THE VENICE PAPERS

# THE VENICE DELIBERATIONS

***Transformations in the Meaning of "Security"***
***Practical Steps Toward a New Security Culture***

*A UNESCO Initiative*
*by*
FEDERICO MAYOR
Director-General

*Edited by*
LARRY SEAQUIST

UNITED NATIONS EDUCATIONAL, SCIENTIFIC
AND CULTURAL ORGANIZATION

THE VENICE PAPERS

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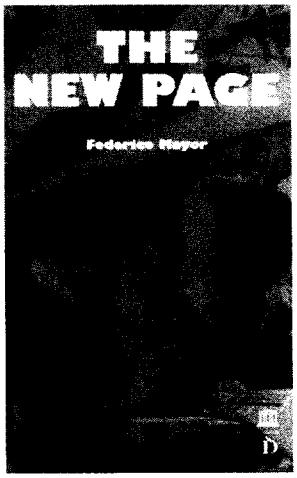


*"No business as usual". In this provocative new book UNESCO Director-General Federico Mayor urges a radical change of perspective for citizens and officials around the world. Written in collaboration with Dr. Tom Forstenzer, Professor Mayor surveys the problems of peace and security after the confrontation of the superpowers and the nuclear arms race. Suggesting that we need to shift from a Culture of War to a Culture of Peace, Mayor and Forstenzer examine the preeminent importance of democracy in a civil society. In order for people to count – not merely be counted – they must have the opportunity for life-long education and for economic self-sufficiency.*

*"The New Page" goes beyond diagnosis to call for urgent, practical action. Cautioning that peace is not free, Mayor and Forstenzer focus especially on "peace building" – taking early, preventative steps to bolster the capacities of local communities everywhere to achieve civil security. This important new analysis is becoming a standard reference for policy makers.*

## THE VENICE PROCESS

As the New Page neared publication, UNESCO Director-General Mayor invited a small group of distinguished individuals to review the ideas put forward in the book and consider concrete initiatives. Among those meeting in the historic ISTITUTO VENETO DI SCIENZE, LETTERE ED ARTI were British MP Emma Nicholson, Nobel prize winner Ilya Prigogine, futurist Alvin Toffler, and former Soviet President Mikhail Gorbachev. Discovering a vigorous consensus on the importance of early actions to bolster the civil society, the group ratified the potential importance of initiatives by UNESCO – the international agency with the civil society portfolios – fostering "new security" initiatives.

Among the pragmatic options discussed by the group were various ways to harness the strengths of UNESCO to assist regional organizations, UN member states, and their local communities. The Venice deliberations emphasized the high potential for military organizations, shifting from a Culture of War to a Culture of Peace, to join with others to make practical contributions through innovative "peace operations". Working with regional organizations, UN member states, and their local communities and institutions, UNESCO continues a wide range of efforts to foster innovative thinking and galvanize creative initiatives.

The "pragmatic utopians" at Venice advanced the need for concrete steps. Among them was the need for exchanges among strategic planners, diplomats, and civil society professionals in key regions. But symposia and conferences are not the goal. The objective of the Venice Process is to use such multidisciplinary exchanges to ignite bold new policies and realistic projects.

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*Conversations in the Library*

Venice Institute of Sciences, Letters and Arts
Venice, Italy. May 12th-14th 1994

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*The Participants*

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*The Goals*

- Galvanize new thinking
- Foster pragmatic initiatives

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*The Task*

Considering the remarkable changes unfolding around us:

- Highlight the changing nature of security and the new challenges ahead,
- Identify practical steps for beginning to reshape security organizations in order to play a positive role in the decades ahead through peacekeeping and peace building roles.

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## *Preface*

*These discussions in Venice will, I believe, come to be recognized as an especially important event for two reasons – the special methodology and the substantive outcomes. With this publication, we propose to continue the "Venice Process" launched in the library of the historic Venice Institute of Sciences, Arts and Letters.*

*All too often serious problems are tackled from a narrow-gauged, specialists' standpoint. We tend to think of this approach as "scientific" and consider it highly rigorous. But often, the end-results of such efforts are discouraging. They help us understand more and more about less and less. Our "scientific" dissections can be very valuable about individual, specific facets of the problem at hand – but usually miss the general meaning of the global situation. These dissections give us knowledge, but knowledge for what?*

*In the Venice conversations, on the other hand, the diversity of the participants ensured a holistic, multi-disciplinary approach. The varied specializations engaged around the table ranged from chemistry to futurology, from philosophy and history to sociology, politics and the military. You will see in this synopsis how the problems of peace building and peacekeeping have been examined from all those varied professional perspectives.*

*The second reason is substantive. Without any concession to rhetoric, the conferees squarely faced the disturbing paradox of the present-day world: while the so-called "real socialism" has collapsed in the former Soviet Union and in Central and Eastern Europe, democracy is still lagging behind. Moreover, the end of the Cold War has not at all dispelled the danger of a new kind of war and bloodshed. In his book,* The New Page, *UNESCO Director-General Federico Mayor, writing with the assistance of Dr. Tom Forstenzer, has proved in this connection to be extremely enlightening.*

*A peace culture cannot be simplistically conceived as painless. It will not automatically result from the new relationship between East and West. The real challenge facing humanity today is transforming and converting rapidly the armies and their instruments which were designed and built for war, to be used for peace purposes.*

*However, the world is not becoming an idyllic place to live in. We do not have a peaceful situation which can be taken for granted indefinitely. A new breed of "war lords," as it were, is surfacing in many corners of the world.*

*Alvin Toffler, Larry Seaquist, and other participants have eloquently indicated the essential conditions to be met in order to materially equip and culturally prepare the democratic armed forces of today to live up to their new commitments. It seems that it is no longer necessary for them to think in terms of national defense within the inadequate framework of the national State.*

*The time has come to conceive defense and the promotion of democratic values on a world scale under the auspices of the United Nations.*

*However, as the discussions recalled again and again, military organizations are very expensive. We are seeing a shift from national security to social security, from warfare to welfare.*

*The discussions also emphasized the role of the mass media. Their role is crucial in many respects. The expanding communications technologies can mitigate war escalation; the media can even act as a moral conscience of humanity in exposing atrocities that would otherwise go unnoticed – from Vietnam to Bosnia. Mass media can also be effective in drawing attention to human rights violations. But there are drawbacks, too. In the first place, the media does not mediate. The media offers images and sounds, highly suggestive pictorial syntheses and attractive musical performances. But the background data to enable the viewers, readers, and listeners independently to interpret the information is missing. Inevitably, emotion prevails over rational reflection.*

*The risk of manipulation raises the issues of self-awareness and independence of thought. No democracy can live without them. Still less can democratic values expand and win over those in regions where democracy has been historically absent.*

*More, the concept of culture handed down to us by the classic tradition is seriously tainted with elitism. In the classic ideal, the individual can assert himself only by separating himself from the supposedly amorphous mass of common men and women – separated like a palm tree flourishing alone in a desert. This notion of culture, unfortunately still the prevailing one, is no longer viable. It is no longer useful to present day humankind. It advances a divisive culture, prevents inter-culture communication, and projects itself on other cultures without recognizing their peculiar – and valuable – values.*

*We need today another concept and practice of culture: a culture as an instrument of awareness and solidarity, capable of embracing the* otherness *of others, fully conscious that there is no identity possible without* alterity. *Philologists tell us that even the classical Greeks could not become aware of their own specific identity without the existence of "barbarians" – the non-Greeks.*

*A purely formal conception of democracy is not sufficient to face the innumerable issues we see: the population explosion; emigrant flows like wild, unregulated torrents; persistently high illiteracy rates; and local, but extremely cruel inter-ethnic conflicts. Democracy reduced to mechanical procedure, devoid of any specific content, is not sufficient.*

*As Ilya Prigogine points out, we must rediscover the social functions of Utopia. Mikhail Gorbachev, on the other hand, as he coldly analyzed the crisis of the Soviet regime that he himself brought with* perestroika *and* glasnost, *also warned about the "American way of life." If 270 million U.S. citizens consume forty percent of the world's resources every year, no solutions can be found.*

*In fact, any positive solution requires a human thrust, something beyond pure and simple technology – technology which can easily be perfected, but without purpose. What seems to be required, at the threshold of the Third Millennium, is a new, substantive and participatory democracy, capable of uniting center and periphery, leaders and masses, and sharing a common pursuit for the common good. That is where we will find the practical meanings of our common humanity.*

*The Venice Deliberations were just a start. We invite our readers to do their own, fresh thinking. And most importantly, to translate that thinking into practical, innovative ideas for concrete steps toward a genuine, vibrant Culture of Peace.*

FRANCO FERRAROTTI
*Rome*

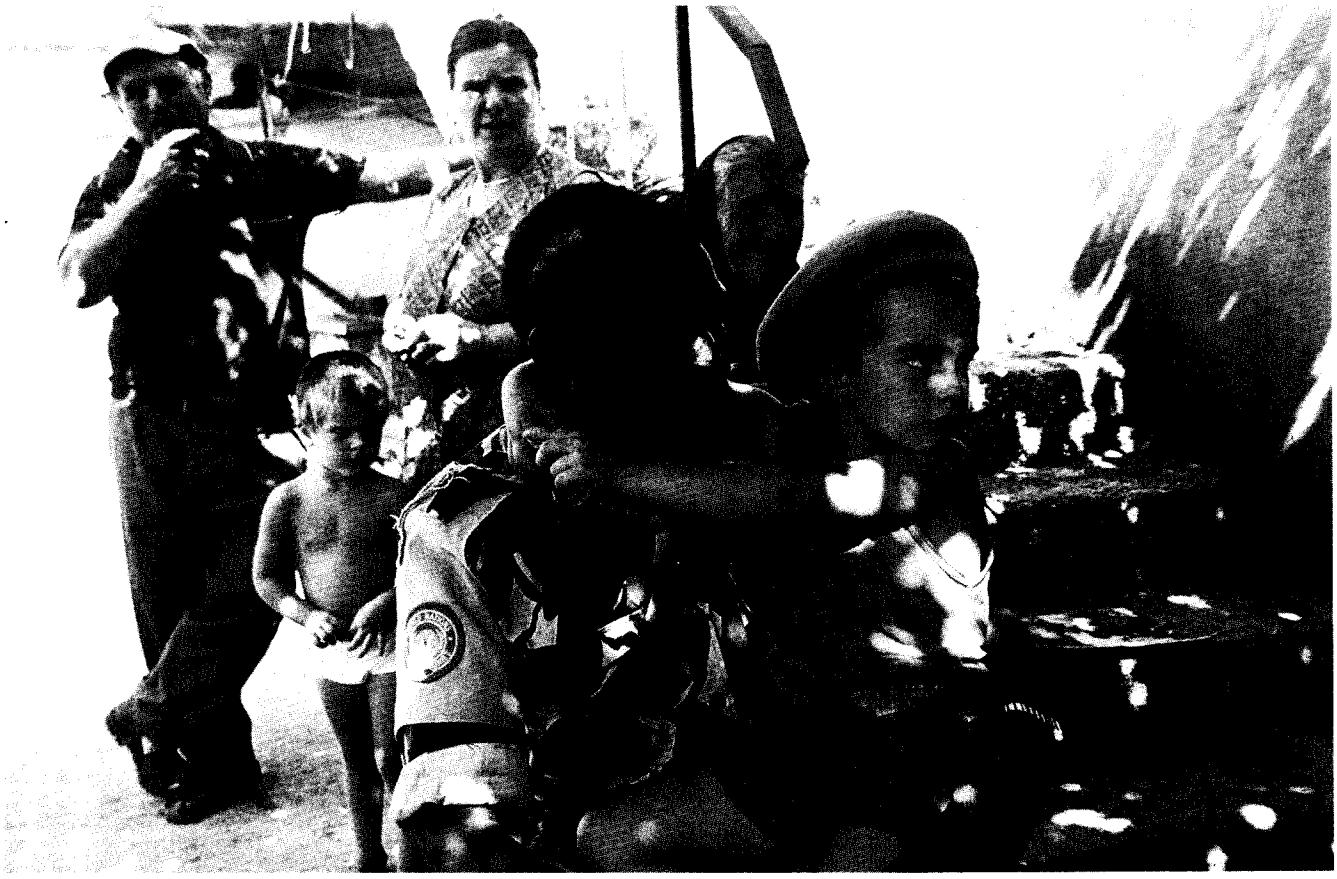
THE *first* CONVERSATION

THE VENICE PAPERS

# New Opportunities in a New World

## *The Challenge of Change*

*On a Thursday afternoon in 1994, UNESCO Director-General Federico Mayor convened an unusual meeting in Venice. Assembled in the historic library of the* ISTITUTO VENETO DI SCIENZE, LETTERE ED ARTI *by the* EUROPEAN INSTITUTE FOR EAST-WEST COOPERATION *were thirteen specially invited experts and a select group of UNESCO executives. Under the gaze of a portrait by Tintoretto, the group was challenged to think in the broadest and most original terms. In the chair, Professor Augusto Forti launched conversations which were to run almost non-stop for three days. Talking, debating, questioning each other in the library and over meals and coffee throughout Venice, the group searched for practical steps and actionable ideas. This is an edited synopsis of those conversations and the key ideas. In the first session the group learned of their task and considered the dramatic changes in the world. Three presentations suggested how several extraordinary developments are now changing our traditional ideas about peace, war, and the tasks of building a civil society.*



UN Photo 159260 / J. Issac

*Kenyan soldier with child and child's family in Croatia.*

## AUGUSTO FORTI *Chairman*

Leon Trotsky said, "You may not be interested in war, but war is interested in you!" As we meet here in this historic library and unique city, a war rages just a few hundred kilometers from here in the Balkans, a war of violence accompanied by ethnic and religious intolerance. Yet, we read the UNESCO charter, *"...since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed"*. Those words were written by UNESCO's founders – citizens and statesmen just emerged from the experience of a second world war.

We have been invited here by the Director-General of UNESCO, Federico Mayor and by his co-host Ilya Prigogine, the President of the Institute for East-West Cooperation. As Professor Mayor has reminded people many times in his travels all over the world, "Notwithstanding the efforts of men and women of goodwill, war and intolerance are creeping out like an unavoidable illness on our planet."

Why is this so? Where have we failed? What can we do?

These are the reasons for this seminar. Around this table are important and powerful women and men. Let us help each other to understand these problems and face them in a more concrete and pragmatic way.

Federico Mayor, for example, in his new book, The New Page, writes that "peace is more expensive than war". I think, among other elements, we should keep in mind the economic aspects. The world today is going through radical changes. In his book, Federico Mayor stresses that we are in a transitional period – a period in which we may be able to move away from war to peace. This also means a transition from a society dominated by states – the sole organizers of security in a dangerous world – to a civil society of everyday life where individuals work and create a texture of security in their individual communities.

Is this too idealistic a picture? Some social scientists predict that in the not so distant future we will end up with a world divided into at least a thousand political entities – political mini-states. We have the example of the Soviet Union; we have the example of Yugoslavia; we have other examples. Ahead may be a scenario of division: a separation between those who produce knowledge and wealth, and those who provide services. The first group will be free to move around and to settle where the best conditions may be offered. It could become the "group of the privileged people". Already we see examples of this in multi-national corporations.

This is just one part of the puzzle we face. We must cope with a rapidly changing society and new realities while we are still using obsolete approaches. As Alvin and Heidi Toffler wrote, "What we say and what is published on war and peace is totally obsolete.".

What is missing is a new understanding of the relationships between war and society.

For this reason, I believe that the role of the international community and the contributions of international organizations are becoming more and more relevant, more and more necessary.

With that welcome, let us begin.

We open by hearing three broad perspectives. Our convenor, Federico Mayor, will offer his view of the challenges ahead. Next, our co-host and Nobel Prize-winning physicist Ilya Prigogine will help us stretch our thinking. Professor Prigogine will give us a scientist's perspective on nature, war and peace. To continue to stretch our minds, the widely respected futurist and author Alvin Toffler will summarize his views of how the world is changing.

*"...war and intolerance are creeping out like an unavoidable illness on our planet". Why is this so? What can we do?*

**AUGUSTO FORTI**

We will ask each of you to contribute – to debate, to challenge, and to enrich these ideas. We ask for the concrete and the practical: What are the pragmatic steps we can take to move from a Culture of War to a Culture of Peace?

To begin: Federico Mayor. What are you expecting of us? Please tell us about the thinking that led to your new book, *The New Page.*

## FEDERICO MAYOR

Thank you, Professor Forti. Welcome to each of you. It is appropriate that we are meeting here in Venice, a unique city – open to all the oceans, open to all the winds, open to all civilizations. It is precisely this kind of crossroads that we are going to analyze in these next days. It is precisely the kind of respect for other cultures and this kind of zest for interaction with other cultures that is essential for the prevention of conflict. Our challenge is to help forge the attitudes that, from the very beginning, accept the kind of open thinking that Venice symbolizes in so beautiful a way.

I must also tell you that I am always interested in beauty. Venice is a beautiful city. There was an excellent remark of a French author who said, "Let us occupy as much space as possible by beauty in order that there is no space for barbary."

Around this table in this beautiful library, we see women and men of outstanding distinction and achievements in community service, journalism, diplomacy, education, scientific research, futurology, military diplomacy, and military science. We are here to discuss issues of major concern to each of us as individuals and citizens, as humankind moves toward the end of the twentieth century. We have come to consider nothing less than pragmatic new modalities for creating a culture of peace in our planet.

Alvin and Heidi Toffler's brilliant book, *War and Anti-War,* explains the changing forms that war may take in the next decades. They show, with their characteristic clarity and commitment, that war itself is changing. In our "cybernetic world" information technology can give us new forms for keeping peace in this new, post-Cold War context.

It was Sun Tzu more than 2,000 years ago who thought that knowing the enemy as clearly as possible is the key to victory. The enemy for all of us, I think, is violence in all its forms – especially war. Therefore, if we are to stop wars – and more particularly, to prevent them – we must know war very well. We must study war so that ultimately, in the words of the Bible, we can "study war no more."

We are going to hear from Professor Ilya Prigogine. As a scientist myself, a geneticist in molecular biology, I recognize the connections between science and society. I have particularly enjoyed Ilya Prigogine's ideas about mutations "far from equilibrium". I know that transformations only take place far from equilibrium.

In social terms this means that human tensions – human passion, human compassion – make great human transformations possible. Note the changes after the Second World War: people were able to react, to commit themselves, to establish new ways of addressing problems at the worldwide level. Why today – and I am talking principally to the Western societies – are we not developing these capacities for change that we showed so brilliantly after the Second World War, in the vision that chartered UNESCO? Perhaps it is because, at those moments, they were "far from equilibrium". They were under the impact of the horror of the War, the genocide of the War. They were moved to creativity. As others have said, José Marti, for example, it is only when you have this kind of human tension – only when you are far from equilibrium – that you can innovate. We can not expect this from societies that are very secure, that are very stable, that have clear horizons.

*For many centuries, the reasons of force have prevailed over the force of reason. I am interested in a Culture of Peace.*

**FEDERICO MAYOR**

What do I hope will come from these very informal, very open discussions?

I am keenly interested in a Culture of Peace. During many centuries, strategy has been directed by a Culture of War. It was only by force that territorial integrity was maintained. Force provided clear-cut ownership. For many centuries the reasons of force have prevailed over the force of reason.

This is why I started writing *The New Page* for UNESCO. We have reached the moment when it is clear that conflict no longer has a *raison d'être.* If the two parties engaged in a conflict

*We must know the characteristics of conflict. We must know what war is. That is one reason we are gathered here.*

**FEDERICO MAYOR**

are both going to be losers it is nonsense to start the conflict. This is why, I think, that President Gorbachev and President Reagan signed the first agreement in 1988 to eliminate intermediate range weapons. Both realized that they would be losers in that race.

So we must know the characteristics of conflict; we must know what war is. That is one reason we are gathered here. We need to know better what conflict is today. Then we will know better how to try to prevent conflict.

There is a second problem for us to talk about: how to make real the intangibles of peace. When you prevent something, a conflict, nothing happens. There is no conflict to analyze. As a brain biochemist working for 25 years on newborn children, I can tell you that when we were successful nobody came to say, "Thank you very much." The children were healthy, they were going to school. Nothing was happening. This is a way of understanding that being managers of prevention is to be managers of the intangible. We need to pass this message to modern society. We must tell them that peace building is much more difficult than peacekeeping. In peacekeeping we have force. We have armies, we have armaments. But in peace building, we have the long term, we have the intangible.

With modern telecommunications we have very real, very visible, very pathetic events which influence public opinion. I am thinking of the terrible tragedies of the hundreds of thousands starving in Somalia, the hundreds of thousands butchered in Rwanda and the hundreds of thousands of bullet holes in the beautiful old city of Mostar in Bosnia. But if we only offer smiling children, peaceful countries, nobody, I repeat, nobody will come to say that what matters is the long term, what matters is prevention, what matters is to invest in peace building.

Nobody.

Those who work for conflict prevention are never identified. The general who wins a small battle is always decorated. It is evident that he won. But those generals who are so great that they avoid or prevent a big war, nobody decorates them.

In this transition from a Culture of War to a Culture of Peace we must take into account the complexity, the globality, and the pace of daily events. But we must also take into account all these characteristics of preventive action with invisible results. I remember that when Professor Roan was awarded the Nobel Peace Prize he said, "Only those able to see the invisible are able to do the impossible." Those that have this kind of vision – to see what is not usually shown – can find solutions and progress in the ways of peace. These are the kinds of issues I deal with in the new book.

*There is a second problem for us to talk about: how to make real the intangibles of peace.*

**FEDERICO MAYOR**

Let me tell you a little about the book. *The New Page* is my analysis of the new, post-Cold War world and my vision of the roles UNESCO can play to be a creative, relevant, and thoroughly effective international organization. It was written in collaboration with Dr. Tom Forstenzer. He organized this meeting in order for us to air our ideas with you. One key chapter of the book talks about "individuals" or "persons". There is an important difference. "Individuals" are persons who count, "persons" are those who are counted. In democracy, citizens count. In other forms of

government, the citizens are counted. This is very different – that individuals can count; it matters that citizens are able to count. It is also important where they can count. They can count, normally, not so much at the national level, as at the city level, the local level.

For this reason we must put the citizen in the city, in the context in which they can participate. And to participate they must be educated. Citizens must know the ways in which they can learn and interact. They must be able to read and to write and to count if they truly are to "count." Therefore, in my view, one of the main pillars of peace building is education, education for all, education that reaches the "unreachables".

Now, this education must not just inculcate models. For many years, instead of transferring the values of democracy, we have given models. We need to teach values.

*There is an important difference.*
*"Individuals" ... count,*
*"persons" ... are counted.*
*In a democracy citizens count".*

**FEDERICO MAYOR**

The most important value, in my view, is justice. This must be a very important thing, justice. And also, freedom of expression. Both of them at the same time. They are the foundations of a democracy in which citizens can count.

We have not been teaching values. For many years now we have promoted models – in administration, in culture, in education, in higher education, in politics. Models, models, models instead of values and principles. This has led to situations in many countries, for example, where they are unprepared to conduct elections in the Western style. We must be aware of this. I have repeated this advice in many of these countries: "Make your own design of your own future. Give each woman and each man the knowledge that will let each one make their own choices. Do not make choices on behalf of others. Dignity means that you make your own choices. For each one of us, this is dignity. Let us give everyone the possibility of making their own choices; do not give them models. Give them the kind of special freedom in which they have the elements to be able to make free choices among different options.".

"And do not wait for external assistance", I tell them. "Do not wait for external help and external inspiration. Do not wait for Godot." In my view, the playwright Samuel Beckett was a very misleading person. Many people are waiting for Godot. But Godot will never arrive. Because Godot does not exist.

MODERATOR

*Thank you. Now we turn to our co-host, Nobel laureate Professor Ilya Prigogine, for his opening thoughts.*

## ILYA PRIGOGINE

Sitting here with you who are experts in political, social, and military affairs, I am very conscious of the fact that I am a theoretical physicist. My preoccupations are not the central preoccupations which you have. But there are some aspects which are not so different. The title of Federico Mayor's book, *The New Page,* implies a transition. There is also a new page in science. Science, as we reach the end of the century, is no more the traditional science.

War is an outcome. The problem is not to analyze war but to analyze the origin of conflict. The kinds of conflicts are many, ranging from the cultural to the political. Some of the problems of which I will speak may seem at first rather far from these issues. But they are not so far. I have in mind two sources of conflict.

First, there is still a conflict in Western civilization between two cultures – of science and philosophy. That is a fact. From time to time I go to meetings of scientists and philosophers. I am amazed at the anti-scientific attitudes of philosophers. For them, philosophy and science have not much to say to each other. Worse, science, they seem to think, is dehumanizing humankind. For me this places us, in this moment, in what can be called a crisis of Western rationality. Now this is an element of conflict which is very important. Our young people learn this.

Science is an essential element in the development of humankind. After all, we will have ten to fifteen billion people in the next century. We will need a lot of science. To be "anti-scientific" is a real problem – a problem which could undermine the future of mankind.

A second source of conflict is that science appears to many non-Western civilizations as imperialism. Science appears as an imposed concept, without roots in the ideas of India, of China, of Japan. In other words, the vision of nature in Western science is very specific. It is a vision of nature which originated in the Seventeenth Century with Galileo and Newton. In essence, this vision presents nature as an automaton. The "laws of nature" are central to the concepts of Western science. Note that the idea that there are laws of nature – immutable and eternal, with no difference between past and future – pose a way of seeing nature much as God was seen in the Seventeenth Century.

These "laws of nature" lead to absolute certitudes and a kind of absolute divide between the West and other cultures. I remember a conversation years ago with a very great Japanese scientist, a physicist like me. He expressed great dissatisfaction. Despite the fact that he was an eminent, highly respected physicist, he told me that he was not in harmony with the vision of nature which seems to be espoused by traditional Western science.

If you ask what is "nature" from the tradition of Buddhism or from the Chinese view, "nature" is not absolute. Rather, "nature" is autonomous; "nature" decides for itself. The Western idea that you can dominate nature leads directly to the idea that if you can dominate nature, why can you not also dominate men? If nature is an automaton, this concept is easily generalized and applied to the relations among humans. This is something very much against the cultural traditions of non-Western societies.

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*ten to fifteen billion people*
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**ILYA PRIGOGINE**

It is very interesting to notice the social history of this idea, the idea that there are laws of nature. I have long wanted to write a short paper, "The History of Certainty". It would start with Descartes. Descartes was struck by the social difficulties of his century – especially the religious wars. Catholics killing Protestants and Protestants killing Catholics in the name of religious certainty. His idea was that if you could create a certainty which was not conflictual, then this could be a central point of union among men.

This is the reason I point out that the laws of nature in the Western framework are to express certainty, certainty which would be accessible to everybody. These same ideas go through the work of Einstein. Einstein believed that the people who do science are people who should live outside society. They should not be bothered by the

*In a certain sense, Western science has a pessimistic outlook. It ... retires from the world to contemplate beauty and eternity. That can no more be our science.*

**ILYA PRIGOGINE**

distress of history; they should live in an idealized society.

Therefore, in a certain sense, Western science has a pessimistic outlook. It is the outlook of a Christian monk or a Buddhist monk who retires from the world to contemplate beauty and eternity, a person who participates not in the realities, the problems, and the conflicts of the world.

That can no longer be our science. Our science must be closely related to society, to the future of society. Whether we want it to or not, the future of society depends largely on the development of science. But this anti-temporal view, this view of eternal laws, has become so popular that it is astonishing to read that "history is dust" or that "history is malediction" as some of our philosophers have been saying. We have this problem of time in science – of moving away from sterile absolutes to a framework of real life, of real nature, evolving day by day.

So we have the problem, as we turn the new page of change, not only from the sociological point of view – of going from a world of inequality and war to another type of civilization – but also from the problem of time in science. There is a curious dichotomy in our view of the universe. On the one side there was "the royal road" of Galileo, Newton, Einstein, Schroedinger, a scientific road on which time was negated. On the other side is the view coming from human sciences, coming from Malthus to Darwin to the evolution of nature over time.

For me, the big event at the end of this Century is that we go more and more in this latter direction. More and more we see the world as an evolutionary system. Humanity is a complex, non-linear, dynamic system. Everything that anyone of us does impacts others. Therefore, I think that there are two steps to a transition to a new page in science in parallel with a new page of history. One is the discovery of the creative role, the constructive role of time in physics and chemistry. Many non-scientists have heard about chaos and all kinds of instabilities which are the central point of much of modern physics. In this science we will see that time is not an imperfection in our perfect science, but that we are the children of time, the children of evolution.

Second, there has been a lot of progress in recent years in the theory of instability, of chaos. This has given a new content to the "laws of nature". It gives us a new concept of "nature". When you include instability, the laws of nature become the laws of possibilities. Nature is not given. The other attitude would be to claim that at the moment of the Big Bang this meeting and all that we are saying here in this room would have been programmed millions of years ago, that all was determined at the moment of the Big Bang. That seems very unlikely. It is more likely that things evolve as time goes on, and as things evolve there are new events, new possibilities.

Of course, this leads to a more active view of nature, to a more dignified view of nature, to a more tolerant view of nature. It is also the idea of a self-organizing universe. A self-organizing universe comes much closer to the concept of nature

*My own view...*
*is that ultimately conflicts are related to inequalities. It seems to me there has been fundamental progress.*

**ILYA PRIGOGINE**

as freedom, the central idea of Chinese traditional philosophy.

Let me finish with one other remark – my view of the roots of social conflict.

A few years ago I attended a meeting of scientists in Paris arranged by French President Mitterrand. The question asked at that meeting, as at many meetings, "What is the role of science in resolving conflicts in the future?" Of course, there was no unanimity. My own view, not necessarily the majority view, is that ultimately, conflicts are related to inequalities: to social inequalities, cultural inequalities, etc. The nineteenth century was a period with a maximum of inequalities. At the beginning of the Twentieth Century there were rich Europeans and others; even in the Western world, the inequalities among the social classes were striking.

It seems to me, in spite of all the dramas and injustices, there has been fundamental progress. Inequalities have become smaller because they are no longer admitted. They are no longer what we learn; they are no longer part of what we accept.

What then is the role of science in the future? Certainly it is to continue to enable all people to create, to be autonomous, to participate in the decisions which shape their lives.

I think that is the essential element we have to take into account.

MODERATOR

*Thank you. And now, to complete our introductory tour of the changes in the world, we turn to the widely known author and lecturer, Mr. Alvin Toffler.*

## ALVIN TOFFLER

I am delighted to learn from my friend Ilya Prigogine that this conversation and my remarks were not determined many millions of years ago in the Big Bang but are the result of the actions of mere human beings.

