SCIENCE AND TECHNOLOGY

Schmidt On The Responsibility Of Research For The Future Of Society

A speech by West German Chancellor Schmidt, delivered June 28 before the German Research Associa-

In his eloquent address, excerpted below, Chancellor Schmidt redefines the zero-growth slogan, 'quality of life' as scientific humanism. He calls upon the West German scientific community to take up an intellectual, scientifically grounded battle against "left-wing" extremism, bestialism, and anti-humanism, and profoundly locates the role of scientific research in social progress in a broad but precise context.

... The underlying reason for the expectations in society coming from (scientific) research can be found in the feeling - even if it is not clearly and consciously formulated — that in a world of rapidly changing economic, and also political situations, we Germans can only maintain our well-grounded welfare, and resulting political and social stability ... if we mobilize our resources, namely:

- the potential of our skilled workers; that is why my government has put so much emphasis on improved vocational education;
- the potential of our engineers and corporate leaders;
- and last but not least the potential of our scientists and researchers.

The population feels unconsciously that we must not saw off the tree branch on which we are sitting, although there are obviously a great many people who are diligently sawing away: that must be recognized.

Permit me to give an example. Our exports of full industrial plants and major technical installations, for example, for the peaceful use of nuclear energy, demonstrate as a tendency, where the course of our economy must go in future decades. Certainly, we are not only going to export blueprints and establish our future living standards on the returns from them. That would not suffice to employ our 60-million population, and would certainly displease our trade unions, factory councils, and the women and men represented by them in the factories. However, our strength must be the production of highly specialized, technically exacting goods and installations, with our noses always a bit in front of everyone else. In a country which has no oil, and no natural gas, and that with the exception of soft coal and hard coal is very poor in raw materials, this'must be

The second reason that many people expect a great deal from research — even if they perhaps would not formulate it this way — is that they have increasingly understood in the last years that we cannot completely consume the natural resources of the world and of our Our exports of full industrial plants and major technical installations, for example, for the peaceful use of nuclear energy, demonstrate as a tendency, where the course economy must go decades.

country, which have emerged in the course of millions of years, in the course of a few decades.... Thus, many people expect from research modes of production and products which conserve energy, which make useful the regeneration of energy sources (for example of the sun and wind), perhaps even tidal energies: not to mention the energy policy options about which we are certainly already speaking, but which are not yet technically or economically realizable: such as fusion, coal gasification and coal liquefaction.

....Many of you will not have the feeling that I am speaking strictly of goal-oriented research, while without question, the crown of research is goal-independent and basic research. I would like to avert such a misunderstanding. The federal government is by no means interested only in research which produces hardware for industrial innovation. That is not the case. We do not want to put ourselves, one-sidedly, on the side of immediate utility. Basic research must also in future constitute the basis of fermentation and guarantee simultaneously sufficient potential in qualified successors.

For these reasons, there is little doubt in government circles — in parliaments and cabinets of the states and federal government — that state promotion of basic research is a necessity, for which no particular lobby is needed to guarantee maneuvering room in this field in relation to the state, as has been accounted for in the Basic Law, Article 5, paragraph 3, on science and research.

On the other hand, the state must bear responsibility for the spending of tax monies which it takes from its citizens. A certain degree of co-determination on the part of the state is unavoidable. I have the feeling however that those who are collaborating in the Research Association, cannot and do not want to protest against too great intervention on the part of the state.

I genuinely wish to find in each individual one of us a synthesis of general education, as to what concerns humanity; knowledge, insight and learning as to the process of the unfolding of humanity on the one side and of specialized expert accomplishments on the other; a 'thinking together' of both.

I am starting from the assumption that all research must be conscious of its social determination. The dilemma is to evaluate this correctly. Research is not merely socially organized investigation for knowledge; it is also social, societally financed, and thus should also be socially obligated.

No one can set the boundaries of research generally and abstractly.... In each concrete case, this becomes somewhat easier. If I am correct, there exist until now no undisputed, general criteria, and Robert Oppenheimer's question about the ethos of research and of the researcher will remain an urgent question for coming generations.

I myself believe that science and research must recognize providing value to the human being as their main task, and that they must see the code of not injuring the human being as the absolute boundary of all research activity.

Now it is certainly the case that scientific and technical progress, and the resulting growing welfare are necessary preconditions for human-worthy existence, but by no means are they sufficient preconditions for the preservation of the value of the human being. This is a realization which — I think — must be permitted to have its effects on the goals of research, which you set for yourselves, or which we jointly establish.

For example, I am not certain whether the future deficiency of certain raw materials, or a deficit in the patent exports of the Federal Republic of Germany are really any more grave for the strength and future of our society than for example the broadly spread deficiency in historical consciousness; or than the broadly prevalent inability for reasonable — that is partnerly — collaboration...

