risk in standing still as there is in moving destructively out of our present position. What we should be seeking is a means of moving forward, channeling dynamic conflict into forms of peaceful change. This effort will inevitably involve the reduction of human violence and the promotion of man's development. Development essentially involves the achievement of an improved standard of living and quality of life. Considered in the broader context, it is concerned with all paramount values -political, social, and economic. In practice, the process is still incomplete; vast inequalities continue to exist among nations. A new commitment is essential if the process is to continue.

If peaceful change is to be achieved,

a new relationship must be established between science and politics. Politics at its best under a democratic system of government can be the vehicle for translating tensions in our society into social progress. It is an all-encompassing process whose strength comes from wide and solidly based participation.

As society grows more complex, the vitality of the political process depends to an increasing degree on the effectiveness and equity of the measures designed to achieve its basic values. Before the appropriate political decisions are reached, the need is greater than ever before to have the broadest possible knowledge base—knowledge oriented toward the future rather than toward the past. Science can create the knowledge base, the starting point for a close working relationship between science and politics.

The consequences of science for our age are profound. Increasingly, it is the basis of our technological systems, the most powerful means devised by man for controlling his environment.

From time to time, both science and politics come under attack, as is the case today. I am prepared to acknowledge their deficiencies, but we must also recognize their inherent value to society. Recognizing the weaknesses and the strengths, we must face squarely what is our common challenge: How can science and politics, each with its constructive role, work together more effectively to meet the needs and deal with the conflicts of our own people and of others?

A strong new commitment will be necessary if adequate answers to this question are to be found. The scientific community will have to provide a more systematic knowledge base. But political leaders must also be prepared to address the issues. Let me offer one

approach, which is not intended to be either exhaustive nor definitive, but rather a means of eliciting your ideas. The approach has three main parts: (i) a common agenda for science and politics, (ii) new institutional arrangements for the production and utilization of knowledge, and (iii) procedures for stimulating a similar commitment by other states.

## Common Agenda

The present conception of U.S. national interest is too often expressed in terms of military power and national security. Nearly half of all research and development is devoted to perfecting means of destruction. Worldwide, the research and development devoted to military purposes probably exceeds \$25 billion. Alternative conceptions of our long-term interests could lead to a very different pattern of resource allocation. These alternatives must be worked out in collaboration between the scientific community and political leaders. In my view, the new directions would include increased attention to population, environment and growth, health and education, arms control and disarmament, a future international system, and conflict situations.

Throughout the world, population growth is taking place on an unprecedented scale. What are the implications for conflict and development? For any given level of population, may alternative patterns of distribution have significantly different implications?

Since World War II, the labor force in the United States has greatly increased in size, and the character of its knowledge and skills has undergone substantial changes. At the same time, there have been important shifts in the occupational structure from agriculture to manufacturing, and the service industries have expanded. What are the future implications for peace and security of the manpower trends of the past quarter of a century?

In the developing world, the birthrate remains relatively high, while the standard of social welfare struggles to keep pace. The absolute gap between the have and have-not nations continues to widen, while the world community grows smaller. Meanwhile, in the advanced states, frustration of the growing masses of the educated young appears to be on the rise. Can means be devised that would more fully match the needs of the former and the aspira-

This article is taken from Senator Humphrey's lecture given on 27 December 1971 at the AAAS annual meeting in Philadelphia, Pennsylvania.

tions of the latter? What new dimensions of education are essential to equip our nation's manpower to play a more effective role in metropolitan and international institutions, as well as those of a national character?

Our technological capacity to modify the environment has multiplied a thousandfold, but a comprehensive appreciation of how to reshape the country's capacity to provide for both peaceful change and environmental quality is lacking. Equally important, what is the positive contribution of technology to peace and security? Systematic analysis of the nonmilitary elements of strength has not been attempted since the 1940's. A large number of excellent specialized studies exist, but it is impossible without a concerted effort to derive from these the nation's potential for moving toward its goals. Four areas illustrate the scope of the task.