I want to focus on changes in the global system. If we are going to talk about peace and war and about the changes which might be made to reduce the violence of war, then I think we have to begin with a kind of primitive road map of the global system in which those wars of tomorrow may occur. What we may learn about the changing nature of war may surprise some of us – but it is not just the ways in which wars have been fought that are becoming increasingly obsolete.

*If we are going to talk about peace and war ... then I think we have to begin with a kind of primitive road map of the global system in which the wars of tomorrow may occur.*

**ALVIN TOFFLER**

One of the things that led my co-author and wife Heidi and me to write this book, *War and Anti-War,* was our discovery of an old book in a book shop in London called *The History of Peace.* This book, published in 1931, was actually a history of peace movements. The introduction begins by saying, "The peace movements of today have not had a fresh idea since 1815". It seemed to me that is still largely the case.

Whatever changes we have made in the nature of war, changes which have been phenomenal and dramatic, much of our thinking about peace, peacemaking, and war prevention is not all that different today from what it was decades ago, perhaps, even a century or two ago.

If we look forward, it is obvious that nobody knows the future. It is by definition filled with

chance and uncertainty. But we can look for emerging patterns.

One can not make sense of the emerging global system, or the tensions and conflicts which will face us in that system if we use the conventional maps that we have been using until now. Indeed, if we continue to use those maps, if we still think of war in traditional terms, it will be difficult to prevent war and violence in the emerging twenty-first century. One wishes to say the coming twenty-first century "order", but it is also "disorder".

*Much of our thinking about peace, peace making, and war prevention is not all that different from what it was decades ago, perhaps, even a century or two ago.*

**ALVIN TOFFLER**

My own country, the United States, other countries, and indeed the international UN system, can not clearly identify their vital interests in today's world, let alone in the twenty-first century world which is racing toward us. There is, I believe, immense confusion in our world capitals, and in our great institutions. Whether we look at Rwanda or Burundi or Sudan, or at Bosnia or Haiti or Somalia, or whether we anticipate a post-Yeltsin Russia, or whether we look at relationships between Asia and the West, or whether we look at the institutions of the UN itself, we see institutions and people that are groping for a better understanding, dissatisfied with the maps we now have.

The reason is that the world is changing extremely rapidly and we have been using some of the wrong methods of analysis and some of the wrong assumptions about analyzing the emerging global system. How else does one explain all those books written by famous economists and experts in recent years who told us that Japan was about to take over the world? And what about the equal number of eminent economists who told us that Europe was about to become the economic leader of the world today? Today conventional wisdom says that China will be the next great superpower. Will it?

And how about all those theories of the end of history and the end of ideology? I fear that I must also classify the theories of the triumph of democracy and the prospect of a giant peace dividend as questionable. For that matter, I also question the more recent theory of future conflict advanced by Professor Huntington at Harvard University in the United States – the theory he called the "Clash of Civilizations". We, my wife Heidi and I, believe that there will be a clash of civilizations – but not among the civilizations of which Professor Huntington writes.

To begin, we would like to suggest a different way of thinking about these clashes. We use a model to outline the nature of conflict that may emerge from the evolving global disorder – I always hesitate to use the term order – in the global system.

We have tended to blame every conflict on the Cold War. This was one of the basic reasons for immense confusion in our world capitals. Until recently, everything was a proxy for the superpowers, nothing had an independent existence. And now we are blaming everything on the end of the Cold War. We look around the world; we see all these various conflicts exploding around us and we say, "Well that's because the Cold War is over."

Indeed, the Cold War is over – or at least it is temporarily over – and that does produce some enormous effects. But Heidi and I think something far more fundamental is happening.

On average, and depending on one's definition, there have been perhaps thirty wars going on during any given year in the decades since the end of World War II. Today, that has probably doubled. In any given year there are probably fifty or sixty wars being fought. The questions we have to ask are: How many of these are preventable? What can we do to prevent them? Now of course, we may not be able to prevent all wars. Indeed, that seems to be highly unlikely from what we have seen happen in the last year or two. But if any at all are to be preventable, it seems that we

need a new theory of war – and of peace. In order to have a theory of war and peace that makes sense, we have to go beyond the limited explanation that the current violence is the result of the end of the Cold War.

We would argue that what is happening today is the greatest wave of civilizational change on the planet since the Enlightenment and the industrial revolution. Now, we know that historians can periodize history in any way they wish. We can divide history into two parts, such as before Christ and after Christ. We can cut it into a hundred parts. Heidi and I find that it makes sense to think in terms of three great waves of change.

No doubt you are already familiar with our terminology. The first wave of social transformation began with the agrarian revolution. Starting perhaps 10,000 years ago, it moved across from the Middle East to northern Europe at an estimated one kilometer per year for 9000 years.

Today, the whole world knows the agricultural game. Everyone knows how to make nature grow things. The only exceptions are a few, pre-agrarian pockets of nomadic or tribal populations. By and large the agricultural revolution has spread across the world. With that revolution, we created peasant societies in an "agrarian civilization". That agrarian civilization had many cultures. There were Confucian versions, there were Western versions; there were early American versions. Overall, there were hundreds, perhaps even thousands of different people and different cultures living an agrarian way of life over the past 10,000 years.

Even with many differences there were certain uniformities. You were rooted to the soil. You worked when the sun rose and you worked until the sun set. You lived in tiny settlements, permanent settlements in which change was very slow. Authority was very clear and long lasting.

Three hundred years ago the industrial revolution began to spread a different way of life. What is legitimately called an industrial civilization spread across the planet. With that civilization, whether it was in Asia, the West, the North, or the South – wherever there were pockets of industrialization, there came mass production, mass distribution, mass consumption, mass education, and mass media, not to mention mass entertainment and mass recreation. In parallel, came mass destruction. The machine age gave us the machine gun. This culminated in nuclear and other forms of mass destruction.

Of course, industrial civilizations involve more than that. Certain principles evolved which are present in capitalist versions, communist versions, Asian or Western versions; it doesn't matter. In every industrial society the principles applied: standardization, centralization, bureaucratization, synchronization, maximization of scale, and so on.

At some point, probably starting in the United States in the 1950s, something began to happen. Most social theory prior to the 1970s and most of our futurist literature was essentially an extrapolation of industrial society. I am thinking of those geniuses Huxley and Orwell, for example. What they foresaw and what they presented in their writing was a world in which technology would become more powerful. As it became more powerful, there would be more mass production, more mass distribution, more bureaucracy, more centralization, more homogeneity.

*... what is happening today is the greatest wave of civilizational change on our planet since the Enlightenment and the Industrial Revolution.*

**ALVIN TOFFLER**

In fact, what began in the 1950s and spread to many parts of the world is what we would call a Third Wave of change – a wave which brings characteristics sharply different from those of an industrial society. These changes involve not just technology, not just computers, not just economics. We are now talking about a revolution which is changing values, cultures, family structures, social relationships, communications, organizational structures, and so on. And what they add up to is a new way of life, a new epistemology, a new science, and so forth. All of it adds up to a new civilization.

The emergence of this new, Third Wave civilization is creating a general crisis in industrial societies. Marx wrote about the coming general crisis of capitalism. Marx was thinking small. What we are seeing is the crisis not of capitalism, but of industrialism. In the United States, and I think this is true for a number of other industrialized countries as well, we have simultaneously a crisis in the health system, a crisis in the education system, a crisis in the family system, crises in the transportation system, the energy system, urban systems, value systems, etc.

*We are talking about a revolution... it adds up to a new civilization.*

**ALVIN TOFFLER**

Why? Why do we have in my own country, one of the richest countries of the world, a country which has been held up as the model for the rest of the world, all of these crises simultaneously? The reason is that all these institutions and structures were created, brilliantly designed, to service an industrial society, a society based on mass production, homogeneity, linear development, and so on. What is happening now is the breakdown of those institutions under the new conditions created by the Third Wave and the inadequate development, as yet, of new institutions. We are in a moment of enormous upheaval.

We believe that the emergence of a new civilization produces either a conflict or the potential for a lot of conflict. Therefore, we would like to suggest the wave theory. The notion of waves is purely a poetic metaphor for a whole series of economic, social, and technological changes.

Using that metaphor, what do we see historically? Go back to where the Second Wave, industrial revolution, arose. We see in every industrializing country, from England and France to the United States and Japan, a conflict between the old, First Wave elites who controlled the land and who were the source of authority, power and control in those societies, and the emerging classes of industrializers – the people who were building the factories and inventing the new social institutions. This was not just new technology, but new institutions like post offices and railroad systems. Marx called this "the mode of production". We call it, "the system for wealth creation".

There were political and economic conflicts in all the countries where the industrial revolution thrived. In the United States it took the bloodiest form, a civil war. In our view, that war was not fought to free the slaves as some textbooks suggest. Rather, it was fought between an emerging industrial North and an agrarian South with quite different political and economic interests. Look at Japan, at the Meiji revolution. It was much less bloody, but again it was a battle between the feudal elites of the past and the modernizers or industrializers who were identified with the Emperor. Look at the Communist Revolution of 1917. Lenin said, "Communism is Soviets plus electricity". Electricity was the symbol of industrialization. Lenin's idea was that they could industrialize faster than the Czarist regime would permit – a conflict between First and Second Wave elites.

This still happens today. A recent report in the *New York Times* out of Bosnia reads: "The war pits the traditional folk and religious values of the villages against cities like Sarajevo where intermarriage is common and modern outlooks prevail. It is a war of the mountains against the cities." One could say that is a war of the First Wave versus the Second Wave. In South Africa's historic 1994 elections, we know that the ANC did well among the urban groups and that the rival Inkatha did better among the rural groups. The Chiapas revolt in Mexico is a First Wave revolt, a peasant revolt, against the industrialization of Mexico.

So we see that the conflicts between First Wave and Second Wave civilizations are still playing themselves out.

Please note another phenomenon: When England and France and Germany and the United States and Germany and Belgium and Holland resolved their internal conflicts, they turned their guns outward. Then followed the great age of colonization, when Second Wave countries essentially came to conquer and to

*The Third Wave civilization is built around a new kind of economics which reflects the rise of culture in economic life.*

**ALVIN TOFFLER**

colonize First World populations all over the world. This determined the basic structure of power – a structure not dividing between East and West or between Capitalist and Communist, but between industrial and agrarian societies. That has been the basic allocation of power on the planet for two centuries or so.

The rise of the Third Wave will restructure that situation at least as radically as the industrial revolution. Potentially, it also could create conflict.

There is something of special interest to us in these deliberations in Venice: The Third Wave civilization is built around a new kind of economics which reflects the rise of culture in economic life. Remember that for Marx, culture was merely the superstructure; economics and technology were the base which determined the superstructure. That model would now stand on its head. Culture is playing the predominant role. Knowledge, ideas, information, insights, images, data, all of that – using culture in the broadest sense of the word – becomes an input to the economy.

That produces a revolution – and I use the word revolution in its absolute sense. Traditional economists were taught that the factors of production in a society are land, labor, and capital. Sometimes raw materials are on that list, but never did one hear that knowledge was a factor of production. Today, I would argue, knowledge is not just one factor; it is the predominant factor of production in high-technology societies.

Why? If you have the right knowledge in the right minds at the right time and the right place, you can substitute knowledge for each of the other factors of production. If you have the right knowledge at the right time, you can reduce the land required by miniaturizing. You can reduce the energy or the labor required. You can reduce the capital required and you can certainly cut the time required to produce a product. That in turn brings about enormous changes. In a First Wave civilization, the only capital that means anything is land. Land is the source of power and control. In the Second Wave mass production is the fundamental idea.

When Heidi and I worked in factories, on assembly lines, as we did for many years, our job was to turn out the maximum number of identical units. Today, if you go to the most advanced factories you will find many of them turning out 32 of this, 16 of that, 3 of these – constantly changing the production run. We have gone from mass production to "demassified" production.

And that is not the only change. We changed from mass distribution, too. Visionary marketers these days talk about "particles" – marketing to single individuals. The information now available makes it possible in the marketplace to do what the military is doing: precision targeting. You can "precision target" your advertising.

Now, this demassification is not just affecting the economy. We are seeing the demassification of the society produced by the industrial revolution. If we continue on down the line to politics we see the same trends – groups for and against every conceivable issue, the demassification of politics.

*We are seeing the demassification of the society produced by the industrial revolution.*

**ALVIN TOFFLER**

Note another crucial change in the nature of work and the worker – both become less interchangeable. In the past, if I died on my assembly line I could be replaced in minutes. Anybody off the street with muscle could do the job. Today,

work is more specialized and more individualized; teams are more dependent on the individual members. The loss of a single member can affect a team's performance for months.

There are other changes – in scale, for example. Big is no longer better.

In the interests of getting to our discussion, let me jump to another idea and then I will close for now.

These changes feed into organizational changes. You can not organize an economy, or a business, not to mention UNESCO or the United Nations in the old way and expect it to be effective. Pyramidal bureaucracy was the dominant system of organization during the industrial Second Wave. But, as Weber said, bureaucracy is not just a way of organizing people, it is a way of organizing information. He used the phrase, "Bureaucracy is domination through knowledge." What all bureaucracies have in common, public or private, corporate or government, are two structures. One is the horizontal structure of compartments of specialized information, each under the control of a gatekeeper. But reality does not come broken up that way. In order to reconnect the information there is a second structure in bureaucracies, the vice-presidents whose job is to reconnect the information into a useable whole.

*You can not organize an economy, or a business – not to mention UNESCO or the United Nations – in the old way and expect it to be effective.*

**ALVIN TOFFLER**

This system is now breaking down – or being broken down. Almost every successful big company is talking about "breaking the bureaucracy." Here's why:

Remember that the hidden assumption in an industrial society is the assumption that the person at the top had better information that the person on the bottom. Therefore those at the top could make better, more intelligent decisions than those at the bottom. Furthermore, those at the top thought they could specify what those at the bottom needed to know. That is all changing. Now the people on top do not know what the people on the bottom need to know. That's why we hear all the rhetoric about "empowerment". The old hierarchical organizations are standing in the road of effective functioning, whether that is a ministry of health, or a corporation, or, indeed, an army. What we see now is an enormous experimentation with different organizational structures. We are also seeing a remarkable development in electronic global nervous systems to hook all these organizations together.

Let me conclude. This emerging system, the Third Wave, this new civilization, is changing the basis of power. Previously bisected between the agrarian countries on the bottom and industrial countries on top, a third layer is emerging on top. Unless we understand that the global system is trisecting we will not understand conflict, or the role of our institutions, or the development strategies of our countries and so forth. We see now societies of the plow, societies of the smokestack, and societies of the computer. This may be the deepest global fracture we will see over the next twenty or thirty years. The global system of the twenty-first century will not look like the one with which we are familiar.

Since 1648 and the Treaty of Westphalia, we developed a global system with nation states as the "atomic units" of the system. We had a neat, Newtonian concept in which nations collided like billiard balls; we had concepts such as the balance of power and sovereignty. A Third Wave global system is totally different. Nations are losing a considerable degree of their sovereignty and autonomy. Their borders are becoming porous: they can not keep out information, they can not keep out capital, they can not keep out people, they can not keep out pollution. Nations can not control their multi-dimensional borders in the ways they used to.

And there are many new players besides nation-states. There are new forms of international business where temporary teams come together for a specific project and disband. This breaks down old notions of corporate loyalty and

corporate identification. There is a new consciousness about one's local region. And there is a phenomenal growth in the number of international organizations with trans-national agendas. There are thousands and thousands of local, civil society organizations, all increasingly linked together electronically.

*The global system of the twenty-first century will not look like the one we are familiar with now.*

**ALVIN TOFFLER**

We may also see, as we did back in the First Wave era, "wild" regions where there is no effective state control. There are pirates in the South China Sea; there are, by one count, forty two private armies in the world. To conceive all of this in terms of nation-states interacting in an international system is to think in terms of a map which was designed for a world that no longer exists. Instead, we have a trisected world – a world which is not understood yet by our governments, our politicians, our economists. It is a world not yet understood at all.

Yet that will be the world in which future conflicts will take place. If we want to anticipate and prevent conflicts in the future, we must understand this new map. Thank you.

MODERATOR.

*Thank you, Mr. Toffler. We will return to some of these ideas tomorrow as we take up the topic of the future of war and peace. With those thoughts before us, let us now begin our discussions.*

*The first question to you, Mr. Toffler. As the information system becomes so global and so strong it could bring a lot of positive benefits. Peace, for example. What are your thoughts?*

## ALVIN TOFFLER

Well, first, note that there are sub-networks in the Internet system devoted to these topics, Peacenet is one example. But, second, let me point out that the technologies of the information age are very often "dual use" technologies that can also be used for weapons purposes. I have learned a lot about this from Larry Seaquist, who is here with us. It is my impression that we are spreading the potential for military products around the world at the same time that we are spreading the high technology.

ILYA PRIGOGINE

– The Third Wave as you describe it has an element of hope. I agree completely that knowledge becomes an essential element of modern life. In principle, knowledge is open to everybody. Therefore the question of how to avoid war is a question of how to share knowledge. I think that is really one of the main elements we have to consider.

Also, I have the impression that it is not alone a question of trisection or bisection. It is a question of quality of life. People in most countries have television and they see how others are living. Therefore the question is not to maintain a trisection but to come to a more universal sharing. This will be more possible in the Third Wave. I don't see this as three levels which coexist like three geological strata. That seems too static. On the contrary, the Third Wave is what I would call the world of non-linear translations. The question is how this kind of world can reach a steady state in which everybody can develop his or her own possibilities. I see it as more dynamic than you were suggesting.

ALVIN TOFFLER

– Let me agree that "static" is not where we are going. I think that all of this is in constant, turbulent change.

FEDERICO MAYOR

– Professor Prigogine has expressed a concept, that as a scientist and as a humanist, I find extremely important: the concept of permanent instability, of permanent questioning. It is there, in my view, that freedom exists. If, at some moment, we had more certainties than uncertainties, then at that moment we would not be free. Professor Prigogine asks, "What am I doing here? I am a physicist." My answer: You make a very important contribution because

what troubles us today is precisely that dogmatism – and those that act because they have these certainties. Such certainties lead to the ability to kill.

We are now in a period of very accelerated evolution. And here we are indebted again to Professor Prigogine for the concept of permanent instability, of permanent questioning. It is there that freedom exists.

*... as a scientist and a humanist, I find extremely important the concept of permanent instability, of permanent questioning. It is there, in my view, that freedom exists.*

**FEDERICO MAYOR**

**ZAGHLOUL MORSY**

I am not a scientist. I try to be a poet, in a way. I think that this is a value-oriented meeting. Everyone shares, I think, a preoccupation with war and peace and everyone tries to struggle towards a world without wars. Now, Professor Prigogine, we are living in an era of uncertainty. What could be the role of science in this new era to prevent conflicts? You said that there is a sharing of knowledge and so on, but is there not a more specific responsibility of science?

## ILYA PRIGOGINE

I think I disagree on that latter point. Science is an expression of culture and a result of culture. To give science a special responsibility is to exaggerate. But science does create ways to value and share knowledge. The essential reason for war is inequality – the inability to make decisions for oneself. To some extent we are living in a moment when people at all levels want to contribute to the decisions which shape their lives.

## ZAGHLOUL MORSY

The panorama presented by Mr. Toffler is fascinating, with this three-section division of history. I am trying to locate within your general framework the case of Bosnia, the case of Rwanda, the case of Somalia. How do these problems fit your scheme?

## ALVIN TOFFLER

To be brief, let me just focus on the breakup of Yugoslavia. I believe there are many communities in many parts of the world that regard the creation of a nation-state with its own flag, army, currency, and seat in the United Nations as an integral step toward industrialization. They believe that modernization requires a nation-state. So, with all the ethnic hatreds and passions and nationalist traditions at work, I believe that those who wanted the breakup saw a better economy as one of their goals. I think the parts of the Soviet Union that most wanted to break away were the groups closer to Europe and most industrialized countries that saw Moscow as an obstacle to their further industrialization.

The irony is that at the very time when groups are seeking the sovereignty of nation-states, the most technologically advanced nations are experiencing separatism and increased demands for autonomy, as here in Italy. Heidi and I have written in our latest book about "the revolt of the rich" – where well-off sectors of societies are challenging the need to share the wealth with the less developed elements of their own countries.

## ZAGHLOUL MORSY

We are turning this new page in history.
We know that more than 150 states have signed documents – covenants, agreements, conventions – concerning human rights, rights to education, non-discrimination, and so on. And we know clearly that most of the signatories do not respect the commitments they have made on paper.
Is it possible within the UN system to devise a process that might force these countries to respect their commitments? Otherwise they have signed in water, not in ink.

## FEDERICO MAYOR

I interpret this as a question about how the United Nations system can work better and more efficiently. The first thing, I think, is that the number of agreements and recommendations and conventions must be reduced.
There are thousands of agreements assigning "recommendations", "inviting" the Secretary-General to do this, "inviting" the Director-General to do that.

There must be a kind of frugality in the way we proceed in the UN system. I remember that one of the first things we did in UNESCO was to act under the motto, "Do less, do better". We must reduce the number of meetings, for example, and then assure follow-up to the meeting. Even if it is a new modality of meeting with fewer people around the table. Afterwards, we need to follow up in three months, six months, one year. In a sense, this is the only role of the secretariats of UNESCO, of the United Nations, of the other agencies: to assure follow-up on what the member states have decided. But we, in those secretariats, can not impose. It is up to the member states. We in the secretariats are not entrusted with these functions.

However, I think we should be institutions, in general, that remind the member states, periodically, "you have signed this and this is not being implemented". In these respects there are some good trends. For example, in UNESCO we have reduced the documents by 65%. Today we work with a volume 65% less than some years ago.

There is a second challenge. We need to work more closely with the other agencies and UN institutions. In my view there are too many. Particularly in the 1960s, there was a kind of generosity, seeming to create every day a new body or a new institution. I am a little worried that the same trend has come again. But regardless of numbers, the need for increased collaboration is great. As one major example, the connection between the United Nations organizations and the Bretton Woods organizations is still very bad. We at UNESCO are working on this. We have made some important alliances. In basic education, we are firmly together with the World Bank. We may disagree in some other matters, but in basic education we work together. This includes World Bank, UNDP, UNICEF, UNFPA. They are UNESCO's partners. Things are going well and our plan of action is being implemented.

Another area where we have made progress is in environmental issues. We not only have an agreement with UNEP, but our Executive Board also has six members who work with six members of their board to ensure the cooperation at the top level of the two organizations. We have also achieved this with population issues. As you know, I consider population issues very important. At UNESCO our work is always done in cooperation with UNFPA and we have a joint committee to work on these matters.

*... one of the first things we did in UNESCO was to act under the motto, "Do less, do better"*

**FEDERICO MAYOR**

Now, there is plenty more to do. You may recall a recent meeting in Rio de Janeiro called "Agenda 21". There were 132 signatories to the Agenda 21 final document. In one chapter of that document, Chapter 38, the 132 participants stated: "The member parties strongly recommend that the Bretton Woods organizations" that is, the world financial organizations, "take advantage of the UN organizations". It is a pity that they do not ask our recommendation, for example, on higher education. When the World Bank, for example, is preparing a plan or an agreement with one member state on higher education, why do they not consult with us? We are free of charge. We will not take a single dollar for this. It would be beneficial for the member states and, in my view, for the World Bank.

In summary, I see room for much improvement in articulating the UN system and I see a lot of progress as well.

## MARY KING

To sign or not to sign? Would we rather have the countries not sign up – not make these various commitments at all? Political conservatism is growing stronger in a number of countries. This trend, in part, is leading many countries to be less warm toward the United Nations. It may be getting harder for these states to ratify covenants and treaties. Is there not some advantage in having them engage in the process leading to signature?

## ZAGHOUL MORSY

I am an idealist, I suppose. My feeling is that if it is a political or moral commitment, then we ought to implement it. We have many examples of various boards or groups of ministers signing to do this or that – but never any follow-up. My concern is to know, in this new state of evolution after the Cold War, if it is conceivable to have a mechanism which would ask the member states to honor what they have signed? We can not just forget after signature. There should be strong follow-up. If we want to go toward peace, if we want to improve our world, there is no other way to act, in my view.

## LARRY SEAQUIST

Perhaps related to this problem of non-compliance, of lightweight statements, is the explosion in information capabilities we have been learning about. As I understand it from *The New Page,* Professor Mayor, you have an idea about how UNESCO would transform itself into an information organization. What is your vision?

## FEDERICO MAYOR

In our fields of competence, there are three levels of action. One which is going quite well is the "civil society" organizations. We have partnerships in science, with the International Council of Scientific Unions; with universities, through the International Association of Universities; and, now that they have formed the single International Education Union, with the 35 million member-teachers. They are all our partners. That is our network for exchanging information.

Many times, there are ministers with admirable intentions who, immediately after being appointed to their high government post, think of undertaking reforms. They all start fresh. In order to help them, to provide them with information about the many schemes of reform which have been successful – and about those which have failed – we at UNESCO provide a clearinghouse. This is one of our levels of action. We inform the member states, normally through the civil society arrangements. The same is true for the cultural sectors where we work with many other organizations.

Second, we have a downstream level. This is important particularly in countries where something visible must be done. Reformers, good leaders always face important questions of prestige and influence. In democracies, there must be a public awareness that something useful has happened. To help with this at UNESCO, we have increased the "participation program". This is seed money. It is not large. But programs of $20,000 or $30,000 dollars in developing countries can be quite visible; they can help launch activities and make visible programs that without this seed money would not start. In my view, this downstream action is very important. The donor countries are very keen on this and we have increased this program now to about $27 million. The seed money can help trigger very important actions in which we do not appear after that initial boost. One good example of this is the scheme for industry-university cooperation. We helped formulate the project and present it to the regional bank, the Inter-American Development Bank. As a result, that bank has invested $7.3 million and we are no longer needed.

To give you an idea of what this represents, our basic budget is about $250 million per year. The extra-budgetary funded projects are more than 50 percent of this amount. Japan, Germany, and Italy have been among those member states

who have made major contributions to support us in this area. This means that if we have good ideas, normally we get the money for them.

That is the downstream level.

But in my view the big challenge to UNESCO is to act as the intellectual organization of the UN system, this is the upstream level.

We have the clearinghouse function, we have the downstream, but the more important, the more invisible way of action, is the level of persuasion, the upstream level. How can we influence the decision makers?

*... the more important, the more invisible way of action, is the level of persuasion, the upstream level. How can we influence the decision makers?*

**FEDERICO MAYOR**

One of the best ways, as we are doing here today with you in Venice, is to engage a group of people of very high caliber in issues of great importance. For example, we have now a Commission on Education, a group of people of very high caliber, chaired by Jacques Delors. It is this group of individuals, not UNESCO, not the Director-General, which brings its prestige to influence the various parts of the world. They search for new approaches and provide new inputs to us all.

We have similar groups in other areas. The former UN Secretary-General Javier Perez de Cuellar, chairs the Commission on Culture and Development. This is a very important issue in my view. And we have a group thinking about bioethics. The U.S. National Institute of Health announced a few years ago that they were considering the idea of allowing patents on genes. Through this special committee we were able to quickly offer some alternative arguments.

This approach gives the organization an important capacity of bridging at the very top levels of governments, of connecting respected citizens and their thought to the issues facing the highest decision makers.

Now, of these three different levels, the most important one is the upstream. Our member states are looking for new ideas. They want to know how to act better within the international, United Nations system, how to engage problems like the ones we are considering here. "Upstream" meetings like this one – which can help us understand better how to transition to peace building – can be very important. Today we have nearly 80,000 soldiers assigned to UN peacekeeping forces. And we have no money for development, no money for education. All is absorbed. It is very dangerous that the UN become the UN army. It is very dangerous. In my view, it is not our role. We must look for ways to channel some of these funds to peacebuilding.

## MANFRED MAX-NEEF

These presentations have been quite stimulating. I have a few comments which may show a slightly different point of view, one perhaps complementary to what Mr. Toffler has said. One thing that worries me a bit is what he calls the Third Wave, the wave of knowledge – where knowledge is the most important factor of production. First was land, then the machine, and now knowledge. It seems to me that "knowledge" was always there. I would not put it down as a newcomer. The way I see it, we might look at knowledge not as an end in itself, but what I would call "shared knowledge". In my view, it is important to recognize that shared knowledge shrinks from one wave to the next.

*... we might look at knowledge not as an end in itself but what I would call "shared knowledge". ... today there is less of that sharing than ever before.*

MANFRED MAX-NEEF

In the agrarian period, knowledge was widely shared by everybody – tool making skills, what to do with the soil, and so forth. Everyone knew how to do those basic things. In the so-called Second Wave, knowledge became more restricted to people who knew how to do certain things – the specialized skills of the industrial age. Now we live even more in a situation where, perhaps for 99% of the things we use in our lives, we do not know how they work. Originally, people did know how things worked. So I think this idea of the Third Wave as information might be clarified by remembering that knowledge is something that has to be shared, but there is less of that sharing than ever before.

The other element that might be clarified is the concept of waves, one after the other. Probably what we have is simply a permanent increase in complexity. I am not sure that we can distinguish so clearly, Mr. Toffler, between a First Wave and a Second Wave conflict. I think it is much more complex than that; it is really difficult for me to see it that clearly.

So my concerns are that I see shared knowledge as shrinking instead of expanding, and I see increased complexity.

## ALVIN TOFFLER

It is true, of course, that knowledge has always been a factor in everything. But there has been a fundamental change in the relationship of knowledge to the production system and to the destruction system. Neither was ever as dependent on complex, abstract knowledge as it is today. Bacon said four hundred years ago that "knowledge is power". But you can not have an advanced, competitive economy in the world without an enormous investment in human capital. Knowledge has become central, not peripheral.

The same is true for the military. As you will see in our book, *War and Anti-War,* the same tendencies that are taking place in the economy are mirrored in military developments.

More important is this issue of simultaneity and the stages of growth. This gives me an opportunity to talk a bit about Ilya Prigogine's concern about the seemingly static nature of the waves. Heidi and I do not intend to suggest a static picture – quite the opposite. We believe that it is possible for societies to have more than one wave of change moving through them at once. In Brazil, for example, you have the agrarian wave decimating the Indians in the Amazon as the land is taken. Then you look in Saõ Paulo at the enormous development of traditional industry. Or, again in Saõ Paulo, you go to the huge computer and electronics show. You can see three different systems at work side by side. Each is not merely a technological process. Each is associated with a social, cultural, and political grouping as well. It is the interaction of these different forms of production, or different civilizations which produces internal conflict and change and dynamism. It is not a fixed system like stages of growth ascending a staircase. What we propose is much more dynamic and much more change-oriented – a much more process-filled metaphor.

