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Sex and Death in the Rational World of Defense Intellectuals

by

Carol Cohn

Working Paper No. 8

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First Annual Conference on
Discourse, Peace, Security and
International Society

Ballyvaughn, Ireland

August 9-16, 1987

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in the Nuclear Age
An Affiliate of Harvard Medical School
at The Cambridge Hospital

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The conference held at Ballyvaughn, Ireland, in August 1987 was the beginning of an on-going international intellectual interchange on topics related to the discourse of peace and security and international society. It will include annual meetings, the second to be held in summer 1988, again in Ballyvaughn. Sponsored by the University of California Institute on Global Conflict and Cooperation, the conferences are intended to foster general inquiry into these scholarly topics and to stimulate research and teaching that incorporates these perspectives at University of California campuses. This year's series of working papers comprises the writings which seventeen authors submitted to their colleague-participants in preparation for the 1987 conference. Some have been updated somewhat before publication here. Some have been published elsewhere and are reissued here by permission. The Institute on Global Conflict and Cooperation hopes that these working papers will help to interest even more scholars in pursuing these lines of thought.

James M. Skelly
Series Editor

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Sex and Death in the Rational World of Defense Intellectuals

> "I can't believe *that,*" said Alice.
> "Can't you?" the Queen said in a pitying tone. "Try again: draw a long breath, and shut your eyes."
> Alice laughed. "There's no use trying," she said: "one *can't* believe impossible things."
> "I daresay you haven't had much practice," said the Queen. When I was your age, I always did it for half-an-hour a day. Why, sometimes I've believed as many as six impossible things before breakfast..."
>
> Lewis Carroll
> *Through the Looking Glass*

My close encounter with nuclear strategic analysis started in the summer of 1984. I was one of 48 college teachers (one of ten women) attending a summer workshop on nuclear weapons, nuclear strategic doctrine, and arms control, taught by distinguished "defense intellectuals." Defense intellectuals are men (and, indeed, they are virtually all men) "who use the concept of deterrence to explain why it is safe to have weapons of a kind and number it is not safe to use."[1] They are civilians who move in and out of government, working sometimes as administrative officials or consultants, sometimes at universities and think tanks. They formulate what they call "rational" systems for dealing with the problems created by nuclear weapons: how to manage the arms race; how to deter the use of nuclear weapons; how to fight a nuclear war if deterrence fails. It is their calculations that are used to explain the necessity of having nuclear destructive capability at what George Kennan has called "levels of such grotesque dimensions as to defy rational understanding."[2] At the same time, it is their reasoning that is used to explain why it is not safe to live without nuclear weapons.[3] In short, they create the theory that informs and legitimates American nuclear strategic practice.

For two weeks, I listened to men engage in dispassionate discussion of nuclear war. I found myself aghast, but morbidly fascinated -- not by nuclear weaponry, or by images of nuclear destruction, but by the extraordinary abstraction and removal from what I knew as reality that characterized the professional discourse. I became obsessed by the question, "how can they think this way?" At the end of the summer program, when I was offered the opportunity to stay on at the university's center on defense technology and arms control (hereafter known as "the Center"), I jumped at the chance to find out.

I spent the next year of my life immersed in the world of defense intellectuals. As a participant observer, I attended lectures, listened to arguments, conversed with defense analysts, and interviewed graduate students at the beginning, middle, and end of their training. I learned their specialized language, and I tried to understand what they thought, and

how they thought. I sifted through their logic for its internal inconsistencies and its unspoken assumptions. But as I learned their language, as I became more and more engaged with their information and their arguments, I found that my own thinking was changing. Soon, I could no longer cling to the comfort of studying an external and objectified "them." I had to confront a new question: how can *I* think this way? How can any of us?