- 1) General industrial capacity: The foundations of national security in the early 20th century—raw materials, manufacturing capacity, and specialized military production facilities—are no longer a sufficient measure of potential power and influence. Are there alternative patterns of adaptation and development to support policies for achieving security and development that can be worked out in detail and tested?
- 2) Energy: Energy requirements have mounted in the last two decades and are expected to rise further. Environmental considerations continue to loom ever larger. What will be the future energy needs of the United States? Of the world? As choices are made, what balance should be sought from the point of view of national strength? And how are these considerations affected by the growth of energy needs in other parts of the world and by the global pattern of energy resource development? In what sense is energy a strategic factor in shaping the global environment?
- 3) Communication and transportation: The postwar world has experienced a revolution in the means of communication and transportation. Important new developments are expected in the next two decades. An appreciation—strategic in scope—of the potential contribution of communications and transportation to peaceful change and development is therefore essential. Are there credible technological options for meeting the knowledge needs of individuals in a manner that will contribute to peace and development?
- 4) Technology transfer: Technology

transfer, whether public or private, constitutes an important source of influence. As technology is diffused among nations, their relations change. In the case of advanced states, the process may reach a point where interdependence is maintained by a self-sustaining, reciprocal flow of technology which serves the interests of the participants. This kind of transfer has an important bearing on the possibilities for peaceful change.

Better provisions for health and education rank near the top of people's list of hopes and expectations. While research has provided the basis for major advances in health and learning, delivery of services in the United States remains unsatisfactory, and resources fall significantly short of requirements. Moreover, in many parts of the world the gap between what is technically possible and what is actually available is immense and may be widening. While the differences between our health and educational requirements and those of other countries are great, there is a certain amount of mutual interest. Sharing the problems helps to solve them and, in the process, reduces the flash points of tension between nations or regions. More account must be taken of this fact in dealing with these urgent national and international needs.

The arms control and disarmament talks are now in their third decade. Meanwhile, investment in weapons systems has continued apace. Ironically, survival has come to depend on the rationality of the adversary, expressed in terms of a strategy of deterrence. Now, in a war of hours rather than months, their destructive capacity may be measured in megatons. New agreements are promised as a result of the SALT (Strategic Arms Limitation Talks) talks, and these are to be welcomed. However, nothing is likely to emerge that will substantially reduce the role of civilian populations as hostages to the nuclear age. More fundamental approaches must be found if the persistent threat to our survival is to be removed. For one thing, a fundamental rethinking of the role and functions of the nation-state may be required.

Nation-states are still the major actors in the international system. They have developed an array of instruments to exercise influence within the system. These include, for example, diplomatic services for representation and negotiation, as well as information

agencies to shape world opinion. Public opinion feeds back to this system by having some weight, varying in degree according to the nature of a particular national political system, in the determination of priorities and of the broad parameters within which leaders may act.

Significant functional institutions, such as the international monetary system, are nevertheless gradually emerging. Multinational corporations are among the most dynamic elements now on the scene. In addition, a large array of international, nongovernmental organizations of lesser scope have grown up. With the worldwide trend toward urban living, metropolitan areas share common goals, even as they experience common problems.

Finally, there exist among governments regional and global institutions. One of the most successful examples of a regional system is the Common Market. A potentially successful, specialized institution is the planned U.N. Commission on the Human Environment.

In what respects has this array of institutions kept pace with the new requirements of the postwar period? And in what respects have they lagged behind? How does their present condition and their potential for growth relate to our central concern for peaceful change and development?

Attributes of conflict situations vary widely, but common to all of them is the need for knowledge sufficient for constructive action to enable people to deal more predictably with other people. What then must be known for constructive action? Each conflict situation has a particular setting in time and space. Each has a unique set of participants for whom the situation has varying degrees of impact. The testimony of many statesmen is that they respond to events. Are there, then, preferred ways for them to choose to what they will respond? What can be learned about situations in which taking the initiative is effective in reducing violent conflict?

Like other living things, man is a result of the experience of his species. However, to a degree that sets him apart from all other species, man has acquired the power to create his own experience. There may be as many views of reality as there are men. Given our parochial perception of reality, how can a persistent tendency to disregard the values of the adversary be reduced or overcome?

## **New Institutional Arrangements**

Agreement on a common sciencepolitics agenda for peace and development is merely a first step. Next it is necessary to provide the institutional capacity to delineate and implement a comprehensive program. The capacity, if it is to be effective, must be concerned not only with reliable scientific knowledge, but also with valid information for political action. For example, gathering enough knowledge to deal definitively with the population problem or the environmental problem may be a long-term undertaking, but the time frame of political leaders is rather short. Action are taken year by year. An arrangement is needed which will support both systematic long-term studies and sensible shortterm actions. Here an enlightened bureaucracy, which has a somewhat longer perspective than the elected official, has an important part to play.