Not only that, we make the assumption that when we talk about change we necessarily talk about conflict – that conflict is inherent in the process of change. Conflict is not bad. Conflict, if it is managed and contained, is healthy for a society. Without it, there is absolute stasis. Now, what makes this complex is not only that societies are becoming more internally differentiated but that the change process itself is occurring at an ever-accelerating rate. The metabolism of society is speeding up.

As to the forms of war, each war is different. Each has its own characteristic sources and rationale. Nevertheless, just as there have been different forms of production, there are different forms of destruction.

MODERATOR

*That is a good point for us to pause.*
*In our next conversation, we will take up the topic of war and peace.*

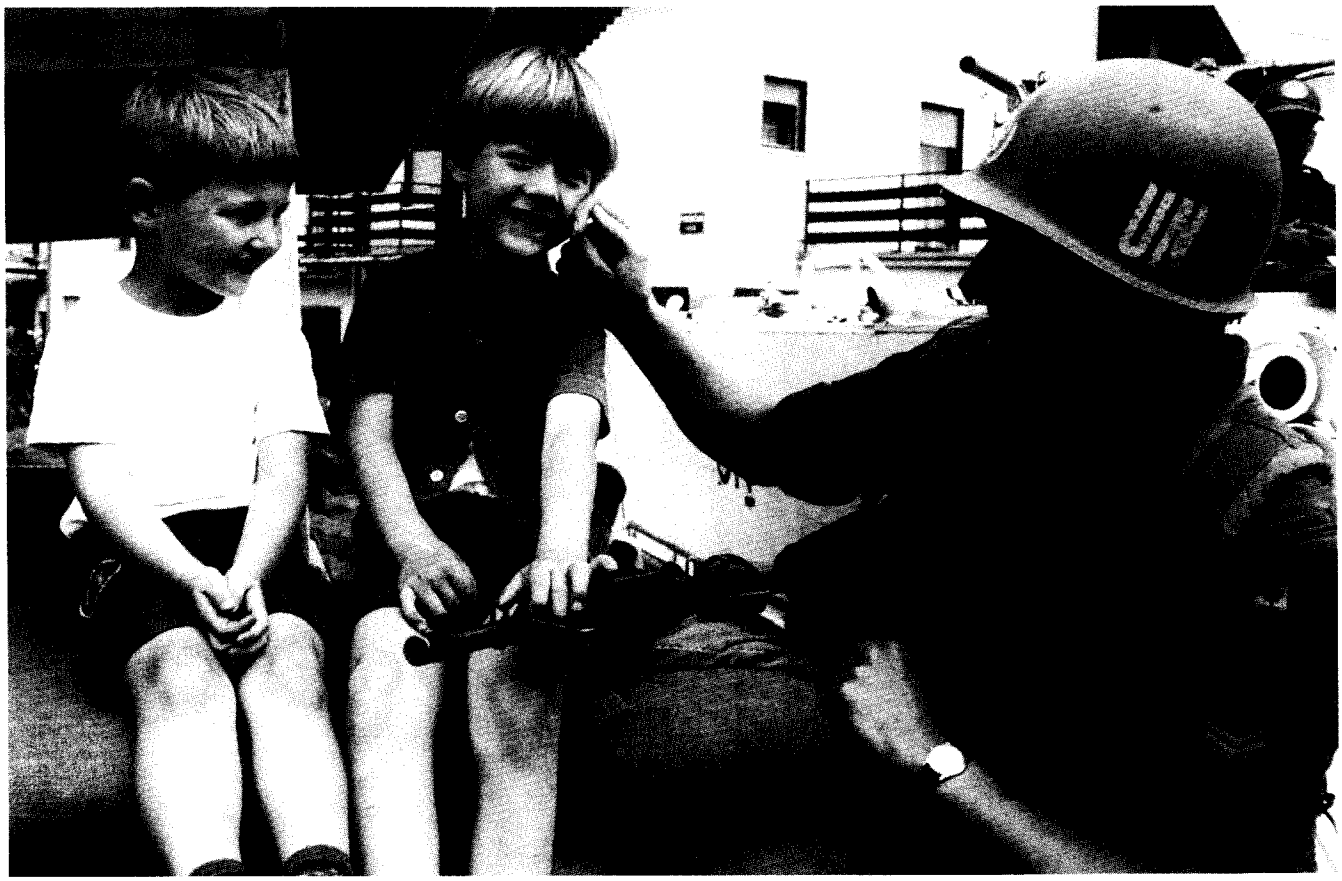
THE *second* CONVERSATION

THE VENICE PAPERS

# Culture of War, Culture of Peace

## *The Practicalities of a New Point of Attack*

*Walking the narrow streets, crossing the old stone bridges,*
*coming by water, the group gathered again*
*in the Library of the Istituto on Campo Santo Stefano.*
*Friday morning, a lovely, cool day.*




UN Photo 159209 / S. Whitehouse

*Canadian soldier with UNPROFOR in Croatia makes friends – one boy is holding a toy gun.*

**GRANT HAMMOND** *Moderator*

*Today we take up the question of war – of violent conflict and the culture of war. Specifically, our convenor, Professor Federico Mayor, suggests that we consider whether we might make a major shift in our thinking: toward a Culture of Peace.*

*Mr. Toffler, you and your wife, Heidi, recently published a book arguing that the nature of conflict is changing rapidly. Are there any remarks on the future of war and peace you would like to add to your remarks from yesterday?*

**ALVIN TOFFLER**

Only very briefly. I had ample opportunity yesterday afternoon to outline the ideas Heidi and I have been offering.

As you recall, Heidi and I make the assumption that when we talk about change we necessarily talk about conflict – that conflict is inherent in the process of change. Conflict is not bad. Conflict, if it is managed and contained, is healthy for a society. Without it, there is absolute stasis. Now, what makes this complex is not only that societies are becoming more internally differentiated but that the change process itself is occurring at an ever-accelerating rate. The metabolism of society is speeding up.

As to the changing forms of war, each war is different. Each has its own characteristic sources, each its own rationale. Nevertheless, just as there have been different forms of production, there are different forms of destruction. We believe that those forms of destruction are being demassified just as industry is being demassified. We also believe the new technologies of communication and computation will have an enormous impact on military operations.

But that said, I would like to see what others may have to say.

MODERATOR

*Mr. Seaquist, you are a military professional. Would you like to make a comment about the future of war or about transitions in the nature of war and the nature of military organizations?*

## LARRY SEAQUIST

I have much more to learn here than to teach, but let me offer a couple of thoughts.

The first is a question: What is this peace that we keep talking about? Do we have a definition of what peace is? We talk about it a lot. Our politicians, particularly, like to speak of peace during the celebrations on the national day of independence, but I wonder if we have thought carefully enough.

People seem to think of peace as the absence of war – or the result of war. Military people normally say that they do not want to engage in a war unless they can be decisive. That means, I think, that they wish to ensure that a successful peace will come at the end of the fighting. Pessimists may claim that peace is merely the occasional interlude between inevitable wars, that the human condition is basically one of war.

We may need fresh thinking about what this peace is.

*... we might think of peace as the capacity of a civil society to weather and surmount the natural violence and fractiousness of human beings.*

**LARRY SEAQUIST**

Rather than think of peace as the absence of war, or the product of war, we might think of peace as the capacity of a civil society to weather and surmount the natural violence and fractiousness of human beings. We humans generally tend to be argumentative. Humans seem quick to form groups and always ready to divide into factions which disagree. We are "peaceful" then, when the civil society, the local society, is capable of absorbing, of managing, of living through and enriching itself in the face of this faction and disagreement.

A healthy, peaceful society can cope with violence – even strengthen itself – as it wrestles with our natural, human contentiousness.

But if you have a case such as Somalia, where the civil society is flattened, there is no peace. There was no civil society, no capacity for self-government left when a number of governments and the UN decided to intervene to stop the starving. There had been a civil society in Somalia. But it had eroded gradually over the years of civil war and famine.

There was a very telling vignette reported by a journalist which illustrated this loss of civil society in Somalia. According to the press story, a threatening young man brandished a rifle at a village elder. Wishing the weapon to be put away, the elder held aloft a green branch, the traditional symbol of authority and order in the village. The elder was angry and saddened when the young man with the rifle ignored this traditional signal. Illustrated in the story is the erosion of a civil society once capable of containing violence with quiet, civil methods.

One of the things I find most interesting about our discussions here is that we are not just talking about war and how to get rid of war. Rather, we are looking at the other side, at the capacity of a society to absorb violence, in a sense, to thrive in the face of violence.

That is why I suggest we may find it useful to rethink our definition of peace.

Now a bit about the military perspective. Let me introduce the idea of the "military-technical revolution". The Soviets, when there still was a Soviet Union, had a phrase which translates from the Russian as military-technical revolution. Stalin and his generals actually used this term earlier in the 1930s. In the 1970s Soviet Marshall Ogarkov, a notable military thinker who died only very recently, started using this term again. A number of military strategists in the West agree.

The central idea is that a fundamental transformation in the nature of military organizations, in military doctrines, and in military technologies is now underway. Most engineers and military hardware experts tend to think of this as a technology revolution driven by the advent of lasers, guided missiles and other advanced technologies.

That is a false trail. What is really different is not the technology, but the organizations and the different ways organizations can use information. Among military thinkers there is a growing consciousness – not much action yet – but a growing consciousness that the very nature of military operations has changed.

In my view, military operations have been fundamentally transformed. I agree with Federico Mayor's assessment that we are at a historic turning point, opening a new era in history. Over the past two or three centuries, the period of the modern, industrial nation-state, we have had a certain kind of military. Now we are moving out of the era where the industrialized nation-states dominate conflict. As we make that transition, the military instruments of those states will be fundamentally transformed.

*Among military thinkers there is a growing consciousness ... that the very nature of military operations has changed.*

**LARRY SEAQUIST**

Most military organizations in the world today do not understand that. They still want to have old-fashioned wars with old-fashioned organizations.

Because of these profound changes, and because of the tensions between old military thought and new ideas, UNESCO may well play an important role in helping us think these issues through.

## GRANT HAMMOND

Just as I agree that we do not know what peace is, I suggest that we do not know what war is. We have had a tendency, particularly in the West, to look at war and peace as opposites and not to accept the degree to which one has come to resemble the other. A long time ago William James said in his essay on the moral equivalence of war that the real war occurred in peace time. It occurred in the preparation for war and in the attempt to intimidate another country through the accumulation of force, not in the use of force.

In a sense, we have selectively promoted certain aspects of peace and denigrated certain aspects of war. If one asks a person on the street what is so terrible about war, he or she is likely to tell you that it is the killing and the destruction. Increasingly, just as states and corporations and societies have changed in the ways indicated by Alvin Toffler, so have the militaries.

Now we have investigations into whole classes of new weapons, the so-called non-lethal systems, which would enable one to destroy the other weapon without killing the weapon-bearer. Or where one would temporarily disable the opponent or render them incapable of opposing you in your chosen course of action by the use of sound or electromagnetic fields and so on.

Our image of war tends to be highly emotional, sometimes romantic, more often deadly and bloody. In the Twenty-first Century the grey area between war and peace is likely to be larger and we are likely to see different forms of conflict.

Another point: there is a great deal of competition in what we call peace and a great deal of cooperation in what we call war. Most of the time, even adversaries in wars accept certain mutual boundaries on fighting. What the world seems to find so terrible about Rwanda and Bosnia is that these are "uncivilized wars" where the combatants do not accept the rules of the game, the Geneva conventions which exclude the civilian populations from the struggle between organized militaries representing opposing political forces.

I sense a difference in the way Europe confronts war in Bosnia from the way the rest of the world confronts war in Africa or elsewhere. We seem to have different standards.

Thus, I think we should be careful in talking about peace and war as if they were universal concepts. I doubt that even those of us around this table could agree to a single pair of definitions.

Peoples, cultures, and states differ too much to get such agreement.

"Peace keeping", "peace making", "peace enforcement", and "peace building" mean different things. I notice that civilians often discount any differences. But for the militaries, there are very great differences. Consider the term "peacekeeping". If one substitutes the words "truce" or "armistice" for the "peace" in peacekeeping then one can see a certain kind of military mission. But if there is no truce or armistice to maintain, then one is not talking about peace "keeping". One is talking about peace "making" and about the employment of combat forces more in the traditional military manner.

*In the twenty-first century the grey area between war and peace is likely to be larger and we are likely to see different forms of conflict.*

**GRANT HAMMOND**

We might also distinguish between those who support peace and those who train and organize for war. Traditional militaries may be ill-suited for peacekeeping missions. Nonetheless, we often turn to military forces to take up these roles. Why? Because

1) they serve the state,
2) they are well-trained,
3) they are highly-disciplined,
4) we can get them there, and
5) if we tell them to do these missions for us, they will.

But, unless they have been separately organized and trained, they will be missing ninety percent of the skills required for successful peacekeeping.

Traditional militaries are trained to apply lethal force – to kill other humans efficiently, to coordinate fields of fire, to prevail by violence. When we assign military units to peacekeeping we give them a constabulary function: to reestablish law and order, to provide humanitarian relief, control refugees, reestablish public utilities and sanitary services, and so forth. Then we wonder why military units have difficulty achieving these tasks.

As I understood it, when the United States deployed into Somalia, the Army's Tenth Mountain Division had eleven days notice and four days of training for a non-combat mission. If we are going to have peacekeeping forces, then we must, in my view, train them as peace keepers. We must give them different skills. Some of these skills can be found in good, private voluntary organizations that have been accomplishing these tasks for decades.

In Somalia a hodgepodge of some twenty nations and forty-nine different non-governmental organizations were all ostensibly operating under a UN mandate. In fact, each group had a somewhat different purpose which resulted in a very difficult operation even if all the parties shared a common humanitarian intent. In my view, we need to think much more carefully when we assign combat forces to these peaceful activities and when we mix military forces with these private, civilian groups. We also need to be wary when we tackle situations where the warring parties have not genuinely signed a truce in fighting.

## PETER ACKERMAN

I, too, have a problem with the use of the terms "peacekeeping" and "peace building". Perhaps we can sharpen our discussion a bit. I propose to separate out three different concepts, the sum total of which add up to peacekeeping plus peace building.

The first is the challenge of alleviating suffering arising from war-related situations. There are many private organizations doing this kind of work. For example, I sit on the board of CARE, an organization which touches thirty-three million people each year. Much of our activity has to do with catastrophe relief, particularly relief having to do with conflict. In the past, say in Ethiopia a few years back, CARE would draw people from various country missions to respond to an emergent crisis. Today, we have an emergency reaction unit which is staffed solely to do this kind of work. So I think that the non-governmental organizations in the private sector, the NGOs, are getting more competent at the business of alleviating suffering from war and other catastrophes. This is very much a logistical kind of activity. Of course, there is always room for improvement.

The second task is the mitigation of violence during a conflict. We think of peacekeeping in these cases as the insertion of third party armed forces under the UN into the middle of a conflict to try to reduce the level of violence. That is what we have in Bosnia. What we need to recognize, and I think our military friends would agree, is that there are wide variations in the ways we might accomplish this objective. Military forces can do peacekeeping today in the Gulf because the coalition military forces have such a tremendous military advantage over the defeated Iraqi army. But in Bosnia, the tactical situation is completely different; the whole conflict is different.

In thinking about peacekeeping as inserting armed third parties into a conflict to mitigate the violence, we overlook the possibilities of using local, civilian, non-violent capabilities for defense and to counter the violence. I wrote a book on this topic. *Strategic Nonviolent Conflict.* Just recently published, it discusses the role of civilian-based defense in a variety of conflicts. I think there is much more scope for the civilian to be proactive with boycotts, strikes, and a variety of activities that respond with non-cooperation to superior military force. I believe these activities can be an important supplement to peacekeeping as we have been defining it.

The third concept addresses the issue of preventing conflicts that have the potential to become very violent. Here is where the culture of peace paradigm is focused: How do we keep ourselves in the zone of mitigating differences – in the zone of peace as Larry Seaquist might define it – without resorting to violence? I think that there is a great deal to be done in this area of preventing conflict.

*I propose to separate out three different concepts...*
*...the challenge of alleviating suffering which comes from war-related situations*
*...the mitigation of violence during a conflict*
*...preventing conflicts that have the potential to become very violent.*

**PETER ACKERMAN**

I also think that there is a great deal that can never be done. We need to recognize what we can not achieve if we are going to keep our frustrations in bounds. So please, let me offer some general thoughts about conflict.

First, Alvin Toffler, in his brilliant presentation, may not describe conflict perfectly, but I think that every conflict today has an element of what he is talking about in it. For example, in Rwanda, there are some differential qualities of Third, Second, and First Wave characteristics in the conflict between the Hutus and Tutsis – the Tutsis being more Second and Third Wave in their development, the Hutus being more First and Second Wave.

I think you might look at almost every conflict and find some of Mr. Toffler's formulation in

it. Because of that, the nature of development and change is such that certain conflicts are going to become violent. We should recognize this as the case. In addition, violence will continue to stay with us on a large scale because there are people who have the capability to lead and who are motivated to violence. These leaders fall outside the value system we are talking about here. We might think of them as Nietzschean types who feel that there is expiation in violence. At certain times these types of leaders will take control of political entities and lead them in the direction of violence. The culture of peace can mitigate this, but I think this is a fact that is going to stay with us.

*... violence will continue to stay with us on a large scale because there are people who have the capability to lead and who are motivated to violence.*

**PETER ACKERMAN**

Now, another thing that Mr. Toffler has talked about – something we are all celebrating here – is the proliferation of communications, how the media has softened the edges of the nation-state. And we think that these new tools are going to contribute to the culture of peace. One of the things we are finding with the media today – for example in the broadcasts coming out of Rwanda right now[1] – is that the media can be a force for war. The media can manipulate data and manipulate images. If we look also at what happened in Serbia prior to the war in Bosnia-Herzegovina, we can see how the media can be a very strong force for war.

Similarly, the non-lethal weapons that Mr. Toffler talked about are very much a two-edged sword as well. These are very interesting technologies and I would like to hear him talk about them more. But, in the hands of totalitarians they can be very much a regressive force.

Lastly, I would like to make a point regarding a comment made yesterday by Professor Prigogine – that conflict is a function of inequality. That is too simple a formulation. Conflicts in history, at least in a broad reading of history, are not functions of inequalities. States that were essentially at an equal plane of development fought the battles of World War II. In my view, war is a function of a lack of range in incentives, of frustrations that are both economic and non-economic, ultimately leading toward violence. I think that if we are too focused on the inequality point in our quest to create a culture of peace, we are not recognizing the degree to which change makes inequality inevitable. To create a culture of peace it is more important to manage these changes and reduce the frustrations, than to mitigate violence by devising formulations of pure equality.

*... we are too focused on ... inequality. To create a culture of peace it is more important to manage these changes ... than to ... devise formulations of pure equality.*

**PETER ACKERMAN**

1. Editor's note: The conversations in Venice took place shortly after the eruption of extreme violence in Rwanda. With the rest of the world, the conference participants were watching the fragmentary news reports of the genocide in horror. It was to be weeks before a full appreciation of the tragedy, including the mass flight of refugees, was apparent. However, during the meeting, early reports suggested that the government radio station in Kigali, Rwanda was broadcasting incitements to further violence.

## ALVIN TOFFLER

Peter Ackerman mentioned the media and Rwanda, here is a sentence from yesterday's *Herald Tribune* newspaper: "The White House has called on Rwandan military leaders to do all in their power to end the slaughter, but it needs to do more. Public appeals should be made to the head of the radio station that broadcasts daily incitements to genocide." To me, that is astonishing. Public appeals to the people who are doing it to stop doing it are not going to succeed. On the other hand, the capability exists for almost any entity like the United Nations, or anybody else, to go in there and shut down that radio station – to silence it. There are other examples such as Serbian leader Milosevic's incitements on Serbian television.

What is at the heart of this – the reason we do not consider such bold actions as steps to mitigating the violence – is that there is an implicit idea of information sovereignty, that nations have a right to keep out information from outside. In this view, to intervene would be to break all sorts of international regulations of the International Telecommunications Union and all kinds of other restrictions.

But the fact of the matter in today's world is that to ignore the impact of today's media as a war-producing source – just to let it "do its thing" and then come in afterwards and try to stop the fighting is absolutely retrogressive and foolish. I do not have the answers to how we tame this beast, but it seems to me that the issues of information strategy have to be addressed. There is no organization more appropriate for this task than UNESCO.

*... just to let [the media] "do its thing" and then come in afterwards to stop the fighting is ... foolish.*

**ALVIN TOFFLER**

The role of the media in war is increasing. The complexity of the media system is increasing, the channels of communication are increasing – exploding – all over the world. Recall the power of the television cameras when they showed the world the starving children in Somalia. In the United States, for example, those pictures mobilized enormous national support for stopping the starvation. But the day when a U.S. soldier was dragged, on camera, across the ground by a war lord's gunmen, was the day the U.S. Congress voted to get out of Somalia.

So it is the television camera which is affecting all of these actions. Discussions of peace-keeping which do not take the media into account, it seems to me, are making an enormous mistake. We have to grapple with the issue of the media.

MODERATOR

*That is a useful pointer toward our next session on the role of the media in peace and war. For now, I would like us to keep going on the core subject.*

## FEDERICO MAYOR

I have two questions.

One of the topics that has come up today is the unpreparedness of forces offered for peacekeeping operations. How, in the future, perhaps in concert with the military academies and the staff colleges can we better prepare for these functions? Second, how can we use military forces, as we find them today, for the promotion of peace building, not peacekeeping, but peace building. There are so many ways where military force capabilities might be used creatively.

One example is the transport of medical patients in rural areas. This goes to the serious global problem of migration from rural to urban areas. When we study why people emigrate from rural settlements to urban slums we find that they were poor but not in misery. Why do they emigrate? Normally because of the lives of their children. In a city slum they can at least hope for medical care. If the military, in emergency situations, could help with normal transport helicopters, then we could help with the promotion of life in the homelands.

*... military forces have a mission for peace beyond the preparedness for war...*

**FEDERICO MAYOR**

I can give you a personal example. When I was an official in Granada, Spain, we had many taxi drivers decorated for helping with the delivery of children in their taxis. This was because there was a big city sixty-three kilometers away that did not have a hospital equipped for difficult births. Many of these mothers were being taken by taxi to Granada when they needed emergency help. But, of course, many of the children were born on the road because of the length of the trip. So I arranged for one of the military helicopters stationed in Granada to help. By helicopter, it was only ten minutes.

The military also has excellent engineers. These engineers, for example, might head projects to rehabilitate school buildings. Imagine the situation we have now in Somalia or Bosnia with the lack of schools.

We need to establish, from the beginning, that military forces can contribute actively to peace – that military forces have a mission for peace beyond preparedness for war. Military forces ought to be prepared for the challenges across the immense spectrum of peace building activities. These are very important, mainstream activities requiring a new style of military professionalism. There are new disciplines and new partnerships to be taught the military academies and staff colleges. Peace needs these immense military capabilities to be fully and creatively engaged.

## FRANCO FERRAROTTI

I would like to add a footnote about the not strictly military or combat functions of the military. Many years ago, in northeast Brazil, the head of a development corporation in Recife was a general. The army was there as the only "civil" agency capable of doing anything in an orderly way. That was many years ago. They did a fairly good job, mostly through army people.

*[In Southern Italy] the army has performed a fantastic job, just in terms of presence. Civil society can use this special "weapon" as a peaceful weapon.*

**FRANCO FERRAROTTI**

Another example is southern Italy and Sardinia. These regions of the country have been crime-ridden for a few years – or maybe a few centuries. The army has performed a fantastic job, just in terms of presence. They signify somehow, without doing much, just being there. Civil society can use this special "weapon" as a peaceful weapon.

So I think that the outlook of the common people on the army has already vastly changed. We all know, also, that the top levels of thinking in any organization are always coming along behind. We may be further along to acceptance of these new modes for the employment of the military than we realize.

## ILYA PRIGOGINE

I want to respond to an earlier point about inequality and war.

The First Wave was universal – it appeared more or less in parallel in many parts of the world. The Second Wave was much less universal and the Third Wave is not at all universal. It is strictly limited to the Western world. Therefore, it is very natural that tensions come from the development of the Second and Third Wave, as we see in Africa.

Before, as with the First World War, we spoke of war as mainly the danger of war in the Western world. But now we have little danger of war in the West. It is true, of course, that we have much competition, such as between the United States and Japan, but there is not a real danger of war.

The problem is that our sharing of knowledge is so poor, so terribly poor. Our sharing of resources is terribly difficult. That is why I talk about the problem of inequality. We may talk about the politics of war and the politics of peace but now we do so in a world of extremely different conditions. I see the central problem as how the world as a whole will respond to this situation which has been created by the success of the Third Wave. The success of the Third Wave is essentially the success of modern science.

The main problem is that knowledge has been separated from matter. Before, matter was essentially in support of knowledge. Today, knowledge is largely separated from matter. In addition, knowledge is no longer localized and related to natural resources. A very good example is in Japan where success is not tied to local, natural resources.

*Our sharing of resources is terribly difficult. That is why I talk about the problem of inequality.*

**ILYA PRIGOGINE**

So if we speak about the civilization of war and peace, if we go beyond the military department to what may be the future of the world in fifty years, we have the problem of inequality. We must see what the Western world can do to make a better sharing of resources. And among those resources are the resources of modern science.

## PETER ACKERMAN

Professor Prigogine made an important point about knowledge being separated from matter. The nature of capital has changed, for example. However, I continue to disagree about the role of inequality as a root of conflict. There are a couple of facts about inequalities that make this a bit muddy. Inequality is hard to measure. If you sit down and look at the basic measures of development today, we are in a better situation than we were twenty years ago in literacy, death rates, birth rates and such measures. We are hardly in a good situation, but we are in a better situation than we were twenty years ago.

*... I continue to disagree about the role of inequality as a source of conflict ... the inequality gaps are being closed.*

**PETER ACKERMAN**

If you look at the economic growth rates of the former, less-developed countries, they sharply exceed – by a huge amount, something like six or seven percent versus one or two percent – the growth rates of the developed countries. That would suggest that the inequality gaps are being closed.

## FEDERICO MAYOR

Dr. Ackerman, let me offer my thoughts on the role of inequality. You have said that, in general, there have been positive developments in the world, a reduction in inequality.

This depends, of course, on how we set the terms. If we consider it in pure, gross economic terms in Africa, the answer is yes; there is a lessening of inequality. However, the social price that has been paid for the betterment of these economic indices has been very great. If you know well what is happening in South America, for example, you can say there is a process of democratization, there is a reduction of inflation, and so on. But the social price has been very high. I hope that now there will be a change, a culturization of the process.

Looking at the global situation, I am extremely worried. I repeat: the social price of this "progress" has been very high. There is a lot of unrest. People who years ago had some social stability have lost it. The overall income gap between rich and poor is widening.

*... in pure economic terms... yes, there is a lessening of inequality. But I am extremely worried. ...the social price of this "progress" has been very high ... There is a lot of unrest.*

**FEDERICO MAYOR**

## PETER ACKERMAN

Thank you. Let me turn to another topic, the important differences among these various activities. The formulation of peacekeeping and peace building is, I think, confusing – it tends to create misunderstanding. Consider Somalia. Somalia was initially a famine situation created by a civil war. Outside of the capital, Mogadishu, there were areas of severe famine where no one could be fed. The efforts of NGOs to move food from Mogadishu to these famine areas were being stopped by the local militias for various political and economic reasons. The simple task of sending in troops to create a corridor for delivering food to Baidoa, Baidera, and the other areas was the original point of the initial U.S. intervention.

But once this force entered, the mission changed. We went from a simple logistical-military action – to allow food to flow – to nation building in Somalia in less than six months. It was a failed notion from the beginning. The people who were killed in Somalia – the peace keepers – were killed as a direct result of that mission change. And note that those deaths generally happened in Mogadishu, not out where the corridor was being maintained for the food.

The original mission was a success. The people in Baidoa and Baidera were fed, seeds and tools were provided, farming resumed, and there is no lack of food at present. But, because of the media, which did not understand the difference between these two missions, and because of the messiness of the peacekeeping and peace building concepts, the United States withdrew its troops. It looked like they were forced to leave with their tail between their legs. The American people believed that the whole mission had been a failure. In fact, it had been a considerable success.

From the point of view of CARE, the ability to raise money for similar operations has declined precisely because this fuzziness of mission was allowed to happen.

So I think it is very important to keep these three things separate when we talk: One, the alleviation of suffering from war and catastrophe; two, the mitigation of violence in the midst of an ongoing conflict; and three, the prevention of violence in conflicts as they unfold. If those functions are mixed up, if we do not distinguish among them, we end up with the anomaly we saw in Somalia. That is truly a tragedy. It is going to slow down our ability to respond to Rwanda and future humanitarian crises where we have emergency relief challenges.

## GRANT HAMMOND

Another of these issues which complicates these innovative uses of military forces is the difficulty the civilian command authority has in setting practical military objectives and not changing the objectives. If one carries weapons into another's country and then uses those weapons – whether for good purposes or not – one is likely to become a target. And when one becomes a target, one is no longer a peacekeeper. One has become part of the problem.

Somalia gives us an excellent example of this so-called "mission creep". The original objective, as Dr. Ackerman just pointed out, was to support the feeding operation. Part of the initial task was to reopen the airport, to rebuild the port in Mogadishu which had not been used for two years, and to build and protect warehouses to store the food and medicines. The troops patrolled the roads to protect the shipments to the outlying areas and then they had to rebuild part of the roads over which the convoys were traveling. It seemed that the most efficient way of protecting the convoys and the NGOs in the field was to disarm the technicals. And that became a controversial political issue. It became a question of capturing the technicals' bosses. And so on. The mission changed. It was no longer simple humanitarian relief. From the first day troops set foot on shore, it was a nation-building exercise intertwined with the local politics of the many factions contesting for power. It is very difficult to have a pure, humanitarian intervention. Humanitarian interventions are just as political as other kinds of armed interventions.

*It is very difficult to have a pure, humanitarian intervention. Humanitarian interventions are just as political as other kinds of armed interventions.*

GRANT HAMMOND

## FEDERICO MAYOR

I applauded the intervention in Somalia publicly and immediately. I was disappointed it was not Europe which acted first, because we are closer, but the United States. But for me, it seems dangerous to draw too many conclusions from Somalia. Somalia is the first case in which the principle of national sovereignty was not respected. Remember that there was no national government. There were only war lords.

