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Weapons Scientists as Whistle Blowers

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On January 23, 2003, as United Nations inspectors combed Iraq for weapons of mass destruction (WMD), a bipartisan group of six U.S. senators introduced the Iraqi Scientists Immigration Act of 2003. Weapons inspectors had long argued that testimony from Iraqi scientists was key to penetrating the regime's WMD programs. But with the potential for retribution from Saddam Hussein looming over their heads, the scientists were unwilling to talk. The bill sought to remedy that situation by establishing a fast-track immigration procedure for Iraqi weapons scientists willing to aid the inspectors.

The bill passed the Senate unanimously on March 24—a day too late. The night before, frustrated by the failure of the U.N. inspectors to penetrate Iraq's weapons programs, President Bush had ordered the U.S. military to commence operations to disarm Saddam Hussein and remove him from power. The plodding pace of American law-making had been outmatched by the speed with which military operations could be launched.

Yet rather than discrediting the principles underlying the bill, the Iraq experience suggests the need for their more robust—and timely—implementation in the future. Washington clearly views the proliferation of WMD as among the most serious threats to U.S. security and the maintenance of international order, and experts broadly agree that defector accounts are essential for early detection of hidden WMD programs. The United States should therefore establish a permanent program to encourage and provide protection for scientist-whistle blowers,

not just from Iraq, but from any suspect regime. To prevent such an initiative from being seen as merely an instrument of U.S. intelligence agencies and to secure the cooperation of international organizations, Washington should also pursue agreements aimed at affording whistle blowers protections under international law.

Why Scientists Matter

Scientific insiders have been key to alerting us to the existence of WMD programs since the beginning of the nuclear age. In August 1939, Albert Einstein and fellow nuclear physicist Leo Szilard wrote to President Roosevelt to warn him that Hitler's Germany was secretly developing an atomic bomb, a contribution historians consider key to alerting FDR to the potential Nazi nuclear threat.

In 1989, Vladimir Pasechnik, formerly the general director of the Soviet Union's Science Production Organization, defected to Britain and alerted Western authorities to the existence of a massive Soviet biological weapons program, which Russian president Boris Yeltsin confirmed three years later. (In the interim, Ken Alibek, a former senior deputy director of Biopreparat—the cover for the Soviet biological weapons program—also defected and provided information on the program.)

During the early 1990s, following the first Gulf War, defecting Iraqi scientists revealed that Iraq had pursued an extensive clandestine biological weapons program. As a result of these revelations, the program was uncovered; indeed, the discovery may have deterred Saddam Hussein from

reviving his WMD programs before the second Gulf War.

It should come as no surprise that scientists have been and continue to be key to exposing clandestine WMD programs, since physical indicators of such programs are often hard to find. Most materials needed for WMD research, development, and production have alternative uses, making their importation a poor flag of illicit activity. Nuclear weapons production requires dedicated facilities, but these can be hidden from prying eyes. Unlike nuclear power plants, with their large telltale cooling towers, which are easily spotted through satellite imagery, underground centrifuge-based uranium enrichment plants, which consume little electricity and emit few, if any, telltale waste products, are essentially invisible. Apparently both North Korea and Iran have built such facilities for producing weapons-grade uranium. Biological and chemical weapons programs are even harder to find, since production facilities can easily be disguised as civilian industrial plants, with their dual use imperceptible even to visiting experts. Only insiders—particularly, scientists—can alert the outside world to their true purpose.

If Iraqi scientists had been willing and able to speak out before last March, might the war against Iraq have been averted? According to the most widely held current theory about Iraq's prewar activities—supported by the details of the interim report by the Iraq Survey Group, the American team dispatched to hunt for WMD in Iraq—Saddam Hussein had retained the seeds of a weapons program since the end of the first Gulf War but had destroyed munitions and major production facilities, and had halted nuclear weapons development. Defecting scientists might have been able to convince Washington that Iraq had essentially dismantled its nuclear, chemical, and biological weapons programs, though this is unlikely since the burden of proof had already been placed squarely on Saddam Hussein's

shoulders. Or, scientists might have helped uncover parts of the program that had been put in cold storage, helping to build international consensus about the war's legitimacy. Last June, former Iraqi nuclear scientist Mahdi Obeidi led American inspectors to centrifuge components buried in his garden. Those components were no proof that Saddam had posed an imminent threat, but if they had been discovered during the prewar inspections, there would have been wider agreement that Iraq was misleading the U.N. inspectors and perhaps less diplomatic discord in the months preceding the U.S. invasion.

