

Center for Conflict Analysis  
and Resolution

Occasional Paper 3

**The Dialectics and Economics  
of Peace**

by

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George Mason University

# Center for Conflict Analysis and Resolution

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## About the Authors

**Elise Boulding**, born in Oslo, Norway, received a B.A. in English from Douglass College, an M.S. in Sociology from Iowa State University, and a Ph.D. in Sociology from the University of Michigan. She is Professor Emerita of Dartmouth College and Senior Fellow in the Dickey Endowment; she was Secretary-General of the International Peace Research Association, Professor and Chair at Dartmouth 1978–1985, Department of Sociology and Institute of Behavioral Science at the University of Colorado at Boulder, and is a nominee for the Nobel Peace Prize. Dr. Boulding served as a member of the governing board of the United Nations University 1980–1985, member of the International Jury of the UNESCO Prize for Peace Education, member of the U.S. Commission for UNESCO 1981–1987, and Editor of the International Peace Newsletter. Some of her writings have addressed women's changing social, economic, and political roles.

**Kenneth Boulding**, born in Liverpool, England, has lived in the United States since 1937. He earned B.A. and M.A. degrees from Oxford and was Commonwealth Fellow at the University of Colorado at Boulder and Research Associate and Project Director in the Program of Research on Political and Economic Change at the University's Institute of Behavioral Science; he has served as president of six major scholarly societies, including the American Association for the Advancement of Science, the American Economic Association, and the International Studies Association. He previously taught at the University of Edinburgh in Scotland, Colgate University, Princeton, Iowa State University, McGill University, and the University of Michigan.

Both are prolific writers, teachers, researchers, peace and conflict resolution scholars and activists, and members of the Society of Friends.

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## About the Center

The Center for Conflict Analysis and Resolution at George Mason University has as its principal mission to advance the understanding and resolution of significant and persistent human conflicts among individuals, groups, communities, identity groups, and nations. To fulfill this mission, the center works in four areas: academic programs, consisting of a Doctor of Philosophy (Ph.D.) in Conflict Analysis and Resolution and a Master of Science (M.S.) in Conflict Management; research and publication; a clinical service program offered through the Conflict Clinic, Inc., center faculty, and senior associates; and public education.

Associated with the center are three major organizations that promote and apply conflict resolution principles. These are the Conflict Clinic, Inc., mentioned above; the Consortium on Peace Research, Education and Development (COPRED), a network organization; and the National Conference on Peacemaking and Conflict Resolution (NCPCR), offering conferences and workshops.

Major research interests include the study of deep-rooted conflicts and their resolution; the exploration of conditions attracting parties to the negotiation table; and intervention methods in a range of community, national, and international settings.

Outreach to the community is accomplished through the publication of books and articles, public lectures, conferences, and special briefings on the theory and practice of conflict resolution. As part of this effort, the center's working and occasional papers offer both the public at large and professionals in the field access to critical thinking flowing from faculty, staff, and students at the center. The papers are presented to stimulate critical consideration and discussion of important questions in the study of human conflict.

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## Introductory Remarks

[The following remarks were made by James H. Laue, Lynch Professor of Conflict Resolution, November 15, 1989.]

May I express my special gratitude to two very special people who have made this Center, the Lynch Chair, and this lecture series possible, Edwin and Helen Lynch, two great lifetime peacemakers.

I have never tried to introduce a living legend before, certainly not two of them. Our University is to be congratulated for making it possible for these two grand global citizens to be together in one place for perhaps the longest continuous period of their forty-eight collaboration. How nice it is that it is at this place! To have them together on the same platform tonight gives us a feast of intellect and commitment that would be difficult to match anywhere at any time.

For here is a truly peaceful, peace-loving, and peacemaking couple, each wonderfully independent and creative, modeling in their work and relationship the dialectic at the heart of the peacemaking process. They have led lives of linkage: Oslo and Liverpool (their birthplaces); sociology and economics; family and career (five lovely children and 14.9 grandchildren); local as well as global action, from Quaker meeting to the United Nations, from the board of the Boulder, Colorado, Parenting Center to the boards of the U.N. University and the International Peace Research Association.