*What was established was the right to humanitarian assistance. We can not be accomplices to genocide.*

FEDERICO MAYOR

What was established was the right to humanitarian assistance. We cannot be accomplices to genocide. In Somalia it was decided to break the conventional view about sovereignty and send an army in order to permit the transfer of food. We have a good team in Somalia. We have created islands of peace. We have also helped teach the mothers about how they can teach their children to avoid landmines and so on. I am sorry to say that ninety percent of these activities are paid through charity. The immense amount of capital required to pay for all the other worthwhile interventions meant that we had no money for the first relief, reconstruction, rehabilitation, and normalization of lives in Somalia.

So I think it is premature to draw lessons – other than that there is a right to humanitarian assistance.

## LARRY SEAQUIST

Professor Mayor and Professor Ferrarotti have each suggested that military capabilities can be used in new, innovative ways. As a military man, I agree. But there are some issues to consider.

First, we need to be very careful about military organizations with domestic missions. In general, we military professionals in the large, Western democracies have argued against constabulary roles for military forces because of the risks of military encroachment into civil and political life.

Second, military organizations are very expensive to put into the field. The cost of the U.S. forces in Somalia before the turnover to the UN was, I believe, in excess of a billion dollars. Now, it is clearly true that military logistics, military helicopters, trucks and so on can be helpful. We even have the case now in Bosnia, as I understand it, where the Dutch government has provided a military engineering battalion to the UN High Commissioner for Refugees with the explicit proviso that the unit be used only to support UNHCR. The UNHCR staff, of course, is delighted with this. The trouble is that this is very expensive. Military organizations engaged in these non-combat functions may be hundreds of times more expensive than comparable commercial operations. One of the secrets is to do what Professor Mayor did in Spain with his helo flights for difficult pregnancies – he exploited the capabilities of an existing, nearby unit.

Now, I believe that the military does have to change to embrace these new missions. In large part those changes will be necessary to make our military organizations more relevant to the actual issues confronting the societies they serve. But the militaries do not yet quite know how to think about these issues – and some are moving away from them toward their traditional roles. I think that UNESCO does have a potential role in helping our militaries and our societies rethink these issues in creative, fresh ways.

One of these interesting questions is the nature of generalship. A British officer, General Sir Vernon Walters, now the Deputy Supreme High Commander of the NATO forces in Europe, has spent nearly his whole career in these novel, peacekeeping and peace building missions. He started as a young man in Malaysia in counter insurgencies and has been, in his words, "working his way west" ever since.

General Walters says that the fundamental military skill of a peacekeeping soldier is the skill it takes for a young sergeant or a young rifleman to be a diplomat. It involves different skills than handling a rifle and working in a combat team. It takes special training. The young man or woman soldier may be face to face with one or more hostile local people. They need to be very calm and calming, very diplomatic. That takes very careful training.

General Walters cites the British Army experience in Northern Ireland where the British Army conducts an enormous amount of training before deploying new units.

There is a different theory. Lieutenant General Anthony Zinni, the U.S. Marine who was Deputy Commander of U.S. forces in Somalia, holds the view that the best peacekeeping soldier is a good young rifleman with the standard training of a soldier. In Zinni's view, a good sergeant can handle any task given troops with the basic combat skills. General Zinni holds that the real difference in peacekeeping is in the mind of the general. He believes that you have to train the generals.

Maybe they are both right and you need special training both for the sergeants and for the generals. Should the general be a general and the soldier be the diplomat? Or should the soldier be a soldier and the general be the diplomat? I do not know.

With its inherent strengths in education, this may be another area where UNESCO can perform a valuable service by helping the world's militaries think through these professional development issues.

*... UNESCO can perform a valuable service by helping the world's militaries think through these professional development issues.*

**LARRY SEAQUIST**

## FEDERICO MAYOR

I would like to consider not only the questions about sending the armies of powerful countries to these missions. There is more. The problem is in the developing countries themselves; they have bought lots of military equipment – helicopters for example. Those forces and that equipment are often there for operations that will never take place. What I am saying is that not only should one country help another with peace building operations, but in normal periods, in periods of peace, these military forces can be used to help the civil society in their own country in emergency situations.

*... we must also be concerned with preparedness at the intra-national level ... with how ... these forces can be more supportive of civil society.*

**FEDERICO MAYOR**

For example, in my country of Spain we are fortunate to have had fifty years of peace. Yet we have invested an immense amount of money in military forces during that fifty years. And we realize, as Larry Seaquist has said, that at least some of that military capability is increasingly irrelevant. In my view we need to have this other side – we need to consider it normal for the military forces to help with development. There are today some developing countries with an immense amount of their GNP devoted to the acquisition of instruments for war.

For some, war will not arrive. But for many, if war does arrive it will not be international war, it will be *intra*-national war. In these internal situations, much of the equipment and training can not be effective if used only in traditional, battlefield ways.

Now, this leads me to a second point – to preparedness. I think we are unprepared for the threats of today. We are prepared for the conventional threats of the past, but for the important threats of today we are not prepared.

There is a lot of work to be done at the international level – at the level of fostering international cooperation of a network of militaries. As the Director-General of UNESCO I am, of course, interested in this international level. Our role is to contribute to the international level of security. That is where the UN system works.

But we must also be concerned with preparedness at the intra-national level and with how these forces at the intra-national level can be more supportive of the civil society. UNESCO can be useful at both levels, the inter- and the intra-national.

## GRANT HAMMOND

Back to this issue of money and the cost of military operations. We need to remember, I think, that generally militaries around the world are getting smaller. Budgets are being cut. Many military people are becoming unemployed and the funds for military operations are shrinking. Yet, at the same time, the international community wishes to make greater use of military forces for these innovative missions.

We cannot have it both ways. I have written elsewhere that "social security" has defeated "national security" in many developed countries. "Welfare" has defeated "warfare". It will be increasingly difficult to come up with forces for these new missions. First, they may not exist because they have been demobilized. Or there may not be money to deploy them.

Beyond money there is suitability. Not all the countries willing to participate in peacekeeping or peace building assignments have the skill levels and professional orientations suited to the missions. Sometimes the motivation for participation is to have a foreign deployment, or to acquire increased training, or to be given communications equipment, or even in some cases to earn the UN salary which is higher than their own. For some, peacekeeping can be a profit-making enterprise. We end up in some cases with people doing the right thing for the wrong reasons.

## PETER ACKERMAN

Let me again disagree. Somalia requires a bit more discussion because it illustrates how these various military tasks that relate to peace can get fuzzy. The real issue that drove the military into Somalia was the fact that people with guns were stealing the food. I do not think the military necessarily had to expand their mission to do anything at all. There was no issue about the port – the port had been open three weeks before the troops landed. There was no issue whether the roads were open; there was no issue whether there was enough food. All of those things were there and sufficient. The core issue was how to get the food to outlying areas without people being shot. CARE workers and others were being hijacked.

I was there just three weeks before the U.S. military came. I saw a twenty-eight truck convoy organized by CARE and the other NGOs. "Technicals" had been hired to protect the convoy. Militias attacked, killing half the people in the trucks and taking all the trucks and food.

We may be concentrating too much on Somalia, but it does illustrate how, when you get the military involved, the mentality changes.

And that is why, Mr. Seaquist, I think your point about generalship is key. There is this tendency toward mission creep. On this I agree with you, Mr. Hammond. Unless there is an incredible level of discipline the mission becomes politicized – and expensive. Over time, peacekeeping becomes more and more expensive and less and less appealing.

So, in my view, we need to be thinking about the logistical issues at the heart of peacekeeping and peace building.

## MARY KING

The use of the term "humanitarian" as it has been used here bothers me. In the case of mass starvation, this is not just "humanitarian". In Somalia we were attempting to stop mass slaughter and mass starvation. This is well beyond what we think of as humanitarian. We need to see these human tragedies in strategic terms, as issues far more profound and far more central to the core interests of civil societies everywhere.

## TOM FORSTENZER

An underlying theme seems to be threaded through our discussion – that there will always be war. As a historian, I do not agree that man is inherently violent. I am hopeful these discussions will lead to some concrete ways to do more than resigning ourselves to cope with inevitable conflict.

Peacekeeping and peace building could be part of a linked process. We would prefer to prevent conflict. It is certainly cheaper. We would prefer to end conflict when it first breaks out. That is also cheaper. We would like to have the capacity to end uncontrolled conflict when it gets completely out of hand.

Those ambitions carry us to some interesting process questions about the nature and course of violence and conflict. What are the points of no return – when we can not hope to preclude or foreshorten a conflict? And who is capable of making the sophisticated, predictive judgements about where a gathering conflict is going? Who can help us collectively judge when to intervene and, most critically from a military-political point of view, how to intervene?

We have said that many of the new conflicts are intra-national. The interventions we are making now have not been made with anything near the sophisticated understanding of "the enemy" that characterized the Cold War or the prior big wars. Our understanding of the Somalian setting and dynamics, our understanding of the Balkans are very elementary compared with the kind of deep understanding and investment in understanding that we brought, say, to the Axis in the Second World War or to the Soviet system in the Cold War.

That lack of understanding reflects, in my view, a set of internal priorities which are no longer appropriate. It tells us something about our educational systems and our ability to focus on long term questions of specialized knowledge; it certainly tells us something about our media and the kinds of information that we make available to ourselves.

MODERATOR

*That is a good point to close this discussion. This afternoon, in our next session, we will talk about the role of the media in the cultures of violence and what it might be in a culture of peace.*

THE *third*
CONVERSATION

THE VENICE PAPERS

# The Information Revolution & Education

## *Images of Violence, Images of Tolerance*

*Back in the library Friday afternoon after lunch-time discussions at tables and during mid-day walks along the canals.*


UN Photo 187051 / P. Sudhakaran

*Portuguese soldier teaching in a makeshift schoolroom in Mozambique.*

## GRANT HAMMOND *Moderator*

*Now we turn to the role of the media. This topic has been cropping up in our talks right from the beginning. Clearly there is passion and conviction among us about the media and its potentials.*

*To some, the shorthand of CNN with its images of carnage all over the world broadcast in near-real time is a revolution. I would like to suggest that perhaps things are not that different. It has only been a century or so since the rise of popular, inexpensive newspapers and the wireless telegraph made politics a matter for people, not just princes. What we are seeing now may seem high technology and Third Wave but, in a real sense, the new capabilities are just refinements of changes already underway.*

*On another level, however, the "information revolution" is profoundly different: it brings in pictures, not just words, and it brings them right into our homes. A recent example of this was the media treatment of Somalia last fall. The television images and intense discussions clearly propelled the intervention we were analyzing this morning. And in Rwanda, as we have learned here in Venice, hate messages are apparently being broadcast by a government radio station. In one case, the media prompted a humanitarian intervention; in another case, the media may be accelerating the killing.*

*How are we to think about these potentials?*

## FRANCO FERRAROTTI

The media seem to have the power of setting the agenda. More important, the image has a synthetic value – we think we are right there all the time. If the media can set the agenda, they can set the order of the day; they tell us what we can talk about. These are media which do not mediate. They pressure. The image of a dead body can force sudden, drastic decisions.

This is almost mesmerizing power.

On the other hand, they tell us very little about the background, about the meaning of what is moving the policy makers and the public. With the media, emotion is bound to have the upper hand over cold-blooded calculation. If we had known more about the Somali situation, we might have been much more cautious; we might not have made the distinction between a humanitarian enterprise and the necessary military consequences. In the former Yugoslavia we need to admit that even now we do not know enough about the various ethnic, religious, and cultural divisions which animate that very complicated situation.

*The media do not mediate. By not mediating, they degrade truth into a mere sequence of isolated facts – facts that are both precise and irrelevant.*

**FRANCO FERRAROTTI**

So I believe the media do not mediate. And by not mediating, they degrade truth into a mere sequence of isolated facts – facts that are both precise and irrelevant. These powerful images, the images of tremendous atrocities, often appear to be awakening the moral spirit of the times. But somehow, they are taking place so far away that something gets in the road of rational thought, of probing for the meaning of what we see.

Perhaps we are approaching a stage of "second degree" morality with great emphasis on emotions. Unfortunately, any kind of intervention for peace keeping – and even more especially for war prevention – does not take emotion. It requires a cold-blooded, sober examination of all the forces on the field, a clear-headed analysis of what is happening. This includes not only military forces and political forces, but cultural forces and historical factors. All these complexities escape the analyses of emotion.

So I believe that the media, far from being a factor in a moral awakening, are actually a kind of alibi, a drug, a factor in impulsive and compulsive behavior.

## ALVIN TOFFLER

I agree with Professor Ferrarotti and would wish to add only one thing: time. The media fragment information. No two stories on page one of a newpaper appear to have any relationship to one another. More important, they accelerate. They demand instant decisions by political leaders, by business executives, even by the general population. The consequence is stupid decisions, made under high pressure with inadequate information.

In my view, this acceleration is an important consequence of the modern media – an even more important consequence than their role in setting the public agenda. It means that, no matter what the agenda, our decisions will be made under pressure and ineffectively.

*The media fragment ... they accelerate. They demand instant decisions ... The consequence is stupid decisions... .*

**ALVIN TOFFLER**

## GRANT HAMMOND

On that same note, the frequency with which we are brought bad news at home and from abroad has a narcotic effect. We are numbed not to care about any one of these disasters.

## FRANCO FERRAROTTI

I agree, but there is a paradox with the media, with the news as it is reported to us. It is true that everything is accelerated, everything happens in "real time". And yet nothing seems to be happening somehow. I have been asking myself why. We are not watching a play in the Theater of the Absurd. Apparently, television – the "war in your living room" – modifies profoundly the categories we use to think. The space-time framework we use, our conceptual framework, is being changed. We no longer have a taste for old-fashioned conceptualization.

The way we reason, the way we make decisions, the way we digest information critically, the way we decide on a course of action, implement it, and have some control over the outcome has to do with concepts. It has to do with generalities, with the Socratic digging and squeezing out of the core substance of many different instances. In contrast, the media give us a synthetic image which catches us directly and upsets the framework of space, time, and category.

Now if that it so – and I do not know yet whether it is, but I feel it – this frenetic acceleration, these kind of emphases, can not lead to rational decisions in the classical sense. It is something different. We act as though we were pushed – by "we" I mean armies, presidents and prime ministers, the power centers – by forces and factors that are beyond our control. We believe that we are well informed and that we choose

*... this frenetic acceleration ... can not lead to rational decisions in the classical sense ... We believe that we are well informed and that we choose to act ... But no one seems to know how much to do, how far to go, or even what is at stake.*

**FRANCO FERRAROTTI**

## ALVIN TOFFLER

to act. But no one seems to knows how much to do, how far to go, or even what is at stake. The most terrible thing is how the politicians can state the obvious with a sense of discovery.

In the end we are taken by surprise. Suddenly we act. The hypocrisy bothers me greatly – to be, all of a sudden, dismayed that someone has been killed on television. We must not have very much imagination. Do we not know that people can be killed? We want to do good and, all of a sudden, we are surprised that our decision has evolved into something we did not anticipate, something we do not like such as shooting at people when we wanted merely to be protectors.

These are some of the unanticipated consequences of the whimsical, even mystifying role of the media today.

I can relate a personal incident which casts light on this problem. Ten or twelve years ago my wife Heidi and I made a television program based on our book, *The Third Wave*. I wrote the script. When it came to lay the narration against the pictures, the producer-director said there were certain changes he would like in the script. I said, "Okay, I'm not picky about my writing, please edit.".

I discovered that the television editor wanted to delete the first words in our paragraphs. These were words like, "therefore", "because", "since", "and", "in relation to" – the logical connectives. The reason they wanted to delete those logic-connecting words was because they wanted the freedom to let the pictures dominate, to rearrange the words freely, placing them wherever they chose. By eliminating those connectives they were able to have visual freedom – at the cost of logic. For me, that was an extremely revealing glimpse into the differences between television and the written word.

## PETER ACKERMAN

We are talking about the media as a kind of narcotic. In my experience, the visual media especially have become more partisan over the years – partisan on both the conservative and liberal sides. More, they have shifted toward treating the news in terms of its effects and away from reporting the data for our own judgments.

Lately we have seen the advent of the "docudrama". These are stories written to approximate the news but are actually portraits of what people would like to believe the news means. This inversion presents the news in ways which inflame passions and reduce the possibilities of contemplation.

Our parliamentarians are also being impacted by these trends. Parliaments seem less able to sit in contemplation of complex problems of public policy.

The result, I believe, is greater opportunity for manipulation. This may be an important area where UNESCO can make a contribution. We all have a decided aversion to censorship, but that is not the issue here. These are questions of responsibility and balance; it may be that UNESCO can help set standards.

*We are talking about the media as a kind of narcotic.*

**PETER ACKERMAN**

## FEDERICO MAYOR

We have had an experience with that. After a commission, chaired by a Nobel Laureate, reviewed these questions a number of years ago, UNESCO started to articulate some ideas about the responsibilities of journalists and about what constituted balanced news. The result was the so-called "New World Information and Communication Order". This was an extremely negative process for UNESCO.

*The first article in the UNESCO charter says that UNESCO must guarantee the free flow of information.*

**FEDERICO MAYOR**

These ideas came just when a number of governments could use – misuse – them as an excuse for "balancing" the flow of information and for giving journalists the requirement to be "responsible." This was before my time at UNESCO, but when it happened I went to see the Director-General – this was early in 1983 – to advise him that this was an extremely dangerous matter.

Now we are seeing this problem again, but this time from the industrialized countries. Rich countries are coming to us saying, "You know, the broadcasts from" – they name some neighbor – "are intolerable. They are broadcasting things to our people which we consider offensive. UNESCO ought to do something". Now, the first article in the UNESCO charter says that UNESCO must guarantee the free flow of information. So I tell them, "UNESCO Article One says 'free flow'".

We can not, in my view, interfere with the interactions among democratic countries. If, in any particular country, a parliament decides that a neighbor's broadcasts are offensive, then they should deal with that at the country level through genuine democratic and diplomatic methods. Of course, we advise to be careful not to incite violence and to include messages of tolerance

and sensitivities to other countries. We can advise that news ought to be factual and that opinion ought to be separated from the reporting of fact. And we support intensive training courses for journalists.

We also help newly-independent journalists get started. Only three months after the fall of the Berlin wall, we convened a session in Paris to help the newly established independent newspaper journalists meet their Western counterparts. We repeated it for television and radio journalists. These sessions were so successful that we repeated them in Africa where there have been immense problems of press freedom. We convened a Pan-African meeting for pluralism in the media; a number of the journalists who attended had been in jail. Then we did another session in Kazakhstan for the former Soviet republics in Central Asia. Very recently we did it again in Santiago, Chile with a conference on freedom of expression and journalism in Latin America.

At the end of the Santiago conference, on the last day, a problem arose which may interest you. Some of the representatives from different governments, some of them very distinguished journalists, said that all journalists ought to have academic qualifications before they could be allowed to work. There we were seeing the roots of restrictions. We said, "No".

*In Rwanda an immediate, independent source of news ... could have made a fundamental difference...*

**FEDERICO MAYOR**

We said very clearly, "No, it is not up to us to set barriers. We can suggest a profile for good journalism, we can say that journalists must respect the facts, that they must not be partisan, but we can not require an academic degree".

*The media can and do play a positive role ... I believe the media are very useful in countering violence.*

**FEDERICO MAYOR**

Dictators would be very glad immediately to create their own "academies", to create their own "ideal" journalists. Freedom of expression is too important to allow these qualifications to creep in.

We can also protest – as I have done many times – against proposals to embargo the media. It has too many negative aspects. For example, you know that there are restrictions of the free press in the states of the former Yugoslavia. With embargos on the media the new governments can control what little information they allow their own citizens to receive. That is a mistake; it is wrong. All those citizens should have complete access to a free press.

UNESCO can help in this regard. In Bosnia we are supporting an important newspaper, *Oslobodjenje*. I have just visited the staff in Sarajevo. They are doing a wonderful job in horrible conditions. They are wonderful, very tired people. We have also given funds for an international broadcasting facility and helped a cultural radio station. The existing radios were each in favor of one of the sides. Each side was broadcasting its own messages against the others. An independent source of news was needed. There is more than one side to the problems in the Balkans.

In Rwanda an immediate, independent source of news would have been important, it could have made a fundamental difference and helped keep the peace. We need this kind of capability as a strategic tool. We need to be able to broadcast independent news immediately, in the local languages, in order to enable the local communities to understand the forces of violence. In Haiti we have already done this.

## MARY KING

We bought very good portable broadcasting equipment. This inexpensive capability has let the Haitian people have a sense of what is happening in the world.

The lack of unbiased information can become extreme. It is intolerable when the media are allowed or encouraged to provoke conflict. Intolerable. When we learn of this, we must act immediately.

But let us not just focus on the negative. The media can and do play a positive role in many conflicts. It may not always be perfect, but I do believe that the media are very useful in countering violence. Through the media, we gain an immediate view of what is happening. The immediate, pathetic view of humans caught in a tragedy can create a public awareness – a public bias against conflict. To be sure, this can sometimes be distorted. But, in general, I find this impact of the media to be very positive.

To summarize, there are two sides to this strategic problem of public information. On the one side there must be freedom of expression both for the individual and for the media. On the other side there must be free availability of news from the rest of the world. These are strategic issues and they are each essential aspects of peace building.

I will not dispute that there are many positives, but I also see some important negatives of the media's impact in conflict. One of the problems is that the media, in my experience, tend to emphasize events over analysis. The reporting of wars is favored over the reporting of the wars' causes. Conflicts have complicated underpinnings. If only the daily events are "news", then the fundamental dimensions of a conflict may not be reported at all.

In that same vein, concepts like "reconciliation" which are complex, or concepts which are evolutionary, which take time to develop and evolve, likely will not be treated by the news media at all. In my view, the news media are almost incapable of portraying these processes. Any green shoots of a local resolution to a conflict may go unrecognized and unencouraged.

Instead, our news industry has an entertainment orientation. This has profound implications. In my personal view there is a public appetite for violence and conflict. When news becomes an entertainment it actually may nourish the desire for violence as a part of human life.

There is another angle: in a democracy, foreign policy can be driven by special interests. And special interests which know how to mobilize the media can influence foreign policy. There are no groups arguing for greater clarity and more explanation in the media's coverage of issues.

A particular problem in democracies is the media's desire for access to the political leaders.

*I will not dispute that there are many positives, but I also see some important negatives ... One of the problems is that ... reporting of wars is favored over the reporting of the wars' causes.*

MARY KING

## MANFRED MAX-NEEF

Unfortunately, access can be bought and sold. It can be traded just as readily as leather handbags are sold on the sidewalks here in Venice. This allows a kind of intellectual corruption in the media – corruption that I am particularly worried about in my own country, the United States. We do not usually think of corruption in intellectual terms, but I think the problem is vast. The media and people in government traffic in the buying and selling of who will answer the reporter's phone call, who is going to give an interview, who is going to volunteer a hot tip or leak a document, or who is going to block a story. This is intellectual corruption in the processes of governance.

There is another phenomenon – one far away from the halls of government. In my experience, the media are also very weak at portraying the ordinary stresses in the daily lives of working people – people struggling to make a living, fearing unemployment, worrying if they will have enough to help their children get ahead. These kinds of programs seem quite popular. To me, this shows that social issues, even those which undermine the society – unemployment, working class dissatisfaction – are not "news". The media seems able only to engage these core issues through the side door of entertainment.

All of these factors, in my view, add up to a very serious problem – the media are not able to contribute much to conflict resolution. And I am not a fan of that term. I do not believe in conflict resolution. I believe in the permanence of conflict. I believe in the constancy of conflict. There was a song in the American civil rights movement – an old Negro spiritual with the words, "Freedom is a constant struggle". I believe in the constance of struggle.

That is why I fear the media often contribute as much on the negative side as on the positive. I see the media as very much a double-edged sword.

Last year I was a presidential candidate in my country. I learned a little bit about the media, particularly because I was not backed by political parties or by any type of power establishment. My candidacy was backed exclusively by social movements and social organizations which are far removed from the microphones. I discovered that the central role of the media is to control access to the microphone.

The world in which we live and perceive is the world described by those who hold the microphone. I am, of course, very concerned with what Federico Mayor just talked about – freedom of expression. But at this stage I have to wonder whether the media really are *facilitators* or whether they are the *limiters* of the freedom of expression.

I am not a politician and this was my only incursion into politics. Probably it helped me not to be an expert. I didn't develop any complexes when I made mistakes – sometimes the mistakes turned out even to help me. At the beginning, for instance, I thought it was important to have good ideas. Quickly I discovered that was irrelevant. It is not what you have to say but to whom you say it. The "whom" is the person who interviews you. I discovered that as long as you are not interviewed by certain persons you are a nobody, no matter what you say or where you say it. The interviewer commands immense power.

We offered great ideas in my campaign. Now, much later, they are beginning to have an effect, but it took a real effort to get them through. At the beginning, I remember, if I called a press conference I was lucky if even one reporter came. I might get someone from a remote radio station that nobody listened to. Then something happened. I was interviewed by an important journalist – the type of person who has to interview you for you to become somebody. This person was from the main paper in Santiago. Actually, the interview was not very good; I had given much better ones. But this was the thing to do; this was the person to have as an interviewer.

*I was a presidential candidate in my country. I learned a little bit about the media ... I discovered that the central role of the media is to control access to the microphone ... It is not what you have to say but to whom you say it.*

**MANFRED MAX-NEEF**

That interview happened about the same time as an invitation to a funny TV program, a humoristic program. I did not know that because I don't watch television. When I arrived at the studio there were these very funny people who started joking around. I have a good sense of humor so I started joking around, too. At the end, they gave me one minute to speak. I made one of my most genial speeches – I said nothing and I promised to do nothing. This ridiculous appearance immediately boosted my candidacy to incredible proportions. Independent candidates have to collect signatures, a minimum of 36,000 signatures. The day after I appeared on this comic program, the collection of signatures quadrupled. From then on when I called a press conference, people came.

I began to analyze, What is this all about? It doesn't matter whether you have good ideas. It is the "when", the "how", and the "who" behind the microphone. In Chile we have lots of newspapers, but only two companies own everything. People think they can read five different newspapers and get a spectrum of opinion. Baloney! It is all the same. We are constantly being fooled.

The question is whether the media is a hindrance or a facilitator. Assuming that it is an inhibitor as I have suggested, what are the alternatives? How can one get close to the microphone if one does not have a direct influence on the established power groups that are behind the media?

This is particularly important, I would say, in many developing countries.

An example is my country, Chile. We are now something of a favorite of the IMF and the World Bank. We are the showcase, the model of how development can work. The microeconomic indicators are beautiful. Those close to the microphone are describing an absolute success. But that is not the real picture, it is only a part of it. How do you get through to the other part?

## GRANT HAMMOND

That is particularly difficult in countries where the government controls the media. In other countries with a richer arrangement of small publishers and broadcasting stations, one can try to work from below by approaching each of these local outlets – attempting to build a broader impact by accumulation.

## FRANCO FERRAROTTI

We are still talking about the media in a generic form. The individual sectors of the media are different; they do loosely follow different logics. I recall a debate right here in Venice some years ago with Marshal McLuhan. He had just published his book, Understanding Media. I thought then that we needed to keep the logic of the printed word – an article or an essay – separate from the logic of the synthetic, emotional television image. We need to beat one against the other, to achieve a critical interaction. Maybe one hour of television watching should be matched by two hours of reading – plus some conversation with others.

I later realized I was wrong. That idea was too easy. The interaction we need is a more difficult one. The underlying economic interests, the material interests of all the media, including books, force the media to "drug up" their products in order to compete with television. That is why we seem to be talking about only one medium, television. Here in this country we have a TV tycoon who became prime minister after a campaign lasting some two months.

*... the media "drug up" their products in order to compete with television. That is why we seem to be talking about only one medium, television.*

**FRANCO FERRAROTTI**

Now television puts everything in the immediate present. There is no past; there is no future. The immediacy of the image synthesizes worlds of meaning. So I continue to make a plea for the critical interaction among the media, but now I do it with the proviso that the newspaper editors and writers of books are not going to be stripped of their logical, time-aware passages. The printed word should remain faithful to the coherent logic of writing and opposed to the logic of the immediate image.

This might seem like the wishful thinking of a daydreamer. The consequences are not only important in terms of psychological *bildung* but there are, as we have just heard, important political consequences.

## TOM FORSTENZER

There are other media. When we consider long term issues such as our subjects here, peace building and peace keeping, the longer term approach involves some other media we have not mentioned. I think each is important.

*There are other media.*
*The most crucial is the school.*

**TOM FORSTENZER**

The most crucial is the school. School is a colossally important medium. Because it does not link directly to the "media", it does not necessarily teach its students how to deal with "media", It creates passive clients of the media. Alternate teaching approaches might create critical clients of the media. This is an area, I think, where educators and psychiatrists could do some useful work, especially around the question of violence.

A second medium worth discussing is this new, so-called information highway of global computer interactions. This is a new medium, one in which people can communicate with one another directly across vast distances. It is conceivable that people will come to seek the news from eye witnesses who are on the scene. That might change to a significant degree the monopoly that the press now has on telling us what is going on. In the future, people may be able to find interlocutors they trust and ask them directly, "What did you see?" That could have a big impact on the role of the press.

A third and different medium is new forms of active leisure. More and more we see people attempting to fill their leisure by doing something other than sitting passively in front of a TV set. The growth of hundreds of new channels and technology lets us choose more widely and interact with the television medium. This may let us look more deeply into issues and give us more educational forms of cultural tourism. As Professor Mayor defines it, education is a continuous, life-long process. These new capabilities may help serve that goal.

MODERATOR

*Because these questions of the media go directly to questions of the nature of human nature, of the capacity of humans to be, for example, driven to violence by the media, I would like to turn the conversations now to this problem of tolerance versus intolerance and the role of what Tom Forstenzer has suggested is the most primal medium, education.*

## LARRY SEAQUIST

I mentioned earlier that we might think of "peace" as the condition of a healthy society. It would seem to me that the individuals within a society start life as plastic personalities – and then they learn. Individuals can be bent by a Hitler towards extraordinary violence. Or they can be bent towards the violin and become astonishing in their capacity to create beauty.

If that is so, is not the work of civilization to reinforce the capacities of society, to bend toward the positive? And if that is so, then we must resist those who assert that, using a current example, that people in the Balkans are simply "vicious killers, always have been and always will be". According to this view, we should do nothing in Bosnia until they "get tired of killing each other". We have heard that analysis from the American President.

I wonder whether you would agree:
Is individual human nature plastic? Can it be pushed one way or another – in part by politicians using the media? Can it be pushed by education? And if so, then is not the business of civilization to try to equip ourselves with societies which are able to resist those deformations toward violence? Is that not the core business of education?

## ZAGHLOUL MORSY

Education can be an excellent vehicle to resist violence. However, in my long experience of observing education systems all over the world, I have learned that we must structure the programs carefully. We must also take the long view. Human mentalities are not easy to change. Education systems also resist change, so the process must be slow and long term.

