

## **“WITH THE FLASH CAME A DELAYED ROLL OF THUNDER”: THE DISCURSIVE STRUGGLE OVER THE ATOMIC BOMB**

Andrew Erickson  
George Washington University

*With the flash came a delayed roll of thunder, heard, just as the flash had been seen, for hundreds of miles. The roar echoed and reverberated from the distant hills and the Sierra Oscuro range near by, sounding as though it came from some supramundane source as well as from the bowels of the earth. The hills said yes and the mountains chimed in yes. It was as if the earth had joined in one affirmative answer. Atomic energy—yes. It was like a grand finale of a mighty symphony of the elements, fascinating and terrifying, uplifting and crushing, ominous, devastating, full of great promise and great foreboding.*

—William L. Laurence, official spokesman of the atomic bomb, on the Trinity Test

*We have made a most terrible thing, a most terrible weapon, that has altered abruptly and profoundly the nature of the world . . . a thing that by all the standards of the world we grew up in is an evil thing. And by so doing . . . we have raised again the question of whether science is good for man, or whether it is good to learn about the world, to try to understand it, to try and control it.*

—J. Robert Oppenheimer, director of the Los Alamos Project

The atomic bomb remains one of the most significant creations of the modern world. Great, and terrible, as the above statements affirm, the atomic bomb is immensely powerful, powerful enough, perhaps, to completely destroy all human life. For decades, the atomic bomb has been a source of extreme controversy in the United States between those supporting and those rejecting the use and proliferation of nuclear weapons and, as expected, has been embedded in a multifaceted discourse: atomic discourse. My goal in this essay, however, is not to defend or repudiate a certain position (for example, an argument for or against nuclear proliferation). Rather, I examine the way in which the perception of the atomic bomb has been created through this discourse, which simultaneously enables and constrains competing claims about the bomb and policies related to it. I analyze the atomic bomb as an object of competing discourses, its meaning dynamic as the creators of atomic discourse struggle to *naturalize* their own version of the atomic bomb. I explore how and why the United States government, scientists involved in the Manhattan Project, and scholars examining debates about the bomb all attempt to engage in atomic discourse. As each group seeks to dominate atomic discourse, competing ideologies and political agendas clash within a complex discursive field, redefining the limits of what can be said or even thought about the bomb. Particularly important to my analysis is an investigation of the creation and manipulation of fear by the United States government and the Manhattan Project scientists; although scientists introduced fear as a powerful anti-atom-bomb counter-discourse, the United States government eventually harnessed this fear to justify an expanding program of nuclear weapons research.

With the creation and initial use of the atomic bomb on Hiroshima and Nagasaki in August

1945, the United States government faced the difficult task of educating the public about nuclear weapons. The federal government sought to control how the bomb could be discussed and viewed, not only through censorship and control over information, but also by attempting to set the conceptual limits of the debate. But how could the federal government induce an acceptance of a weapon so inherently terrible? The destruction at Hiroshima and Nagasaki was unlike anything the world had ever seen. Gaining public support for the continuation and advancement of this type of devastation was a daunting task. The Manhattan Project scientists, in direct competition with the federal government, attempted to put forward their own version of the atomic bomb, to “reinvent” the atomic bomb as unacceptable, arguing that its very existence was a grave threat that could lead to the extinction of human life. In public statements, pamphlets, scientific reports, and books, the United States government and scientists from the Manhattan Project struggled to assert their views of the bomb in the public sphere.

### **Discourse and Naturalization**

Michel Foucault, in *The Archeology of Knowledge*, describes discourse “sometimes as the general domain of all statements, sometimes as an individualized group of statements, and sometimes as a regulated practice that accounts for a certain number of statements” (80). In all divisions of discourse, however, Foucault is concerned with the analysis of discourse itself, at its moment of incidence. Foucault looks not to “neutralize discourse, to make it the sign of something else, and to pierce through its density in order to reach what remains silently anterior to it, but on the contrary to maintain it in its consistency, to make it emerge in its own complexity” (47). The study of discourse does not seek to reach through or beyond words to grasp “facts,” but instead takes discourse itself as the object of inquiry. Thus, discourse is more than simply a “mere intersection of things and words,” but instead is a “loosening of the embrace, apparently so tight, of words and things” (49). Foucault argues that the task of discourse analysis is to explain “what is this specific existence that emerges from what is said and nowhere else?” (28).