This semester, Elise Boulding is Distinguished Visiting Professor of Conflict Resolution at George Mason University. She is Professor Emerita and former Chair of Sociology at the University of Colorado. She was there in the early sixties at the founding of the Center for Research in Conflict Resolution at the University of Michigan, the pioneer, as Research Development Secretary. Her doctorate in Sociology was earned in Michigan. She is the author or co-author of at least fourteen books. Note the range of interest in the titles: *From a Monastery Kitchen*, *Handbook of International Data on Women*, *The Underside of History: A View of Women Through Time*, *Children's Rights and the Wheel of Life*, *The Social System of Planet Earth*, *Women and the Social Costs of Economic Development: Two Colorado Case Studies*, and, most recently, *Building a Global Civic*

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*Culture*. She has authored literally hundreds of chapters, articles, and pamphlets. Some of my favorite titles are "The Fruits of Solitude for Children," "Evolution of the Peacemaking Capacity in Teilhard de Chardin, Martin Buber and Jane Addams," and "Women, Frugality and the Planetary Household."

Elise has chaired and served on boards and commissions ranging from the Women's International League for Peace and Freedom to the American Association for the Advancement of Science, the American Sociological Association, the U.N. University, UNESCO, the U.S. Commission on Proposals for the National Academy of Peace and Conflict Resolution (where it was my special pleasure to serve with her for a year) and, yes, the Parenting Center of Boulder, Colorado. Most significantly, she now is Secretary General of the International Peace Research Association, whose twenty-fifth anniversary conference in the Netherlands next summer is filling her agenda.

Kenneth Boulding is Distinguished Professor of Economics Emeritus at the University of Colorado. Most important for us is his appointment as Visiting Robinson Professor at George Mason this semester. He has held regular appointments during his career at Michigan, Edinburgh, Colgate, Fisk, and Iowa State University and has been a visiting professor in more than a dozen United States and foreign universities.

Kenneth was educated at Liverpool Collegiate School and at Oxford, where he earned Bachelor of Arts and Master of Arts degrees. He has written at least thirty-one books, by my last count anyway, which occurred at approximately 4:47 p.m. this afternoon. Among them are the classic *Conflict and Defense*, *The Economics of Peace*, *The Organizational Revolution*, *Beyond Economics*, *Stable Peace*, and, this fall, *Three Faces of Power*. He has edited or co-edited another dozen books, has at least ten honorary degrees, and several books have been written about him and his work. He is honored in such sources as *A Dictionary of Economics* and the modestly-entitled *Great Economists Since Keynes*, and he has been the president of more learned societies than most of us know exist.

The Bouldings co-founded the Consortium on Peace Research, Education, and Development twenty years ago; it is now based here at the Center for Conflict Resolution at George Mason University. They were co-recipients of the Lentz International Peace Research Prize. Their entire beings are devoted to the peaceful resolution of

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conflict and the dawning of Shalom. They are dear friends and dear people.

Elise and Kenneth . . . please bring us the third annual Lynch Lecture on “The Dialectics and Economics of Peace.”

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## The Dialectics of Peace

by

Elise Boulding

I remember a sunny fall Sunday afternoon in Montreal, when Kenneth and I were a young married couple. It was before the children started coming. We sat atop Mont Royal, overlooking the Laurentians, and sketched the beautiful fall scene spread out before us. We sat in the same place, saw the same scene, yet how different our pictures looked! Kenneth’s was sunny and peaceful; mine showed stormy clouds on the horizon, subtly darkening the scene. Here were two different representations of the same reality, and there was a profound truth in both our drawings.

I use this example of conflicting perspectives as my point of departure for looking at peace because I cannot separate my view of peace from my view of conflict. Conflict is a basic fact of human existence because we are each unique. We see differently—like Kenneth and myself on Mont Royal; we hear differently; we have different needs. No two of us are shaped alike. Therefore all human interactions have an element of conflict in them, as we face the gulf between what I experience and what you experience. Sometimes the gulf is exciting and fun, other times it is so painful that we can’t face it. Much of the time we accommodate to the differences, almost without noticing.

If conflict is a basic fact of human existence, then the key to peace must be the management of conflict, not its abolition. An important concept for me is the conflict management continuum; one end represents destruction of the other. The continuum shades from threat through arbitration, mediation, negotiation to integrative processes that bond us to each other. In a profound sense, where on that continuum our own conflict management behavior lies is a matter of day-by-day choice.

Peace, then, is a highly charged dynamic process involving constant negotiation at every level of human interaction from local to global. Peace is *dialectical*, in that each resolution of a conflict, or synthesis, creates the basis for dealing with the next conflict. Applying good conflict resolution skills creates the conditions for increasingly productive conflict outcomes in the future. On the whole, we

underestimate our own peacemaking skills. In fact, we negotiate our way through daily life. The differences we confront range from the trivial to the profound.

The profound differences, as for example basic differences in world views, may threaten our very identity. They are painful; but they are also a rich source of social learning, a form of Gandhian truth-finding. Issue-based conflicts, whether stemming from disagreement over facts, values, or interests, require that we stay with the confrontation process until the problem is understood, rather than paper over differences. Papering over differences is a false and dangerous substitute for peace making.