## FEDERICO MAYOR

And we must be clear about the roots of violence. I am still hearing people say that all this hatred and antagonism is emerging as a result of the end of the Cold War. I always say, "This is not the result of freedom, this is the result of oppression". There is a common idea that freedom releases violence. I disagree.

Another common error is to attribute the violence to human nature. Again, I disagree. In 1986 we made what is known as the Seville Declaration on Violence. At that time there was talk in some quarters about experiments in genetic selection – trying to make brilliant children and so on. We were very worried where this might lead.

The Seville Declaration, accepted by the General Conference of UNESCO, came after careful consultation with the best scientists. It asserts that, with the exception of some cases of genetic defects, there is no scientific truth to the idea that, at the moment of birth, some children have a precondition that can prompt aggressive or violent behaviors.

*... we must be clear about the roots of violence. I am still hearing people say that all this hatred and antagonism is emerging as a result of the Cold War. I always say, "this is not the result of freedom, this is the result of oppression".*

**FEDERICO MAYOR**

So therefore we are led directly to the importance of education. We must try to educate in non-violence; we must try to educate in the skills of living with other kinds of people. We need to pass this message to all the media and to the teachers. We need to educate in tolerance. We must attack violence – violently. We are surrounded by violence, books with violence, violence everywhere.

*There is a common idea that freedom releases violence. I disagree. Another common error is to attribute violence to human nature. Again, I disagree.*

**FEDERICO MAYOR**

## EMMA NICHOLSON

I wonder if sufficient work is going on to analyze how violence comes within a human being. As a Member of Parliament, I do a considerable amount of work with prisoners. I have noticed a common thread – which may or may not be supported by research – between violent men and their inability to write. I link this back to what Franco Ferrarotti said about the difficulties of conceptualization and logic through images: television logic as opposed to the beauty of logic through reading. It makes one wonder if there is some sort of physical link between the hand, the eye, and the brain. In a sense, people may be enabled to express aggression creatively and productively through writing. It may be that writing is more important than visualization.

I would like to see some form of research begun – I do not think it is happening – about fragmented personalities. In the prisoners I see a link between their fragmented personalities and their writing: they can not join themselves together. At least that is what I see in these violent men that I go to visit. I do not find this lack among drug offenders. Often they are highly literate with good writing skills.

I also wonder if, alongside our concerns for education, we want to take on board the lack of knowledge we have about the building up of the brain from the grandmother's diet. There is a researcher in the U.K. who has observed in a hospital a succession of badly nourished grandmothers, mothers, and daughters, all with lower than average educational attainments. That reminds us of how important it is that we take a long term view. If we are truly to have an impact on violence, some of our programs and projects should be pointed toward the basics of healthy life.

In a sense, these basics are aspects of the media, too. We need to think about the humans who are receiving these many messages at the same time we are considering the channels and methods of communication among us.

*If we are truly to have an impact on violence some of our programs and projects should be pointed toward the basics of healthy life.*

**EMMA NICHOLSON**

**TOM FORSTENZER**

Let me interject that you have touched on the precise reasons for organizing these discussions – to look a little more toward the creation of a healthy society and to be more concerned with the humans themselves.

## ZAGHLOUL MORSY

My feeling is that we can not fight violence with violence. We have to fight violence with values. To me, education is the most flexible means of communicating values.

Of course, there are many different values – traditional ones and new ones. We have to make a choice. In my view, we ought to turn to values which are universal and stable. And I believe it is practical to educate in tolerance and human values.

## MANFRED MAX-NEEF

It seems to me that always, when we end up in a dead end alley with one of these confoundingly difficult problems, we say that the way to solve it is through education. To get rid of dictatorships, we have to educate; to attack underdevelopment, we have to educate. And here, we wish to say that it is a matter of education to counter violence.

What are we saying when we say this? First of all we have to ask: Who educates whom? Educators and students, we all come from the same environment. It is difficult to break free.

*It seems to me that when we end up in a dead end alley with one of these confoundingly difficult problems we say that the way to solve it is through education.*
*What are we saying when we say this?*

**MANFRED MAX-NEEF**

Also, we need to think about this in the terms of the economist, my own profession. I agree with Federico Mayor that we should violently attack violence. But is the dominant economic system in the world today compatible with non-violence? Our world economy is essentially based on a philosophy of greed and accumulation. That is our framework. Where do we start to educate? The children? Or the educators?

But then, I don't understand what we mean when we say that we must fix a problem by education. It is like the technologists who offer technical "fixes" to problems. I am not sure that we know what these "fixes" are.

## FRANCO FERRAROTTI

What do you do if you wish to educate children about violence? Tell them not to be violent? Do you give them a course which runs from 9 to 10 every day? Or do you create an environment where there is no stimulus for violence? And what sort of education would that be? An education through teachers or is it self-education?

Perhaps this is a matter of recognizing the difference between the revolutionary and the evolutionary. The revolutionary person says, "I am the archetype. The society should be like me and then we will all be okay". The evolutionary sees it the other way around: "There is something wrong with me. If I do not change, then I can not attempt to change other things". I am coming to the conclusion that this is a crucial difference.

The Argentinian poet Juan Gelman, at the end of one of his poems says, *"Hurah, por fin, ninguno inocente"*. "Hurrah, at last nobody is innocent." I think that is absolutely beautiful. It means that "there is something wrong with me, and if I change with purpose of becoming more coherent with myself" – and I think that is the right direction of change, toward coherence – "then other people may want to do the same.". Is that education? If it is education, then I would agree that we need to solve the problem of violence with education. But if it means only that we are going to prepare certain people to give certain lessons to certain students from a rote syllabus, then I do not agree.

Who will guard the guardians? I agree. On the other hand, we must guard against the idea of treating people as though they were a kind of fluid wax, malleable. I think education can do a lot. But education is done through education systems. Those systems are rooted in their own histories and those roots can be dangerous in terms of intolerance. Most bloodshed in history has been culturally justified.

There are history books, for instance, which are very ethnocentric and very narrow-minded – despite the admirable efforts of UNESCO to help develop open, balanced history texts. Sometimes history books have helped direct people one against the other.

I personally feel that education is a very risky business. You never know what you are going to come up with.

There is one thing we ought to do though. We should make a transition from the elite concept of culture where the man of culture, the educated man, stands alone against the masses of uneducated people. This is the concept in Europe, North America, and Latin America which comes from the Judeo-Greek-Roman-Christian tradition. That culture is over. That kind of culture should be obsolete. As I say that, I am crying inside because it is a marvelous idea with a wonderful heritage, but it is elitist. We must move to another concept.

In order to educate in terms of violence, in terms of acceptance of the otherness of others, the diversity of others, we have to accept a concept of culture as an instrument and an occasion

*In education you never know what you will come up with. ... in the end, when you are asked, "What did you do?" you can only answer that you are a teacher of complexity.*

**FRANCO FERRAROTTI**

– a practical occasion of learning by doing, of culture as an instrument of self-awareness. I would call it a problematic consciousness; you are never completely right. You have to give everybody the benefit of the doubt. It is not absolute; it is relativist.

You might call it the idea that a cultured person, an educated person, an educated youth is a strong believer and yet is not a true believer. She or he is not ready to give up everything, say, to accept Hitler's concepts of science and order.

In education you never know what you will come up with. You can not educate everybody. You can talk, you can try to wake up the consciousness but, in the end when you are asked, "What did you do?" you can only answer that you are a teacher of complexity. There is not much else to do or to say. Now some would say that this is simple, that you are just passing from the left hemisphere of the brain to the right. As if you were going from Venice to Milan. That is too simple. You do not travel that way. We must travel with all our luggage. Education is a complicated journey.

**GRANT HAMMOND**

I agree that we should be careful about education. As an educator, I find that most people talking about education mean "training." Training is telling people how. Training is giving people answers. To educate is to ask "Why?" and to encourage questions. To educate is to empower people to learn for themselves. And, as Franco Ferrarotti says, it is a risky business. You can not know ahead of time how it will turn out. It is a risk well worth taking, but it is not to be undertaken with the colonialist idea that you are going to teach the problems and the answers to the locals.

I remember a quote from somewhere: "If I have to tell someone what it is they are to know, I rob them of the opportunity of ever truly knowing it.".

*... most people talking about education mean "training". Training is telling people how. To educate is to ask "Why?" and to encourage questions"*

**GRANT HAMMOND**

MODERATOR

*With that we will close this session.*
*It is a lovely afternoon;*
*you may wish to take a walk before dinner.*
*We will reconvene this evening to take up another thorny basket of issues.*

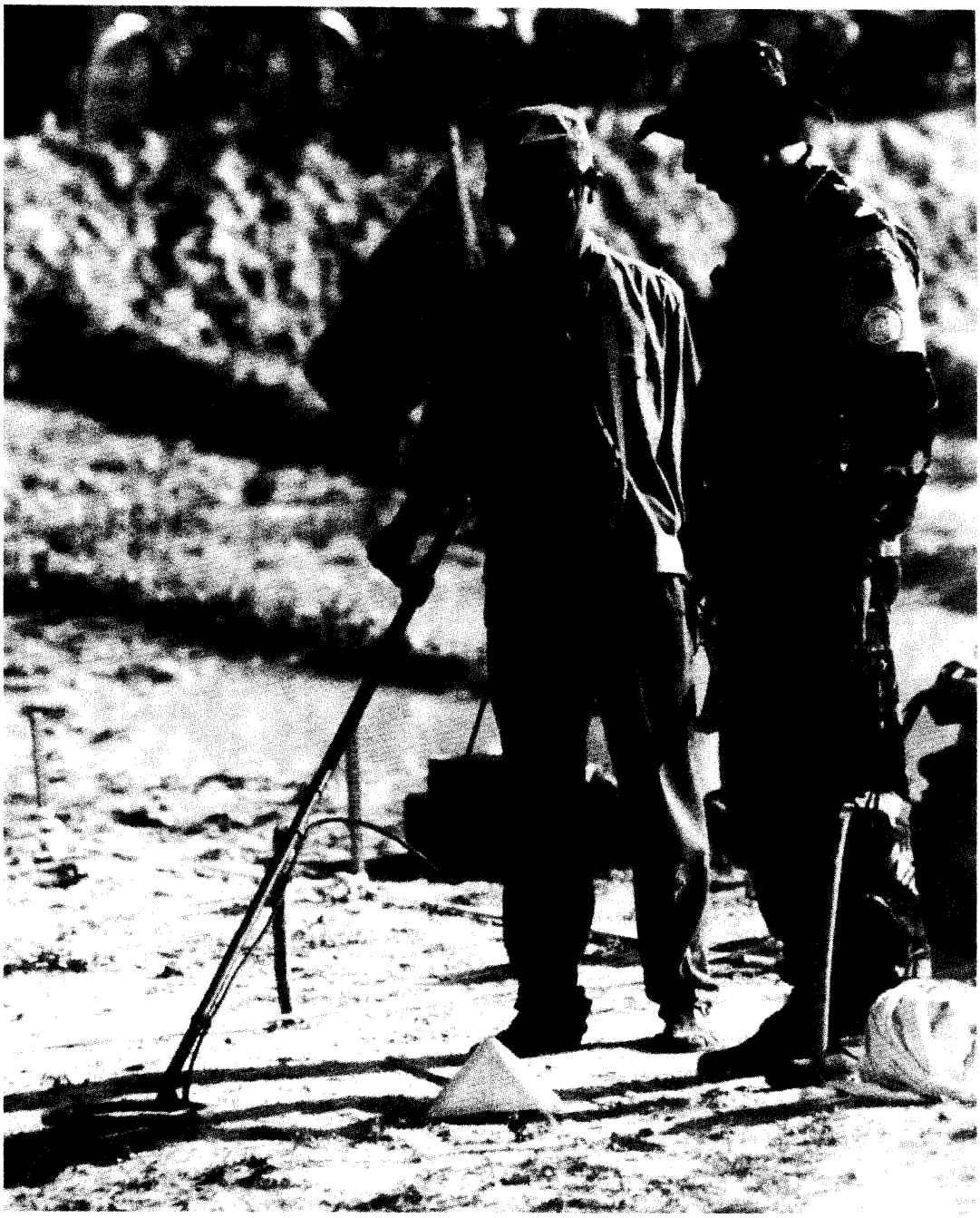
THE *fourth* CONVERSATION

THE VENICE PAPERS

# Fertile Fields

## *Population, Environment and Technology*

*Later Friday evening back in the library*
*– a long session well into the evening before a late Italian supper.*



UN Photo 159492 / J. Bleibtreu

*Bangladesh peacekeeper teaching landmine detection in Cambodia.*

## AUGUSTO FORTI *Moderator*

*World population growth and the human impact on the global ecology present titanic challenges. Population pressures and economic competitions over the environment and natural resources may fuel conflict and violence. They may also be the wellsprings of enhanced cooperation. We have asked Professor Franco Ferrarotti to lead off with his thoughts on how we might think about these risks and opportunities.*

*Much as we might regret it, military weaponry and lethal technologies are diffusing rapidly among these growing populations. The means of killing is becoming a special kind of environmental problem. We will turn to those considerations in the second part of this session.*

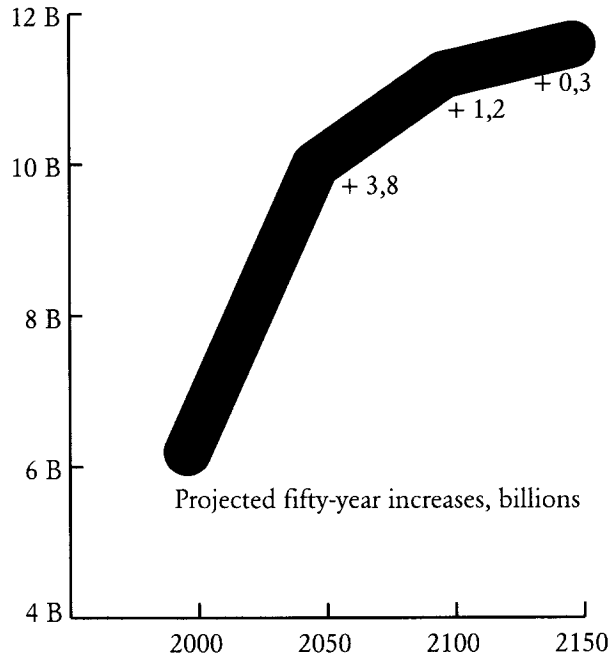
*First, Franco Ferrarotti.*

## FRANCO FERRAROTTI

The demographic conditions in the world today pose, if not a threat, at least a serious problem. There is nothing particularly new about it. We just need to recall the names of Thomas Malthus and the others who have spoken to these issues on one side or another. Moreover, we all know that world history has both Cassandras and optimists, each with passionate views.

I am a humanist, from the soft sciences. But when I am with a group of "hard scientists" and tough-minded people like this group (laughter) I like to use a few figures to give the impression of rigor. So here, briefly, are some numbers and the thoughts they stir in me.

The population seems to rise so fast as to risk going out of control. One estimate reveals a figure of 92 million newly arriving people every year. Some reliable data seem to show that from 1965 to 1985, fertility in poor countries dropped thirty percent. However, the balance between the newborn and the deceased is disturbing. Since the late 1960s, 1.9 billion more people were born than died. Even if future rates of fertility would be the lowest in history, the children of today – and the children of the children's children – will keep replacing themselves and total population will continue its vast increase.




*Projection of near-doubling of world population by year 2150*

Barring unprecedented catastrophe, the year 2100 will see 10 to 12 billion people on the planet. One set of estimates is offered by my colleague Maximo Levi-Bacci, a reliable authority on demography. Basing his judgments on United Nations data, Levi-Bacci projects (see chart) that the present world population of 5.5 billion will rise to 6.2 billion people by the year 2000, then to 8.5 billion in the year 2025, to 10.0 billion in 2050, to 11.2 billion in 2100 and, finally, in the year 2150 to 11.5 million. That progression is certainly frightening.

But global data can be misleading. One needs to disaggregate them and to look behind them. It is the distribution of this population that is frightening, not so much the sheer volume. In itself the volume is haunting, but it is the concentration and the irrational distribution that are most worrisome. Elsewhere I have written about these things, suggesting five scenarios for the year 2000. In that work I offered some hypotheses which seem to be confirmed by subsequent developments. By the end of this millennium at least sixty cities will have more than five million inhabitants. Moreover, most of these cities will be located in the third or the fourth world or in countries in which the population balance is already today gravely threatened.

Cities like Bombay or Mexico City have a rate of growth that will take them by the end of this century to populations of 19 million and 30 million inhabitants, respectively. Already the degree of pollution, as anyone who has been in Mexico City knows, is barely tolerable. All the economies of scale that made the concentration of people in large cities convenient in the nineteenth century after the Industrial Revolution are reversed.

*All the economies of scale that made convenient the concentration of people in large cities ... are reversed. Precariousness becomes the norm.*

**FRANCO FERRAROTTI**

In Asia, as well as in Latin America and Africa, we witness more and more the alarming phenomenon of urbanization without industrialization. Urban congestion and downgraded, miserable living conditions with unemployment, malnourishment, crime, and expedience become a normal way of subsistence day by day. Precariousness becomes the norm.

Conventional wisdom needs to be severely scrutinized and revised on this subject. It is fact that you can always blame any particular difficulty on something other than population. It is obvious that people do not die of "overpopulation". That remains an abstract economic and social construct. People die of war, of under- or malnourishment, of mass diseases. But actually, these are only the proximate, visible causes. The underlying, invisible cause is overpopulation.

Yes, it is important to redistribute population in order to decongest the large cities and to change land use rules. I respectfully submit, however, that more people means more resource use, more pollution, less biodiversity. The world is not infinite. The resources are not limitless. As things stand today we know that the present rate of demographic increase worldwide can not be sustained indefinitely. The resources of the planet are not only limited – they are already under great stress.

*One should think in positive terms of what to do. It would be a tragedy if the current situation were made worse by misunderstandings among policy makers.*

**FRANCO FERRAROTTI**

In my view, purely ideological or theological confrontations on this subject, no matter how well intentioned, are devoid of practical value. They should be avoided. I am thinking of this country and others where there are constant diatribes about birth control.

One should think in positive terms of what to do. It would be a tragedy if the current situation were made worse by misunderstandings among responsible policy makers.

Let me offer one particular example of what, in my opinion is a useless, negative debate. This is the friction between a recent document issued by the United Nations and the position taken on abortion and contraception by the Catholic Church. A more serene consideration would perhaps open the road to a badly needed cooperation. One can understand the weight of dogma and moral principle which underlies the position of the Catholics, but moral principles can not be reduced to a prologue to heaven. They need to be vitally connected to the actual, historical experience. Fear of existential contamination leads inevitably to ineffectiveness and, finally, to the sterility of dogma – dogma which remains a kind of makeshift, *pro forma* expression of unattached high morality, morality without any vital link to day-to-day living.

On the other hand, the Catholic Church itself, especially under the guidance of John XXIII, has gone through a severe soul-searing and critical self-examination. It is well known that birth control, first approved by a majority vote by a commission established by John XXIII in 1963 was later disapproved in an encyclical, *Humanae Vitae*, by Paul VI in 1968 – a negative position asserted many times with growing firmness, I would say with growing militancy, by John Paul II. However, the doctrine does not seem to be strictly enforced by parish priests among the grass roots believers. It is ignored, simply ignored – a double standard.

*... it should also be recognized that the problems are not simply derived from population growth per se.*

**FRANCO FERRAROTTI**

*Our basic goal could be fewer births because of a lower level of poverty. That is a different goal from trying for less poverty through forced birth reduction.*

**FRANCO FERRAROTTI**

As regards the United Nations document on abortion and contraception, the reaction by the Catholic Church appears to be, in my opinion, excessive. No one would dream of regarding abortion as a good thing in itself. The real danger against which the action of the United Nations is explicitly directed is public health and mortality, especially among women and children, as a result of clandestine, unsafe abortion practices. To confuse the need for planned parenthood, recognized today by most developing countries and the threat of recrudescence of Western imperialism alleged by the Catholic response, amounts to a gross misrepresentation.

I am sorry to have to say this. Italy has many distinctions, one of them is to have in Rome the headquarters of one of the five major religions. But I have to say it – it gives us a good example of what in my view is a narrow-minded, basically ignorant unwillingness to confront the day-to-day problems of common people. Rather, each side, instead of insisting on a dogmatic, unilateral, and abstract approach, should accept the relative validity of the other's argument.

When the biologists claim that an uncontrolled increase in population poses a threat, their

argument should be taken into a balanced consideration. Perhaps without the alarmist overtones, but the case should be looked at on its merits.

On the other hand, it should also be recognized that the problems are not simply derived from population growth *per se*. It is true that a more rational and politically viable redistribution of resources and of the populations themselves could be effective. But let us go back to the first hand: the underlying phenomenon is excessive population for the present condition of the world. Our techniques of agriculture are overloaded, our social habits are creating huge, blighted urban centers. Demographic growth has to be seen in a global framework. It is one variable among many, but it is certainly one of the most important variables.

Our basic goal could be fewer births because of a lower level of poverty. That is a different goal from trying for less poverty through forced birth reduction. The concept of lowering population growth by raising wealth could provide a common platform for discussion and a basis for wider cooperation.

The crucial variable is timing. It takes time to improve economic conditions, material conditions, education conditions in such a way that developing countries might naturally control their birth rate. And, at the same time, what we might call "demographic education" should be offered if requested.

These are just some of things I have been thinking about. This is a very serious problem we all should be thinking about. I would value your own ideas.

## MANFRED MAX-NEEF

Two comments, please. I fully agree with your concerns about the absolute numbers and about the distribution. In this respect, I believe we should look at the responsibility of our common economic model.

Let us take Europe. Concretely, let us take Spain as an example. In the last decades over 3,000 towns and villages have been abandoned in Spain. In the contemporary economic model they are no longer viable. Small towns are collapsing all over France as well. Small stores are being closed down by the thousands. There is a long, frightening article in a recent Newsweek magazine about the "decaying grandeur of France".

My friend and colleague in England, Professor Mike Cooley made a study for the OECD. He concluded that within the decade, and taking Europe as a whole, not less than 100,000 towns and villages will have been abandoned. The Cantabria region in Spain, traditionally a prosperous, agrarian area, was condemned a year ago as a "poor" region. Why? Because it is good for the overall European economy. What happens to the Cantabrians? Well, that is a problem for the Cantabrians.

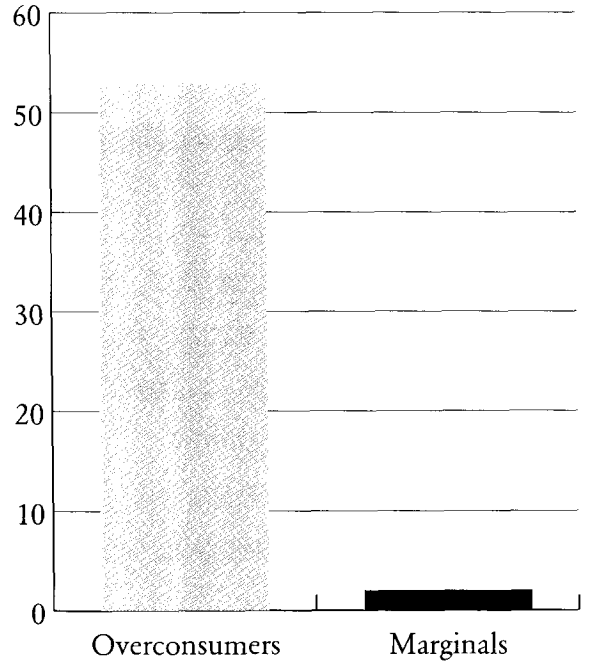
I wish to underline this perversity. The type of economy which is dominating the world today, rather than being an economy at the service of people and life, puts people and life at the service of the economy. It puts people and life at the service of trivial macroeconomic indicators. That is absolutely perverse. It has an important effect on the demographic situation. It has an important effect on the happiness and unhappiness of people.

What happens when the places where you were born, where your ancestors died, loved, bought, laughed, danced and fought, ceases to be viable for "economic" reasons? A village is not a factory; it is not a form of production. It is Life. It is roots, culture. What is happening today, as Federico Mayor rightly said about the case of the former Yugoslavia, is not the consequence of freedom but the consequence of oppression. Cultures were suppressed in the name of hegemonies. Now cultures are being destroyed in order to establish "economies" all over the world.

That is my first point. And I make it because, being an economist, I must insist that we be very critical about the economic model that we use. We must be clear on the responsibilities of that model in violence, in demography, in everything.

The other point I offer is about numbers. We can count in different ways. For example, you could divide the world into a new set of classes. At one extreme, the Overconsumers; at the other extreme, the Marginals. In the middle are the Maintainers. The archetype of the Overconsumer would be the average U.S. citizen who consumes every day, more or less, his or her own weight, about 53 kilos. This is 53 kilos of fuel, food, packaging, and so on. The *Marginals consume about 1.5 kilos per day* – this by about 1.5 billion people. One kilo and a half for these people includes fodder for their animals, fuel for their fires, and so on. The ratio is thirty-four to one!

What is the demographic meaning of this? Which are the heavily overpopulated nations? It is the rich nations, not the poor ones. You multiply the population of the United States by 34 and you will have the equivalent population in Bangaladeshis. One person is not equal to one person is not equal to one person. Those differences are not being taken into account. (See chart below)




*Comparative consumption, kilos per day*

## PETER ACKERMAN

If the projected numbers are 11.5 billion by 2150, I do not see where the problem is. If the dogma is that 11.5 billion in 2150 is too much then someone needs to determine what too much is today? Who will do that? I think you would have a great deal of difficulty in showing that America is suffering from overpopulation.

*The idea that our resources are under stress is an unexamined assumption.*
*... if we wish to drive down birth rates, I think we ought to look less to resource shortages and more to education and creating incentives for keeping young women at work.*

**PETER ACKERMAN**

The idea that our resources are under stress is an unexamined assumption. I remember this argument being made in the 1970s when we had commodity shortages – we were supposed to be running out of oil and food. Extrapolations projected great shortfalls, just as extrapolations are now projecting great excesses of people. Yet here we are, plenty of food around the world and we are swimming in oil. In general, we are not strapped for resources. In general, I am not sure we can make the argument that we will be strapped for resources in the year 2150.

In my view we ought to be looking more toward education resources than commodities. We see today that education for women and the ability of women to be employed is a greater creator of birth control than the production of condoms or the inculcation of planned parenthood ideas. Education incentives lead to well-employed women who in turn send their daughters to go to school. Ultimately birth rates fall, and they fall rather rapidly.

So if we wish to drive down birth rates, I think we should look less to resource shortages and more to education and creating incentives for keeping young women at work.

Now, about markets, greed, and avarice. In my view, the issue about profit is not whether you make it but what you do with it. Is it reinvested into the enterprise or is it reinvested elsewhere? This is where the lesson of Russia is important. In the Soviet system Russians had no concept of factor pricing. They had no way of looking at what costs were, at what the output benefits were because there was a centralized schema of pricing and control. The Soviets could not effectively deploy their capital to create the productivity they needed to match the West.

Whatever the issue of greed might be, you have to develop returns on assets. Otherwise people's general productivity will stay low and the ability of the overall economy to progress will stay low. Focusing on the allocation of resources will keep everyone's productivity low, reduce the ability to absorb a growing population, and ultimately miss out on the inherent checks in population growth which accompany economic success.

## EMMA NICHOLSON

As a modern politician I am expected to endorse automatically the concepts of birth control and population control. I am expected to believe that teaching people how to control their own fertility is a desirable project. As a politician I am getting increasingly concerned about this. I find I can not go along. That is partly because, when we take up the extrapolation of numbers, the fundamental idea seems to be that we see people as a threat, not as assets to welcome.

As a politician, I also fuss about the desire we find in ourselves to control other people's fertility. I find that significantly unattractive.

I move to another concern: when we talk about limited resources we are speaking only about those we use now or can identify as possible to be re-used in the near future. We forget the immense resourcefulness of people. Among these additional people will be more Michelangelos; among them will be more people who can invent, who can find new planets.

All right, that is a dream, but if we do not dream we make no future.

If I could joke about this for a moment, I think back to 1901 in London. Just before the motor car appeared, there was a study done about the problems of overpopulation of London. The study stated that the horse manure from all the horses pulling the carriages was going to pile up so high with the overpopulation of people demanding more horses in London to pull them around that it was actually going to get up to the

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**EMMA NICHOLSON**

*... who are we to make decisions on others' quality of life? ... What is the reference mark against which we are defining "quality of life"?*

**EMMA NICHOLSON**

first floor windows. People were not going to be able to live in London because they would not be able to see out of their houses. Then the motor car came along a few days later.

I have a great belief that people's essence is creativity if they are educated to use their creativity. That is the difference between humanity and other living beings on the planet.

I ask who are we to make decisions on others' quality of life? We seem to think that "x" amount of quality equals "y" amount of people allowable on our planet. What is the reference mark against which we are defining "quality of life"? It is a phrase that at the moment we fling around with gay abandon. I do not find it a sustainable phrase. It needs to be harnessed, identified, and used more rigorously. We are using it like another phrase being used on the English-language political scene called "a level playing field" – as if there ever were one.

One could suggest that population control is a morally sustainable concept if we create a way of thinking whereby we sacrifice a growth in quality of life for those in the higher reaches of today's quality of life in order to lift up the quality of life for others. But we do not do that. I think we are nearer to the concept of keeping the numbers down so that our comfort and security are not at risk.

The truth is – at least it is a truth as I see it – *birth control empowers women* in a way that can only be compared to empowering women by giving them the vote. These two things, one a scientific discovery, the other a shift of social perceptions have, in fact, created a very frightening situation for those who enjoyed the old power relationships. The invention of the Pill is a development which truly unravels the fabric of inherited society. We now have a very different scene.

My own view is that population control is tapping into deep psychological concerns. Perhaps these are being pinned onto population control issues when they ought to be addressed directly, on their own merits.

To be effective in allowing women freedom they have to be able to earn. My personal view is that freedom is economic freedom. If you do not have money in your pocket you are someone else's slave. In order for the woman to achieve her earning capability she must be educated to allow that earning capability to be exercised to the fullness of her abilities. That is tough because you are creating new power bases for the world. And how do you control those power bases? By controlling fertility.

I would also like to challenge the statement, put forward with great eloquence, that "nobody would dream of regarding abortion as a good thing in itself". In politics we learn that absolutes are never sustainable. And, of course, there are parts of human society, even in recent history, that have regarded abortion – in their local frameworks – as a good thing.

