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Countdown at Geneva

In the best of all possible worlds, the Geneva conference on the possibility of designing a workable system for monitoring nuclear explosions might close with a set of propositions about what could be accomplished scientifically under various political conditions. The propositions might state, for example, what kind of explosions could be detected by stations located outside the boundaries of the participating countries, by stations located inside those boundaries, and by an international inspectorate with free access to any area of suspected activity.

Under such conditions the degree of international freedom acceptable to the participating governments need only be specified, and everyone would know whether it was possible to ensure compliance to all, or to part, of an agreement to suspend the testing of nuclear weapons. But in the best of all possible worlds the conference would not be necessary, while in this world science does not quite fit this pattern, and neither does foreign policy.

In science there is sometimes a twilight zone of uncertainty between the definite confirmation of a proposition and the definite denial. The trouble is that just that matter for which a precise judgment is required may fall into this zone. In these circumstances we must be satisfied, if only for the present, with a situation in which one group of experts may offer one answer and another group of equally qualified experts another answer, or else a situation in which, if the experts agree on the answer, they still feel constrained to express that answer in terms of probabilities.

If scientific matters are not always clear-cut, how much less so are the implications of scientific findings for the conduct of foreign policy. In the present case, it is possible, on the one hand, for a government to fail to grasp that, even at its best, science in some areas can only offer high probabilities. The responsible administrative officials might demand such conditions of certainty as to foredoom the possibility of any monitoring system meeting those conditions. On the other hand, it is possible for a government to understand the logic of science only too well. A ruling body seeking, in a broader military or ideological context, to turn the problem of a monitored suspension of the testing of nuclear weapons to its own advantage would have plenty of room in which to maneuver.

Given a complex question, however, there is sometimes a special order for taking up the parts. To follow this order will increase the chances of coming to an agreement or, at least, of locating the sources of difference. Thus, it is helpful to settle what can be settled scientifically before going on to what must be settled politically. This is what is now being done. And we can imagine that the scientific questions themselves fall into a certain order. Thus, before considering how many inspection stations should be set up in a given system, it is proper to determine, first, from how far away bombs of a given size can be detected.

With the possibility, however, that small differences in scientific judgment may have large political consequences, something besides adherence to a rational order of business is also required—something for which adherence to that order is a first sign—namely, the desire, at least in this aspect of East-West relations, to have matters work out.—J.T.

Science

Countdown at Geneva

J. T.

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