We are all moved by two basic impulses: the impulse to individuate, to differentiate ourselves from others; and the impulse to bond, to identify with, and nurture the other. When these two impulses get out of balance, the resulting interaction can become pathological—as, for example, in compulsive physical abuse of another or in “smother love” for another. While, in one sense, the balance between individuation and bonding is precarious; in another sense, there is a robustness about the balance because we work at it continuously at an unconscious level.

Yet peace is constantly under threat. It is threatened by human laziness—we prefer avoiding problems to facing them. It is threatened by the differential accumulation of resources by individuals and groups stemming from different skill levels, resources, and access opportunities among humans. This leads to constantly evolving inequalities and related power differentials which, in turn, become institutionalized as structural violence.

In the short run, structured inequality is the easiest way to deal with individual differences, but not in the long run! The societal tendency toward structural inequality has to be eternally countered by a process of a caring empowerment of the differently abled to avoid the creation of exploited groups. By mistaking economic development, which is technologically oriented and calls for highly differentiated rewards for different participants, for human development, which has to do with the whole person; we have developed an exaggerated sense of economic development as the road to peace. Rather it is human and social development, which calls for the development of the social and cultural potentials in communities and individuals, and operates at the human scale, which takes primacy as a signpost to peace. This type of development involves a

continuous repatterning of human lifeways in society over time, in a process of continual evolution.

## The Seeds of Peace in The War System

The concept of war systems and peace systems is sometimes used by analysts to refer to intricately interconnected and mutually sustaining elements which reproduce from day to day and generation to generation, patterns of militarism or peaceableness. Such systems are multi-level and multi-dimensional. If the term *system* seems too mechanical, we can shift to the biological domain and speak of ecologies of *peaceableness* and *militarism*. Shifting further toward the social dimension, we can speak of *peaceable cultures*, and of *militaristic* or *warlike cultures*. Given the heavily armed state of the world at present, it becomes useful to examine the “war system” in which we live. We must study it both in terms of its capacity to reproduce militarism, over time, independently of external threat levels, and in terms of seeds of peaceableness in that same system. Both capabilities can be found at every level.

### Households

At the interpersonal level, we find family cultures of violence associated with patriarchy and male dominance in almost all contemporary societies. Gender-based power differentials and the accompanying potential for violence tend to increase as human beings move from hunting/gathering and small-scale agricultural settlements to human settlement on a larger scale, suggesting that equality (and *peaceableness*) is harder to maintain in large-scale social formations. Violence against women and children in the home is practiced on every continent in societies at various levels of industrialization and urbanization. The International Tribunal on Crimes Against Women held in Brussels, Belgium first documented this in 1974. We know that such violence is widespread in our own society and that substance abuse intensified it. Wherever there is violence against women, as Birgit Brock-Utne<sup>1</sup> says, there is undeclared war going on.

The habits learned through this ubiquitous family violence feed into behavior in other social arenas—the school, the workplace, the institutions of governance, and the civic culture. Community institutions mirror family institutions. While patriarchy appears as structural violence against women and minorities in the public arena

(who are under-represented, underpaid, underemployed and over-worked in the economic and other areas), it also appears as physical violence in many sectors of the community. One indicator of a growing fear of physical violence in the United States is the rapid increase in number of prisons built in recent years, even though the number of apprehended criminals has not increased to the same extent.

Yet other habits are learned in the family too: habits of listening, caring and sharing, of helping, of taking turns, of negotiating, of making room for others. Downplayed and devalued in the public arena as merely domestic and feminine behaviors, they nevertheless represent the seeds of a peace culture, a reservoir of ignored social skills.

### **The 10,000 Societies**

Moving from the level of the household to the level of relations between ethnic groups, we are confronted with the disconcerting reality that there are 10,000 societies (peoples, "nations") inhabiting the 168 nation states of the world. The earlier conception of political modernization and economic development assumed that ethnic and racial identities would gradually be assimilated into larger state identities and disappear as politically relevant phenomena. What has happened instead is that many ethnic and racial minorities have remained outside the mainstream economic and political development of modern industrial societies. Lower schooling rates, higher unemployment, shorter life expectancy, and meager physical resources have been the lot of many minorities, including for example the "Celtic fringe" societies in France and Britain, and Afro-Americans, Hispanics, and Native Americans in the United States. The economic, social, and health data for such groups are the typical indicators of structural violence, adding up to a systematic maldistribution of resources that generates "victimage" as surely as physical violence does. Driven back on themselves, these oppressed minorities have learned to use their ethnicity as a resource for self-help, but the accompanying resurgence of pluralistic cultural identities and religious fundamentalism involved has been seen as a threat both by modern western states and modernizing Third World states. The missionary zeal of leading western states in spreading a premature universalism based on western values and ignoring the reality of the 10,000 societies with their manifold cultural and religious lifeways has exacerbated ethnic tensions,

as have the exploitative economic practices of many multinational business corporations.

