

Standing Committee on Science & Ethics

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Every second year, the General Assembly of ALLEA provides a welcome opportunity for its Standing Committees to revive their legitimacy and improve their relevance, through direct exchange with its active European constituency.

As announced two years ago in Brussels, this report in Krakow is my third and last one, after five years as Chair of the Standing Committee on Science & Ethics. Thus my address today acquires a special touch and personal flavour, because it is also a swan song. By essence, swan songs are rare events and they allow for wider perspectives.

But firstly, a reminder on who we are, and what we do.

Our missions, methods and membership are described within one page of ALLEA web site, which you are invited to consult. Quantitatively, the size of our membership is now around fifteen, and this figure appears as adequate for the function. Here is a recent survey of our regional origins : Norway, Denmark, Estonia, Czech Republic, Turkey, Italy, Switzerland, Germany, Netherlands, Belgium, United Kingdom and France.

Concerning our activities, a one-sheet calendar of important steps and events, covering the period 2001-2006, has been distributed. You will notice a steady increase in the number of our collective activities, which include a diversified spectrum : internal meetings, enlarged meetings with external guests, public meetings co-organized with other groups or institutions, and participation in open European Conferences.

In summary, both the size of our membership and the number of our meetings seem to have reached convenient levels. Thus, after a period of steady expansion, our Committee is now able to enter a new, adult phase of consolidation and maturation.

Let us now move from quantities to qualities.

Much credit is due to my predecessor, Pieter Drenth, for laying the solid foundations, on which our Committee has been able to build and thrive during the last years :

- the 1997 Amsterdam Conference on *European Science and Scientists between Freedom and Responsibility* remains as a fundamental landmark : it gathered a select set of key European actors, around issues of internal ethics (within the scientific community) and external ethics (relations between science and society), with a clever choice of emphasis on the 'creative tension' between autonomy and responsibility ;
- during the following years, Pieter has carried on most of the outreach tasks, placing ethical concerns within the core missions of ALLEA, and maintaining proper symbiosis between our Committee and the ALLEA leadership ; the efficient help of our Secretary Hans Schroots deserves also grateful mention in this regard.

Our Vice-Chair, Dagfinn Follesdal, has been a constant help and a precious source of sound advice; we owe him much for his enlightened benevolence.

Thanks are due also to all members for their generous efforts, their rich diversity of talents and competences, with special mention for Beat Sitter-Liver, who played an eminent role in the design of the two culminating

conferences held last year : Amsterdam (in May), Bern (in December), which raised our activities to an upper level. The proceedings should be available soon and promise to be of interest for all our academies, and beyond.

Last but not least, all best wishes to Ludger Honnefelder who accepted to take over the Chair. Under his guidance, our Standing Committee will be able to move on, and explore new avenues. The empowerment of the membership, manifest during past years, will help and assist a smooth transition at the helm.

Now a few words about the owl of Minerva, and swan songs.

Hegel said that *Minerva's owl takes its flight only when the shades of night are gathering*. In other terms : wisdom alas comes too late.

When one considers the ordeals and crises of the last century, and the full span of the social responsibilities of scientists (in domains such as : science and war, future of the planet, bioethics, etc) it would be difficult to deny the prophetic relevance of Hegel's sentence.

Let me remind you of two memorable swan songs (1), closely connected with science and ethics issues :

- in January 1961, the retiring US president Eisenhower pronounced a remarkably lucid address where he introduced the notion of military-industrial complex, described as a potent threat for democracy, a threat to be taken seriously : the impact of this stunning alert, coming from such an expert, remains unequalled ; his text is still well worth reading, and contains insights on the role of science and technology : perhaps one could insert an addition nowadays, and use the expression of military-industrial-scientific complex ;
- in November 1995, ten years ago, our British colleague, the distinguished mathematician Michael Atiyah delivered his last Anniversary Address in front of the Royal Society of London ; this bold, brilliant and inspiring speech deserves to remain as a milestone, among the corpus of academic contributions to science and society debates.

Since then, during the first years of this new millenium, an unforeseen sequence of shocks occurred :

- September 2001 : attacks on the Twin Towers and Pentagon,
- March 2003 : invasion of Iraq, by a coalition of the willing,
- Spring 2005 : two negative referenda, in France and the Netherlands, blocking the pathway toward a European Constitutional Treaty

These events are ominous signals.

More and more, I have come to see us as distant heirs of the International Commission for Intellectual Cooperation, set up by the League of Nations after World War One. This Geneva-based Commission brought together representatives from natural sciences and humanities. Let me evoke some of their names : Henri Bergson (his father was of Polish origin, his mother Irish), Marie Sklodowska-Curie and Paul Valéry, Albert Einstein, Thomas Mann and Sigmund Freud, Salvador de Madariaga and Miguel de Unamuno, Hendrik-Antoon Lorentz and Aldous Huxley, and some non-Europeans such as Gabriela Mistral, from Latin America, and Rabindranath Tagore, from India. Their endeavours to prevent the looming disasters appear pathetic, in retrospect.

Equally pathetic were, later on, the desperate attempts of some Los Alamos scientists to prevent the fateful use of their brainchild, in 1945.

These are two major examples where, indeed, the owl of Minerva proved unable to take its flight early enough.

However, the concept of a 'Society of Minds' dreamed by the Geneva Commission, as a complement to the political bodies of the League of Nations, does appear nowadays as a precursor of Unesco, the UN agency created in 1945 for the purpose of promoting 'the intellectual and moral solidarity of mankind'.

Similarly, the failed attempts of the Los Alamos physicists for an international regulation of nuclear power may

be seen in retrospect as precursors of the Pugwash Conferences for Science and World Affairs, created in 1957 with an ambition to restore East-West links within the scientific community, and to act as its social conscience.