Throughout my time in the world of strategic analysis, it was hard not to notice the ubiquitous weight of gender, both in social relations, and in the language itself; it is an almost entirely male world (with the exception of the secretaries), and the language contains many rather arresting metaphors. There is, of course, an important and growing body of feminist theory about gender and language.[4] In addition, there is a rich and increasingly vast body of theoretical work exploring the gendered aspects of war and militarism, which examines such issues as men's and women's different relations to militarism and pacifism, and the ways in which gender ideology is used in the service of militarization. Some of the feminist work on gender and war is also part of an emerging, powerful feminist critique of ideas of rationality as they have developed in Western culture.[5] While I am indebted to all of these bodies of work, my own project is most closely linked to the development of feminist critiques of dominant Western concepts of reason. My goal is to use critical feminist perspectives as part of an analysis of the nature of the nuclear strategic project itself.

This paper, then, is the beginning of an analysis of the nature of nuclear strategic thinking; its emphasis is on the role of a specialized langauge, a language that I call "techno-strategic."[6] I have come to believe that this language both reflects and shapes the nature of the American nuclear strategic project; that it plays a central role in allowing defense intellectuals to think and act as they do; and that all of us who are concerned about nuclear weaponry and nuclear war must give careful attention to the role of language we and others choose to use -- who it allows us to communicate with, and what it allows us to think as well as say.

Stage I: Listening

"Clean Bombs" and Clean Language

Entering the world of defense intellectuals was, to put it bluntly, a bizarre experience. Bizarre because it is a world where men spend their days calmly and matter-of-factly discussing nuclear weapons, nuclear strategy, and nuclear war. The discussions are carefully and intricately reasoned, seemingly occurring without any sense of horror, urgency, or moral outrage -- in fact, there seems to be no graphic reality behind the words, as they speak of "first

strikes," "counterforce exchanges," and "limited nuclear war," or as they debate the comparative values of a "minimum deterrent posture" versus a "nuclear war-fighting capability."

Yet, what is striking about the men themselves is not, as the content of their conversations might suggest, their cold-bloodedness. Rather, it is that they are a group of men unusually endowed with charm, humor, intelligence, concern, and decency. Reader, I liked them. At least I liked many of them. The attempt to understand how such decent men could contribute to an endeavor that I see as so fundamentally destructive became a continuing obsession for me, a lens through which I came to examine all of my experiences in their world.

In this early stage, I was gripped by the extraordinary language used to discuss nuclear war. I had, of course, previously encountered it in my reading, but somehow it was different to hear it spoken. What hit me first was the elaborate use of abstraction and euphemism, of words so bland that they never forced the speaker or enabled the listener to touch the realities of nuclear holocaust behind the words.

Anyone who has seen pictures of Hiroshima burn victims, or tried to imagine the pain of hundreds of glass shards blasted into flesh, may at first find it perverse beyond imagination to hear a class of nuclear devices matter-of-factly referred to as "clean bombs." "Clean bombs" are nuclear devices that are largely fusion, rather than fission; they release a somewhat higher proportion of their energy as prompt radiation, but produce less radioactive fallout than fission bombs of the same yield.[7]

"Clean bombs" may provide the perfect metaphor for the language of defense analysts and arms controllers. This language has enormous destructive power, but without emotional fallout; without the emotional fallout that would result if it were clear one was talking about plans for mass murder, mangled bodies, human suffering. Defense analysts don't talk about incinerating cities: they talk about "countervalue attacks." Human death, in nuclear parlance, is most often referred to as "collateral damage"; for, as one defense analyst said, with just the right touch of irony in his voice and twinkle in his eye, "the Air Force doesn't target people, it targets shoe factories." [8]

Some phrases carry this cleaning up so far as to invert meaning. The MX missile will carry ten warheads, each with the explosive power of 300 to 475 kilotons of TNT: *one* missile the bearer of destruction approximately *250* to *400* times that of the Hiroshima bombing. [9] Ronald Reagan has christened the MX missile "the Peacekeeper." While this renaming was the object of considerable scorn in the community of defense analysts, these very same analysts refer to the MX as a "damage limitation weapon." [10]

These phrases, only a few of the hundreds that could be discussed, exemplify the astounding chasm between image and reality that characterizes techno-strategic language.

