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## The Jinni in the Bottle

J. R. Wiggins, editor of the *Washington Post and Times Herald*, has been asking some of his scientist friends: If you could put the jinni back into the bottle, would you do it? Would you, if you had the choice, undo the work that led to the release of atomic energy? The question is not historical, for obviously the past cannot be undone. Neither is it a strictly scientific question, for if Otto Hahn, Lise Meitner, Enrico Fermi, and their collaborators had not released the atomic jinni, others would have. The point of the question is its social significance, not only for atomic energy itself, but also as a forewarning of problems that may lie ahead. Consider the moral, social, and political dilemmas that would follow upon ability to control the weather on a world-wide scale, to control genetic material, or to control human behavior.

Warren Weaver posed essentially the same question, in a somewhat more manageable form, in asking C. P. Snow, after his address at the 1960 AAAS annual meeting: If a scientist can see with reasonable clarity that continuing a particular line of research is likely to produce information that might be turned to evil ends, should he continue, or should he stop? When phrased in this way, the question poses a personal choice, but only a personal one. A particular scientist can avoid personal responsibility for findings that may be used for evil purposes. But he cannot prevent those findings from being made. If he stops, someone else will continue.

Among the several answers made to these questions is the statement that the scientist plays two roles, one as scientist and the other as citizen, and that he can and should keep the two roles separate. The distinction goes beyond saying that scientists should be concerned with the social implications of their work to say that the scientist, acting as a scientist, can press on wherever and as far as his curiosity and ability lead and permit, and that the same person, now acting as a citizen, can forget his scientific interests in helping to make decisions concerning science and its applications and its control. This is a comforting doctrine, but is it any more realistic than to expect the scientist to open all the bottles to see what they contain while the same person, as citizen, leaves firmly stoppered any that contains an ugly jinni?

Quite aside from the impossibility of undoing the past, and quite aside from the impossibility of preventing others from doing what a particular person refrains from doing, can we expect the scientist—not an idealized abstraction but the human being in the next office—to differentiate his role as a scientist from his role as a citizen? We do not expect the clergyman to forget his cloth when he goes to vote. Nor do we ask the member of another profession to stop and ask himself: Am I acting as a member of my profession or as a citizen of my country? What can we fairly ask of a scientist?

Would you put the jinni back into the bottle if you could? The question can start a lively discussion. It can also lead to a perplexing consideration of whether or not the scientist can separate his roles.  
—D.W.