

76. Nuclear Weapons: Proliferation and Terrorism

Policymakers should

- seek to dampen excessive alarmism over the issues of nuclear proliferation and atomic terrorism;
- consider that nuclear proliferation is unlikely to accelerate or prove to be a major danger;
- be wary of the potentially destructive consequences of some counter-proliferation policies;
- understand that one way to reduce the likelihood that errant regimes will seek nuclear arsenals is to stop threatening them; and
- recognize that the likelihood terrorists will be able to acquire a nuclear capacity is vanishingly low.

The foreign policy establishment has long taken it as a central article of faith that the proliferation of nuclear weapons is an overwhelming danger and that great efforts, including perhaps even war, must be undertaken to keep it from happening. Alarm escalated after the experience of September 11, 2001, which raised concerns that terrorists might obtain nuclear weapons—even though the terrorists on that tragic day used weapons no more sophisticated than box cutters.

However, nuclear proliferation is unlikely to accelerate or prove to be a major danger. Terrorists are likely to continue to find that obtaining and using nuclear weapons is exceedingly difficult. And aggressive counter-proliferation policies can generate costs far higher than those likely to be inflicted by the proliferation problem they seek to address. Those policies need careful reconsideration.

Nuclear Proliferation

Except for their effects on agonies, obsessions, rhetoric, posturing, and spending, the consequences of nuclear proliferation have been largely benign: those who have acquired the weapons have “used” them simply to stoke their egos or to deter real or imagined threats. For the most part, nuclear powers have found the weapons to be a notable waste of time, money, effort, and scientific talent. They have quietly kept the weapons in storage and haven’t even found much benefit in rattling them from time to time. If the recent efforts to keep Iran from obtaining nuclear weapons have been successful, those efforts have done Iran a favor.

There has never been a militarily compelling reason to use nuclear weapons, particularly because it has not been possible to identify suitable targets—or targets that couldn’t be attacked as effectively by conventional munitions. Conceivably, conditions exist under which nuclear weapons could serve a deterrent function, but there is little reason to suspect that they have been necessary to deter war thus far, even during the Cold War. The main Cold War contestants have never believed that a repetition of World War II, whether embellished by nuclear weapons or not, is remotely in their interests.

Moreover, the weapons have not proved to be crucial status symbols. How much more status would Japan have if it possessed nuclear weapons? Would anybody pay a great deal more attention to Britain or France if their arsenals held 5,000 nuclear weapons, or much less if they had none? Did China need nuclear weapons to impress the world with its economic growth or its Olympics?

Those considerations help explain why alarmists have been wrong for decades about the pace of nuclear proliferation. Most famously, in the 1960s, President John Kennedy anticipated that in another decade “fifteen or twenty or twenty-five nations may have these weapons.” Yet, of the dozens of technologically capable countries that have considered obtaining nuclear arsenals, very few have done so. Insofar as most leaders of most countries (even rogue ones) have considered acquiring the weapons, they have come to appreciate several drawbacks of doing so: nuclear weapons are dangerous, costly, and likely to rile the neighbors. Moreover, as the University of Southern California’s Jacques Hymans has demonstrated, the weapons have also been exceedingly difficult for administratively dysfunctional countries to obtain—it took decades for North Korea and Pakistan to do so. In consequence, alarmist predictions about proliferation

chains, cascades, dominoes, waves, avalanches, epidemics, and points of no return have proved faulty.

Although proliferation has so far had little consequence, that is not because the only countries to get nuclear weapons have had rational leaders. Large, important countries that acquired the bomb were run at the time by unchallenged—perhaps certifiably deranged—monsters. Consider Joseph Stalin, who, in 1949, was planning to change the climate of the Soviet Union by planting a lot of trees, and Mao Zedong, who, in 1964, had just carried out a bizarre social experiment that resulted in an artificial famine in which tens of millions of Chinese perished.