While these tensions are feeding present and future wars, the seeds of future peace are to be found in the emerging concept of the World Cultural Order. The basic concept here is the new international order (first spelled out at the United Nations in terms of the new economic order), then the environmental order, the security order, the information order, and now the cultural order.<sup>2</sup> One of the important functions of the United Nations, which encompasses all nation states as well as the 10,000 societies, is to clarify the dimensions of this new order for all humankind. This decade, 1988-1997, has been proclaimed by UNESCO as the World Cultural Development Decade and presents a unique opportunity for states and peoples to become familiar with the rich diversity of the world's cultures. Particularly, it offers the opportunity to learn about the conflict-resolving practices and institutions that exist in every known culture. Every people has a contribution to make to peacemaking in the larger world; here is a resource of which states are generally unaware. The seeds of peace in the future multi-ethnic world lie in these diverse conflict management traditions.

### **The 168 Nation States**

The 168 states of the international system, big and small, comprise the "war system" to the extent that they are oriented to the development and maintenance of military establishments capable of offensive as well as defensive warfare. The production and deployment of arms and personnel at home and at overseas bases around the world, the military-industrial complex which makes that possible, and the emphasis in national school systems and mass media on military strength guarantee continuation of the use of force in dispute settlement among states.

Yet the seeds of the "peace system" are here too, in the 2,000 intergovernmental bodies created to deal with inter-state problems such as acid rain, currency flows, people flows. The seeds of peace are also in the roughly 62,000 international treaties that skilled negotiation and the use of diplomacy have achieved in this century to address a range of inter-state problems from the trivial to very serious conflicts of interest. The seeds of peace are in the United Nations system itself, with its six major operating organs, its thirteen associated organs, sixteen specialized agencies, five regional commissions and five peacekeeping/observer missions, and the

more than fifty information systems it maintains worldwide to carry out its multitude of functions relating to economic, social, and resource needs of the world's peoples.

### Looking for Peace Potentials in Current Events

In international affairs, we are used to expecting the worst and then preparing for that worst. We are far more alert to danger signals than to peace signals. War games and deployment plans for weapons and personnel are all based on worst case scenarios. Since what we imagine for the future guides our action in the present, we are continually increasing the danger of future wars by these practices. It is time to begin developing best-case scenarios and directing our actions toward the creation of structures and processes that could ensure just and peaceful approaches to dispute settlement rather than violent ones. If we had spent more time on best case scenarios, we would not be floundering now, trying to figure out appropriate and creative responses to rapid changes in Europe and South Africa that will build toward stable peace.

We need to develop an alertness to peace signals. This means examining each day's news with great care, teasing out indicators that suggest the peace potential, the potential for creative solutions in situations of tension, and then looking for strategies that will reenforce those potentials. Giving my students here at George Mason University a semester-long assignment of looking for peace potentials in the daily press reports about international affairs has had a profound effect on them—and on me. We all began to see things we might otherwise not have noticed; we became aware of action possibilities that were not being attended to.

### International Nongovernmental Organizations as Peace Potentials

The 18,000 globe-spanning, boundary-crossing peoples' associations technically known as international nongovernmental organizations but usually referred to as NGOs, represent the global civil society. Each of these NGOs represents some aspect of human needs, interests, concerns seen not from a national but from a regional or global perspective. Diverse as they are and ranging in focus from science, education, culture, and religion through trade and politics to sports; they have a common bond, making the world a friendlier place for humans and all life. With small budgets and few physical resources, they nevertheless are playing an increasing

role in finding peaceful solutions to conflicts within and between states. The reasons for their growing importance are several: (1) their allegiance is to the global society, not to one particular nation state; (2) they represent significant problem-solving expertise of a magnitude not available to individual nation states, particularly the scientific NGOs; (3) they operate with longer time perspectives, have a better sense of broader historical contexts, than states; (4) They can offer independent perspectives on and inputs to governmental policies in the states where they have members; (5) they represent a global linkage system of local groups anchored in local situations yet bound together by information flows and organizational channels for decision making and action at every level from local to national to the UN itself. It is from the NGOs that the first warning of environmental problems, the possibilities of nuclear winter and global climate change came; NGOs offered the first new understandings of human and social development to replace narrowly "economistic" development in the Third World; NGOs are developing the new conceptions of security and the new models for providing that security.<sup>3</sup>

### Mental Maps

We need better mental maps of the planet. If we are going to live and work in this interdependent world, we need to know what is out there. We need mental constructs of the 5 million households that live in the 10,000 societies in the 168 nation states; and we need to know about our 2,000 intergovernmental bodies, 62,000 treaties, 18,000 people's associations and 50 United Nations systems. If the world is to be good for all its peoples, we need the knowledge and skill to move back and forth among those systems and the people working in them, using the information and resources we find to solve the problems we have chosen to address.