## FRANCO FERRAROTTI

May I interject? I would say that among policy makers, among politicians in countries in which abortion has become accepted, none look upon abortion as a joyous happening. None at all. I am sympathetic to your statement, that there is something almost sinister in curtailing fertility.

## EMMA NICHOLSON

Yes. I would prefer the attitude that, in societies where abortion is commonplace, it be taken on a non-judgmental basis, that it is understood that some women do use it as a method of fertility control.

I move on from there, not as a Catholic, but to suggest that there may be some merit in the Roman Catholic position because of its respect for the sanctity of human life. But my question mark is, the sanctity of whose life? I met in Colombia a mother who looked at though she was 75. She was only 35 and had twenty children. The sanctity of her life was an absolute non-event to the Roman Catholic Church.

Finally, this question of weighing consumption is much too crude a method of determining quality of life. I agree with Peter Ackerman on this – although I would differ with him about the lesson from Russia. I would suggest that, rather than centralized pricing, the problem was the inability of people to make decisions about their own economic future. Lack of choice was the real problem. I recall some farmers in Hungary telling me that they learned the lesson late in the Communist system that Me and Mine was very different from Us and Ours.

To me the key, whether it is population control or economic freedom, is the people themselves – they must be empowered to make their own judgments. That is the secret. It is not up to us to bully others into submission in any way we like.

*To me the key, whether it is population control or economic freedom, is the people themselves – they must be empowered to make their own judgments.*

**EMMA NICHOLSON**

## ALVIN TOFFLER

I am not an expert in demographics. But just last month I happened across some old UN, U.S., and other forecasts on the relationship between population and food. These were forecasts – warnings, actually – in the mid-1960s by the UN Secretary General, the U.S. President and other top officials. There is an enormous disparity between those predictions and what has actually happened. We should be cautious about the linear extrapolation of almost anything, even when senior political leaders seem to agree. I am suspicious about statistics in general. I include in that suspicion a special category for demographic statistics and the relationships between people and their food supplies.

I echo Emma Nicholson's point about resources. The discussion of resources is a static one using an assumption that there are a limited number of "resources" and that there are limited amounts of them. We even have the military these days identifying so-called strategic resources – things we can not do without. A hundred years ago oil was just a black gooey nuisance oozing out of desert sands. It was not until the automobile that it became "strategic". No one knew what to do with the white powder called titanium until technology emerged which made titanium useful.

We are in a period of technological revolution – and only at the beginning of it. A lot of the things we now regard as resources are going to turn out to be useless. A lot of things that we do not even imagine to be useful are going to become resources. We should not draw these straight-line assumptions about numbers of people and amounts of resources to divide among them. We need a process view rather than a static view.

Moreover, if I am correct about the differences between an emerging Third Wave economy and technology and a Second Wave economy and technology, our attitudes toward technological progress ought to shift. In a Second Wave society resources are concentrated in huge amounts for the purposes of mass production. When they are concentrated in a few locations, they overwhelm the natural capacity of the region to deal with the effluents and the pollution. A Third Wave economy goes in many different directions. Production is dispersed rather than concentrated; de-urbanization begins to occur.

One of the major wastes of resources is in commuting. We are beginning to see substantial numbers of workers doing at least some of their work at home because it is cheaper and easier to transmit information to the worker than it is to ship the worker to the work. There are many ways in which the emerging technologies are ecologically more friendly than Second Wave technologies.

I have great difficulties with the Luddite assumptions made by some that all technologies are bad. There are different technologies. Some are brute force, some are brain force. Each has very different environmental and resource effects.

Would it really be a surprise if over the next half century or so, long before 2100, if there were some really substantial breakthroughs in energy production? Who knows? It might be cold fusion or one of a hundred other possibilities. We can not count on any one specific invention but we can certainly expect breakthroughs and surprises. We just do not know which they will be.

## FRANCO FERRAROTTI

There is a British anarchist who used to say that it would become possible to grow food for the whole world in a flower vase. That was a vision of what might be. I share that view.

On the other hand, there is a logical inconsistency in reasoning only through the technological dimension. We can see right now situations in which it would be possible to decentralize production, but it is not being done. Why? Because there are vested interests. So I agree about the possibilities, but the transition is not that easy.

## MANFRED MAX-NEEF

Again, I would like to take issue with some of these thoughts. I think it is not wise to distrust some of the forecasts that were offered in the 1970s. Yes, some of them were wrong. But there is also some new evidence which was not taken into account then. And some of them were right.

There are problems with resources, not with all of them, but with some. Some are very serious. Fisheries are collapsing in many places. We have to change the concept of scarcity in economics. Traditionally scarcity had to do with human-made capital. Today we have scarcities of natural capital. We are fishing less not because there are not enough fishing boats but because fish populations are dramatically shrinking. That was not the case before. The same is happening with deforestation. We are destroying biodiversity not knowing what potential resources may be there.

*We have to change the concept of scarcity. Today we have scarcities of natural capital. We are fishing less ... because fish populations are dramatically shrinking.*

MANFRED MAX-NEEF

The point is that the new evidence today has less to do with the sources of the resources and more to do with the sinks – where the resources go. Those factors were not taken into consideration in the early 1970s. The destruction of the ozone layer, the greenhouse effect, is the consequence of many of these "fantastic" technological advances. Yes, there is a lot of food now as a consequence of the Green Revolution. But what have been the negative consequences? If you only look at the amount of food you miss the fact of a very reduced diversity – today it is not more than five or six crops, that is it, that is all we eat. The quantity is okay, but we have a big crisis in diversity. I think this is very, very

## LARRY SEAQUIST

dangerous. It is not sustainable.

I do not wish to fall into the trap of the technological fix. It is not wise. If we truly believe in the technological fix then we can continue behaving irresponsibly.

About quality of life. I have personally been working a number of years on those types of indicators. We have come to the conclusion that you can analyze the rich countries using very good indices. In a rich country you can clearly see that a long period of economic growth goes together with improvement in the quality of life. But there is a point – we call it the threshold point in my institute – beyond which more growth *deteriorates* the quality of life. This has been studied for the United States, it has been studied for Germany. In my institute, we just completed the study for Britain. In all cases it shows the same situation.

This means that the qualitative component of growth is extremely important. As Emma Nicholson said, it is not that anyone is going to reduce voluntarily their own quality of life in order that others can improve theirs. No, they are going to experience a reduced quality of life because that is the direction their economy is going: down. More traffic accidents, more crime, more pollution. All because of excessive growth.

Not only are we losing quality of life because of overconsumption, we are avoiding improvement elsewhere, because of this phenomenon of sagging quality in the developed world.

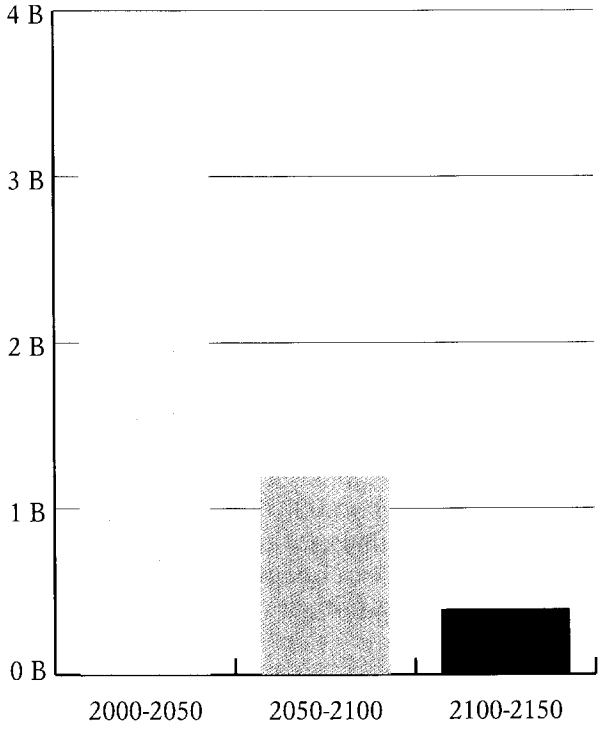
It is just a matter of elemental wisdom to ask the question, How much is enough? And that is the question: We can not continue believing that more of the same will always be better. In many cases we have already crossed the thresholds into areas where we may not be able to recover.

One way to get a sense of the urgency of these issues is to ask how long a period we have to solve them. If we consider these growth rates and these scarcity trends, it seems that it is our generation and the generation of our children which are going to make all the critical decisions about these problems. We are only fifty years away from having these population-resource problems under control or out of control. (See chart)

I conclude that it is quite urgent that we solve these problems. Essentially, it is the challenge of our generation and of our children's generation to solve these problems.

In my view, the core challenge is political. Will we have the political maturity in the very near future to cope with these problems which, in some cases, are clearly running past the stops?

A second way of judging urgency is to ask where are the points of no return – the points where we can no longer restore the fish populations or fill in the ozone holes? Dr. Mayor, in *The New Page* you and Tom Forstenzer say that there is a risk of irreversibility. Would you explain that a bit more? How close do you think we are to any of these precipices?




*Projected population growth in 50 year increments, billion*

## FEDERICO MAYOR

I am somewhat optimistic. Not because I think we will develop a strategy at the world-wide level. That could be a role of the UN Security Council in the future, to take these kinds of global decisions concerning global problems. But that is not the case now. We do not have an adequate global forum for these titanic problems. Nonetheless, I am more optimistic because, as we see in India, many individual countries are beginning to take measures. India is making intensive efforts in education. As Emma Nicholson points out, women take a new approach when they are trusted with their own destiny. This is happening in India. I have been there, I have seen the increase in education and the remarkable decreases in fertility – by as much as 60% – which follow almost automatically.

*Compulsory practices are not what we are aiming for. We must make an immense effort to give education for all. In my view this is the best thing we can do.*

**FEDERICO MAYOR**

So I believe that we can make a great difference if we continue to help with education, especially the education of women and girls, particularly those living in dispersed, rural villages who are today unreachable. As I often remind people, there are today 600,000 villages without electricity, 600,000 villages where people live lives with far less than we can imagine. We can address that problem; we can mitigate the present trends in population.

In my view, population is *the* problem. I confirm it in my frequent talks with heads of state and prime ministers. They immediately listen. Normally, when I talk about most of the world's problems, these leaders are so overburdened by their own urgent problems, by everyday matters, that they can not listen to you. But when we talk about population and emigration they listen. When we talk about the results of violence and radicalization because of poverty, they listen.

It is true that overpopulation is a result of aggravated poverty and that it leads to emigration and to more pollution. The problem of overpopulation is an essential, core problem. We must have a vast strategy of using all our possible approaches to give every single woman and man the chance to decide by themselves. We must not impose on them our external orders.

We tend to overlook the approaches used in some countries, like China, to produce lower fertility rates. The result is good and we prefer not to know the methods. But compulsory practices are not what we are aiming for. We must make an immense effort to give education for all. In my view, this is the best thing we can do.

At the same time we must work on all the other fronts, too. We have immense possibilities in biotechnology. And we must work on energy. In some countries things are going well with biomass production, solar energy is excellent in some places with lots of sun. We must study all these possibilities.

But my position is that we must say to all those who do come to the planet, "Welcome!" We must try to moderate the fertility rate, we must try to curb population growth, but we must also tell those who come: "You are welcome. We have used our science and there is food for you". It was for this reason that we drafted the statement on the Rights of the Generations to Come. On the fiftieth anniversary of the UN, this is one thing we should be saying.

*My position is that we must say to all who do come to the planet: "Welcome!"*

**FEDERICO MAYOR**

## EMMA NICHOLSON

About the "technological fix". Ethiopia taught me something about this. I noticed a small invention which took hold when the West was bringing in food during the famine. It took some time to work out, but the result was that one man with one plow can now use one ox rather than two oxen. Two was the ancient, unexamined practice. Plowing with one ox is a real technological fix. It has revolutionized everything because few farmers could afford two oxen. They had to wait to share. Now they can do two harvests instead of one.

*Do we need to measure quality of life by the numbers of things? Perhaps it could be measured with other qualities like tolerance ...*

**EMMA NICHOLSON**

Ethiopia is an interesting case study in another respect. As I understand it, forty percent of the fertile land has remained untouched, never farmed. Ethiopia could support itself. Another observation: the food we brought in created diversity. We gave them a taste for wheat. Scientists are now working on a strain of wheat which will thrive in the high, wet areas of Ethiopia.

Therefore I suggest, when diversity is under threat, that mankind has the capacity to create storage mechanisms for that diversity. There is an apple place in Britain which now has 4,600 different varieties of apple. It is outgunned by another one up the road which has 6,400 varieties. Yes, we have the capability to destroy, we are a destructive species, but we also have the ingenuity to outstrip that destructiveness.

About quality of life. Do we need to measure quality of life by the numbers of things, the numbers of cars, the numbers of washing machines? Perhaps it could be measured with other qualities like tolerance which we have seen grow in Britain through our education system. There is a great growth in tolerance toward each other and toward differing points of view. Those changes are much more difficult to quantify than traffic accidents.

Another point – I would like us to redefine "intervention" as "interference". People are better at making their own decisions. As Federico Mayor says, we must give people choice by giving them knowledge. Then we should welcome the outcome.

The area where I would like to see the Security Council and the other eminent bodies engage is migration. That is where we should address ourselves.

## FRANCO FERRAROTTI

This has been a most gratifying discussion. I do not make a fetish of numbers, but these projections, given to us by the United Nations, do lead to useful discussions. I assume that is what the UN has in mind when they publish them. For myself, I believe that numerical accuracy is absolutely impossible when it comes to social developments. The value of these numbers, if we remember that they are crude, is in their ability to propel our thinking.

If I summarize correctly, technology is not the ultimate answer. In my view, technology is perfection without a goal. It is what a German philosopher called the "eternal return of the identical". Technology is of great value, but it is only instrumental. I feel we have been so mesmerized by technology that we expect it will automatically work out all our problems for us. This can not be true. I think human, political responsibility is unavoidable, especially when we come to problems which are not technically solvable once and for all. These population problems are cultural problems, social problems, problems of growing awareness.

*Technology is not the answer...*
*Human responsibility ...*
*is unavoidable ...*
*Population control is not*
*the right idea ...*
*Life has to do with morality.*

**FRANCO FERRAROTTI**

Another summary thought: "population control" is not the right idea. Women and men have the right to decide. And, if we set up a welcoming committee, the people who do the greeting should themselves have been made welcome, to have been desired.

It is inevitable, when you talk about life, when you talk about fertility, that you talk about human mystery. These problems go beyond the numbers, they go beyond the technology. These issues touch on the moral quality of our world. I want to see new life not as a blind product of statistical behavior but as a conscious, desired outcome of responsible human beings.

Life has to do with morality.

MODERATOR

*We have been talking about the proliferation of people and whether technology might have something to do with equipping us with the capacity for many more to live their lives on the planet. Now I would like to push the deliberations onto another relationship between people and technology – in this case the technology of death and injury.*

*We have asked Larry Seaquist to sketch some of the issues forced upon us by the rapid proliferation of weapons in the world.*

## LARRY SEAQUIST

Here is another set of issues where population growth, technology, moral issues, and our views of how much we trust our fellow humans to make good decisions all come together. As with the population trends, it is easy to worry.
The real questions are: What actions do you take? What sort of general approach is useful? I will suggest some actions, but only with the expectation that your ideas will be much better.

One way to start thinking about weapon proliferation is to ask yourself what value you place on weapons. In the Cold War we placed very high value on military systems. We believed that weaponry created peace. We built massive nuclear arsenals in the name of peace. Had you visited the headquarters of the U.S. missile and bomber command near Omaha, Nebraska, you would have found a sign over the gateway saying, "Peace is Our Profession". That was the motto of the Strategic Air Command which was capable of destroying the planet. Our belief was that we could create peace by possessing this fire power.

Is that still a good theory? I think that is a key question on the agenda of civilization.

If it is still a valid theory, then weapons, particularly nuclear weapons, remain quite valuable. Apparently many still think so (exempting our host, Federico Mayor, who led off our discussions the first day with his observation that it was the sudden diminution of the nuclear confrontation which led him to write *The New Page* and then invite us here to Venice).

Notice how important we made the nuclear weapons in our discussions with Russia and Ukraine after the collapse of the Soviet Union. We accepted the "nukes" as important coinage in our transactions with Kiev and Moscow. We are also doing that with North Korea – making the nuclear weapons an important lever in the regime's political power. In the Gulf War, we made it clear that big weapons were very valuable. In my view we validated Saddam Hussein's theory that having a big army and biological weapons was useful.

Mao Tse Tung had some advice on this matter: "Political power grows out of the barrel of a gun". One way to think about proliferation as you look around the world today is to note that the political actors are proliferating vigorously. The total number of members of the UN has about doubled in fewer than ten years. The total number of notable political actors around the world, most of them not UN members, is in the many hundreds or even thousands. All are struggling for political clout. All seem to be using Mao's guidance in order to extend and sustain their power – power exercised externally in their region and internally over their own people.

The great powers whose political capital could traditionally be expected to manage the weaponry in the world are themselves quite weak. Look at the G-7 leaders, for example. Most are holding on to office by their fingernails. The proliferation of lethal technology – desired by many actors wishing to increase their own, local power – is throwing up a huge political problem at the very time when the political establishment is quite weak.

With that preface, here is my own sketch of the proliferation problems we face. To appreciate their significance, it is useful to start with a review of how we thought about weapons in the Cold War.

A main element of our Cold War strategy was deterrence. We used massive destructive power in the bi-polar confrontation to prevent the Soviets from attacking. That was our view in the Western alliance. In the Soviet view, the weapons conferred an equality in political stature.

A second element of our Cold War strategy was our desire to limit the possession of these massively destructive nuclear weapons to the competitors in the bi-polar confrontation. So a partner to our deterrence policy was non-proliferation. We wanted to deploy massively destructive weapons while limiting the risks of those weapons spreading elsewhere. In the Nuclear Non-proliferation Treaty only the five permanent members of the Security Council are acknowledged holders of weapons. Everyone else is supposed to agree not to try to get them.

The third part of the Cold War strategy was a technology transfer policy. We were playing a

## *Sources of weapons proliferation ➤ Number of political actors.*

### LARRY SEAQUIST

*Sources of weapons proliferation (continued)*

- *Rise in numbers of political actors seeking power*
- ➤ *Rise in numbers of discharged military people*
- ➤ *Wide diffusion of technical expertise.*

LARRY SEAQUIST

two-sided competition game. We – on either side – would give you technology if you would sign up on our team. Military weapon sales – or gifts – were part of the political deal making intended to strengthen our side and weaken theirs.

Will the three elements of that strategy work as well in the next fifty years as they seem to have worked over the past half-century? I think the answer is patently, No. Deterrence, non-proliferation, and friend-making arms sales are no longer the recipe for peace. At times, they might be directly dangerous.

As Federico Mayor says in *The New Page*, and as Alvin and Heidi Toffler say in *War and Anti-War*, we now operate in a world fundamentally altered from the one we knew in the Cold War and during the big wars of the twentieth century. Likely, we will need a different strategy about weapons and their proliferation.

What are the elements of proliferation that a different strategy will have to cope with? The first, after the proliferation of political actors hunting power, is the proliferation of former military people. Leslie Atherley, who runs UNESCO's Culture of Peace Programme is here with us. He was telling me at breakfast this morning about his projects in Mozambique and El Salvador to help retrain ex-soldiers left over from those conflicts. There are many such spots in the world. Wherever a conflict resolves itself, there are usually enormous populations of left-over soldiers. The Soviets had well over three million people in uniform; they say they plan to come down to 1.2 million. That is, they are dumping out into their society a massive quantity of professional military people. We are doing the same in the West. The U.S. military is downsizing about twenty-five percent, outplacing about a half million warriors. And of course, there are many states in the developing world like El Salvador and Mozambique and Afghanistan where people whose primary skill has been carrying a weapon are now looking for another way to earn a living.

The next kind of proliferation is the diffusion of knowledge. One of the ideas at the center of Cold War mutual deterrence was the notion that nuclear weapons and ballistic missiles were so difficult to build that only the leading countries had the knowhow. Both sides kept their nuclear and missile technologies hidden under very tight security. That is all gone. There are no technologies left which the great powers can control with security barriers. None. I keep asking my colleagues to name one or two or three technologies that the military now controls. No one can.

Formerly, if a Defense Department or a Ministry developed a weapon and put a security

*Sources of weapons proliferation (continued)*

- *Rise in numbers of political actors seeking power*
- *Rise in numbers of discharged military people*
- *Wide diffusion of technical expertise*
- ➤ *Vast supplies of handguns & ordinary weapons.*

LARRY SEAQUIST

blanket over it; they owned it. They could control the dissemination of those capabilities. And, of course, each side developed an intelligence apparatus to penetrate the other sides' security to see what those secrets were. All that is now irrelevant. The commercial world leads in the development of all forms of technologies, benign and lethal. And that commercial expertise and technical knowledge are to be found everywhere today around the world.

In Southern California, just one region of one state in the United States, reportedly 400,000 aerospace engineers have been put out of work in the last few years. Most have computers, faxes and Internet access, all have phones, all can get an airplane ticket. So too, are enormous numbers of ex-Soviet scientists and engineers out of work. Huge numbers of experts are available and a world wide array of communications capabilities enables that expertise to flow anywhere.

We need to guard against Western arrogance. It is not just "Western" expertise at issue. One does not have to be a citizen of a Western country to be very well educated – often in Western universities. Local engineers may be quite competent. They may be cheap, too. There are lots on the market. High tech engineers are probably cheaper than Venetian gondoliers – there are more of them.

Next in our list of proliferations is ordinary weaponry – common conventional systems. Ordinary, old-fashioned guns and knives still have "graveyard dominance" around the world. Missiles and lasers can be deadly but ordinary handguns, rifles, and land mines are doing almost all the killing. Sadly, these killing tools still comprise an important sector for many countries, including my own, the U.S. . Note the experience of that remarkable man, President Vaclav Havel of the Czech Republic. President Havel, after declaring that the Czechs would make and sell guns no more discovered that his economy needed the income and employment from arms manufacturing. Czech arms companies have been very competent. They will continue in business – a reality of employment and balance-of-trade calculations.

The former Yugoslavia also had a huge arms industry – one of the reasons why the violence in Bosnia has been sustained so long. There are massive stocks of weapons and many factories still turning out weapons and ammunition every day for all sides. And of course, led by the United States – the largest arms dealer in the world – every one of the Western countries is continuing an active conventional arms manufacturing industry – often with the government acting as the chief salesman.

*Sources of weapons proliferation (continued)*

- *Rise in numbers of political actors seeking power*
- *Rise in numbers of discharged military people*
- *Wide diffusion of technical expertise*
- *Vast supplies of handguns & ordinary weapons*
- ➤ *Spread of lethal high-tech systems.*

**LARRY SEAQUIST**

Just like drugs, conventional arms are flowing everywhere, even though we prefer not to notice. I came here from Geneva where I called on the staff of the UN High Commissioner for Refugees. Discussing the tragedy in Rwanda, the man who is in charge of African refugee operations for UNHCR said that a French journalist had reported a few months ago that there were massive Western and South African sales of weapons to both sides in Rwanda. But no one paid any attention to this traffic in "ordinary" guns. In future, we ought to be more alert to weapons sales as an early indicator of impending crises. Instead, we ignore these transactions and fret only about nuclear weapons.

In the Cold War conventional systems were called "lesser included cases". We dismissed ordinary weaponry as uninteresting. They were subordinate to nuclear systems. I would like to see

us reverse this sensitivity and recognize the critical importance of these weapon flows. Like drugs, we are unlikely to be able to stop the transactions, but we will, I believe, find it quite useful to give them a lot more visibility.

Next, as we work up the ladder of proliferation, are the advanced conventional systems. Technology is bringing us some remarkable – remarkably lethal – capabilities. Alvin and Heidi Toffler wrote about some of these things in their new book. These technologies, like the others, are available any place and every place. One can hire a rocket to launch a satellite; one can buy very good quality satellite photography. In Mogadishu, General Aideed's forces use mobile telephones to call one another as easily as Venetians call each other from the canals. And cryptographic devices are available commercially so any group can protect its own communications.

Very important among the classes of deadly new gadgets are simulators. The American tank formations that performed so well in the high speed Gulf War had trained in advanced simulators and specially instrumented practice grounds. Interviewers talking to the young tank crews asked "You have never been in combat before. How did it go?" The usual answer, "Oh, it was just like in the simulators". It is not only the United States Army that can do that. Any country can take simulators now being used by airlines and in other industries and put together a combat simulation system. With computer links, those simulators could even be managed remotely by engineers in some other country. So in the future, combat training might be done out of sight. One day we might be astonished at the military competence a developing country has achieved. Ingenuity is not the sole property of the West.

To conclude this survey, let us move up into the category of what are called "weapons of mass destruction". That is the English translation of an old Soviet term referring to chemical, biological, and nuclear weapons plus their delivery systems. Let us start with chemical weapons.

Chemical capabilities are the most visible. Large amounts of precursor chemicals are required; often the intelligence services can see these stocks moving around and building up. But notice that many legitimate and necessary industries – like fertilizer manufacturers – use the same kinds of materials. Many of the industries that we are anxious to help get started in developing countries are the industries which simultaneously enable a chemical warfare potential. And chemicals, called by some the "poor man's nuke", can be attractive to many. Notice that most of the countries around Israel have a chemical warfare program. Almost certainly, those chemical weapons are, in some fashion, intended as a deterrent or a counter-balance to Israel's nuclear capability. This is not just a potential. Chemical weapons were used extensively by both sides during the long Iraq-Iran war. Saddam Hussein also used chemicals on some of his own villages. The North Koreans have chemicals as do many other states.

Nuclear weapons. The Chernobyl reactor disaster reminded us of something very important. Nuclear weapons are very, very dangerous. Many developed the lazy habit during the Cold War of thinking about nuclear weapons just as big

*Sources of weapons proliferation (continued)*

- *Rise in numbers of political actors seeking power*
- *Rise in numbers of discharged military people*
- *Wide diffusion of technical expertise*
- *Vast supplies of handguns & ordinary weapons*
- *Spread of lethal high-tech systems*
- ➤ *Increase in chemical weapons holders.*

**LARRY SEAQUIST**

*Sources of weapons proliferation (continued)*

- *Rise in numbers of political actors seeking power*
- *Rise in numbers of discharged military people*
- *Wide diffusion of technical expertise*
- *Vast supplies of handguns & ordinary weapons*
- *Spread of lethal high-tech systems*
- *Increase in chemical weapons holders*
- ➤ *Loss of control of nuclear weapons & materials.*

**LARRY SEAQUIST**

numbers: so many hundreds of megatons of hypothetical explosive power, so many hundreds of rockets fired in imaginary barrages between East and West, so many calculated megadeaths – that horrific euphemism. This was all very sterile until Chernobyl. Just numbers, not real people. Now we know how many thousands of hectares of land can be contaminated by a single nuclear release, how many thousands can lose their lives, their health, their homes, everything from just one accident. Now we understand that even a very small nuclear weapon is "strategic". Even a very old weapon is very significant.

Please note that there are lots of old, small nuclear weapons in the world. Lots of them. We do not know how many. According to a recent *New York Times* report, the Soviet Union may have manufactured over 70,000 warheads. No one knows and the Russians have never given an accounting of how many were made. In the U.S. there is a remarkable woman, Hazel O'Leary, the head of the Department of Energy who has been acting in the spirit of *glasnost* to reveal all of the American sins over the past decades of nuclear production. One confession disclosed the discovery of about 700 kilos of Plutonium in the state of Idaho. What was notable was that no one knew the Plutonium was lost – they thought it was under lock and key in Colorado. That is enough perhaps for 700 small bombs. And this is in the U.S. where, in principle, our government is more open and our officials are fully accountable. Can you imagine in the old Soviet Union how much nuclear material has been "lost"? The Soviet system was one which forced everyone to lie to each other and to cover up mistakes.

So perhaps there may be something on the order of 15,000 to 20,000 old, small nuclear weapons around, but no way to make sure we know how many or where they all are. If only a few are loose, just a few, they must be for sale. I insist. They must be for sale now, today. We must assume that they have been sold and moved around – perhaps with the assistance of these many virulent mafias in the world and the huge amounts of money they command.

Now, if one can buy a weapon, then one can bypass the enormous expense of building and hiding a weapons manufacturing capability. That is the kind of capability we discovered that Saddam Hussein had hidden in Iraq. No such nuclear infrastructure is needed anymore. A rogue state, a leader hungry for ultimate power can go direct to ownership of a few weapons. Delivery can be by very homely means: trucks, airplanes. Nothing special like exotic intercontinental missiles launched from nuclear submarines under the water is necessary.

Finally, we must add biological weapons to these worries. If I may preach to you briefly, I wish to persuade you that biological warfare is very real. It is not just a theoretical skeleton in a scientific closet. In the Gulf War, the coalition allies knew that Iraq had biological weapon capabilities. Huge amounts of casualties could have resulted from an attack. But we did not know how the Iraqis thought about these capabilities – why they had acquired them, why they might use them.

One of the problems of biological warfare is that there are no direct fingerprints left by the

*Sources of weapons proliferation (continued)*

- *Rise in numbers of political actors seeking power*
- *Rise in numbers of discharged military people*
- *Wide diffusion of technical expertise*
- *Vast supplies of handguns & ordinary weapons*
- *Spread of lethal high-tech systems*
- *Increase in chemical weapon holders*
- *Loss of control of nuclear weapons & materials*
- ➤ *Spread of offensive biological warfare programs.*

LARRY SEAQUIST

attacker. Unlike nuclear missile attacks, say, where it would have been so clear that Soviet rockets had been fired that we could have instantly retaliated, with biological warfare, we might not be sure that we had even been attacked or by whom. With some biological agents, people will not get sick and die until days after they breathe the tiny droplets of an aerosol attack.

We might never be sure who attacked. We might not even be sure that we had been attacked – at least not sure enough to launch a retaliatory strike. For example, there are Bedouin nomads with camel herds roaming through the Saudi peninsula, Iraq, and Iran. Anthrax is indigenous in those camels. If we were to lose troops to an outbreak of anthrax, we might not be able to prove unambiguously to the international community that Saddam Hussein had ordered an anthrax aerosol attack. We could be left with nothing to do except bury our dead and decontaminate. He could pressure us; we could not exert any leverage in return.

To conclude, let me invite your attention to the verbs. The verb of the Cold War was "to deter". I think we need to change, to add some more action words to our vocabulary. I would start with verbs like "to inform", "to engage", and "to trust". Openness, not secrecy will be one of the keys to security ahead. It is reassuring to see that Federico Mayor in *The New Page* and Alvin and Heidi Toffler in *War and Anti-War* are also urging us in that direction.