Some also fear that a country might use its nuclear weapons to “dominate” its area. That argument was used with dramatic urgency before 2003 when Saddam Hussein supposedly posed great danger, and it has been frequently applied to Iran. Exactly how that domination is to be carried out is never made clear. The notion, apparently, is this: should an atomic rogue state rattle the occasional rocket, other countries in the area, suitably intimidated, would bow to its demands. Far more likely, threatened states would make common cause with each other and with other concerned countries (including nuclear ones) against the threatening neighbor. That is how countries coalesced into an alliance of convenience to oppose Iraq’s region-threatening invasion of Kuwait in 1990.

Yet another concern has been that the weapons will go off, by accident or miscalculation, devastating the planet in the process: the weapons exist in the thousands, sooner or later one or more of them will inevitably go off. But those prognostications have now failed to deliver for 70 years. That time period suggests something more than luck is operating. Moreover, the notion that if one nuclear weapon goes off in one place, the world will necessarily be plunged into thermonuclear cataclysm should remain in the domain of Hollywood scriptwriters.

Also keep in mind that anti-proliferation efforts can be counterproductive in their own terms. Thus, “one of the unintended ‘demonstration’ effects of the American anti-proliferation war against Iraq,” notes Mitchell Reiss, an expert on nuclear proliferation, “was that chemical and biological weapons proved insufficient to deter America: only nuclear weapons, it appeared, could do this job.” North Korea has apparently learned this lesson. Insofar as nuclear proliferation is a response to perceived threat, one way to reduce the nuclear pace is simple: stop threatening countries that might consider acquiring them.

The impulse to prevent nuclear proliferation through any means available should be weighed against the potentially very high costs of counter-

proliferation wars. The war in Iraq, with well over a hundred thousand deaths, is a key case in point. The war against Saddam Hussein was a militarized counter-proliferation effort substantially sold as necessary to keep his pathetic regime from developing nuclear and other presumably threatening weapons, and to prevent him from transferring some of them to eager and congenial terrorists. Karl Rove, President George W. Bush's top political adviser, reflected in 2008 that, absent this belief, "I suspect that the administration's course of action would have been to work to find more creative ways to constrain him like in the '90s."

Nuclear Terrorism

The possibility that small groups could set off nuclear weapons is an alarm that has been raised repeatedly over the decades. However, terrorist groups thus far seem to have exhibited only limited desire and even less progress in going atomic. Perhaps, after a brief exploration of the possible routes, they have discovered that the tremendous effort required is scarcely likely to succeed.

One route a would-be atomic terrorist might take would be to receive or buy a bomb from a generous, like-minded nuclear state for delivery abroad. That route, however, is highly improbable. The risk would be too great—even for a country led by extremists—that the source of the weapon would ultimately be discovered. Here, the rapidly developing science (and art) of "nuclear forensics"—connecting nuclear materials to their sources even after a bomb has been detonated—provides an important deterrent. Moreover, the weapon could explode in a manner or on a target the donor would not approve—including, potentially, the donor itself. Almost no one, for example, is likely to trust al Qaeda: its explicit enemies list includes all Middle Eastern regimes, as well as the governments of Afghanistan, India, Pakistan, and Russia. And the Islamic State, or ISIS, which burst onto the international scene in 2014, has alienated just about every state on the planet.

Nuclear-armed states are unlikely to give or sell their precious weapons to nonstate actors. Some observers, though, worry about "loose nukes," especially in post-Communist Russia—meaning weapons, "suitcase bombs" in particular, that can be stolen or bought illicitly. However, as a former director at the Los Alamos National Laboratory notes, "Regardless of what is reported in the news, all nuclear nations take the security of their weapons very seriously." Careful assessments have concluded that it is unlikely that any nuclear devices have been lost and that, regardless,

their effectiveness would be very low or even nonexistent because nuclear weapons require continual maintenance.

Moreover, finished bombs are outfitted with devices designed to trigger a nonnuclear explosion that will destroy the bomb if it is tampered with. Bombs can also be kept disassembled with the component parts stored in separate high-security vaults (a common practice in Pakistan). Two or more people and multiple codes may be required not only to use the bomb, but also to store, maintain, and deploy it.

There could be dangers in the chaos that would emerge if a nuclear state were to fail, collapsing in full disarray. However, even under those conditions, nuclear weapons would still have locks or be disassembled and would likely remain under heavy guard by people who know that a purloined bomb would most likely end up going off in their own territory.