Foucault, however, is not concerned merely with “things said” in discourse. Rather, he focuses on the structure of discourse as a set of statements, allowing or disallowing utterances. As Sara Mills observes, Foucault views discourse as “the rules whereby those statements are formed and the processes whereby those statements are circulated and other statements are excluded” (62). It is these circulations and exclusions that intrigue Foucault as he analyzes how a discourse “assumes, in the midst of others and in relation to them, a place no other could occupy” (28). Alec McHoul and Wendy Grace, commenting on Foucault’s concept of discourse, claim that “‘discourse’ would then be *whatever* constrains—but also enables—writing, speaking, and thinking within such specific historical limits” (31).

Discourse, used as the entire collection of statements, with all its limits, exclusions, and discontinuities, forms “the space in which various objects emerge and are continuously transformed” (Foucault 32). Through discourse, objects—for example, the atomic bomb—are formed, delimited, and continually manipulated. They do not “pre-exist [themselves],” but exist “under the positive conditions of a complex group of relations” (Foucault 45). Objects gain their meaning and are recurrently mutated through a complex discursive field filled with ideologies that set limits to how these objects are discussed and thus understood.

It is in this space, this discursive terrain, where the United States government and the atomic scientists competed to regulate the emergence of the atomic bomb, their object of discourse. As

each group interacted within the field of atomic discourse, conflicting ideologies clashed, both enabling and constraining different claims about the atomic bomb. Both sides attempted to dominate atomic discourse in order to exclude the other and to solidify the ideas that would support their proposed nuclear policies. These claims interacted within a complex field of discourse, establishing a “regulated practice” that limited how the atomic bomb could be discussed and viewed.

Essential to any discussion of atomic bomb discourse is the concept of *nuclear language*, the discourse that surrounds the existence of nuclear weapons. The key, however, is not in the words themselves, but in how the dissemination of nuclear language is, in effect, a self-fulfilling prophecy: the language itself “creates social reality” while making it “seem utterly and morally acceptable.” The federal government as well as scientists and scholars used a specific nuclear language to naturalize their own view of the atomic bomb and “so induce popular acquiescence” (Woods 92) to their agendas. Matthew Woods expands on this idea of naturalization applied to nuclear weapons:

Naturalization is a general process that accounts for the way in which humans render the world and its things as given. The term refers most frequently to how things which should be alien or repulsive acquire an ordinary or attractive appearance. Scholars assert the aim of nuclear language is sequential naturalization: to naturalize nuclear weapons by first naturalizing the language used to speak and think about them. Naturalization is thus approach and outcome. (96–97)

Creators of atomic discourse attempted to naturalize the atomic bomb. The discourse surrounding the atomic bomb was continually altered to induce a desired perception by the public. To *naturalize* is to make normal and this is what the creators of discourse were trying to accomplish: to make normal and thus acceptable their perception of the atomic bomb, and to make alternatives to this perception “unthinkable.”

Discourse thus *naturalizes* or seeks to naturalize a certain understanding of the atomic bomb, but may be challenged by a counter-discourse seeking to *renaturalize* an opposing view. The atomic bomb, as an object of discourse, thus continually oscillates between accepted social perceptions. My approach in this essay can be looked at as *denaturalization*, as I aim to isolate and uncover discourse surrounding the atomic bomb in order to investigate and evaluate it at its moment of incidence. I will *denaturalize* created social perceptions of the atomic bomb, so as to distinguish clearly the who, how, and why located at the origin of these perceptions.