Like Unesco and Pugwash, ALLEA, in its own efforts to promote peaceful cooperation within Europe after the end of the Cold War, may be perceived as still another resurgence of the Society of Minds.

If the present requirements for global sustainability are taken seriously, past obsessions with domination games and national rivalries should yield to care for international justice, and for due re-adjustment everywhere between ways of life and ecological limitations.

In this task are we doomed to fail, like several past generations in dark times ?

Against such a somber perspective, I wish to offer an educated hope, based on the message of Andrei Sakharov (1921-1989), which remains essentially valid in our present unipolar world. Despite the swerves of history in the aftermath of the Cold War and since then, Sakharov's vision of progress via convergence between freedom and justice still points, it seems to me, in the right direction.

His 1968 essay, entitled « Reflections on progress, peaceful coexistence and intellectual freedom », *outlined a positive, global program for mankind's future*, and contained these statements : *The division of mankind threatens it with destruction ... Only universal cooperation under conditions of intellectual freedom and the lofty moral ideals of socialism and labor, accompanied by the elimination of dogmatism and pressure of the concealed interests of ruling classes, will preserve civilization ...* One headline used by the New York Times was : *Basis for Hope seen in Rapprochement between Socialist and Capitalist Systems.*

At the Nobel Peace Prize ceremony (1975), the presentation speech by the Chair of the Norwegian Nobel Committee placed Andrei Sakharov among the ranks of champions of international law and social justice, activists of humanitarian achievements and pacifist work, and promoters of human rights. Sakharov's concepts of rapprochement and convergence were thus summarized :

As far as his own country's contribution to this convergence is concerned, he emphasises reforms such as democratisation, debureaucratisation, demilitarisation, and social and scientific progress.

In close cooperation between [the] two superpowers Sakharov also envisages a possibility for a tremendous joint approach to a solution of world hunger, overpopulation, and pollution.

In his opinion, too, a substantial aid programme might provide a lasting foundation for a harmonious social and economic development of the third world.

From Sakharov's acceptance speech (read in his absence by Elena Bonner), I extract this sentence : *To keep one's self-respect, one must therefore act in accordance with the general human longing for peace, for true détente, for genuine disarmament.*

In his Nobel Lecture entitled : « Peace, Progress, Human Rights », emphasis was put on the need for international law and international agreements, on the central role of the United Nations system, on the search for 'balanced' disarmament and for 'equilibrium' in all regions of the world :

In struggling to protect human rights we must, I am convinced, first and foremost act as protectors of the innocent victims of regimes installed in various countries, without demanding the destruction or total condemnation of these regimes. We need reform, not revolution. We need a pliant, pluralist, tolerant community, which selectively and tentatively can bring about a free, undogmatic use of the experiences of all social systems. What is détente ? What is rapprochement ? We are concerned not with words, but with a willingness to create a better and more friendly society, a better world order.

Let me add some remarks about convergence and reciprocity.

History has shown many examples of perverse convergence between two different sides. An awful case is the

German-Soviet pact, signed on 23 August 1939, followed one week later by the invasion and occupation of Poland.

In a quite different and more recent context, the negative referenda last year, in France and the Netherlands, were clearly the result of a junction of ballots coming from far left and far right, a conjunction established over a collapse of the reciprocity principle. Any European citizen was able to observe the dismal success of populist slogans aimed at exciting scare of the so-called 'Polish-plumber' or 'Turkish-taxi-driver'.

How then should one distinguish between virtuous convergence and malignant convergence ? The test lies precisely in the reciprocity principle, which is the Golden Rule of ethics, and should be respected in a fair and earnest manner. Here appears a firm link between science and ethics. Everyone can admit truth, without feeling deceived. Anyone can accept reciprocity, without feeling cheated.

In practice, the best thing Europe could do for the world would be to become a kind of extended Scandinavia, through moves of coherent convergence.

From an early era of intrusive Viking plundering raids, through a period of demographic expansion, massive emigration and settlement overseas, the Nordic peoples managed to reach [grosso modo] a phase of calm and peaceful, modest and honest, educated way of life, caring for social welfare and ecological moderation, respectful of human rights and international law, supportive of the UN system. Thereby, Scandinavia offers an existence proof for the practical feasibility of a conversion from domination and arrogance toward reciprocity and fair-play.

During my teenage, the Suez expedition (in 1956) came as a reminder about the continuing hubris indulged by the two European permanent members of the Security Council, and former world empires. Several decades have passed by, but clearly these two nations, with their excessive military postures, with their increasing ecological deficits [biocapacity minus ecological footprint], with their bitter recurrent disputes, have still a long way to go, in order to complete the sobering transition from domination to reciprocity.

In accordance with the spirit of Sakharov's reflections about rapprochement, balance and equilibrium, let me conclude with these sentences of Montesquieu (1689-1755), which stand as a lofty vindication of the reciprocity principle :

If I knew something useful to me and harmful to my family, I should put it out my mind.

If I knew something useful to my family and not to my country, I should try to forget it.

If I knew something useful to my country and harmful to Europe, or useful to Europe and harmful to the human kind, I should consider it a crime.

The French lawyer Montesquieu died in 1755. The Russian physicist Sakharov died in 1989. Distant as they are, their two visions help define a direction for Europe, toward a noble and fair convergence of freedom and justice, based on a deeper sense of reciprocity.

May my voice carry these words of courage and hope, from previous generations onto ours and the next.

(1) Another memorable address (fitting within this short list of swan songs) was given by the violinist Yehudi Menuhin, during a solemn Wolf Prize ceremony (Jerusalem, 5 May 1991) : a beautiful and moving plea in favour of reciprocity, as a requisite for just and lasting resolution of historical conflicts.