### Thinking About Social Process

The world is in process. Our thoughts, attitudes, and actions are continually shaping and reshaping our societies. We can reinforce old ways or create new ones; but without human action, society does not exist. The shaping process is conflictual, since many different perspectives are at work; but that conflict is a critical source of social learning and problem solving. Without conflict awareness, problem solving cannot take place.

To work at world shaping, we need an “at homeness” in the world. Partly, that at “homeness” comes from acquiring the good mental maps I have just spoken of. Partly, it comes from an “at homeness” with time concepts. We need temporal mental maps to match spatial maps. What does that mean? First, it means having some familiarity with macro history, realizing that human experience has had its peaks and troughs over the millennia. At certain times peoples and civilizations have interacted to create tremendous new understandings and cultural and scientific achievements—these have been the axial ages—and at other times human energies have been drained by prolonged warlike activity or sheer inertial existence.

It means having an expanded sense of the present. I like to use the concept of the 200-year present. Today, November 15, 1989, the present begins on November 15, 1889 when those who are now celebrating their hundredth birthday were born; it reaches to November 15, 2089, when the babies born today will reach their hundredth birthday. Our lives have been intertwined with those of people born 100 years ago and will be intertwined with the lives of children who will live a century from now. Thus, all the exciting events of the past 100 years as we have slowly and painfully moved from agrarian isolation to an interdependent world are in our present, as are the events that will unfold from today's changes. Don't keep being surprised by what happens! Be familiar with that present!

Most of all, it means activating our imaginations and allowing our fantasy to represent to us the best that could happen for the world. We can't work for what we can't imagine, so we cannot have a peaceful future if we cannot imagine it. Let the mind play—what institutions and lifeways will sustain an adventurous peaceableness, allowing conflict its creative role in an ever-changing world that is kind to life? And what is our role in bringing that world about?

I have spoken of our need for conflict awareness as an aid to social learning, of our need to identify the peace potentials present in the existing social order, war-prone though it is, so we can shift from worst-case to best-case planning. I have spoken of our need for good mental maps—of what is out there to work with in the world and of our need to free our fantasy to imagine a peaceable but challenging world for all to live in. We are co-shapers of our future, you and I, and that is the final word I want to leave with you.

## Endnotes

<sup>1</sup>Birgit Brock-Utne, the Norwegian peace researcher, has written incisively on this subject in *Feminist Perspectives on Peace and Peace Education*, New York: Pergamon Press, Athene Series, 1989.

<sup>2</sup>Books resulting from a series of international commissions have addressed the new international order. *Common Crisis North South: A Programme for Survival*, Report of the Independent Commission on International Development Issues, London: Pan Books, 1980. *Common Security: A Blueprint for Survival*, The Independent Commission on Disarmament and Security Issues, New York: Simon and Schuster, 1982. *Common Crisis North-South: Cooperation for World Recovery*, The Brandt Commission, Cambridge: The MIT Press, 1983, *Many Voices, One World*, The Mao Bride Report, Colchester, UK: UNECCO Spittiswoode Ballantyne Ltd., 1984, *Our Common Future*, World Commission on Environment and Development, New York: Oxford University Press, 1987. World Cultural Development Decade Proclamation, New York: UNESCO, 1988.

<sup>3</sup>The role of NGOs in creating the new world order is explained in E. Boulding's *Building a Global Civic Culture*, New York: Teachers College Press, 1988.

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## The Economics of Peace

by

Kenneth Boulding

War is a phase of the "threat system" using means of destruction, going back to flint arrowheads, spears, cannon, firearms, fighter planes, and nuclear bombs. These means of destruction are employed by "armed forces," organizations whose budgets are usually provided by national states, though sometimes by private contributions or by looting. These days armed forces are usually divided into armies, navies, air forces, and marine corps, and perhaps "terrorist" organizations. The members of these organizations have to be fed; clothed; housed; and provided with weapons and occasionally with entertainment, which involves economic relationships. War is dramatic, visible, and receives far more attention by historians than would be justified by the proportion of total human activity which it occupies (which during the course of human history is fairly small). Nevertheless, war does effect the total system of human activity, indeed the total ecosystem of the earth, partly because of its destructive effects, partly because of the political changes which may follow it. Fighting in some sense certainly precedes civilization. War involving organized armies is essentially a product of civilization, which in turn is a product of the food surplus from agriculture. Without a food surplus neither cities nor armies can be fed. One can regard an army, indeed in many ways, as a movable city.