How has man actually come today to be what he is? We must know this if we want to prevent ourselves from declining into a spiritless 'technocratic society' — as this was once said by a man who at present is playing a major role in the government of a friendly major nation. For me, what is decisive ... is a comprehensive look, a comprehensive interpretation of humanity and of its undoing, a continuous comprehensive look.

Permit me to give an example of what I mean: The laudatory commentary from some individual students and their little papers — allegedly leftists — on the death

of Buback, Wurster and Goebel reminds me of a process which I did not consciously live through, but which I have consciously taken out of history into myself: the deaths after the First World War of Rathenau, Erzberger, Rosa Luxemburg and Karl Liebknecht, and the laudatory cynicism towards the murdered — that time, apparently coming from the right. If there is a problem at German universities which profoundly moves me, then it is this: that something like this could happen again, fifty years later. Thus, I ask myself what we all, what each one of us can contribute, guiding, enlightening, so that not all of the terrible mistakes of recent German history are repeated.

To learn how to understand human beings is extraordinarily important and does not mean to polarize knowledge and to play it out against itself, but rather to identify contexts and interdependencies.

I wish that we had long ago rejected an interpretation of history ... which conceives of history merely as a succession of wars and rulers, which puts the history of economics, of literature, of law or of art into simplistic special, little packets which are each individually investigated and observed. I genuinely wish to find in each individual one of us a synthesis of general education, as to what concerns humanity; knowledge, insight and learning as to the process of the unfolding of humanity on the one side and of specialized expert accomplishments on the other: a 'thinking together' of both. For this purpose, one must not become a 'generalist'. For this purpose we need more interdisciplinary work; we must penetrate the entire realm of culture and intellectual science in this respect, including the sciences of communication and language, of politics and ideology, of behavior and self-evidently of the entire realm of labor.

It appears to me that our contemporaries have a latent hunger for historically founded, unified comprehension of what man is and how he has become so. The fascination which has been provoked by the Roemisch-Germankischen Museum on Cologne, which is visited by hundreds of thousands; the fascination, which a few years ago resulted at the Caspar-David-Friedrich Exhibition in Hamburg, which until then had not been a part of the lives of the majority of the visitors of this exhibition: the fascination which today hundreds of thousands are experiencing at the Stauffer Exhibition, are indications for me of the need within man to understand how we really came to be what we are.

...Practically any scientist is ready to speak to his monetary benefactors; he is also willing to talk to the colleagues in his field; however, the willingness is considerably less — and also opportunities for this are not often sought out — to speak to colleagues in other fields of expertise. And unfortunately, even less is the readiness, and unfortunately many fewer opportunities are sought, to inform a broader public.... I want to put it this way: in a democratic society, lucidity, transparency of science and research is a moral obligation to bring forward! It is not the moral obligation of the 60 million citizens to retrieve, but the moral obligation to bring by scientists and researchers!

... We all know: mankind wants further progress, especially in its wellbeing. However, its unhampered faith in progress has perhaps disappeared. Many men simply want more electricity, but no powerplants, or

they want an auto to drive, but not to have the roadway pass by their house. That is internally contradictory, but typically human.

... We politicians, in our field, must insure that the human element (Humanum) remains the essential kernel of our society. We cannot with certainty accomplish that alone. We must aid one another. I concede that until now scarcely one political system has thoroughly neither the solved this problem in a lasting way western democracies, and certainly not, as we all know, the compulsory systems which exist in our immediate or distant proximity, nor the military dictatorships. That is the task for all of us.

(Schmidt then discussed higher level schools and universities. He emphasized the particular problems West Germany faces because of its demographic imbalances caused by World War II, and its present zero rate of population growth. He affirms that the government wants both to get rid of numerical restrictions on university education, and also to shorten the length of university level education.)

I am opposed to our permitting ourselves to become

discouraged. I also do not support the fact that those who want to paint black visions of the future on the walls of scientific progress are allowed to be the only agitators. I think that we all have the obligation to take responsibility so that the men of our age and those who follow understand that we have both the chance and the ability to take the future into our hands, and that we are not delivered over to processes which cannot be controlled.

...Removing the cloak from the hidden, bringing the unknown as much as possible out of the realm of secrecy into the realm of the transparent, is not merely a democratic task; one could similarly formulate the task of research in this way. But, I am no philosopher and have not reflected for a long enough time over these formulations.

We need curiosity about the future. Pessimism in relation to the future we cannot use. Through pessimism. we could destroy the human element of our society. We need curiosity about the future, and that means: We need research, we need you. However, since you also need others, please accept the one or two suggestions which I have permitted myself to offer to you.