Most analysts believe that a terrorist group's most promising route would be to attempt to make a bomb using purloined fissile material—plutonium or highly enriched uranium. However, as the Gilmore Commission—the advisory panel on terrorism and weapons of mass destruction—stressed, building and deploying a nuclear device presents “Herculean challenges.” The process requires a lengthy sequence of steps; if each is not fully met, the result is not simply a less powerful weapon, but one that can't produce any significant nuclear yield at all or can't be delivered.

First, the terrorists would need to steal or illicitly purchase the crucial plutonium or highly enriched uranium. This would most likely require the corruption of a host of greedy confederates, including brokers and money transmitters, any one of whom could turn on the terrorists or, out of either guile or incompetence, furnish them with material that is useless. Any theft would also likely trigger an intense international policing effort.

Second, to manufacture a bomb, the terrorists would need to set up a large and well-equipped machine shop and populate it with a team of highly skilled and extremely devoted scientists, technicians, machinists, and managers. These people would have to be assembled and retained for the monumental task while generating no consequential suspicions among friends, family, or police about their sudden and lengthy absence from normal pursuits back home. Throughout, the process of fabricating a nuclear weapon would require that international and local security services be kept perpetually in the dark, and that no curious locals, including criminal gangs, get wind of the project as they observe the constant coming and going of outside technicians over the months or even years it would take to pull off.

Physicists who have studied the issue conclude that fabricating a nuclear weapon “could hardly be accomplished by a subnational group” because of “the difficulty of acquiring the necessary expertise, the technical requirements (which in several fields verge on the unfeasible), the lack of available materials and the lack of experience in working with these.” Others stress the “daunting problems associated with material purity, machining, and a host of other issues,” and conclude that the notion that a terrorist group could fabricate an atomic bomb or device “is far-fetched at best.”

Finally, the resulting weapon, likely weighing a ton or more, would have to be moved to a target site in a manner that did not arouse suspicion. Then a skilled crew would have to set off the improvised and untested nuclear device, hoping that the machine shop work has been perfect, that there were no significant shakeups in the treacherous process of transportation, and that the device, after all the effort, isn’t a dud.

The financial costs of such an extensive operation could easily become monumental: expensive equipment to buy, smuggle, and set up and people to pay—or pay off. Any criminals competent and capable enough to be effective allies in the project would likely discover boundless opportunities for extortion and be psychologically equipped by their profession to exploit them.

Khalid Sheikh Mohammed, the designated “mastermind” behind the 9/11 attacks, reportedly said that al Qaeda’s atom bomb efforts never went beyond searching the Internet. Even so, that raises the popular notion that the Internet can be effective in providing operational information. However, that belief seems to be severely flawed. Researcher Anne Stenersen finds that the Internet is filled with misinformation and error and with materials hastily assembled and “randomly put together,” containing information that is often “far-fetched” or “utter nonsense.”

Some members of al Qaeda may have dreamed about getting nuclear weapons. The only terrorist group to actually indulge in such dreams has been the Japanese millennial group Aum Shinrikyo. However, its experience can scarcely be much of an inspiration to other terrorist groups. Aum Shinrikyo was not under siege or even under close watch, and it had some 300 scientists in its employ, an estimated budget of \$1 billion, and a remote and secluded haven in which to set up shop. After making dozens of mistakes in judgment, planning, and execution in a quest for nuclear weapons, it abandoned its efforts.

The rise of ISIS in 2014 does not alter these conclusions. The vicious group is certainly a danger to the people under its control and to fellow

Muslims and neighboring Christians. It is actually more visible—that is, easier to find—than al Qaeda in that it seeks to hold and govern physical territory, a task that is increasingly difficult in a hostile world. In the process, it is unlikely to be able to amass the finances, the skills, and the serenity to go atomic.

The notion that terrorists could come up with a nuclear weapon seems remote. As with nuclear proliferation to countries, there may be reason for concern, or at least for interest and watchfulness. But alarm and hysteria are hardly called for.

Suggested Readings

Allison, Graham T. *Nuclear Terrorism: The Ultimate Preventable Catastrophe*. New York: Times Books, 2005.

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