In earlier days, this food surplus was so small that even in 1776 Adam Smith said, "Among the civilized nations of modern Europe . . . not more than one hundredth part of the inhabitants of any country can be employed as soldiers, without ruin to the country that pays the expense of their service."<sup>1</sup> Even in the 20th century, an unusually war-like period, war only accounted for something like 2 to 3 percent of total world deaths. The impact of a war on population growth is probably much less than disease, plagues, infant mortality, and so on. Indeed, sometimes the effect of war on population is created more by the children who are not born because the men are away from their wives and segregated than by actual war deaths.

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<sup>1</sup>Adam Smith, *The Wealth of Nations* (New York: Modern Library, 1937), pp. 657-658.

As nations get richer, they are able to devote a larger proportion of their economy to war. This is noticeable even in the development of the poorer countries. In 1929 the United States the "war industry," that is, what is purchased with the military budget, was only 0.5 percent or 1/200th of the economy. It went to 41 percent in 1944 and is about 5.1 percent today. In 1929 the armed forces were also about 0.5 percent of the labor force, suggesting that the technology of the armed forces was not very different from that of the civilian economy. Today the armed forces are only about 1.4 percent of the labor force as compared to the military budget that is about 5.1 percent of the economy. This indicates that over the last sixty years there has been a large "dehumanization" of the armed forces, with most of the military budgets going into nuclear weapons, airplanes, elaborate weaponry, tanks, and so on.

War is mainly a non-economic phenomenon, although, of course, it has an impact on the economy. Military expenditure is usually financed either by taxes or by inflation of the money stock. It represents a withdrawal of resources from the civilian sector of the economy. Qualitatively this may be more important than the mere dollar quantity indicates. At the present time, the military of the rich countries, especially of the United States and the Soviet Union, constitute an internal "brain drain" which can have serious effects on the rate of economic development. Research that is devoted to military products cannot be devoted to civilian ones. There may be some "spillovers," but these are actually very small and often rather perverse. In the United States, for instance, the light-water reactor for nuclear power came largely out of the military. There is some evidence that the Canadian heavy-water reactor ("CANDU"), which essentially came out of civilian research, could well have been safer and more economical. There is a popular illusion in this country that the military budgets and the Department of Defense create full employment and stimulate the economy. There is even a myth that only Hitler and the Second World War got us out of the Great Depression of 1929 to 1933. In fact, it was the revival of gross private investment in the civilian economy that got us half way out of the Great Depression by 1937. The Second World War certainly reduced unemployment to virtually zero, but at a severe civilian cost and a decline of private investment and consumer goods. There were no automobiles produced for three and a half years during the war. It is curious that we seem to have no legend about the "great disarmament" around 1946, when we

transferred more than 30 percent of the economy from the war industry into civilian industry without unemployment rising above 4 percent. The disarmament after the Korean War was less successful, but even then unemployment only went to 5.5 percent in 1954, 4.4 percent in 1955. At the end of the Vietnam War, from 1971 to 1973, both military expenditures and unemployment fell concurrently.

In national accounts, the "product" of the war industry is assumed to be equal to its cost. The product, however, is very hard to estimate in economic terms. The most the Department of Defense has been able to do in the last few decades is to conquer Grenada and Panama and kill a few people in Libya. That seems rather expensive.

One of the problems of the military is that they have to have an enemy, at least a potential enemy, in order to justify their budgets. Hence they are not very good at conflict management, a lot of which consists first of turning enemies into opponents and then into friends. The general justification of military expenditure in these days is that it prevents war by deterrence or counterthreat ("If you do something nasty to me, I'll do something nasty to you!"). Unfortunately, there is no way of measuring this effect. There is some evidence that deterrence can prevent war in the short run. Nuclear deterrence may have had something to do with the absence of war between the United States and the Soviet Union in the last forty years or so, but we cannot prove this. What is clear, however, is that deterrence cannot be stable in the long run. It must have some probability of breaking down or it would cease to deter. If the probability of nuclear weapons going off were zero, they would not deter anyone. It would be the same as not having them. If the probability is more than zero, then no matter how small the number, if we wait long enough they will go off. It is a very fundamental scientific principle that anything which has a positive probability will eventually happen. Deterrence is rather like the San Andreas fault, which was stable for many decades and then produced an earthquake. If you really tried to do a balance sheet for the United States Department of Defense, you would have to include the positive probability of nuclear war at some unknown date in the future. Even if discounted, it would be a very large negative number, maybe a minus trillions of dollars.