### **First Strike**

Sixteen hours ago an American airplane dropped one bomb on Hiroshima and destroyed its usefulness to the enemy. That bomb had more power than 20,000 tons of T.N.T. It had more than two thousand times the blast power of the British “Grand Slam” which is the largest bomb ever yet used in the history of warfare. The Japanese began the war from the air at Pearl Harbor. They have been repaid many fold. And the end is not yet. With this bomb we have now added a new and revolutionary increase in destruction to supplement the growing power of our armed forces. In their present form these bombs are now in production and even more powerful forms are in development. It is an atomic bomb. It is a harnessing of the basic power of the universe. The force from which the sun draws its power has been loosed against those who brought war to the Far East. (Truman 1)

With this press release by President Harry S. Truman on 6 August 1945, the atomic bomb was brought into American public discourse. The 1,160 words of Truman's press release formed the basis for the complementary and contradictory discourses that would soon follow. Truman's statement attempted to establish the terrain in which all subsequent discourse would compete for entrance and permanence; he was the first to speak and act in the intense struggle that would follow over the discursive fate of the bomb. He was careful in choosing the wording of this release, fully aware "that the stakes were high, for this marked the unveiling of both the atomic bomb and the official narrative of Hiroshima" (Lifton and Mitchell 3).

Truman's style and tone in this public announcement are particularly significant. With apocalyptic language and an obvious sense of pride and satisfaction in the successful development of the bomb and its subsequent use in enacting just revenge on the people responsible for Pearl Harbor, Truman speaks of the attack on Hiroshima. Truman's description of the bomb as "harnessing the basic power of the universe" (1) clearly conveys the image of supreme American power. Most importantly, Truman's glorification of the bomb transmits a meaning that the American people should support and its enemies should fear, as the bomb and the promise of more powerful bombs indicate an America dominant and unyielding. Truman's purpose in this announcement was to persuade the "American electorate that the atomic bombing of Japan had been necessary and praiseworthy" (Boyer 25), as well as to give the American public a basic understanding of this new creation. Depicting the atomic attack both as a just retribution and as a new scientific wonder, Truman asserts America's omnipotence and righteous revenge, while hailing the atomic bomb as "the greatest achievement of organized science in history." With optimism and pride, he describes the atomic bomb as opening a "new era in man's understanding of nature's forces" and predicts that it will "become a powerful and forceful influence towards the maintenance of world peace" (3). Through his discourse, Truman affirms "military necessity, American decency, scientific and industrial achievement, and an embrace of the weapons as a near-mythical force that confers omnipotence" (Lifton and Mitchell 7).

Just as significant as what Truman says in this announcement is what he does not say. Truman makes no mention of the extensive and horrific civilian casualties or of radiation, which is what truly makes the atomic bomb unique. "Devoid of dread," Truman's announcement is positive and optimistic, giving no intimation of the "sense of tragic responsibility that would soon pervade discussion of the atomic bomb." Omitting specific details of the atomic bombing of Hiroshima, Truman embarks on a "process of justifying the bombing and shielding Americans from the human effects of the bomb and its implications for the future" (Lifton and Mitchell 7). Truman here seeks to establish and delimit the terrain in which future discourse will emerge. Using the advantage of being the first public voice on the bomb, he attempts to contain reactions of fear or dread, emphasizing instead military victory, triumph over an evil enemy, scientific achievement, and a stepping-stone to a future of peace and development. In seeking to form the discussion in ways that serve the interests of the United States government by omitting mention of destruction and death, Truman attempts to keep "writing, speaking, and thinking within . . . specific historical limits" (McHoul and Grace 31).

William L. Laurence, government-employed official spokesman of the atomic bomb, was, like Truman, very influential in forming early atomic discourse. In the opening quotation of this essay, Laurence describes the first test of the atomic bomb in New Mexico in reverent, imagery-filled prose that would be reproduced in his many writings concerning the bomb. His tone positions

the atomic bomb as the greatest development of the century, an object of wonder, admiration, and respect. Laurence writes of the bomb as if in worship of a god, invoking biblical and mythological references. Observing the Trinity Test, Laurence “felt as though one were present at the moment of creation when God said: ‘Let there be light’” (11). Invoking mythology, Laurence wrote, “Prometheus had broken his bonds and brought a new fire down to the earth” (13). Characteristic of all Laurence’s rhetoric was a profound sense of accomplishment, even devotion, which he attempted to provoke in his readers.

Laurence’s account puts forth a powerful message of the atomic bomb as a positive force in American society. His emphasis on the benefits of atomic energy helps to justify both the initial use of the bomb and the continued existence and further development of nuclear weapons. While Laurence is aware of the dual nature of the bomb, writing of both “great promise and great forebodings” (4), he chooses to focus on “the true meaning of atomic energy harnessed in the service of mankind, as contrasted with its use in atomic bombs.” Laurence refers to atomic energy as “a philosopher’s stone that not only will transmute the elements and create wealth far greater in value in gold, but will also provide him the means for gaining far deeper insight . . . leading to the postponement of old age and the prolongation of life” (254). Atomic energy, to Laurence, is well worth enduring the potential disastrousness of the bomb, for it will provide humankind with a new power that will lead to a future of prosperity and peace.