They also hint at the terrifying way in which the existence of nuclear devices has distorted our perceptions and redefined the world. "Clean bombs" as a phrase tells us that radioactivity is the only "dirty" part of killing people.

But it is not only the existence of nuclear devices that changes the world. The endless discussion of scenarios for their use *itself* radically alters that which is within the realm of human possibility. The very act of putting phrases like "20 million acceptable dead" into human consciousness cracks our conceptions of the limits of human suffering, and of men's willingness to violate all human values and social meaning.

A final thought on the issue of cleanliness: it's hard not to feel that one function of abstraction is a kind of desperate attempt to deny the uncontrolled messiness of the situations defense intellectuals contemplate creating. So that we not only have "clean bombs," but we also have "surgically clean strikes," ("counterforce" attacks that can purportedly "take out" -- i.e., accurately destroy -- an opponent's weapons or command centers, without causing significant injury to anything else). The image of excision of the offending weapon is unspeakably ludicrous when the surgical tool is not a delicately controlled scalpel, but a nuclear warhead. And somehow it seems to be forgotten that even scalpels spill blood. [11]

White Men In Ties Discussing Missile Size

Feminists have often suggested that an important aspect of the arms race is phallic worship; that "missile envy" is a significant motivating force in the nuclear build-up.[12] I have always found this an uncomfortably reductionist explanation and hoped that my research at the Center would yield a more complex analysis. But still, I was curious about the extent to which I might find a sexual subtext in the defense professionals' discourse. I was not prepared for what I found.

I think I had naively imagined myself as a feminist spy in the house of death -- that I would need to sneak around and eavesdrop on what men said in unguarded moments, using all my subtlety and cunning to unearth whatever sexual imagery might be underneath how they thought and spoke. I had naively believed that these men, at least in public, would appear to be aware of feminist critiques. If they had not changed their language, I thought that at least at some point in a long talk about "penetration aids," someone would suddenly look up, slightly embarrassed to be caught in such blatant confirmation of feminist analyses of What's Going On Here.[13]

Of course, I was wrong. There was no evidence that feminist critiques had ever reached the ears, much less the minds, of these men. American military dependence on nuclear weapons was explained as "irresistible, because you get more bang for the buck."

Another lecturer solemnly and scientifically announced "to disarm is to get rid of all your stuff." (This may, in turn, explain why they see serious talk of nuclear disarmament as perfectly resistible, not to mention foolish. If disarmament is emasculation, how could any real man even consider it?) A professor's explanation of why the MX missile is to be placed in the silos of the newest Minuteman missiles, instead of replacing the older, less accurate ones, was "because they're in the nicest hole--you're not going to take the nicest missile you have and put it in a crummy hole." Other lectures were filled with discussion of vertical erector launchers, thrust-to-weight ratios, soft lay downs, deep penetration, and the comparative advantages of protracted versus spasm attacks -- or what one military adviser to the National Security Council has called "releasing 70 to 80 percent of our megatonnage in one orgasmic whump."[14] There was serious concern about the need to harden our missiles, and the need to "face it, the Russians are a little harder than we are." Disbelieving glances would occasionally pass between me and my one ally in the summer program, another woman, but no one else seemed to notice.

But if the imagery is transparent, its significance may be less so. The temptation is to draw some conclusions about the defense intellectuals themselves -- about "what they are *really* talking about," or their motivations. But the temptation is worth resisting. Individual motivations cannot necessarily be read directly from imagery; the imagery itself does not originate in these particular individuals, but in a broader cultural context.

Sexual imagery has, of course, been a part of the world of warfare since long before nuclear weapons were even a gleam in a physicist's eye. The history of the atomic bomb project itself is rife with overt images of competitive male sexuality, as is the discourse of the early nuclear physicists, strategists, and SAC commanders.[15] Both the military itself and the arms manufacturers are constantly exploiting the phallic imagery and promise of sexual domination that their weapons so conveniently suggest. A quick glance at the publications that constitute some of the research sources for defense intellectuals makes the depth and pervasiveness of the imagery evident.