Evidence is also very strong that threat and military power rarely pay off economically, even to the victor. A possible exception

is the conquest of a less developed society by a more technological-ly developed one, like the European conquest of the Americas, Siberia, South Africa, and Australia. Here, however, the amount spent by the victor on conquest is usually extremely small. In the United States, disease may have played a much more important role than actual conquest. It only took a few hundreds of Spaniards to conquer both Mexico and the Inca Empire, which had a considerable measure of civilization and urbanization, but had only primitive weaponry. The Mongols may have contributed to the decline of Islam, but they did not replace it. Every invader who conquered China became Chinese. India has survived many conquerors and remains remarkably Indian.

There is accumulating evidence that empires rarely paid off economically to the imperial power or for the colony. In the last 200 years in Europe it was the non-imperial powers—Sweden, Denmark, and Switzerland—which got rich fastest. The development of Britain and France was crippled by their empires, and their rate of development has increased substantially since they gave them up. The Roman Empire stagnated economically until it fell. Then after a hundred years or so, Europe “started up” technologically, even in the so-called “Dark Ages.” Piracy has never paid off very well economically, except for a few, and the violent drug trade certainly lowers the expectation of life and liberty of its practitioners.

An interesting example of the economic and cultural weakness of military power is the frequently benign effects of military defeat. It was after the defeat of Christian Byzantium by the Turks in 1453 that Europe “took off” into worldwide trade and expansion and into modern science and technology. Copernicus and Columbus were born in the 1450s, the Gutenberg Bible was printed in 1456. The Turkish Empire stagnated economically and culturally for centuries after its military victory. It was after the defeat of the Scots by the English at Culloden in 1745 that Edinburgh became a great architectural and cultural capital—the “New Town,” Adam Smith, David Hume, and so on. Paris, after the defeat of France by Germany in 1871, became the cultural capital of the world—in music, art, and literature. Berlin stagnated by comparison. Berlin, after the defeat of 1919, produced the Bauhaus, modern architecture, Brecht, until Hitler stopped it by believing in military victory and threat. There is little doubt that Japan and Germany won the Second World War economically. They got rid of their military and were able to devote all their resources to getting rich. The development of the victors,

especially the United States and the Soviet Union, certainly has been slowed down by their militarization.

The role of economic conflict in provoking war is an interesting, though difficult question, simply because it is often hard to say where economic conflict really lies. Exchange that is uncoerced will only take place if both parties believe they benefit at the time. That belief, of course, may sometimes be mistaken, as when we buy a car that turns out to be a “lemon”; but for the most part these beliefs are fulfilled. There is bargaining in an exchange; that is, a certain conflict between the buyer, who wants a low price, and the seller, who wants a high price; but unless this conflict is resolved the exchange will not take place. Even bargaining has been replaced in much of the economy by fixed price offers.

Because a market economy has many of the characteristics of a complex ecosystem—economic competition is something like the competition of species in the forest or a prairie—it is very hard to tell who is benefited, who is injured, and who is unaffected by a particular change. There is a “law of political irony,” that what we do with the intent of hurting people often helps them, and what we do with the intent of helping them often hurts them. Quotas, by raising the prices of imports, often benefit the suppliers of the imports and injure the domestic purchasers. In the New Deal period in the United States, from 1933 to 1942, there was much pro-labor legislation, like the Wagner Act, and the great rise in the proportion of unionized labor. The proportion of the national income in the United States going to labor fell from 74.75 percent to 62.67 percent, according to national income statistics, largely because of the recovery of profits.

Economic conflict is most visible between occupational groups. All copper producers, both workers and capitalists, are likely to benefit from a relative rise in the price of copper. Class conflict is very obscure. It is extraordinarily hard to specify any political change which will benefit the working class as a whole at the expense of the capitalist class. It is ironic that the communist countries tended to slow down the rise in real wages. When class conflict is used to justify class war, as in Kampuchea, the result is totally catastrophic for all classes. Nobody wins a class war. In market societies, the people who benefit from a technological improvement in one industry are frequently people in other industries. This is particularly noticeable in agriculture, where a labor-saving technological improvement results in a decline in the agricultural

population, simply because the demand for food does not rise much with rising incomes. In the United States, the proportion of the labor force in agriculture has gone from 21.1 percent in 1929 to about 2.6 percent today. This released labor has contributed to the rise in the production of virtually all the other goods and services and made everybody richer. It has only been achieved, however, by making agriculture less attractive economically in order to "squeeze" people out of it.