Essential to the federal government’s initial campaign of discourse was the suppression or censorship of all conflicting discourse, especially discussion of atomic radiation. U.S. government officials monitored all reports and announcements coming out of Japan, strictly supervising American reporters and often suppressing or severely editing their reports. Japanese journalists, as well, had to submit their articles to a “censorship board prior to publication” and were not allowed to “reveal that they were being subjected to censorship” (Lifton and Mitchell 56). This censorship is what Foucault, in *The Archaeology of Knowledge*, would refer to as an “exclusion” of discourse (216), an example of the federal government using political power to dominate the discussion of a sensitive issue. Aiming to minimize the horror of the atomic bomb, the federal government released photos “limited to structural effects, while the human dimension would be evaded or ignored” (Lifton and Mitchell 59). With these photos and with carefully worded reports that “lacked evidence of human destruction” (60), the government, in the years following Hiroshima and Nagasaki, successfully suppressed early reports of radiation: “of two hundred letters to the editor—a rough guide to public awareness and concern—published in major newspapers in the United States in the months following Hiroshima not one mentioned radiation” (64).

Although Truman and Laurence were extremely successful in attaining early public support for the use of the atomic bomb,<sup>1</sup> fear and confusion about the future of nuclear policy and the bomb were nonetheless notable features of American public discourse. Truman, even with his discourse of military victory and a future of world peace sparked by atomic energy, was unable to prevent “the surge of fear that swept America after August 6, 1945 . . . , a spontaneous and authentic response to the horrors of Hiroshima and Nagasaki” (Boyer 66). Norman Cousins in the *Saturday Review* describes the public as

Severely tempered by . . . a primitive fear, the fear of the unknown, the fear of forces man can neither channel nor comprehend. This fear is not new; in its classical form it is the fear of irrational death. But overnight it has become intensified, magnified. It

has burst out of the subconscious and into the conscious, filling the mind with primordial apprehensions. (qtd. in Boyer 8)

This fear Cousins wrote of appeared quickly and took root in the consciousness of the public: a “primal fear of extinction . . . pervaded all society,” leaving the nation with feelings of trepidation and uncertainty, perceiving itself as “naked and vulnerable,” even at the moment of a decisive victory effectively ending World War II (Boyer 14–15). A common initial response to the bomb was a “profound sense of helplessness” regarding “an ultimate force of destructive energy” (Lifton and Falk 13). In this context of “confusion and disorientation,” the public looked to alternatives to the federal government for information and advice, turning with “awe” and “near-veneration” to the Manhattan Project scientists, masters of the atomic age (Boyer 25, 59).

### **The Scientists' Counter-Discourse**

After the atomic bombings at Hiroshima and Nagasaki, the Manhattan Project scientists were thrust into the public sphere. “Out of fear, and in some cases guilt” towards their creation, many atomic scientists welcomed their new public prominence and felt that it was “their urgent duty to try and shape official policy regarding atomic energy” (Boyer 49). “Speaking with voices amplified many times over by the continuing awe their exploits had aroused,” atomic scientists were determined to convey the urgent need for action “to a public for whom the bomb was still an awesome mystery” (59). Extremely fearful of their creation, the scientists attempted to replicate this version of the bomb in the consciousness of the American public. The scientists’ main goal was “that of bringing home to the American people the sobering facts about the atomic bomb and the consequences of nuclear war, as a way of building grassroots support for the programs they believed in” (58).

