Interview with Ivan Havel: Science in Eastern Europe

Ivan Havel remembers when in the late 1970s the Czechoslovakian state police began watching his apartment. For months he had been hosting unofficial science seminars, and the police didn’t like it.

"It politicized me," says the soft-spoken computer scientist and brother of Czechoslovakian president Vaclav Havel. "The police would check the people who came and ask them to identify themselves. They didn’t like meetings between official and unofficial scientists.

"After awhile," he says, "most official scientists stopped coming. It was too big a risk."

Today Havel is director of the recently launched Center for Theoretical Study in Prague, a cross-disciplinary institute that he hopes will spark new developments in Eastern European science. His recent visit to the United States included a stop at the American Association for the Advancement of Science on Dec. 6. In the following interview, Havel speaks of his hopes for the future of Czechoslovakian science.

Q: What was difficult about doing science during the Communist era?
A: Scientific work had to be combined with the ideological dissemination of Marxist ideas. There was a strict hierarchy of state projects and, to get by, a scientist had to pretend that his research was under such-and-such a heading in the hierarchy. In this way, bureaucrats decided what was important research.

Q: Were the bureaucrats themselves scientists?
A: Leadership in the [National] Academy [of Sciences] or at universities required not so much familiarity with scientific work as loyalty and membership in the Communist party. By 1989, some very bright individuals could still work officially in institutes and travel a little, but many scientists took other jobs and tried to continue unofficially on their own.

Q: Is that what you did?
A: Yes. I joined the Academy for about 8 years and worked in artificial intelligence, which luckily fit into their hierarchy as useful to them. But I didn’t have a normal career because of my brother’s activities. After he formed Charter 77 [a group of 240 intellectuals protesting the suppression of freedom] and I refused to write against it, I was asked to leave. Eventually I took a job at an institution employing handicapped people. The job left me time to continue my own research.

Q: Without a lab?
A: People who were not able to do concrete technical research were nonetheless people of knowledge; they couldn’t stop their endeavor. So they shifted to wider viewpoints. A biologist who took another job could reflect on biology from a philosophical point of view. I worked in theoretical computer science.

We held informal science seminars all through the 1970s. It was a very stimulating atmosphere. In our language, science has a broader meaning than in English. It includes not just natural science but social sciences and the humanities. Our last meeting was in December 1989. Unfortunately, we don’t have time now, we are so busy with the revolution.

Q: What are the biggest problems your country faces regarding science?
A: Most serious is the transition toward a free-market economy. Last year, state funding for basic science decreased by about 10%. There is talk of a national fund for science, similar to the National Science Foundation, that would work on the basis of grants to projects, not institutions.

Q: What about improving the quality of research?
A: Well, there’s the problem of what to do with the scientific bureaucracy. How do we get rid of mediocre scientists? Some institutions are beginning to use standards like the number of citations or the amount of international recognition a scientist has received.

Q: Can your country catch up with the West?
A: My personal opinion is that it is impossible to catch up quickly, especially in the area of high technology. Instead, I think we should [continue] what has been done unofficially over the last 40 years. I might be too optimistic, but I think we can trade off with the West by offering new ideas and a more philosophical viewpoint [in exchange for] concrete knowledge and technical expertise.

Q: In rebuilding your country’s scientific community, do you see problems in the West that you would like to avoid?
A: Scientists in the West are sometimes overburdened by project proposals. Also, it seems that many budgets are oriented toward an expected economic outcome, rather than as a contribution to knowledge.

I think the solution is that funding should be based on science as part of culture. I’d like to see some of the people who donate to art also give to science, and that institutes for science also see art as something that should be supported.

Q: For years, those who taught science at universities were separated from those who did basic research. What effect has this had on the scientific community?
A: The division of labor between university and the Academy is obviously unreasonable. Changing this will be easier than most things. The idea now is to let people do what they are able to do. At my Center, we will do mostly research but also some teaching. This is a first step toward the reunion of research and teaching.

Q: What’s the premise behind your Center?
A: It’s modeled after Princeton’s Institute of Advanced Study. Its primary purpose is to bring leading Western scientists to our country, to make it easy for them to do research and to stimulate contact with our own scientists and graduate students.

There will be about ten professors, half from outside the country and half from Czechoslovakia. Our scope is broad, including science and humanities, so that we might create an environment for cross-disciplinary talk.

Q: What is the public’s attitude toward science today?
A: During this transition in the economy, the real expenses [for science] will be much more public and they will be compared with those for other things. One of our tasks is to address the public [about the importance of science].

Personally, I think the contribution of science to society is something at the level of minds, not the level of materials. The role of science is to expand knowledge of the world more than it is to solve industrial or economic problems.

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