To illustrate the importance of choosing the right verb, consider the teenager. Parents can usually "deter" a seven year-old child by threatening grave consequences for misbehavior. But you can not deter a teenager with the same kinds of threats. Most parents know that they can not rely on threats to steer their teenagers through the temptations of sex and drugs. Most parents decide they have to provide information and opportunities to develop good judgment. Is it not the same with the proliferation of chemical and biological weapons, or even quantities of conventional arms? We can no longer treat the countries in the developing world as seven year old children to be threatened. We have to recognize that, like the teenager coping with drugs and sex, ultimately we must rely on the good judgment of even the newer members of the international community. Better, we will not be paternalistic at all; we will treat our fellows in the international system as fellow adults.

That is why I am advocating, under the label "counterproliferation", a fundamentally new, post-Cold War approach which relies on openness, information, and political trust-building as the real defenses of civilization against this vast flood of lethal technologies flowing into every corner of the globe.

But we must be candid enough with ourselves to recognize that one of our new verbs will be "to compel". If, in your neighborhood, there was discovered a house with an enormous cache of weapons in the basement, you would be justified in going to the police and to the courts to get authority to violate the sovereignty of that family

in order to remove the weapons. That is going to be true in the international neighborhood as well. Likely, there will be more than one occasion in the decades ahead when we discover some neighbor with an illegal biological weapon stockpile or some other lethal capability simply too dangerous to be overlooked. We need to be thinking about how we will approach such problems. They are going to approach us and we ought to be ready for them.

A final note: with our deterrence mindset, we have been used to thinking about the weapons as they might be used on some future battlefield. We need to shift that mindset to realize that "use" is also a contemporary political act. One does not need to spray an aerosol cloud of anthrax in order to "use" that biological agent. Just the knowledge of the capability is enough to influence the target leadership. The North Korean government is using its threatened nuclear capability to manage its transactions with the West – and doing quite well at it. The Ukrainian government has "used" nuclear weapons to squeeze the West for more aid and for help in balancing the power struggle with Russia. So these weapons are in quite regular use today in several regions.

In the Cold War we gathered together in an alliance and brandished massive amounts of destructive power to keep the peace. In the decades ahead I do not think that strategy will work. We will need to gather together, but, if anything, threats of force will only reduce our security in the future. In the past we valued weapons very highly. I think our problem now is how to reduce the value accorded weapons. And that is why, in my view, UNESCO with its unique strengths in education and the civil society may have more leverage on proliferation than the traditional, Cold War instruments of military power.

*... I am advocating, under the label "counterproliferation", a fundamentally new, post-Cold War approach which relies on openness, information, and political trust-building as the real defenses of civilization against this vast flood of lethal technologies ...*

LARRY SEAQUIST

*... our problem now is how to reduce the value accorded weapons ... that is why UNESCO with its unique strengths in education and the civil society may have more leverage on proliferation than the traditional, Cold War instruments of military power.*

LARRY SEAQUIST

## EMMA NICHOLSON

I beg everyone to support the statement that we need to have the ability to violate sovereign borders in order to investigate biological weaponry. The Geneva Convention on this is so outdated that it is not usable.

## PETER ACKERMAN

To take these arguments a bit further, the made-to-order weaponry has made terrorism no longer a capital-intensive activity. The World Trade Center bombing in New York was done with only about one thousand dollars' worth of explosives. In Afghanistan we had First Wave countries fighting with Third Wave weapons. One can use readily-available weapons, like a shoulder-fired anti-aircraft missile, to bring down an airliner. Weapons like that which could shut down an industry, or computer viruses are not capital-intensive. They are within reach of lots and lots of groups. So I think we have to be concerned.

## GRANT HAMMOND

I agree with those observations. Let me please add a few of my own worries.

There is a proliferation of potential adversaries. There are lots of non-state actors with clout. They may be terrorist groups, international corporations, criminal organizations. Even individuals with the right resources and knowledge can be as dangerous as a state can be.

A type of proliferation I particularly worry about is the development of things that do not go Bang! There is a whole new class of devices that do not kill, but yet may confer coercive advantage. These include things like computer viruses and satellite-fed navigation systems. A different class of vulnerabilities is to be found within our own countries. Our nuclear power plants, large oil refineries, chemical plants and so on all provide very dangerous targets. A hostile country does not need to develop a nuclear weapon in order to cause a nuclear incident – they just attack a nuclear power plant with the hope of scattering radiation like the Chernobyl reactor.

Air traffic control nodes are another example of modern facilities whose disruption can cause great havoc. Computer viruses introduced there or into the world's electronic stock exchanges offer another scenario for an attack with no clear fingerprints but enormous destructive potential.

And, to come back to our population theme, there is a particular shift in the demographics which I think is quite significant. The older, mature countries with low birth rates are graying. The developing countries with high fertility rates are getting younger and younger. These are high risk trends. In the North, among the developed countries, we will come to see 25% of the population over age 60; in the South, among the developing countries we will have 40% or more of the population under age 15, as I understand the forecasts.

Teenagers think they are immortal. They go to war easily and they adapt to high technology easily. Ahead may be quite different and very young armies. We saw a preview of that in the 1980s during the Iran-Iraq war wherein very young Iranians willingly went off to fight and die.

*... among the developing countries we may have 40% or more of the population under age 15 ... Teenagers think they are immortal. They go to war easily and they adapt to high technology easily.*

GRANT HAMMOND

## LARRY SEAQUIST

I agree. Note, too, that we may not see much more the classic battles between large armies that we are accustomed to think of as "war". In most of the conflicts today – the 40 or so clashes where about four million people are shooting at each other today – we see fewer formal military organizations. They are not even quite guerrillas; more just neighbors under arms. These informal, homely fighting groups may brandish rather high technology.

## PETER ACKERMAN

It may be important in this discussion to remember the power of non-violence. There have been a number a cases where a dictator has been driven from office simply because the people went on strike – did not respond. This was true in El Salvador in 1944; a similar thing happened to Ferdinand Marcos in the Philippines. In the past 20 years, some 30 or more countries have become democratic, all essentially by non-violent means: strikes, boycotts, popular resistance, and collective action. So one of the most powerful counter-proliferation tools may be the citizens inside a country under a dictator who is acquiring chemical or biological weapons. Those citizens have powerful reasons – their own safety – to oppose those programs.

## ILYA PRIGOGINE

I do not want to sound naive about these new kinds of weapons, but it seems to me that throughout history it has always been cheap to kill. There is nothing new about that. Six million Jews were gassed without a great deal of difficulty, in a very primitive way. In Mexico, one of the larger genocides of all time probably, and in Peru, civilizations were destroyed without any technology.

*Is this really new, these threats to humanity? There has always been the possibility of man to kill. The question is how to avoid the reasons to do so... .*

**ILYA PRIGOGINE**

So I do not understand. There is a kind of horror, an emphasis on a horrible situation, which makes even a meeting like this, on peace-keeping and peace building, sound a bit ironic.

Is this really new, these threats to humanity? I do not know if this is really so much more a threat than it has been before. The main question we have to address is not so much the control of all of this, but how to avoid the circumstances which would lead to the use of all kinds of technological advances to produce death. The enumeration of the danger is perhaps not the whole story. It reminds me of the stories from the Middle Ages of the fears that plague could be planted in a town, that water supplies could be poisoned and so on.

There has always been the possibility of man to kill. The question is how to avoid the reasons to do so, not so much to emphasize the possibilities.

## EMMA NICHOLSON

Larry Seaquist made an interesting observation about the decline in power of our major political leaders. There may be an important connection between the weakness of our political leaders and these weapons.

It may be that one reason there has been a decline in the power of the political leaders in the established countries is the removal of their power to destroy others. Maybe that is a link we have not made before. In other words, because they have lost their Cold War weaponry they are perceived by the electorates as weak. Wars create strong national leaders. By their very nature, wars also create very strong, centralized governments. Consider something as simple as food. In wartime the government must swiftly be able to pull people together to control the distribution of food. People consent to this because the first duty of a government is defense and people want to stay alive. Through the First and Second World Wars, the governments in Europe became stronger and more centralized. This was true for the victors, not the losers.

I would suggest that these accumulated powers are not easily given up at the end of a war. This is the seed of centralization that has happened in so many successful, democratic societies. It is not just a matter of governments being reluctant to give up power. People get used to the services and the convenience of having things like immediate good health care. I therefore

*It may be that one reason there has been a decline in the power of the political leaders in the established countries is the removal of their power to destroy others. ... meetings like this might address our attitudes to power.*

**EMMA NICHOLSON**

predicate that the end of the Cold War has marked the first time in history when power has been voluntarily given up by the winners' governments.

But we have only started. I suggest that neither the publics nor the leaders are truly ready for the decentralization, the reduction in central power after the war. One example is Mrs. Thatcher. She passionately campaigned for the fall of the Berlin wall. As the fall came near, she turned against Germany, she turned against a unified Germany. That seemed to be an instinctive reaction. The hierarchical power structures in which she had been brought up were going. What was coming next? It was an extraordinary swing to watch from the inside. Everyone campaigning for the unification of Germany suddenly made this dramatic shift.

So I think that meetings like this might address our attitudes to power. The nature of our attitudes to power as human beings is that we prefer it to be an iron fist in a velvet glove. In other words, we prefer our leaders to have the ability to threaten, to cause violence to others or else we are not going to accept them as leaders. That seems to be our fundamental perception of what power is.

If I am right in this analysis, and if that is what the implication of the end of the Cold War is, then we need to address and redesign our concepts of power before we will be able to educate ourselves on how we perceive violence.

MODERATOR

*Thank you. This has been a long and productive session. You have earned your dinners. As you eat I invite you to think about how you can begin to integrate all these ideas and concerns. We will reconvene tomorrow morning to take up the challenge of summarizing.*

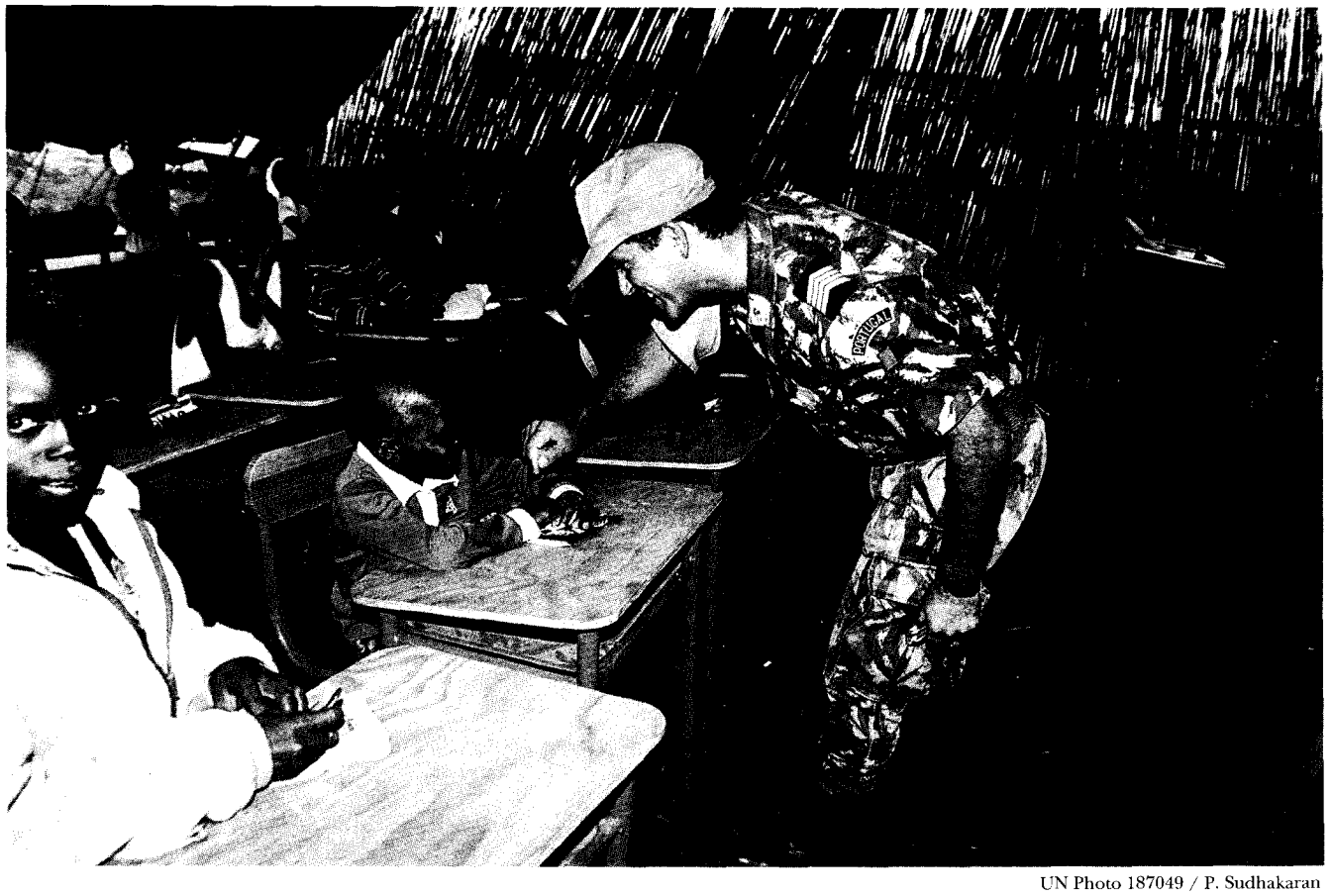
THE *fifth* CONVERSATION

THE VENICE PAPERS

# Building Peace and Tolerance

## *Empowering the Individual*

*The library, Saturday. The concluding conversation.*
*The morning newspapers continued to carry reports that*
*the fratricidal paroxysm of killing in Rwanda might*
*have been of astonishing proportions.*
*Press estimates were climbing from tens of thousands*
*to perhaps hundreds of thousands dead.*
*There were more fragmentary reports that the government*
*radio station had been broadcasting encouragement*
*for the killing.*




UN Photo 187049 / P. Sudhakaran

*Portuguese soldier teaching in a temporary classroom on the grounds of the communications unit of the UNOMOZ peacekeeping operation in Mozambique.*

**ILYA PRIGOGINE** *Moderator*

*This morning is our opportunity to summarize for ourselves. Then we will be joined by Mikhail and Raisa Gorbachev. Our general topic is peace building – ideas for taking practical steps toward a lessening of conflict and a shift from a Culture of War to a Culture of Peace. As we proceed, I invite you to comment on the ideas in the two books before us: the draft of "The New Page", the new book by Federico Mayor and Tom Forstenzer, and the Tofflers' new book, "War and Anti-War".*

**MARY KING**

I would like to pick up on a phrase Federico Mayor uses in *The New Page*. "Tolerance is discipline", he says. Both books have bearing on a point I would like to make about human capital during this period of accelerated transition. I have a modest proposal to offer. I would like to make a plea for the idea of national service corps programs.

As Larry Seaquist said last night, we have, all over the world, hundreds of thousands of military people being demobilized since the end of the Cold War, the end of local wars – as others start – the end of conflicts like the Palestinian Intifada. Former rebels and former guerrillas and former soldiers are everywhere – all people trained in causing instability. If we are not shrewd, if we do not come up with some canny ideas, if we do not think about this collectively, we may see one society after another destabilized.

My suggestion, perhaps with UNESCO as a sparkplug, is that we take a new look at national service corps programs. There is no one model that will work everywhere. In Kenya, when the Mau Mau fighters were demobilized they were enlisted into a service corps and put to work on the reforestation problem. The need in every society is going to be different.

Communications technology could help. We have the Internet that might give us a way of doing overseas placement of people with special skills. A retired colonel of engineering I know has

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**MARY KING**

lots of experience in dredging canals and waterways. He might be made available by computer to Sudan or anyplace else where such expertise could be useful.

My point is that we can make human resources available for specific needs all over the world through the technology that Alvin and Heidi Toffler have so presciently written about. My plea is that we take an old idea, dust it off, and revisit it in terms of the new resources that are available. We tend to think of these ex-soldiers in negative terms, but properly employed, we can convert insurrectionary energies into constructive nation building. In advanced societies – if we want to use that term – we can also use these resources to revitalize our own democracies.

Both for purposes of demobilizing the military and for mobilizing the civil sector, the transformation of the military impulse into more constructive roles could be a very important resource. Integration is just one area where there could be key benefits. Societies that have a great need to integrate across racial lines, ethnic lines, class lines can find national service programs very useful. For example, they can be particularly effective in helping young women make the transition from a traditional setting into new, productive roles.

That is one of my candidates for a practical idea from Venice.

## FRANCO FERRAROTTI

Perhaps we are overlooking the unanticipated consequences of the crises of global ideologies. The collapse of global ideologies has been greeted as a great liberation for what I would call "the big, official lie". But the urge, the need for ideology remains.

I have been considering overnight some of the remarks of Larry Seaquist and Emma Nicholson about the relative weakness of political power. I agree and I ask myself, "What is the reason for this relative weakness of political leadership?". If I consider even my own country with a TV tycoon as Prime Minister, a kind of instant politician like you have instant coffee, and Prime Minister Major and President Clinton and so on – it is a question. Why?

I submit that political leaders, real political leaders, are on their way out. Politicians are becoming entertainers because politics has to do with petty administration – it has been reduced to routine operations. With the loss of ideology, ideas and ideals have been lost.

That brings me to the concept of power and democracy. Peter Ackerman rightly reminded us of that basic, qualitative difference between two types of societies: democratic and non-democratic – the dictatorial or the authoritarian. But then, when we talk about democratic societies, what kind of democracy do we have in mind? I mean, what kind of democratic power? What legitimacy for democratic power do we have in mind?

*... if we are entertaining ... a purely procedural conception of democracy, then you make democracy devoid of any kind of faith or ideal ... My modest proposal is that we develop some practical, "middle-range" Utopias*

**FRANCO FERRAROTTI**

It seems to me that in the West, the prevailing concept of democracy is a purely formal or procedural one.

What is democracy? Is democracy really just a poly-archic system? Is it really the recognized possibility of people to choose among alternative slaveries? Our societies have different power groups and in most of them internal democracy is absolutely taboo. We can choose among them, but it is often not much of a choice. Now if we are entertaining, as most of the mainstream of political science and sociology do, a kind of purely procedural conception of democracy, then you make democracy devoid of any kind of faith or ideal. You deprive societies all over the world of what I call "the social function of Utopia".

Years ago I spoke with Jung about the need for Utopia. There have been global Utopias which have had such perverse effects that we do not often dare to think about Utopias. But my modest proposal – following the example of Mary King's offering at least one idea for a concrete initiative – would be that we develop some practical, "middle-range" Utopias. Middle-range. The global Utopias were so global, so general because we lacked the electronic means to elaborate the data in real time to take the opinions of the underlying population into consideration. We did not have that factor of flexibility.

This is where both of these books make a great contribution. The Tofflers' book has been very important. We did not understand the technical possibilities of flexibility in decision-making. Decision-making involving the people must be emphasized. Democracy must have powerful leaders, strong decision makers. At the same time, though, the decision-making process must not be bureaucratized but be in a constant, listening attitude to what goes on in the global society.

So a middle-range Utopia – who is going to do that? I think the politicians are out. I know quite a few of them and we have to put up with them, (laughter) but maybe because of television, maybe because of the crisis of power, they have become entertainers, people with smiles.

I have a second modest proposal. I put it on the shoulders of UNESCO. If it is true as Emma Nicholson and Larry Seaquist have said, that we have redundant military types, why not try to reeducate these people? If it is true that armies have only a kind of latent function, to deplete national budgets, could we not capitalize on them just as we retrain workers? I prefer the term "educate" to "retrain" – retrain sounds like we are training animals. So let us reeducate them. Let us find a new function for an old instrument. War is changed, the exigencies have changed, now we have to deal with internal security issues – and we have to deal with a tremendous amount of vital energy that becomes violence if it is not well-directed. We must recognize in violence a vital, positive urge which has been derailed. We have to recapture that urge. Could we do that?

I said these were modest proposals but, on the other hand, they are so big. But we must try. Are we going to let the former Soviet engineers go around the world peddling themselves to the best offer and building dangerous weapons? What are we going to do?

Just as we are really concerned about technical unemployment of workers we should be even more concerned about the technical unemployment of former military people. UNESCO should take the job of developing the reeducation processes to help.

## ALVIN TOFFLER

Regarding this issue of legitimacy and the loss of power in our political systems: What we call democracy is really mass democracy – if you have elections and there is more than one party, then you are a democracy. Mass democracy depends on the mobilization of the masses. Political parties have been mass political parties. Mass democracy is the political expression of mass production, mass distribution, mass media, mass education, of mass societies in general.

*... people are increasingly differentiated. They have different styles, different values, different needs ... People are different and they need different services.*

**ALVIN TOFFLER**

In the advanced economies, as I have said, the mass societies are de-massifying. The technologies of the Second Wave produced this massification. So we still have political processes and enormous ministries that are in business to deal in mass. Now, people are becoming less massified, people are increasingly differentiated. They have different styles, different values, different needs from the system which are not being met. We have these gigantic service bureaucracies that provide the same service to everyone – or, indeed, no service to anyone. People are different and they need different services. The bureaucratic functions of government are more and more out of synchrony with the citizenry.

Even the very concept of majority rule might be reexamined. Consider: if you have a de-massified society, one becoming internally more differentiated, it is harder to reach consensus. The process of consensus is more difficult.

A second consideration: in countries where the majority of the people are impoverished, majority rule is the only way to get social justice. In societies where the majority are middle class and the impoverished are a minority, majority rule is against social justice. With this weakness in the linkage between majority rule and social justice, the legitimacy of majority rule has gone down.

**FRANCO FERRAROTTI**

What you are saying is important. It reminds me of one of Madison's statements in the Federalist Papers about the tyranny of the majority.

**ALVIN TOFFLER**

Exactly. But the social, political, and technological changes since then have changed the structure of the population. Now, if you have feedback into the system, if you have a political process that allows people to interact with the leadership, the increasing differentiation of the population means that more different messages are being fed into the system, more different pressures are being exerted on the system, and the whole process is accelerating. So the decision-making begins to deteriorate, the relationship between the voter and the political system becomes theatrical, and the political system loses legitimacy.

That is why, it seems to me, we are heading for a chain of explosions around the high tech countries. I expect these to be efforts at political *perestroika*. We are going to have to change our constitutional arrangements and our political structures some time between now and the early part of the next century. We will need to do that to accommodate the fundamental changes that have taken place among our societies.

## ILYA PRIGOGINE

This challenge of restructuring democracy is where the idea of imagining a Utopia suggested by Franco Ferrarotti could be important. In my experience, Belgium is a very good example of the loss of power by the central government. Over the last years the central government has not much to say.

The general phenomenon is of everyone wishing to participate. But not everyone needs to participate in everything. We have to create a society of scales, an arrangement where some problems are addressed on the global level, some on a continental level, city level, or even at the local, neighborhood level.

*Our challenge in science is not to find uniformity, but to allow science and technology to enable diversity.*

ILYA PRIGOGINE

We can see the application of this scaling in science. Some problems, like the development of fusion energy, ought to be addressed on the level of the world as a whole. Others have to be on the scale of a single country, others even just on the scale of one laboratory. Science finds a different scale for each problem. So the political problem is to find new scales adapted to the nature of each problem. Our challenge is not to find uniformity, but to allow science and technology to enable diversity.

## FRANCO FERRAROTTI

Okay, but there is one point that I find disturbing at times. Alvin Toffler talks, rightly, about these changes in technology regimes. In this portrait it is as though technology were a kind of *deus ex machina*, a factor coming from I do not know where. But that is not so. Technology, like democracy, is man-made. The question is: Who is making it? Why? How?

I raise these points because the crisis of democratic machinery – or, if you prefer, the gap between the governing and the governed – or, better, the crisis in representation – can not be reduced to a mere matter of electoral laws altered by technology. Technology is not a self-developing mechanism. We must think and decide what we want, not wait for the wave to carry us away from majority rule.

## EMMA NICHOLSON

There is a misconception about majority rule. Western democracies do not actually work on majority rule. They work on minority rule. My party in Britain, for example, has governed for years on minority rule. We have a "first past the post" system. In the French system, also, you see a collection of minorities creating a fictional majority. There are other examples where there is not, in fact, majority rule. Sometimes they are governments of coalitions if they have a sophisticated system of elections, but generally, the baseline is minority rule. And this, please note, is by the will of the people. That is the key.

The purpose of democracy is not what either of our eminent speakers have suggested. Rather, I suggest the purpose of democracy is to give power to the people. It is for the people to have maximum input into the decision-making that affects themselves, their nation, and the world around them.

*... the purpose of democracy is to give power to the people ... the purpose of politicians in a democracy is explanation and understanding and making the attempt to help people make their own decisions.*

**EMMA NICHOLSON**

Now, we laughed yesterday and again today about the theatrical aspects of modern politicians – that a new leader may be a master of a television company. I refer you back to Demosthenes. Did he not practice his speaking? Did he not work at his skills so he could articulate to the people? As an elected politician, I can tell you that is our role in democracy – to explain, to educate, to listen, and to bring the knowledge back again. It is the transmission of knowledge and the gathering of knowledge. It is quite a simple role. It is not, in fact, a power role. It is not a hierarchical thing.

Modern democracy is really burgeoning into real democracy because of the decentralization of knowledge transmission. This means that people can make more decisions away from the center about their own lives. This is not a process that is yet understood. In my own party there are beastly, angry arguments against "the government" for not controlling 24-hour trading – as if 24-hour trading could be controlled by anybody. Twenty-four hour trading is a good example of how decision making has been transformed in a democracy. It has given people power at the very places where decisions should be taken.

So the purpose of politicians in a democracy is explanation and understanding and making the attempt to help people to make their own decisions. I find it a very exciting thing.

## GRANT HAMMOND

In my view, and to be a bit heretical, I think the problem is worse than a crisis in leadership or a crisis in politics or a failure to understand the nature of representation in democratic systems. I suggest to you that we have something even deeper: an institutional crisis of the state itself. The Western concept of the administrative state has failed. Since 1648 we have talked about an international state system, yet across more than three centuries the only thing the state has been optimized to do is make war. Most states were created by war, they sustained themselves through the waging of war, and they have come to see their purpose as bound up with fighting wars. The centralization of administration, the collection of taxes, the development of an army large enough to protect the territory needed to feed a large population, have been the main functions.

*Part of the challenge of coping with the Third Wave is the challenge of finding new institutions that will enable individual identity and participation.*

**GRANT HAMMOND**

And, in my view, most states today are incapable of solving today's problems – problems which no longer hinge on war. States are too small for some problems, like the trans-national environmental, disease, and drug problems. They are too large for others, like local education or local water supply problems. And in many cases these national governments are insolvent, deeply in debt.

If you agree, then we need new kinds of affiliational communities. The new technologies are providing us the tools to create such entities, but we seem not able to get away from our state-centric allegiances. We need to get beyond kinship – beyond family and tribe – beyond hierarchies, governments and military organizations – and beyond markets where large corporations transact the exchanges of goods, services, and capital – to networks. These would, in my imagination, be empowered by information and allow us to reconnect and recombine human resources and affiliations. Part of the task of coping with the Third Wave is the challenge of finding new institutions that will enable individual identity and participation. Those were supposed to be the benefits of states in the traditional, academic construct of the nation-state. Now we know that we need to take a different approach to get there.

MODERATOR

*It is notable that we are returning to these ideas of participation, of greater sharing, of the localization of political relationships.*

## LARRY SEAQUIST

May I ask a question of Federico Mayor, please. If the agenda of civilization for the next 50 years, say, is to shape a course toward ends which are more civil and less violent – toward a Culture of Peace and away from a Culture of War – my question is how do we steer now? What practical strategy should we use? And how do you see UNESCO's role in that strategy? If there is any one international organization well fitted to play a positive role, it would seem to be UNESCO.

If you are successful in this role, you might even have the effect of reempowering the international community. The problems to be solved – food delivery, health care, environmental pollution, education – are much, much more difficult than defense problems. These military things that have preoccupied our governments are really quite simple compared to the problems ahead.

## FEDERICO MAYOR

Do you know the story of the millipede? One day the millipede realized it was useless to have so many feet. He had to harmonize them, try to decide which ones to put down when. Increasingly unhappy, he decided to consult with a wise animal. He thought that a lynx was the wisest animal so he went off to see the lynx. The lynx listened to the millipede's problems very attentively and said, "Well, very easy. You must become a quadruped. Look at me. I have only four feet which I can move very harmoniously and I am very fast." "Ah, thank you very much", said the millipede, and went off toward his home very happy. Then he stopped, realizing that the lynx told him what to do but not how to do it. So he turned around and went back to the lynx. "Mr. Lynx", he said, "you have told me what to do and I am very happy with that advice, but, please, how can I become a quadruped?" The lynx looked at him and said, "That is not my problem, I am a policy maker." (laughter)

But, to answer your question, I think we very much need new approaches. To really have a breakthrough we must have these kinds of brainstorming sessions. As I have mentioned earlier, we have tried to put together various commissions and special groups to examine these problems and come up with original ideas. These groups can be important sources of ideas for UNESCO in the fields of our competence. Our major role is how to contribute to peace building. Our mission is to build peace in the minds of men. So the question is how we can come back to this core mission.

Now UNESCO, just like other institutions, has the problem of progressively losing our focus on the original, chartered mission. This happens with religions, with all sorts of organizations. You forget the original purpose as you get involved in rules, procedures, buildings, and all the other activities of an organization.

Therefore, we must come back to our original role – how to build peace in the minds of men. Especially, how to contribute to preventive actions.

*Our role in UNESCO is access to knowledge, transfer of knowledge, sharing of knowledge. Those are the three main duties of UNESCO ... our strategy is: new modalities, new approaches, new partnerships.*

**FEDERICO MAYOR**

There are new approaches for preventing war, new modalities of action. For example, the transfer of knowledge. Transfer of knowledge is essential. Just as there is a transfer of capital from the South to the North, there is a transfer of human talent from the South to the North. With our present modalities of scholarships we have at this time 30,000 sub-Saharan African Ph.D.s in the developed world. About 30,000.

We must modify the modalities of the transfer of knowledge. We need modalities that do not drain talent away from its roots.

Our role in UNESCO is access to knowledge, transfer of knowledge, sharing of knowledge. Those are the three main duties of UNESCO. With that in mind we have reduced severely our long term scholarship programs and substituted short-term, intensive learning periods without the family and so on. This helps keep people tied to their own country. With the pace of change, anyone who is out of his country for four years for a degree may have difficulty fitting back in. So intensive higher learning is one thing. Another is what we call UNESCO chairs – professor scholarships. This helps the professors and the engineers and other experts go to a country rather than bring the scholars out.

