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## Sakharov: A Symbol of Change in Soviet Science

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The visit last month of Andrei Sakharov to the United States represents not merely a personal victory for the Nobel laureate and the scientists who have worked persistently for his rehabilitation. It is also a reflection of the profound change going on in the Soviet Union, especially through the Soviet Academy of Sciences—changes that are reshaping that nation's scientific enterprise.

I was honored to be present at two occasions Sakharov attended when he was in Washington—once at the Library of Congress and then when he received the Albert Einstein Peace Prize for his efforts in support of nuclear disarmament. In his acceptance speech, Sakharov criticized his own government for its support of an outsized military force. He criticized NATO nations for refusing to abandon their claim to a first use of nuclear weapons. And in his meeting with President Reagan, he was sharply critical of the United States' Strategic Defense Initiative. Sakharov can be counted on to speak his conscience at all times.

What is surprising is the Soviet government's willingness to give Sakharov the freedom to speak, both at home and abroad. Two years ago

today, Sakharov and Elena Bonner were still languishing in internal exile in Gorky, where they were sent in 1980 after Sakharov's denouncement of the invasion of Afghanistan. Four days later, on December 16, 1986, there came the historic telephone call from Mikhail Gorbachev allowing Sakharov and his wife to return to Moscow. More recently, the honors that had been stripped from Sakharov were returned, and the physicist was elected to the Presidium of the Soviet Academy, the organization's governing council. Sakharov's saga is symbolic of the new era within Soviet science as well as, perhaps, of the possibility for renewed Soviet-United States scientific cooperation.

This new era for Soviet science dawned brightly during the October 18-20 meeting of the Soviet Academy. The election of Sakharov to the Presidium was only one remarkable act. Other developments were in fact more far-reaching; the turnover of half of the Presidium membership; the introduction of competition for state financing of research, to be based on merit; the setting up of a mechanism to improve acquisition of much-needed equipment; and the appropriation of \$500 million rubles

for high-priority research initiatives. Science is clearly now at the forefront of Gorbachev's efforts to follow through with his programs of *perestroika* and more *glasnost* for Soviet society.

With Sakharov now a member of the Presidium, it can be expected he will be a strong advocate for reform, not only for restructuring science but also for ensuring its moral basis. While in this country he spoke out frequently on behalf of prisoners of conscience that the Soviet authorities continue to hold captive.

The fate of those still jailed or in exile will be a signal of the Soviet government's commitment to true reform. Yuri Orlov, Anatoly Shcharansky, and now Sakharov have gained their freedom, with the

help of scientists in the West. The concern expressed for these three by many scientific bodies should continue for those still without freedom. While international cooperation and exchanges between the United States and the Soviet Union should perhaps not be linked solely to human-rights concessions from Soviet authorities (see Herbert Abrams, *The Scientist*, June 13, 1988, page 11), neither should the brilliance of still-suffering dissidents. Their fate should be raised in the negotiations now underway to formulate a new program of scientific cooperation between the United States and the Soviet Union. Time and again while he was here, Sakharov reminded us to do this. ■