Contrary to Truman and Laurence, who lauded the atomic breakthrough as an opportunity for world peace and scientific advancement, many atomic scientists viewed it as a great threat to humanity and to peace. Without action by the government to control the bomb, the world could suffer unbelievable destruction. J. Robert Oppenheimer, director of the Los Alamos project, described the bomb as a “most terrible thing, a most terrible weapon” (qtd. in Boyer 272). Oppenheimer represents the views of many atomic scientists who saw the bomb as a “threat of massive devastation, if not complete annihilation” (Kuznick 417). Instead of focusing on the wonders of atomic energy, Oppenheimer emphasized the “greater powers of destruction, in the vastly reduced effort needed for such destruction” (22). Advocating strict controls, Oppenheimer warned that nuclear weapons “must not be used” and advised that “all necessary steps be taken to insure that they will not be used” (25). The counter-discourse of atomic scientists was centered on this view of the atomic bomb as a threat that must be controlled to guarantee that it could never be used again.

The atomic scientists, in order to put forth this version of the bomb, relied on the deliberate escalation of fear. By emphasizing the horrors and dangers of the atomic bomb and nuclear war, the atomic scientists believed that they could encourage public action and support for the elimination (or, at least, strict control) of nuclear weapons. As Eugene Rabinowitch, editor of the *Bulletin of Atomic Scientists*, put it, the goal was “to preserve our civilization by scaring men into rationality” (qtd. in Boyer 70). To intensify fear, the atomic scientists inundated the public with articles, books, and radio appearances, all expressing the extreme destructive capability and horror of the atomic bomb. Harold Urey, a prominent atomic scientist, wrote in *Collier's*,

I write this to frighten you. I'm a frightened man, myself. All the scientists I know are frightened—frightened for their lives—and frightened for *your* life. . . . [We] who have lived for years in the shadow of the bomb are well acquainted with fear, and it is a fear you should share if we are intelligently to meet our problems. (qtd. in Boyer 68)

This fear campaign represented the first significant counter-discourse to the discourse of the United States government. Through the manipulation of fear, the scientists attempted to redefine the limits of possible discussions about the bomb, seeking to allow and encourage serious criticism of the federal government's nuclear policies.

Phillip Morrison, a scientist who worked at Los Alamos, contributed greatly to this intensification of fear. His essay "If the Bomb Gets Out of Hand" was published in 1946 in *One World or None*, a collection of essays by atomic scientists; here, Morrison describes in vivid detail a hypothetical atomic attack on New York City, hitting close to home by invoking the use of an American city as a target, so that a "clear and truer understanding can be gained from thinking of the bomb":

From the river west to Seventh Avenue, and from south of Union Square to the middle thirties, the streets were filled with the dead and dying. The old men sitting on the park benches in the square never knew what had happened. They were chiefly charred black on the side toward the bomb. Everywhere in this whole district were men with burning clothing, women with terrible red and blackened burns, and dead children caught while hurrying home to lunch. (3)

With his prose designed to shock the reader with memorable and specific descriptions of the horror of an atomic bomb attack, Morrison creates a picture of the atomic bomb that contradicts the federal government's version. Whereas Truman's opening press release discussed the benefits of atomic energy and the successful end to the war while deliberately leaving out mention of the terrible destruction the bomb caused, Morrison chillingly emphasizes the massive death and destruction caused by the atomic bomb. He also describes the radiological effects of the bomb: in Morrison's account, people die weeks later of "unstoppable internal hemorrhages, of wildfire infections, of slow oozing of the blood into the flesh" (5). With the full destructive and radiological effects of the atomic bomb projected dramatically onto a famous American city, atomic discourse is restructured around fear in place of triumph. Morrison ends with a dire warning: "If the bomb gets out hand, if we do not learn to live together so that science will be our help and not our hurt, there is only one future. The cities of men on earth will perish" (6).

Crucial to the atomic scientists' fear campaign was the idea that there could be no defense against this horror and devastation. The atomic scientists wanted the public to believe that the continued development and existence of nuclear weapons was irresponsible, if not suicidal. Louis Ridenour, a physicist, in "There Is No Defense," an essay also published in *One World or None*, discusses several possible defense tactics that could be used against an atomic attack, including countermeasures such as preventing an atomic bomb from exploding or initiating its detonation before it reached its target. He concludes, however, that "there is no such thing as a specific countermeasure" (33). Another strategy Ridenour analyzes is an active defense based on the radar detection and interception of atomic bombers and atomic missiles. Ridenour, again, attests to the impossibility of defending against a nuclear attack: "In an atomic war the first attack, no matter how well prepared we may be, will *really* be a disaster. It is quite likely to end the war, if we have a practi-

cal, ingenious, and determined enemy” (37). Ridenour ends his essay with great foreboding: “There is no defense” (38). With this gesture, Ridenour completes the main ideas of the scientists’ counter-discourse: the atomic bomb is capable of unendurable destruction, there is no defense against this destruction, and therefore, the atomic bomb must be controlled to ensure that it will not be used again. By emphasizing horror, destruction, and impossibility of defense, Ridenour and other scientists establish fear as a central component of bomb discourse.