There is little doubt that world income has become much more unequal in the last 200 years, especially between the temperate zone and the tropics. This is not, however, because the tropics have been producing a great deal and the temperate zone has taken it away from them. It is because the temperate zone has become very much more productive in all sorts of fields, and the tropics, on the whole, have increased their productivity very slowly, if at all. The increase in riches comes much more from a culture of learning than it does from exploitation. On the whole, the poor are not poor (with some exceptions) because they produce a lot and the rich take it away from them. In the United States, for instance, the proportion of national income going to labor was about 60 percent of national income in 1929, 74 percent by 1970, and nearly 76 percent by 1982, though it has declined a little since then. The Marxism prophecy of the "immiserization" of the working class has certainly not been fulfilled in the rich countries. The concept of "structural violence" has some validity as a recognition of the fact that the expectation of life is lower among the poor than it is among the rich. It is not very useful, however, in solving the problem, as it is very hard to say exactly who is doing the violence.

One can certainly argue that the rise in interest rates and in the proportion of national income going to net interest, which is very striking in the United States, where this proportion has risen from 1 percent in 1950 to about 9 percent today, is a sign of exploitation. The receiver of interest is the "inactive capitalist," who contributes nothing but capital, whereas the receiver of profit is the employer, the innovator, who might be called the "active capitalist." In 1932 and 1933, when profits were negative and the interest burden had about doubled, it is not surprising that we had 25 percent unemployment. Anybody who hired anybody in those years was bound to lose by it. In looking for the solution to these problems, sins of omission may be more important than sins of commission. The withdrawal of the United States from UNESCO and the world

population program may have increased world poverty more than any multinational corporation.

War can be regarded as a pathology of the "integrative system," that is, the structure of legitimacy, loyalty, respect, love, community, identity, and so on rather than as a pathology of the economy, even though the latter is not to be wholly ruled out. War denies humanity to the enemy. It turns the love of country into the fear and hatred of the enemy. In the modern world especially, it destroys national security in the name of national defense. Yet there is much to be said for national security, for the nation state can be a very positive and desirable institution when it is released from the burden of war. People need something like a home and a homeland in the vast and wonderful diversity of the world. Returning home is a very precious thing to be able to do, whether this is to the family, a local community, or a country.

In this age of space travel, the whole earth is seen as in some sense our home, and there is great need for us to identify with this incredibly beautiful planet. But we still need to identify with the smaller units—family, neighborhood, church, ethnic subcultures, country—something that is "familiar." "Familiar" is most secure when the unfamiliar is not feared or hated, but accepted as a part of a larger and wonderful whole. As a naturalized American, I cannot quite think of this country as my motherland, but it is certainly my "wife land," the place in the world where I feel most at home. This does not mean, however, that I cannot enjoy, visit, and appreciate other "homes" all around the world.

There are many who think that the only solution to the problem of war is the development of a world state. If this were so, it would be worrying. A world state could easily turn into world tyranny. It is bad enough to have refugees, but it would be worse to have no place of refuge. Fortunately there is hope that the abolition of war, while it will certainly involve world political institutions, could involve only a minimum amount of world government. In the last 150 years, there has been a striking development of an increasing area of stable peace between independent nations. This is a situation between two nations where neither of them has any intention of making war on the other and both know this. This process may have begun between Sweden and Denmark, who fought each other for centuries, but ever since the middle of the 19th century have had no intention of fighting each other. Stable peace reached North America after the Civil War. It reached Western Europe

after World War II. It now includes Japan and Australia. There are strong signs that it is moving towards the whole of the north temperate zone, in light of the extraordinary developments of last year. Stable peace is still rather dubious in many parts of the tropics.

The conditions of stable peace are fairly simple: national boundaries must be taken off the agenda for all countries, and there must be a minimum of intervention in each other's affairs. There has been increasing recognition that, in the nuclear age, stable peace has become the only true method of national security. The road to stable peace is rather obscure. It requires changes in national self images towards what we might call "goodness" rather than "greatness." One step toward it is change in the self-image of the military, toward the rejection of victory and the principle of highly limited response to threats. It also requires a view of human history very different from what is usually taught in the schools. There is no reason why this cannot happen. It is by no means unreasonable to suppose that in the next century international war will become as obsolete as dueling. In many parts of the world, internal war may be harder to deal with, though there is hope even there. In the twenty-first century, there is hope that the human race will "grow up" into maturity, renounce violence, and move toward a sense of world community in which differences can be welcomed and preserved, in which poverty can be sharply and steadily diminished, population stabilized, and the earth made a home for us all.

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