I doubt whether there is a single solution to providing an adequate institutional framework for peace and development. Let me instead suggest a number of complementary approaches that may be valuable.

First, for a broad knowledge base, we need a broad base of scientific inquiry. We have witnessed how technology develops with a momentum all its own, often with little benefit to society at large. Scientists and politicians, together and separately, must ask questions before they arrive at answers. Too often official research panels have had participants who know the answer before they study the problem-because they all agree. In most instances under governmental sponsorship, the diversity and confrontation that exist in public conscience and among political leaders are not duplicated at the scientific level.

While making as much use as possible of official institutions, our government should turn more and more to the unencumbered, independent scientific bodies. Edward David, science adviser to the President, discussed this problem with respect to his own committee, the National Science Foundation, and the National Academy of Sciences. He found that, despite their excellence, these institutions did not quite fit the bill. He stressed the need to turn to independent boards of inquiry or research. The AAAS has shown how effective this kind of approach can be. One example among many is the AAAS's herbicide assessment commission, whose report on herbicides has had a significant impact on Congress and hopefully will have a similar impact on the other two branches of government.

What I have in mind is the sort of multiplicity and diversity through which can come the balanced conclusions we need in our future-oriented policies. The job is not for one institution, any more than it is for one branch of government. Guidelines for the knowledge required for peaceful change should be a product of representative thinking.

Second, Congress should create a new institution to provide itself and the attentive public with open national intelligence estimates. At present, both Congress and the public must depend on fragmentary information derived from personal contacts, committee hearings concerned with particular topics, and selective information "leaked" to the press by the Executive Branch and by other governments. Facilities for open, systematic analysis and evaluation exist, but their activities are also fragmentary. Among these are the Legislative Reference Bureau of the Library of Congress, the Center for Strategic Studies in the United Kingdom, and the International Peace Research Institute in Sweden. In comparison with the secret intelligencegathering facilities of all major governments, the open capacities for collection, analysis, and authoritative synthesis of policy-relevant information is very limited.

While all governments devote substantial resources to acquiring secret information, this practice poses special problems for a democracy. On balance, the Executive Branch acquires unintended special advantages. The utility of secret information cannot be denied, but there are also major disutilities. Undertakings may be initiated which, for lack of full discussion and participation by those with a stake in the outcome, may in the end damage the unity of the nation. One example among many was project "Camelot" in Latin America. Ostensibly a social science project, the real purpose of the program, to study the possibilities of revolution and the techniques of counterrevolution under CIA sponsorship, was ultimately disclosed. The result was a general suspicion of American social scientists in Latin America and increased tension in our relations with Latin American.

Open treatment of policy-relevant in-

formation will no doubt introduce some constraints in independent action, but it offers at least two advantages that I think have great potential. On the one hand, an open system would introduce a badly needed competitive element into the crucial process of defining what information is important for policy purposes. On the other hand, the availability of authoritative estimates could help to focus the endeavors of Congress and the private sector, thus reducing misdirected efforts to a minimum. Those outside the Executive Branch would have the benefit of more information than they are able to gather and assimilate under present procedures. Congress would have a better basis for responding to presidential initiatives. Commercial enterprise would have a better foundation for its investment decisions. The scientific community would have a better basis for orienting its applied research and technology assessment efforts. Interest groups would have access to a body of authoritative information not now available to many of them.

The estimates would focus on particular situations of either a geographic or functional nature involving major questions of public policy. Second, the estimates would not present a position on policy issues, but would seek to provide concise and authoritative information as a basis for congressional and public discussion. Third, while some estimates might focus on areas of potential crisis, others would seek to give an authoritative assessment of selected long-term developments. An example of the former would be an estimate of the emerging situation in Southeast Asia prepared well before the war broke upon an unprepared world. An example of the latter might be an assessment of the international implications of changes in population size and quality over the next decade. In either case, the summary estimate would seek to correlate existing knowledge in relation to a spectrum of policy alternatives.

The information would be stored in computer-based systems. The computers would also be capable of providing assistance in visualizing and simulating policy options.

National estimates ought to concern themselves with domestic as well as international situations. Part of the public concern and confusion about such problems as poverty, drugs, and crime, I am inclined to believe, stems from the lack of regular and authoritative assessment. Information and misinformation abound, but objective and authoritative estimates are rare.