The scientists’ movement in the years immediately following WWII had a great impact on public perception of the bomb. After the initial use of the bomb, this discourse represented the first and most significant challenge to the combination of secrecy and triumphalism employed by the U.S. government. But in the continuing battle for control over what could be said and thought about the bomb, the government reacted quickly to counter and discredit the scientists, while working to reestablish itself as dominant in the field of atomic discourse.

### **The “Peaceful” Atom and Civil Defense**

Towards the end of the 1940s, the federal government struggled to reclaim the atomic bomb from the discourse of fear established by the atomic scientists. Attempting to “create a more positive—or at least more acquiescent—overall public attitude towards atomic energy” (Boyer 294), the government launched a rhetorical campaign that emphasized the “peaceful” side of atomic energy, while concealing or denying the horror of the bomb and promoting civil defense planning as an effective way to survive an atomic bomb attack. In addition to extolling the potential benefits of atomic energy and downplaying the facts of radiation and an increasing nuclear arms buildup, the effort of the government “to reshape public attitudes toward atomic energy involved a conscious repudiation of the ‘fear’ strategy of the scientists’ movement” (301). Working towards public acceptance of the bomb and its nuclear policies, the government initiated a massive discursive campaign in the late 1940s focusing on the positive aspects of the bomb.

*Operation Atomic Vision*, a government-sponsored pamphlet designed to educate high school students about the atomic bomb, was one way in which the federal government attempted to influence public opinion. Published in 1948, this pamphlet aimed to be “an educational operation to increase the public understanding of atomic energy for peacetime living” (Evans, Crary, and Hass 1). *Operation Atomic Vision* begins with frightening images of the bomb, but quickly shifts to assertions of atomic benefits, portraying the atomic bomb in a positive and optimistic light:

Atomic energy! What do you think of when you hear these words? The chances are that these words call up in your mind thoughts of war, destruction, and the atomic bomb. . . . Perhaps the words, “atomic energy,” strike fear in your heart and cause you to dread a recurrence of the awful destruction of Hiroshima. You may even wish to bury your head in the sand and resign yourself to fate. But there is a much more constructive, and a much more thrilling side to the atomic energy picture. If we look long enough and hard enough at this side of the picture, we might be able to see a world free from war, strife, poverty, and sickness; a world of hope and of great possibilities for human welfare. . . . Why not keep the bright side of the atomic energy picture in the center our attention? (5)

This pamphlet is a good example of the goals of the U.S. government’s campaign in the late 1940s, as it struggled both to redirect the public’s attention to the “peaceful” and beneficial side of atom-



ic energy and to mitigate the fear created by the scientists' evocative descriptions of the horror and inevitability of atomic war. Blaming the scientists for "thoughts of war, destruction, and the atomic bomb," the government attempted to "keep the bright side of the atomic energy picture in the center" of the public sphere in an effort to sustain support for its most powerful weapon as the United States prepared for conflict with the Soviet Union (5).

*Operation Atomic Vision* visualizes in rich language a not-so-far-away future world developed from atomic energy:

Energy will be cheap and plentiful. . . . You may live to drive a plastic covered car powered by an automatic engine and reside in a completely air-conditioned plastic house. Food will be cheap and abundant everywhere in the world. It is unlikely that you or any of your classmates will die prematurely of cancer or heart disease, or from any contagious diseases, or from any of the other human ills that affect us now. . . . No one will need to work long hours. There will be much leisure . . . war and international strife will be impossible. (Evans, Crary, and Hass 6–7)

These images are vastly different from Morrison's "The cities of men on earth will perish" (6). In this discourse, atomic energy is depicted as an avenue leading to a promised era of peace, prosperity, and leisure: a utopia. The optimism shown here is representative of much of the government discourse during this period. Through this vision of the "peaceful" atom, the U.S. government strove "to give a benevolent human face to a reality whose terrifying aspects never lay far beneath the surface" (Boyer 294). By providing a positive side to the atomic bomb that the public could support and not fear, *Operation Atomic Vision* and other comparable discourses served to keep these "terrifying aspects" buried.

