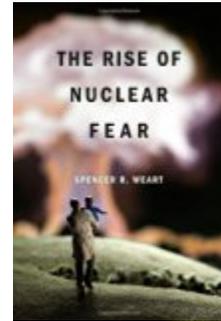


Spencer R. Weart. *The Rise of Nuclear Fear*. Cambridge: Harvard University Press, 2012. 384 pp. \$21.95 (paper), ISBN 978-0-674-05233-8.

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Fear Itself

Spencer R. Weart's *The Rise of Nuclear Fear* is a significantly revised, shortened, and updated version of his renowned *Nuclear Fear: A History of Images* (1988). Weart supports his main contention that fear has always been central to nuclear discourse and policy with a blizzard of examples, from H. G. Wells to Robert Oppenheimer to Homer Simpson. The clear writing style and impressive new chapters on the persistence of nuclear fear after the end of the Cold War should help to convey Weart's important insight to a new generation of students and scholars.

According to Weart, the highly emotional nature of nuclear politics is fundamentally due to the overlap between the real potential of nuclear energy and some of humanity's most deep-rooted myths of power and violation, of utopia and hell. In other words, the fact that nuclear energy calls these mythical analogies to mind vastly complicates efforts to have a sensible, pragmatic nuclear policy debate. Indeed, mainstream nuclear discourse implicitly assumes that we are actually living in the world of our primordial fantasies and nightmares. Weart effectively makes his point by showing that even at the very beginning of the nuclear age, despite the very modest, tabletop experiments being conducted, nuclear fear (and to a lesser extent, nuclear hope) was already bursting forth almost fully formed. The discovery of nuclear energy did not lead to the imagining of new utopias and dystopias; rather, it gave *old* utopias and dystopias a new currency in the modern era.

It is no secret that fantastic nuclear visions have long exerted a strong hold over journalists and ordinary citizens, but Weart argues that nuclear fear has also warped the thinking of top scientists, political thinkers, and political and military decision makers. Weart quotes the novelist Philip Wylie: "We have taught the people to be afraid—because most of us are afraid" (p. 71). Therefore, nuclear fear has had a huge influence on states' policy choices. One example of this influence can be seen in the practice of designing nuclear reactors to withstand an imagined worst case disaster. Right from the outset of the nuclear age, great efforts were made to guard against extreme, low-probability, hypothetical scenarios—a far cry from the engineering profession's traditional trial and error approach to safety. Weart assesses that this approach resulted in massive up-front costs that significantly hampered the growth of the nuclear energy industry. Why, Weart asks, did the dangers of nuclear plants get so much more lavish attention than the dangers of chemical plants and other hazardous industrial activities? It was Edward Teller, the H-bomb inventor and founding AEC Reactor Safeguard Committee chairman, who focused the nuclear engineering profession on far-out possibilities as part of his "personal preoccupation with every sort of nuclear doom" (p. 164).

More generally, nuclear fear would appear to explain a major paradox in U.S. nuclear development since 1945: the geometrical expansion of the U.S. nuclear weapons arsenal, contrasted with the merely arithmetic expansion of civilian nuclear energy plants. As was noted above,

civilian nuclear electricity production has been considerably impeded by the fearful specter of nuclear accidents spreading harmful radioactivity. As Weart points out, however, nuclear bombs raise the specter of catastrophic accidents to an even greater degree, yet Americans have generally embraced the country's nuclear arsenal as essential for "national security." How did we learn to stop worrying and love the bomb? Weart suggests that in the case of bombs, Americans' fears of unintentional nuclear catastrophe were superseded by a much more intense fear of deliberate nuclear attack by the hated Soviet Union, and more recently by "rogue states." The existence of this hierarchy of nuclear fears can also explain why Ronald Reagan—yet another nuclear obsessive—was able to redirect the public restlessness that had been unleashed by the fear campaign of the left-wing nuclear freeze movement in favor of his "Star Wars" missile defense initiative, a further escalation of the arms race.

Weart is undoubtedly right to stress the historical importance of nuclear fear. But if nuclear fear is practically hardwired into the human psyche, as Weart claims, then why have different countries chosen such different nuclear paths? Why did America and the Soviet Union build huge nuclear arsenals, but—as Weart himself puts it—"scarcely any [other] nations felt that such a choice would be to their advantage" (p. 162)? Why did George W. Bush and Tony Blair's scary scenarios of Saddam Hussein armed with nuclear weapons convince the American public—but almost nobody else—to support a preventive war against Iraq in 2003? Why did the U.S. government fail to gain the public's approval for its planned Yucca Mountain repository as the final solution to the nuclear waste problem, but Sweden and Finland found strong support for their permanent waste storage plans? Weart's book uses evidence drawn primarily from U.S. history to make a large point about universal human needs and desires, but America's acute case of nuclear fear may actually be unrepresentative. To explain cross-national differences, we need to understand not merely the universal underpinnings of nuclear fear, but also the country-specific cultural or institutional variables that enhance, suppress, or reshape it.

Actually the previous, 1988 iteration of Weart's argument was slightly more alert to this issue of cross-national variation. In his *Nuclear Fear*, Weart suggested in passing that nuclear fear proved to be especially powerful in the U.S. context because of the combination of American *innocence*—i.e., the lack of direct experience with the ravages of conventional warfare, which magnified the verisimilitude of post-apocalyptic fantasy

scenarios—and American *freedom*—i.e., the largely uncensored media, which provided a megaphone for such fantasies to run riot through the body politic.[1]. By this logic, Western Europeans and the Japanese should have been somewhat less fearful because the world wars took away their innocence; and Soviet citizens should have been the least fearful of all, because they were neither innocent of war nor had a free press. Scholars in the nuclear field would do well to more systematically consider these and other hypotheses on the cross-national differences in nuclear fear.

Another question is how the fear of things nuclear relates to fears of other things. In his book, Weart frequently complains that nuclear fear—and the antinuclear activists who stir it up—can distract attention away from other, perhaps even more pressing environmental crises. In particular, Weart is explicit about his desire to decrease carbon emissions by building scores of new nuclear plants right away, and he perceives the antinuclear movement as standing in the way of this rational response. But if we take a longer view, that same antinuclear sentiment was what provided the seedling for the spectacular growth of a more general environmental consciousness in the first place. So, one might say that the antinuclear activists opened people's minds to the very possibility of man-made climate change. Indeed, Weart explicitly makes this point in his other book *The Discovery of Global Warming* (2008).[2]. Given this major intellectual contribution of the antinuclear activists, it seems rather ungenerous to describe them as "people who built their beliefs from television news items, movies, and editorial cartoons." [3] Finally, it is more than a little disappointing that Weart, the great unmasker of nuclear fear, chooses to end his book with a fear-inducing vision of climate change-caused environmental degradation leading to "brutish proliferation of nuclear weapons, ever more desperate terrorism, and a renewed danger of the catastrophe of war" (p. 300). Et tu, Spencer?

These problems aside, *The Rise of Nuclear Fear* stands as a major contribution to our understanding not only of nuclear politics, but also of all politics in the nuclear age. The more we follow Weart's lead in placing complex human psychology at the center of our analyses, the better we will comprehend the political dynamics of this "high-tech" world.

Note

[1]. Spencer R. Weart, *Nuclear Fear: A History of Images* (Cambridge: Harvard University Press, 1988), 240.

[2]. Spencer R. Weart, *The Discovery of Global Warming* (Cambridge: Harvard University Press, 2008), 40-41.

[3]. Weart, *Nuclear Fear*, 215.

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