By the way of institutional arrangements, I visualize a representative Board of Estimates with a relatively small, high-caliber professional staff consisting of social advisers would be responsible for preparing the estimates. One of the initial tasks of the staff would be to develop channels of communication with scientists and research workers in all fields. Any research scientist, area expert, or individual who felt he had relevant knowledge should have an opportunity to contribute to an estimate. There should also be opportunities for criticism of estimates once they are issued.

Similarly, the users of these estimates in Congress and among the public should be expected to contribute to the process. If a policy-maker questioned a finding, the opportunity would be available to examine the material from which it derived.

A system of open national estimates could make an essential contribution to strengthening the now frayed links between public participation, political action, research and development, and the allocation of resources. Attention would be directed to common objectives, while leaving each of the various participants in the policy process free to make his own unique contribution.

Third, as congressional sources of information are expanded and modified, so must the institutional nature of the congressional process mature. Science and government can only work effectively together if there is a parallel and complementary structural adaptation. Science does not have the corporative integration that the government has developed over the years, but a conscious reordering of priorities in that area should be the main focus of reform. For much of the redirection, the impetus may have to come from Congress. For Congress to provide this force, it will need to resort to a revamping of its own system.

Certain congressional practices and facilities need to be updated. For a more detailed blueprint of reform, I have proposed that there be established a citizen's committee to study Congress. At the same time I have proposed that a joint committee on national security be established to study in an integrated way some of the urgent issues, such as defense, arms control, foreign development, and

national priorities, that affect what is commonly referred to as our national security. The attempt here would be to fortify the constitutional separation of powers and joint participation in decision-making. National security, which until now has been a gray zone of ambiguity and surrender as far as the Congress is concerned, has come largely under the purview of the Executive Branch. The Congress has moved gradually into this area, but never in a clear, formalized manner. The joint committee would give dependable definition to the kind of reform and policies that our government should be instituting.

Fourth, I can envisage the creation of a series of national institutes of peace and development, charged with initiating new domestic and international programs and participating directly in the diplomatic process. At present, we are inadequately equipped with research and development capacity and commitment to deal with such problem areas as conflict resolution, population, and the environment, all of which are candidates for our common agenda.

The commitment cannot be stressed enough.

Private capacity to promote initiatives in international affairs should be strengthened. This conclusion flows from a study project with which I was associated that surveyed the activities of 500 organizations and conducted interviews with leaders in all walks of life. Private diplomacy that is not burdened by the traditional inflexibility of government is one important area for new initiatives. It has played a relatively important role in Vietnam, but it could be even more useful. It may be especially helpful in arranging preventive talks help to keep conflict from coming to a head. From time to time a single individual whose integrity is respected can, by moving back and forth between adversaries, play a catalytic role.

With the building of a system of world education, the commitment I am talking about would be self-perpetuating. This might take the form of a multicentered world university, as advocated by Harold Lasswell, or of a world system of research centers, as suggested by Carl Kaysen, which in time might acquire a teaching function.

Fifth, I believe a joint commission created by Congress and the Executive Branch may be needed to begin now to identify the incentives for

growth vital for the more important peace and development industries. The commission should be broadly representative of business, labor, science, and the public. Its primary task would be not merely to determine what the nature and pattern of growth is likely to be in the years ahead, but to document what is possible and to suggest what is preferable. With such an analysis, enterprises and urban centers could more readily appreciate the opportunities opening for them. Cities, for example, could begin to plan for their growth on the basis of peace and development industries in contrast with the past, when many have had to rely on weapons production and military installations.

## Stimulating Reciprocal Action by Other Nations

Without complementary action by other nations, the commitment of the United States to strengthen its capacity for peaceful change may be aborted. The United States may exercise leadership in the undertaking, but a reciprocal response from others is vital.

The goal of stimulating other nations to commit talent and resources to peaceful, constructive change need not be left wholly to chance or "conventional wisdom," as is too often the case at present. With the creation of an effective, constructive capacity for peaceful change, the self-interest of other nations can be expected to lead them to respond. Moreover, in strengthening our capacity for peaceful change we need not rely on the power of example alone. Is it beyond the realm of possibility that systematic study and analysis would not demonstrate the feasibility of creating new complementary capabilities for peace and development?

In conclusion, let me enlarge on the challenge posed at the outset. Let us agree to commit our energy and talent:

- ► to the goal of peace and development;
- ▶ to a common agenda for science and politics in support of that goal;
- ▶ to the creation of the institutional capacity essential for the production and utilization of knowledge in the pursuit of that goal;
- ► and finally, by example and design, to inducing other nations to establish complementary capabilities.