*Energy Unlimited: The Electron and Atom in Everyday Life* (1947), by government scientist Harry Meyer Davis, reinforces the message of *Operation Atomic Vision*. A book focusing on the science and application of atomic energy, *Energy Unlimited* complements the government campaign through its optimistic discussion of the present and future benefits of atomic energy. *Energy Unlimited* continues a government rhetoric of understating atomic dangers and emphasizing atomic wonders, warning that "too many people are counting in advance the possible casualties of future war with the new weapons of atomic power . . . and falling into a hopeless despair" (vi). Instead, Davis advises that "we should not lose sight of the marvelous prospects that can be reached" through atomic energy, continuing the U.S. government's late 1940s promotion of the "peaceful" side of the atom. While Davis admits the "nightmare of atomic war" (5) sporadically throughout his book, he asserts that "the benefits are so tremendous that the dangers will be accepted as normal" (61). This discourse is significant: it reflects a sustained movement by the federal government and its supporters to *naturalize* the benefits of atomic energy while *denaturalizing* the fear and distaste commonly associated with the atomic bomb.

The federal government, in its effort to *denaturalize* the negative perception produced by the scientists, concealed many aspects of the atomic bomb. While flooding the public sphere with the benefits of the "peaceful" atom, the government retained tight control over the specifics of the atomic bomb, including atomic research, atomic stockpiling and, most importantly, atomic radiation. The policy of U.S. government secrecy and optimism "largely withdrew this issue from the arena of public discourse" (Boyer 303). In Foucault's terms, the government attempted to dominate discussion of the bomb through a combination of discursive exclusion and competition. Any information relating to radiation was either hidden or significantly censored by the government, and "the

hazards of radioactivity were hopelessly obscured in a flurry of vague, optimistic, and downright misleading pronouncements” (Boyer 308). This strategy granted more credibility to another emerging governmental presentation of the bomb: civil defense.

While the campaign for the “peaceful” atom was aimed at gaining support for atomic energy and diverting attention away from atomic war and destruction, civil defense discourse was a direct attempt to reduce public fear of the bomb. Civil defense included a continuing and intensified discourse that worked to devalue the destructive and radiological effects of the atomic bomb and to provide a plan for average citizens to follow in case of an atomic attack. Joseph Masco describes civil defense as an attempt by the federal government “to produce an ‘atomic bomb proof’ society in which nuclear conflict was normalized alongside all threats” (368). The U.S. government’s civil defense discourse sought both to portray the atomic bomb as survivable and to increase the chances that average citizens would survive.

Vital to civil defense was the idea that the effects of nuclear war had been exaggerated. The U.S. government, in response to the atomic scientists’ declaration that “There Is No Defense,” published counter-discourse asserting that surviving nuclear war was both possible and probable. Richard Gerstell, in *How to Survive an Atomic Bomb* (1950), professes that surviving an atomic attack is indeed possible. He outlines the necessary steps citizens should take to prepare for an attack and how they should act in the instance of an atomic explosion. Gerstell repeatedly asserts that “the atomic bomb is terrible BUT not as terrible as most of us believe”—a change in strategy from the vague optimism of early atomic discourse. Admitting the destructive nature of the bomb, Gerstell nonetheless stresses that “you can increase your chances [of living] *many, many times over* by learning the facts in advance” (139), particularly “if you follow the rules in this book” (65–66). True to the book’s overall theme of refuting the scientists’ argument that defending against atomic war is impossible, Gerstell downplays radiation, describing it not as “death rays,” but as something that “you can easily protect yourself from” (15).

Gerstell’s discourse provides the American public with outcomes different from those envisioned by the atomic scientists. The scientists provided the public with two possible outcomes: elimination of nuclear weapons, or elimination of human life. Gerstell provides the public with a third possible outcome of the atomic bomb: survival. This undercuts the discourse of fear by presenting an action plan and asserting that the plan will be effective. Supplying an escape from assured destruction, Gerstell reorders the field of discourse, allowing the members of the public to accept the atomic bomb without feeling that they are ensuring their own death.

