

in the basic scientific area. Because, I believe at the present time most of the scientific work that is going on within the Soviet Union is published in open sources, as is ours in almost every field. It is only later on when this gets into certain weapons development areas that it is classified, either on our side or on the other side.

QUESTION: Doctor, the overall impression that I get from your paper is that scientists present a completely unique problem when it comes to the problem of directing their efforts toward predetermined or broader goals imposed from above. Can you explain in what way scientists are unique from any other professional group, and would not the general problems and principles you have laid out apply to any professional group effort toward organizational goals?

DR. VOLLMER: No, I think scientists are different from any other kind of professionals. Engineers, for example, as I tried to indicate in one of the illustrations that I gave, are more likely to be problem-oriented in their training. They will take a problem from almost anywhere, whether it comes from management or elsewhere if it is a technically challenging problem. Whereas scientists--and now I am speaking of physical scientists, these people tend to be oriented, through many years of training to look at things which they believe are of theoretical significance. That is, basic significance within their discipline. This may not be relevant to a management problem; so therefore you do have something here which is somewhat different from other professionals.

I do not know which other professionals you had in mind--take attorneys for example--lawyers. These are people who obviously have to be oriented toward the problems of their clients. Not so with scientists; I think they are somewhat different here. Of course, I am talking in generalities. We all have lots of exceptions to point to.

QUESTION: Dr. Vollmer, we have discussed the rapid expansion or explosion of discoveries and knowledge in practically every field of science. This has brought up the need for post-doctoral education. Has industry or government tried to use to any extent a sabbatical-arrangement or guaranteed a post-optimum of work as an incentive to get and retain good scientists.

DR. VOLLMER: This has been used on a small scale. That is, where scientists can get some funds sometimes from an outside

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