And finally, we are using our telecommunications expertise to help create networks. With our UNESCO chairs, we are creating thousands of eco-jobs. This is an immense field for the creation of jobs. Much is wasted in production methods and agricultural techniques which are not healthy for the environment. We are helping create new sectors of employment in environmentally sound industries and agriculture.

So our strategy is new modalities, new approaches, new partnerships.

Now it is important that we keep our main partnerships – our relationships with our member countries. We have something special with our Member States and that is access to the heads of state.

Now, let me add that, in my view, all the technical institutions of the UN system will not be necessary in the future. The purely technical institutions were necessary during the Cold War confrontation between the superpowers when it was difficult to approach the other side. Today, all the agencies must have some part of their activity which is strategic and concerned with policy making. Agencies which confine themselves to purely technical assistance will not be able to compete with the private sector which is faster and more flexible.

## MANFRED MAX-NEEF

I also have a story about a millipede. There was a frog. One day the frog fell in love with a millipede. The frog thought the millipede was beautiful. The frog went to the millipede and said, "I love you". The millipede said, "But look, you are so ugly, it is impossible". The millipede continued to ridicule the frog. The frog, very frustrated but very much in love, persisted. Until finally one day, humiliated in front of the other animals, the frog got angry and decided to take revenge. So he went to the millipede and said, "Beautiful millipede, I know you do not love me. But you are so wonderful, I just want to ask one question. In the morning, when you wake up, oh beautiful one, which is the leg you move first?" The millipede said, "Oh, frog, not only are you ugly, you are stupid. What a stupid question." But later, the millipede asked itself, "Hmmm, which leg do I move first?" And it never moved again.

That story may remind us that, when faced with very complicated issues, it may be a better strategy to articulate general goals – as Federico Mayor has done – than to try to enumerate each one of the many, many steps involved in tackling any of the complex problems we face.

*... when faced with very complicated issues, it may be a better strategy to articulate general goals – as Federico Mayor has done – than to try to enumerate each one of the many, many steps involved in tackling any of the complex problems we face.*

**MANFRED MAX-NEEF**

## TOM FORSTENZER

UNESCO, as is the whole UN system, is based on governments. We seem to have come to a consensus here that governments are not perceiving or analyzing or dealing with new realities in an effective way. UNESCO is in the odd position of balancing between governmental authorities and constituencies which, let us be honest, governments often hate. These are the intellectuals, artists, writers, and scientists who often say things troubling to governments. I would hope that they advance suggestions about what to do, not just criticize. To be able to trouble governments in an effective way, not just bother them. We need solutions, practical proposals. This is a time of transition, a time when we need to be troubled. This is a time when we need organizations, like UNESCO, that can open the windows and invite these troubling ideas in.

## ILYA PRIGOGINE

What should the relationship be between UNESCO and local or regional organizations? Federico Mayor just talked about the "brain drain" from South to North. I notice that the European Union, for example, has also developed a program for scholars. Before we started 15 years ago, young people went to America for Ph.D.s. Now an important fraction of young people go from one European country to another. I have nothing against America, but this should be a neutral thing with people going in both directions. Also, thousands of European laboratories are collaborating with each other.

The EU is just one example. We see NAFTA in North America and Asian-Pacific group. UNESCO is a universal organization. But should it not be complemented in many regions by local organizations like it is already complemented in Europe by the European Union?

## FEDERICO MAYOR

A good question. Let me start by emphasizing what I emphasize with the staff at UNESCO headquarters in Paris. We must, I tell them, not be Western-sided, we must not have a Franco-centric or Paris-centric vision of the world. We must engage in South Africa, Guatemala, and Argentina and every place else all at the same time. We must be as "plural-centric" as possible, we must be a polyhedral organization and not force one local vision to prevail over others.

Therefore we have good contacts with many regional organizations, including those here in Europe. We are now preparing for the International Year for Tolerance. That includes working with the Council of Europe who had some very good initiatives. We also cooperate with programs in Africa and Latin America that are funded by the European Community.

This brings me to an important point. I am not interested in having UNESCO manage the execution of local programs. What I want to do is promote education, science, and culture worldwide, but I do not believe we have to run every project in the field. I recall that soon after I was appointed to head UNESCO, some of my colleagues came to me saying, "Mr. Director-General, UNICEF is invading our field of competence. They are doing education." So, the next time I was in New York, I went to see Mr. Jim Grant, the head of UNICEF. I said, "Jim, I come here to protest. I am coming to protest that you have not invaded more!" What matters in the United Nations system is that all the agencies work with each other, with the inter-governmental organizations, and with the NGOs, the non-governmental organizations.

The agencies of the individual Member States can also be very important. Canada, for example, has a very powerful international development agency. The Nordic countries, the Netherlands, the Overseas Development Agency in Great Britain are just a few of the groups we work with in order to achieve the broadest, general promotion of our goals.

So I am delighted to encourage every possible opportunity for cooperation with any group which can help our long range goal of increasing tolerance and the culture of peace.

Let me conclude by shifting back to an earlier topic: Utopia. It was here in Venice some years ago that I gave a lecture titled, "The Necessary Utopia". This was in the Catalan sense. You know that they say of us Catalans that we count even when we dance. I talked about Utopia in the sense of objectives to be reached. Today, the answers to many of our problems seem unreachable. But we must realize that, throughout history, unexpected results arrive quite often. Things that appear absolutely impossible today are a reality tomorrow because someone was able to see what no one else saw to be possible. Look at the Middle East problem. No one thought there could be a breakthrough like the one worked out in Norway. The same thing for South Africa. But some people did have a vision of what might be possible. We now have realities because of the lucidity of a far-seeing individual.

Utopian aims can, it is true, lead to a conflict. Those who defend one kind or another of these jumps in vision can be too passionate and it can lead to conflict. We have many examples in our contemporary history. I wrote a previous book, called *Tomorrow is always too late* in which I said that we must favor discernment and rebellion, but never violence. The best way is to be persevering and sometimes, if you are patient and you are not too Utopic, things will change. I remember my first conversation with the former president of the World Bank. I have a lot of disagreements with the World Bank. But in basic education we are working very well together – and that also includes working with UNICEF, UNDP, and UNFPA – hand in hand throughout the world. This was because we all share a vision of one Utopia, that we could attack illiteracy. Illiteracy is the root of most of the problems that we have.

Before this started I went to see Barber Conable, the World Bank President with this problem. And he said to me, "You know, Mr. Director-General, we have short term cost-benefit ratios for our loans. What you are telling me does not fit in this framework. I am sorry.". So I left, and came back, and left, and came back again. The second time I was accompanied by Jim Grant from UNICEF. The third time I was accompanied by Bill Draper who was then the Administrator of UNDP. Finally, Barber Conable said, "Yes. We are ready to provide one billion dollars". Today that is nearly three billion dollars for education in the world.

So I think it is important, particularly for the young people, that they have a vision of what might be possible, a vision that we with our experience and our frustrations may not have. We must take advantage of those visions.

We must also take advantage of our approach to the end of the century, the end of the millennium. These are opportunities to promote the values we know are important. There is a Chinese saying I like very much: "When the finger points at the moon, only the short-sighted look at the finger". We spend too much time looking at the finger, not enough time looking at the moon.

To conclude, let me defend the importance of temper. Not violence, but discontent. It is easy for us to complain "the people are pushing too much, the young people are too noisy with their demonstrations". But I say, the young people must be noisy. What they must not be is violent. But it is very good if they are noisy and express themselves.

Now I must also tell a story about a frog, it may be the same frog that Manfred Max-Neef just told us about. A scorpion approached this frog on the banks of a river and said to the frog, "Please, let me ride on your back to the other side". The frog said, "No, you would bite me and I would die". But the scorpion was very persuasive and finally the frog agreed and the scorpion climbed on his back. Halfway across the river the scorpion bit the frog and the frog said, "Why did you do this? Now we are both going to die." And the scorpion said, "Well, it was a matter of temper".

Temper can be very useful; it can be very dangerous. It for this that we must try to keep what is positive from temper and guard against what is dangerous – the violent advocacy of one's own views.

## AUGUSTO FORTI *Moderator*

*Thank you. That completes our general deliberations. We now turn to our concluding discussions. Joining us is a special guest, Mr. Mikhail Gorbachev, former President of the Soviet Union and his wife Raisa. I have already reviewed our agenda and summarized our discussions to President Gorbachev.*

*We have talked about the future of war and peace and what may be ahead for us in this rapidly changing world. We have discussed the concepts and strategies of peace. We have discussed the role of the media and the images the media provide about violence and about tolerance; we have talked about how the media could help pursue the culture of peace and tolerance. These discussions have been quite lively.*

*Then we turned to examinations of the role of education, to the population issues and to the questions of whether technology can help us welcome larger populations and the questions about how, at the same time, to cope with the diffusion of lethal technologies and weapons.*

*We have covered a lot of ground and heard some vigorous, original thinking.*
*Now let us begin to summarize. We will start with Alvin Toffler, go to Ilya Prigogine and Federico Mayor, then turn to Mikhail Gorbachev for his views.*

## ALVIN TOFFLER

I am hopeful that after these discussions we will be able to go beyond the usual exhortations. The world is filled with exhortations to do good, to make peace, to solve the problems of poverty. But exhortations do not accomplish much.

I am also hopeful that we can go beyond merely listing the possible causes of conflict. We know, or we should know, that poverty is related to war – though not as simply as some people believe. We know that environmental degradation can cause immense social dislocations like mass emigration which, in turn, can cause conflict. We could list many other possible causes.

But if we wait to solve these immense, long-term problems, if we have to solve the problems of poverty and environment and the others before we act to improve our capacity for peace building and peacekeeping, then millions more people will die unnecessarily. What seems clear to me, having spent the last couple of years looking at changes in the nature of warfare, is that the nature of war is directly related to the nature of a civilization and its methods of producing wealth. When the Industrial Revolution created an industrial civilization, we industrialized war as well as our economies. Mass production and mass destruction were joined, the opposites and shadows of each other.

Today, as the advanced economies become more and more dependent on knowledge and

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**ALVIN TOFFLER**

information, a new form of warfare is on the horizon. It will depend heavily on sophisticated uses of information and knowledge. A totally new form of conflict will emerge. For this reason, we must go beyond an incremental rethinking of our peace building efforts. We need to take the bold step of inventing a new peace form to parallel the new war form.

In the short term I think there are possibilities which we have discussed here for reexamining our recent failures and successes in Somalia, Bosnia, Rwanda and elsewhere. Mostly, we have not had successes, of course. The failures ought to provide some lessons.

If the UN is to play a role in dealing with conflicts, it must arrive at policies more quickly and it has to have political support for those policies. That is difficult and especially difficult to do quickly. We know that there are non-governmental organizations, civil society organizations, which now do fine work going into disaster areas and war zones with people, very much like soldiers, who are willing to risk their lives to bring food and humanitarian aid and to help reduce the levels of violence. These organizations frequently know the local people, the culture and the language; they may know the politics. What they lack is the ability to move quickly. They lack the infrastructure that can only be provided by the military. They lack airlift, sealift, logistical systems and so on.

So one of the ideas that is under discussion – an idea with both good and bad implications – is the idea of bringing these peace organizations and humanitarian organizations together with various military forces. Indeed, the proposal has even been made that there be joint training exercises. Each side has stereotypes of the other – many of the NGOs look on the military as dangerous warmongers; many in the military look on the NGO people as weak and hopelessly idealist. In fact, they could help and reinforce one another significantly, albeit in limited ways.

Another idea we touched on here is the coming appearance of a new kind of weaponry that may be especially relevant to the kinds of conflicts ahead. These are weapons specifically designed not to kill. These non-lethal weapons may temporarily disable fighters or crowds holding a hostage but, for the most part, incapacitate for only a short while. These non-lethal tools raise difficult political questions. These same weapons can be used by oppressive governments against their own citizens. Nonetheless, these devices are going to appear and we need to think about them.

*... the militaries of the world will, before long, begin to develop ... knowledge strategies ... We need to develop – and UNESCO is the appropriate place for this – knowledge strategies for peace.*

**ALVIN TOFFLER**

Finally, there are many other parts to bring together. If we were to be effective in Rwanda in reducing the slaughter we need to make use of one of the most powerful weapons in all of today's world – the media. We know that in the Balkans, as in Rwanda, the media under the control of demagogues and war-makers have been used to incite hatred and to promote slaughter. It is now possible for the United Nations, or for others, to be effective in silencing those messages and to introduce peaceful messages at the same time.

To try to resolve these kinds of conflicts without thinking about the media is a great mistake. In short, I believe the militaries of the world will, before long, begin to develop what my wife Heidi and I call knowledge strategies. They will develop strategies for the use of knowledge in combat. We need to develop – and UNESCO is the appropriate place to do this – knowledge strategies for peace. That requires the mobilization of science, culture, and education, UNESCO's three primary concerns. It also requires intelligence, software, communications, and the application of the media – also UNESCO concerns – assembled into a coherent strategy tailored for Rwanda or tailored for Bosnia or tailored for each new situation.

I am particularly pleased that, even as we discussed this yesterday, the Director-General, Federico Mayor advised that he had already taken action to release funds to make possible broadcasts into Rwanda to counteract the local radio's hate broadcasts.

In brief, we need to focus on new tools for violence prevention or limitation. We need to think about coherent, systematic packages of resources, people and organizations that can be assembled quickly in a rapid reaction force for peace.

Finally, none of this will make sense unless we refocus our attention from reducing the conflict after it has already begun to the prevention of violence in advance. In the long run, of course, we must try to deal with the problems of poverty and the environment. But in the shorter run we need new approaches: new crisis detectors, new intellectual methods for monitoring political and cultural events so that we can identify the potential for conflict before conflict begins. In short, to use a phrase that is identified with President Gorbachev, we need more than anything else "new thinking". More than a little bit of that new thinking has been done in this library over the past three days.

## ILYA PRIGOGINE

As I said the first day, I am astonished to be here. This is not really my field and I have learned a lot from these discussions. Essentially our meetings revolved around two books, *The New Page* by Federico Mayor and *War and Anti-War* by Alvin and Heidi Toffler. It is difficult to imagine a greater contrast between the two books. In a sense, the book by the Tofflers deals with technology and the forms of war in our evolving society. The book by Federico Mayor deals with the cultural transition, of which technology and warfare are a very special case. The culture of peace is global.

It has been emphasized many times that we are living in a period of demassification, in a period where people want to participate. Democracy has to acquire the new meaning of permitting people to manifest their internal creativity. A word which has been emphasized many times is "Utopias". In other words, we have to imagine the civilizations possible in these times of rapid growth of science and technology.

It seems that there is a general feeling of urgency because of the end of the Cold War. There are new dangers but also new possibilities. Federico Mayor speaks about leaps – changes in the forms of civilizations. As a scientist, I am very impressed. In science also we are speaking more and more about discontinuities, leaps, and radical changes.

I also detect a kind of spiritual unity which is appearing at the end of this century. In spite of all the conflicts, there are some things which are common to a large portion of humanity. In essence, when speaking of war, we ought not to forget the unity of man or the unity of man and nature. Perhaps it may appear as a Utopian view, but it seems to me that war is a human disease, a disease of society. Therefore, when we study war, we are involved in the study of a different form of society. That, I think, is one of the main points of the book by Federico Mayor.

MODERATOR

*Thank you, Professor Prigogine, for helping us define this meeting as a good illustration of creative instability. Now I turn to our host and convenor for his summary thoughts.*

## FEDERICO MAYOR

First of all, I welcome Mikhail Sergeevitch Gorbachev and Madame Gorbachev. Your presence is particularly welcome as we come to the end of a very interesting three-day debate. We are trying to push transitions, particularly a transition from a Culture of War to a Culture of Peace. Mikhail Gorbachev, you made possible a historic transition. I was a witness of that change from the very beginning. There are very few people in power, only a few in history, privileged to create a truly historic transformation. You belong to that very rare class.

I wish to emphasize one important feature of this meeting: the diversity of views. We have received very important inputs on military strategy from several perspectives; we have had political inputs from a serving politician, strategic visions of non-violence, and views from social science, economics, and, of course, the Tofflers. This diversity has been the main modality of the meeting. Rather, it has been a genuine debate. Everyone has contributed spontaneously and with remarkable creativity. I mention this because I believe it is through just these kinds of lively debates among widely diverse points of view that we can enrich our array of practical options for action.

This book, *The New Page,* starts precisely with you, Mikhail Sergeevitch Gorbachev. It starts when you decided that nuclear war was nonsense and that the arms race should be stopped. That is why I say we have turned to a new page. The page turned when you realized that all the parties would be losers, that war no longer makes sense.

I end the book with a chapter, "No Business as Usual". If we want to change, we must be brave enough to find and follow new principles of action. That is why I invited this distinguished group to convene here in Venice for three days. Let me take a few minutes to summarize what I think are some of the key ideas we have surfaced.

One important question has been how we can promote peace building actions and reduce peacekeeping investments. Preventive actions are invisible if they are successful. Conflict does not occur and there appears to be nothing to report. Creating awareness of this intangibility of successful peace building activities is essential. We have considered the following main ways for achieving peace building: First is education for tolerance. Education for tolerance is essential to forge the attitudes of peacefully living together. 1995 is the International Year for Tolerance, an occasion to promote tolerant behavior in all countries at all educational levels. Our program will reach out via all the media and even include toys and games for children.

Second, we have examined the role of the media in the mitigation of conflict escalation and abominable practices. The media also play a crucial role in the framework of public freedoms and the prevention of human rights violations. The independence of the media is a matter of universal concern.

The third of our ideas about peace building is that we should seek an improvement in the linkages of peace building institutions with military higher education systems and with the planners of peacekeeping. We need to take these steps in order to achieve a more socially friendly functioning of military expertise and resources – during peace time in all countries as well as in peacekeeping operations.

Next, we consider that telecommunications networks, used to integrate our various human resources, can make invaluable contributions to peace building, particularly by helping with education for all, particularly for girls and women living in dispersed settlements.

Another approach to peace building is not to impose external models of democracy, but to emphasize two basic pillars: justice and freedom of expression. Together, they can help with the emergence and consolidation of pluralistic political systems.

In my view, the post-Cold War conflicts are not the result of newly-acquired freedoms, but of long periods of oppression. War has shifted from international confrontation to intra-national conflict. For this, the cultural aspects take a very important place in the political agenda.

We seem to be prepared more for the past than the present. New thinking is required to address the new threats: poverty, overpopulation, environmental degradation, and their consequences – violence, emigration, and unrest. We have recognized that, with present trends, social security overtakes national security as our primary challenge. Welfare outranks warfare. We have been unanimous in concluding that peace fare must now be developed. We have formidable potentialities. We must use them in the service of these new breakthroughs.

We need to achieve a transition from war technology and the manufacturing of arms to technologies and manufacturing for peace purposes. New locomotives of economic growth must be found. In my view, shelter and urban

transportation are two areas among many which could be very important routes for us to follow in the movement from war technology to peace objectives.

The UN Security Council, as we mark the Fiftieth Anniversary of the United Nations system, should adopt in its composition and functions, methods for dealing with all of the actual threats to global security. Assistance for development should promote self-reliance. Most importantly, our development aid programs should be increased in order to ensure that we achieve these new departures in peace building. Today the peace building functions are overshadowed by the peacekeeping functions.

Since we are meeting here in the country of Leonardo da Vinci, I shall end with one quotation from Leonardo. You know that Albert Einstein said, "The world is one or none". Clearly, President Gorbachev, you had that idea very clearly in mind when you acted. Leonardo said, "In a ship in danger, all our differences become irrelevant – the color of the skin, sex, religion, age. All become passengers in trouble; all must give the best of themselves. Their common destiny is at stake. Their past does not count. In a ship in danger, only the future counts.".

MODERATOR

*Before we turn to President Gorbachev for his thoughts, I also invite Franco Ferrarotti to offer his own personal, concluding remarks.*

## FRANCO FERRAROTTI

One thought looms large for me. We have all been inadequate as far as education is concerned. Referring mostly but not only to the Western world, it seems that we have taken it for granted that, speaking in economic terms, once living conditions improved then all else would follow almost automatically. This is absolutely wrong.

On the other hand, there is a danger. The danger is that we give up our responsibility in the name of an impersonal technological prowess. I do not discount the value of technology. But, by itself, technology is indeed perfection without a purpose. Where is technology coming from? Who is putting up the capital to develop it? For whom against whom? For what against what? I think that thinking persons like Alvin Toffler, Larry Seaquist, Ilya Prigogine – some of the best minds that we have – and through your own personal, epoch-making initiative, Mr. Gorbachev, we may say today that progress is a chronological fatality.

We are all responsible. We can not expect any automatic salvation, no matter how technically developed we might be. We know that society, any society, can be both technically refined and humanly barbaric. Let us hope that we will be able to join our different cultures and historical traditions in a new, pluralistic – if you wish, half-bred, confused but vital – universal culture.

MODERATOR

*With that, we turn now to our special guest.*

## MIKHAIL GORBACHEV

I have found myself in difficult situations many times in my life. Sometimes it is extremely difficult to find one's place in a new context, to find a new role. Like now in this discussion with you, for example. I have a feeling that I have jumped on a train at the very last moment – a train that has been moving for two days. So I am trying to understand what is making this train move and how the passengers are jostling each other. (laughter)

I applaud the concluding remarks made here by the authors of the two books, by Alvin Toffler and my good friend, Federico Mayor, and the remarks of my friend and compatriot Ilya Prigogine, a fellow Nobel Prize winner.

I would like to share some reflections with you, reflections of a general nature, reflections of the type that those of us who continue thinking, but about which we cannot be dispassionate when we look at the world in which we are all living. Over the past couple of years I have traveled a great deal and participated in a number of conferences. During that period I have also worked on my memoirs. That manuscript is now in the hands of my publisher. I have attempted to analyze and review and to draw lessons for myself, for my country, and for the world. Having made these reflections I have come to the conclusion that what we see happening in the world today is not accidental. Nor is it coincidental. It is not a sporadic course of events, it is not the result of someone's mistake. I hope you will agree with me that there is a certain sequence to the events we see unfolding before us.

Past ideological clichés did affect all of us to a certain extent. They affected our analyses, our strategies, and our policies – so much so that, at a certain point we, the world, found ourselves on the brink of a very dangerous crisis. Especially dangerous since we are living in a world where there are plenty of nuclear weapons. There are two people here in this library who can testify to this: Federico Mayor and Alvin Toffler. They can confirm that, way back in 1987, I came to understand that what we needed was to escape a certain kind of ideological blinder. When I removed these for myself, that was the first time I said – quoting Lenin, incidentally – and not so much to convince you that I am right, but largely for domestic consumption – it was the first time I put forward the idea of universal human values.

The idea was that, even though the idea of universal human values had existed before and was widely recognized, I suggested that such values be given priority over all other values. Let me then turn to our present times.

What we have accomplished, the breakthrough that we have made – a breakthrough to new thinking – has enabled us to leave the Cold War behind. Apart from the obvious consequences for security and our economies, I want to focus on just one aspect of the new situation. Having overcome the division between the two disparate blocks, having overcome this separation and our ideological divisions, we now have the opportunity among all the countries to discuss openly the issues in the way you have been doing it here. There are a number of these issues which are quite urgent.

We buried the Cold War; we put an end to it. But this does not mean we have resolved all problems. The vast majority of the dangers still remain and persist. For example, there is the danger of warfare as described so eloquently by Alvin Toffler. We are becoming aware of the ecological dangers. In the past, when there was the nuclear danger, that danger had to be addressed first and the ecological dangers could be addressed afterwards. There are political dangers and social dangers. There are also dangers that are associated with the new renaissance of ethnic identities. Many ethnic groups have started looking for and asserting their own identities in an increasingly democratic context.

The end of the Cold War has given us a new chance. What have we done with it? Here I echo Franco Ferrarotti. We have allowed ourselves to be deluded, to be drawn into a false Utopia. We decided that, once we put an end to the Cold War, all the other issues would be resolved by themselves. Now we are collecting the fruit of that error. It seems to me that we are lagging behind the times in our intellectual efforts. We seem to be lagging behind in politics. One can not help but recall the philosopher's observation, "It often happens in unhappy times that good decisions are taken when the time is already lost".

*... our current policies and politics are lagging behind the demands of the time... .*

**MIKHAIL GORBACHEV**

I believe that our current policies and politics are lagging behind the demands of the time. True, we are looking for solutions, but we are behind, vacillating, and miscalculating. I have been wondering why this is happening. I have come to the conclusion that when the human race left the condition where there was a tough opposition between two blocs, when this opposition disappeared, the older, pre-existing problems within these nations which had been suppressed by the juxtaposition came to the fore. These problems occur differently in different countries, but have similar qualities.

Politicians today are absorbed by internal political issues. In Europe, in the European process, I see a loss of momentum. Way back when the Cold War was still here, we devoted far more attention to these issues. We worked on them. As a result, we had the Helsinki conference in 1975 and we wrote the Paris Charter. We see this loss of momentum at an unfortunate time when we see fundamental changes in Western Europe and in the so-called "post-Soviet" spaces of Eastern Europe. These fundamental changes mean a transition from one economic system to another – to a market economy. Federico Mayor was right when he stressed that we were very skilled and adept at analyzing the past. There is a great shortage of skills, a deficit of skills in analyzing what is happening today and in developing prescriptions for people and politicians about how to live today.

I believe that, if we did have such machinery – the political machinery and the practical machinery – in the presence of an adequate policy we might have developed a completely different climate. I believe – this is my first point – that there is a need today to pool resource centers and centers of scholarship in Europe and on a world scale to find recipes or modes of action for politicians so that politicians do not vacillate, so that there are no dangerous improvisations in politics.

I view this conference as an important brick laid in the foundation of the edifice.

But what do the words "doing everything necessary" in research and in politics mean? Finding the directions for this quest in politics is related to our need to find an answer to this question: "Does our civilization as we know it have resources for this? Or have we exhausted our resources?"

I have come to the conclusion, which I am now offering here in public, that this civilization has exhausted itself. We have managed to provide decent living conditions to only one third of the human race. Two thirds go hungry and are illiterate. At the same time we find ourselves in a global ecological crisis. This can only mean that our current civilization has exhausted itself. We can no longer proceed along the existing road.

Like you, I do not wish to fantasize. You can only make reliable predictions if you proceed from current realities and current tendencies

*I have come to the conclusion ... that this civilization has exhausted itself. We have managed to provide decent living conditions to only one third of the human race. ... We can no longer proceed along the existing road.*

**MIKHAIL GORBACHEV**

which you can observe. Seen from these realities, it seems to me that one of the essential issues to be addressed is the "ecolozation" of production. This means the dissemination of ecologically-compatible forms and modes of production on a global scale. This also means a rationalization of consumption.

I believe we should suggest that mankind as a whole openly discuss certain artificial "needs", artificial "requirements" whose satisfaction does damage on a global scale. Yesterday I spoke at a meeting of an international bank and its biggest clients in London. It was a group with Europeans and Americans in the audience. I said to them, "If we were to accept as a model American living standards today it would mean that we would be pushing the world community towards a catastrophe". Why? Because, with a population of 270 million, the United States consumes 40% of the world's energy today.

It seems clear that, having discarded the Communist ideology, we have to be strong enough to discard the so-called American way of life and American standards of consumption. It is clear we will need a new civilization. That is the direction we need to move in.

How does one put this in practical terms? A month ago I met with the Earth Council where an agreement was signed to develop the "Earth Charter", an ecological code of conduct, as it were. My friend Federico Mayor was there. Acting in agreement with Federico and UNESCO, the group at that meeting declared the importance of promoting new values through education and culture, of building a new, global ecological awareness.

A new civilization is not going to happen unless new forms of democracy and new ways of ensuring social justice are found. These things will not happen of their own will. I am not as categorical as some who say currently there is a need for a world government. I do not go that far. But I do believe it is clear that we must manage change in the changing world of today.

For this there is no better organization than the United Nations. The UN role, however, and its capabilities will have to be modified. I also believe that in an increasingly complex and inter-related world, actions of individual nations can only be harmonized if we rely on regional systems for cooperation and maintaining security.

*A new civilization is not going to happen unless new forms of democracy and new ways of ensuring social justice are found. These things will not happen of their own will ... it is clear that we must manage change in the changing world of today. Federico Mayor made a very valuable suggestion when he said we need a system for social-economic monitoring of what is happening in the world today.*
*... We need a system which would enable us to analyze this dynamic world so that we can progress and move forward.*

**MIKHAIL GORBACHEV**

I have been saying all this in order to address an idea for your consideration here.

I am talking about a gradual weakening and elimination of factors which can lead to conflicts and war. I believe that we should address the conflicts existing today in practical terms and resolve them through political means. But I think we should give priority to the *causes* of such conflicts, causes both within nations and on an international plane.

Federico Mayor made a very valuable suggestion when he said we need a system for social-economic monitoring of what is happening in the world today. We see a lot of very dynamic processes occurring in the world today. We need a system which would enable us to analyze this dynamic world so that we can progress and move forward.

Thank you.

**AUGUSTO FORTI** *Host*

*Thank you, President Gorbachev.*
*With that we conclude.*
*I thank each of the participants for your intelligent, constructive, provocative, and generous contributions to this seminar.*
*I know we have each learned a great deal from each other and that we leave with a number of practical new ideas.*
*Good day and very best wishes.*

*The "New Page" we are turning in this book is one of a culture of peace, based on a culture of democracy. It is a transition fraught with all the dangers of moving into the unknown without much guidance from our personal or collective memories. If this transition can be successful, we will at long last have the possibility of changing radically our economic, social and political perceptions and entering a new renaissance of hope and creativity in our lifetimes.*[1]

The perversion of education, science, culture and communication in the celebration of violence and hate – in their mobilization in the most extreme forms of the culture of war – led the framers of UNESCO's Constitution to rededicate learning and creativity to building global communities of tolerance, cooperation and mutual understanding.[2]

*If the history of humanity has been a succession of struggles against nature for survival, today man faces his own dangers, that go far beyond the risks of the natural system left to itself. To write a new page, we must rededicate ourselves to the ethical forces of peace rather than the coercive force of war.*[3]

The culture of war may have taught us certain survival skills in an extremely hostile world, but it may have taught us skills which are poorly adapted to a world which offers new possibilities for our personal achievements, societal progress and world development.[4]

*There is no substitute for freedom and there is no substitute for the defence of freedom by democracy.*[5]

From *The New Page*
By FEDERICO MAYOR, UNESCO Director-General
with the collaboration of TOM FORSTENZER

[1] p. xiii, 4th § [2] p. 4, 2nd § [3] p. xv, 3rd § [4] p. 7, 1st § [5] p. 36, 1st §