On another front, scientist-defectors might help determine the nature of Iran's nuclear program. Observers have been focused on a gas-centrifuge facility at Natanz, which Iran claims is for making power plant fuel, but which can be converted to make weapons-grade uranium. If Iran, which is a signatory to the Nuclear Non-Proliferation Treaty (NPT), is considering converting the Natanz facility for this purpose, scientists somewhere must be drawing up the plans, which defectors might reveal. Similarly, if Iran wants to extract plutonium from its used nuclear fuel, engineers must be designing a reprocessing plant; if it has imported undeclared equipment for a second, clandestine, uranium enrichment facility, scientists were likely involved in the procurement; and if it wishes to assemble a functioning bomb, scientific and engineering work on bomb design, including specialized explosives arrangements suitable only for nuclear weapons, has likely been initiated. If even one scientist with information about one of these activities came forward, it would contribute immeasurably to our understanding of what Iran is up to.

A Safe Haven

Scientists, however, are unlikely to defect and inform if they believe that either they or their families will be targeted by the regimes for which they work. Moreover, sci-

entists fleeing states where they would be persecuted for exposing illicit weapons programs have ambiguous status as refugees under international law. The United Nations Convention and Protocol Relating to the Status of Refugees excludes from protection any person who “has been guilty of acts contrary to the purposes and principles of the United Nations.” Scientists who had participated in an illegal WMD program would likely fall into that category. Such a scientist could not be confident that he could find protection outside his home country.

In principle, there is a simple solution to this problem: the United States could offer a green card to any scientist with evidence of a clandestine WMD program who is willing to defect and speak out. There are problems with such an approach, however. Consider, for example, a hypothetical scientist who defects and claims protection under the new American plan. He testifies that a certain facility, which he can identify on a map, is being used to produce anthrax for use as a biological weapon. How credible must the defector’s account be for him to be granted protection? One approach would place the burden on the defector—unless his claim could be verified, he would not be given protection. This approach would likely work with claims about large, fixed facilities that have no legitimate alternative uses, such as undeclared plutonium reprocessing plants or uranium enrichment facilities. In such cases, there are international legal mechanisms for conducting special inspections. Moreover, it would be difficult for a state to decommission and dismantle such a facility before inspections could be conducted.

However, revelations about smaller or dual-use facilities—such as for the production of anthrax—could prove problematic. Defectors with information might well fear that by the time international authorities were able to inspect a suspected facility, it might have been dismantled or scrubbed

clean, leaving them unprotected and open to retribution from their governments. To address this problem, the United States could assume the burden of proof itself: unless a defector’s claim could be disproved, he (or she) would be given protection. This approach would reassure any honest whistle blower that he would be protected and would thus be more effective in inducing defections.

Unfortunately, this approach could also backfire. Scientists seeking green cards might provide false accusations, betting that their claims would never be verified. Unless carefully structured, such an approach might lead to abuse, discrediting the asylum system and ultimately leading to its demise. One way to address this dilemma would be to apply different standards to whistle blowers from different countries. Legislation could be enacted providing asylum for whistle blowers from any state at any time, with the burden of proof resting on the whistle blower. But the legislation could also contain a provision allowing the president to designate specific states as being of urgent proliferation concern. Defecting scientists from those states would be presumed to be telling the truth about illicit weapons programs; if they could be shown to have lied, they would be stripped of their special protection and deported.

Such legislation would also have to establish penalties to deter scientists from deliberately lying. The exact nature of such penalties should depend on whether the lies were motivated by self-interest or by malicious intent. On the other hand, the standard for proving that a scientist had lied would have to be set extremely high in order to ensure that well-intentioned scientists would not fear false prosecution and thus be deterred from defecting.

Toward a Global Regime

The proposed U.S. initiative should only be considered a first cut at the problem. If too many scientists and their extended families

have to be absorbed, Washington may come to see the cost of the program as being too high. Moreover, other governments may view the initiative with suspicion, seeing it as an extension of U.S. intelligence collection, rather than as a legitimate component of the global nonproliferation regime. This would limit the usefulness of defector testimony to such organizations as the International Atomic Energy Agency, which oversees compliance with certain provisions of the NPT, or future U.N. inspection teams. At a more abstract level, expanding the sphere of states offering whistle-blower protection would help reinforce and extend international norms against the proliferation of weapons of mass destruction.

