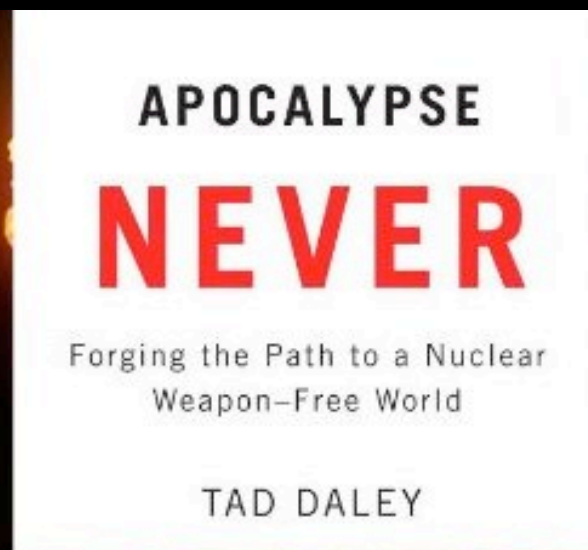


BOOK REVIEW

In *Apocalypse Never*, Tad Daley suggests how the world can abolish nuclear weapons and what the world will look like after we do. Daley insists that nuclear materials and technology -- nuclear terror, nuclear accident, a nuclear crisis -- pose an immediate peril to the world.

By CHARLES D. FERGUSON



Even many skeptics of nuclear disarmament would likely grok with the arguments for disarmament made by Tad Daley in his well-written *Apocalypse Never: Forging the Path to a Nuclear Weapon-Free World*. “Grok means to understand so thoroughly that the observer becomes a part of the observed—to merge, blend, intermarry, lose identity in group experience. It means almost everything that we mean by religion, philosophy, and science—and it means as little to us (because of our Earthling assumptions) as color means to a blind man,” as defined by Robert Heinlein in *Stranger in a Strange Land*. The writings of Heinlein have influenced Daley as shown by references to the great science fiction writer in *Apocalypse Never*.

While grok connotes an experience that seems otherworldly, Daley endeavors to demonstrate that nuclear disarmament is not science fiction. He wants readers to embrace the sense of grok meant by a compelling and embodying understanding. He does so by laying out a well-organized set of arguments that address the threat of nuclear terrorism, the possibility of accidental nuclear use, the potential mismanagement of nuclear weapons, and the lack of military utility of these weapons (for the United States, but not necessarily for other countries).

Despite the recent killing of Osama bin Laden, who had called on al Qaeda to obtain weapons of mass destruction as a religious duty, nuclear terrorism

remains a distinct danger because al Qaeda and certain other terrorist groups still desire to acquire nuclear assets. Deterring terrorists is extremely challenging, if not close to impossible for many terrorists, especially those who are stateless. Deterring nuclear-armed terrorists would likely pose even greater difficulties. Even if terrorists did not detonate the weapons soon after acquisition, they could use these arms as means of extortion. Daley expertly discusses the U.S. strategy to date of securing and reducing weapons-usable nuclear materials. But he argues that this is not sufficient. To drive the risk of nuclear terrorism close to zero, he correctly underscores, “Aspiring nuclear terrorists will not be able to steal a nuclear bomb if there are no nuclear bombs. And they will find it immeasurably more difficult to steal nuclear materials if such materials are placed under the rigorous controls that will necessarily accompany any post-abolition architecture.”

Daley next shines a spotlight on hubris and nuclear weapons. He seeks to usher the Greek chorus in by warning us (hopefully not like Cassandra) that we have been very lucky in the past 65 years and that this luck will not hold forever. Not since the atomic bombings in 1945 have nuclear weapons been used in war, but there have been many close calls. A flock of geese, for example, once confused an early warning system. Fortunately, the error was caught in time. Computer

errors, however, have prompted nuclear alerts. Of course, humans have programmed these computers and we know that complex systems are not failure free as most recently shown by the Fukushima Daiichi Nuclear Power Plant's accident.

Daley wisely recommends ending "the pointless policy of launch on warning," which is based on the belief that "an adversary will be dissuaded from launching a nuclear first strike on our land-based nuclear missiles if that adversary knows that our missiles will get off the ground before they can be hit." But as Daley points out, U.S. deployed nuclear ballistic missile submarines make launch on warning unnecessary. These submarines guarantee that a retaliatory response will occur and will not have to be carried out promptly. While a means to target and attack these submarines would affect this "insurance," having at least a few submarines deployed would greatly lessen the likelihood of not having at least one of these launching platforms available. Moreover, Daley advises to lengthen the nuclear fuse by removing nosecones and nuclear warheads from ballistic missiles and storing these in separate, secure facilities. This action would increase the number of things that would have to be targeted in a nuclear attack and thus could enhance deterrence.

His next argument for nuclear disarmament addresses the potential for nuclear crisis mismanagement. This chapter begins with a chilling episode that happened during the November 2008 terrorist attacks in Mumbai. Asif Ali Zardari, the president of Pakistan, received a phone call from Pranab Mukherjee, the Foreign Minister of India, who threatened military action in response to the terrorist attacks. As a result of this call, Pakistan put its warplanes on high alert armed with live weapons. But the call was a hoax. This prank may have led to an inadvertent nuclear war. As Daley emphasizes, "political events take on a momentum of their own, and even the instigators may not be able to turn them around."

Daley then tackles the issue of the military utility of nuclear weapons. Because of the U.S. superiority in conventional weapons, the United States would not even have the perceived need to use nuclear weapons in a conventional war. The only remaining purpose for U.S. nuclear weapons is to deter use of others' nuclear weapons, argues Daley while citing the November-December 2008 *Foreign Affairs* article by Ivo Daalder (now the U.S. ambassador to

NATO) and Jan Lodal. Consequently, it is clearly in U.S. interests to promote nuclear disarmament because a nuclear-disarmed world would benefit the United States. But conversely, other states that feel threatened by the United States would be at a disadvantage and would have a rationale to obtain nuclear weapons. Thus, Daley uncovers the toughest hurdle for disarmament in "that no state will agree either to abjure or to dismantle nuclear weapons unless it believes that such a course is the best course for its own national security." This observation leads to the fundamental issue of insecurity. Daley quotes former Soviet General Secretary Mikhail Gorbachev to underscore that without addressing "demilitarization of international politics [and] the reduction of military budgets ... talking about a nuclear-free world will be just rhetorical."

Daley further is inspired by the concept of "mutual security," as advocated by Gorbachev and Eduard Shevardnadze, who had served as the Foreign Minister of the Soviet Union. That is, by threatening "your adversaries, they will threaten you right back. But if you make your neighbors more secure, you make yourself more secure." This is the challenge and endeavor for all of us to make the world more secure. It is a process that has no definite end, but if the journey leads to greater and greater security, along the way we may wake up one day and realize that nuclear weapons truly serve no beneficial purpose for any state.

Apocalypse Never is definitely worth reading. It is grounded in this world and could still induce a grok-like state that compels readers to work toward a world free of nuclear weapons. ■

Apocalypse Never: Forging the Path to a Nuclear Weapon-Free World (Rutgers University Press, 2010).

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