In a similar attempt to undermine the atomic scientists’ counter-discourse, R.E. Lapp’s *Must We Hide?* (1949) reasserts the possibility of surviving an atomic attack and attempts to lessen the fears surrounding radiation. Lapp stresses early in his book that “defenses against the bomb *are* possible” and that “we must not take a defeatist attitude towards the bomb” (1). Lapp, like Gerstell, claims that the dangers of the atomic bomb, particularly radiation, have been exaggerated and must not be taken “out of proportion to the actual hazard.” “Radiation is dangerous,” he admits, but then so are automobiles, alcohol, and tobacco. We “accept the hazards” of these objects and “have learned to use them with some degree of safety,” he argues, and thus we can also learn to accept and use radiation (48). Lapp aligns with U.S. government discourse, mitigating public fear surrounding the atomic bomb by contradicting and discrediting themes from the scientists’ counter-discourse. He downplays radiation and the overall hazards of the atomic bomb, presenting “the true situation . . . until the average citizen accepts radiation in its proper perspective” (49). Lapp chal-

lenges the perception that the scientists portrayed, asserting that both the atomic bomb and radiation are survivable.

The U.S. government in the late 1940s launched a multifaceted discursive campaign in response to the powerful counter-discourse of the atomic scientists, attempting to divert, conceal, and discredit information relating to the atomic bomb in order to reduce public fear and sustain public support for their ace in the hole. The American public was diverted from the horror of the atomic bomb through emphasis on the benefits of the “peaceful” atom, while the specifics of radiation and destruction were concealed and the testimony of atomic scientists discredited. Through promotion of civil defense, the government allayed public fears by giving citizens an action plan for survival and undermining the atomic scientists’ prophecy of inevitable doom. Government discourse during this period strove to domesticate the positive and essential nature of the atomic bomb, while allaying the fear and horror of the public. The public may still have been coming to terms with the bomb, but the federal government was aware of its significance and was already looking ahead to a conflict with the Soviet Union, in which their most powerful weapon would desperately be needed.

### **Conclusion**

The Soviet atomic bomb test on 24 September 1949 marked the end of the first era of atomic discourse. After years of struggle between the Manhattan Project scientists and the U.S. government, the Soviet test shifted the terms of debate to a greater expectation of war and a mood of “dulled acquiescence. The bomb had come to stay” (Boyer 291). The parameters of discussion of the bomb had now changed—from whether or not the atomic bomb would continue to exist at all to in what form the bomb would continue to exist. U.S. government discourse had succeeded in trumping the scientists’ movement: the bomb would not be eliminated or controlled in the coming decades. Yet the scientists’ counter-discursive movement, although mainly disappearing from public awareness in the short term, would have lasting political and social consequences. The scientists’ successful creation and escalation of fear “continued to echo through the culture, to be manipulated by other people pursuing their goals” (106). This “echo” is what McHoul and Grace, in their account of Foucault, would call a “mutation” of discourse (46): this fear would be manipulated in the coming Cold War period by the federal government and would form the basis of the antinuclear movements spawned in the future.

Despite the federal government’s best efforts to control the public’s atomic fears, that very fear now worked in its favor as the Soviet Union proved its own atomic capability. With atomic war now two-sided, “Americans now seemed not only ready to accept the bomb, but to support any measures necessary to maintain atomic supremacy . . . , [relying] on the bomb as the best source of security in a threatening world” (Boyer 334–35). The atomic bomb would not be going away, nor did the American public want it to. The public turned to the government to manage their atomic fears, not the atomic scientists. Paul Boyer puts it simply: “[T]he scientists offered one avenue of possible escape from atomic fear; Truman offered another. Truman won” (106). The bomb would stay and develop as the nuclear arms race began. The struggle between the federal government and the atomic scientists would form the terrain for future clashes of discourse and ideas. The nuclear perceptions created by both the federal government and the atomic scientists in the early atomic age would persist and reemerge in the approaching Cold War era, an era marked by similar ideas and applications of diversion, deception, and delusion.

## Notes

<sup>1</sup> A Gallup Survey in August 1945 revealed an 85 percent approval rating for the use of the atomic bomb.

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