Therefore, the United States should press friendly governments to enact similar legislation. Washington should also attempt to embed the whistle-blower initiative in international law. As a start, it could seek a Security Council resolution affirming that scientists who are willing to reveal the existence of illegal WMD programs can claim refugee status. Here again, a two-stage approach might be necessary. An initial resolution would establish the principle of protection for whistle blowers, including the mechanisms for defecting, the standards of proof required, and the role of international organizations and national governments in implementing the initiative. However, defecting scientists would not be automatically protected under such a resolution. A second resolution would be required to designate a country as being of proliferation concern; scientists from such countries would be automatically protected.

Future agreements could go even further. Signatories to international agreements prohibiting the development or possession of weapons of mass destruction might be required to enact national legislation allowing free emigration of scientists. To be sure, such laws might be ignored by authoritarian regimes. Still, such a requirement would help legitimize arguments that muzzling

scientists and impeding their movement is incompatible with an international security system based on confidence building. The United States effectively argued this point before the last round of U.N. inspections of Iraq, and it would be valuable to have the principle formally adopted by the international community.

Would the Bush administration be willing to pursue such an approach? Certainly, the administration has been wary of formal international agreements. Instead of supporting a monitoring protocol for the Biological Weapons Convention (BWC), for example, the administration encouraged individual states to tighten their controls over dangerous pathogens. But unlike the agreements rejected by the administration—the BWC protocol, the Anti-Ballistic Missile Treaty, and the Kyoto Protocol on global warming—the arrangements described above would do nothing to constrain U.S. freedom of action and would barely intrude on American sovereignty. They would not give other states new rights to intrusive inspection of American facilities, something that was a major stumbling block in the BWC protocol negotiations, since the United States does not conduct illegal research on chemical or biological weapons (although it does conduct research for defensive purposes in these areas). Thus, while the Bush administration is skeptical of such arrangements, it does not appear that the scheme would produce any major vulnerabilities that would preclude its implementation.

Implementing the Initiative

During the debate over the Iraqi scientists immigration bill, many analysts expressed concern that there would be no way for Iraqi scientists to learn about the promise of asylum in the United States in exchange for information about the Iraqi weapons program. And indeed, without active promotion, few scientists—particularly those working in the relatively closed societies that often harbor clandestine weapons programs—would

likely find out about any new structures put in place to help them expose illegal weapons activities.

International institutions charged with verifying arms control and nonproliferation agreements can help rectify this problem. For example, teams from the International Atomic Energy Agency regularly visit states that are party to the Nuclear Non-Proliferation Treaty to verify that they are abiding by their obligations. IAEA officials and technicians could use such visits to promote the whistle-blower initiative and educate nuclear scientists about their new rights. Such activities would have to be carried out in all NPT countries, lest some states feel unfairly targeted and thus resist the overtures of IAEA inspectors. The Organization for the Prohibition of Chemical Weapons, which oversees the implementation of the provisions of the Chemical Weapons Convention, could perform a similar role. Biological weapons present a more difficult challenge, since the Biological Weapons Convention does not include any provision for on-site inspections.

Civil society would also have an important role to play in promoting the proposed new initiative. Engineering societies have a long history of educating their professionals about their responsibilities to report negligent or illegal behavior to the proper authorities, and about the protections available to whistle blowers. Scientific societies with

international reach could do the same through their publications and at their conferences. Scientists from nearly every state read the major international journals and attend international conferences.

Though the basic idea behind this proposed initiative is not new, the opportunity to implement it is. "Societal verification" schemes, under which individuals are expected to come forward when their activities are in contravention of international agreements, have been peddled since the beginning of the nuclear age, but they have typically been discussed in the context of nuclear abolition, and have thus been anathema to the established powers, including the United States. In the past, an initiative to protect putative whistle blowers in targeted states of proliferation concern, as proposed here, would have had little chance of success, given concerns about state sovereignty. But in the new global climate, where the fear of weapons of mass destruction falling into the hands of terrorists is a waking nightmare for many, more and more leaders are beginning to see that the old rules do not offer sufficient protection. The pursuit of an initiative to encourage scientists in states pursuing clandestine weapons programs to shine a light in dark corners may be one of the most effective strategies we can devise to halt the proliferation of weapons of mass destruction. ●