Air Force Magazine's advertisements for new weapons, for example, rival *Playboy* as a catalog of men's sexual anxieties and fantasies. Consider the following, from the June 1985 issue: Emblazoned in bold letters across the top of a two-page advertisement for the AV-8B Harrier II -- "Speak Softly and Carry a Big Stick." The copy below boasts "an exceptional thrust to weight ratio," and "vectored thrust capability that makes the ... unique rapid response possible." Then, just in case we've failed to get the message, the last line reminds us, "Just the sort of 'Big Stick' Teddy Roosevelt had in mind way back in 1901."[16]

An ad for the BKEP (BLU-106/B) reads:

> The Only Way to Solve Some Problems is to Dig Deep.
>
> THE BOMB, KINETIC ENERGY

PENETRATOR

[format and emphasis in the original]

"Will provide the tactical air commander with efficient power to deny or significantly delay enemy airfield operations." "Designed to maximize runway cratering by optimizing penetration dynamics and utilizing the most efficient warhead yet designed."[17] (In case the symbolism of "cratering" seems far-fetched, I would point out that I am not the first to see it. The French use the Mururoa Atoll in the South Pacific for their nuclear tests, and assign a woman's name to each of the craters they gouge out of the Earth.)

Another vivid source of phallic imagery is to be found in descriptions of nuclear blasts themselves. Here, for example, is one by journalist William Laurence, who was brought to Nagasaki by the Air Force to witness the bombing.

> Then, just when it appeared as though the thing had settled down into a state of permanence, there came shooting out of the top a giant mushroom that increased the size of the pillar to a total of 45,000 feet. The mushroom top was even more alive than the pillar, seething and boiling in a white fury of creamy foam, sizzling upward and then descending earthward, a thousand geysers rolled into one. It kept struggling in an elemental fury, like a creature in the act of breaking the bonds that held it down.[18]

Given the degree to which it suffuses their world, that defense intellectuals themselves use a lot of sexual imagery does not seem especially surprising. Nor does it, by itself, constitute grounds for imputing motivation. For me, the interesting issue is not so much the imagery's psychodynamic origins, as how it functions: how does it serve to make it possible for strategic planners and other defense intellectuals to do their macabre work? How does it function in their construction of a work-world that feels tenable? Several stories illustrate the complexity.

During the summer program, a group of us visited the New London Navy base where nuclear submarines are homeported, and the General Dynamics Electric Boat boatyards where a new Trident submarine was being constructed. At one point during the trip we took a tour of a nuclear powered submarine. When we reached the part of the sub where the missiles are housed, the officer accompanying us turned with a grin, and asked if we wanted to stick our hands through a hole to "pat the missile." *Pat the missile?*

The image reappeared the next week, when a lecturer scornfully declared that the only real reason for deploying cruise and Pershing II missiles in Western Europe was "so that our allies can pat them." Some months later, another group of us went to be briefed at NORAD (the North American Aerospace Defense Command). On the way back, our plane went to refuel at Offut Air Force Base, the Strategic Air Command headquarters near Omaha,

Nebraska. When word leaked out that our landing would be delayed because the new B-1 bomber was in the area, the plane became charged with a tangible excitement that built as we flew in our holding pattern, people craning their necks to try to catch a glimpse of the B-1 in the skies, and climaxed as we touched down on the runway and hurtled past it. Later, when I returned to the Center I encountered a man who, unable to go on the trip, said to me enviously, "I hear you got to pat a B-1."

What is all this "patting"? What are men doing when they "pat" these high-tech phalluses? Think about what else men pat. Patting is an assertion of intimacy, sexual possession, affectionate domination. The thrill and pleasure of "patting the missile" is the proximity of all that phallic power, the possibility of vicariously appropriating it as one's own.

But if the predilection for patting phallic objects indicates something of the homoerotic excitement suggested by the language, it also has another side. For patting is not only an act of sexual intimacy. It is also what one does to babies, small children, the pet dog. The creatures one pats are small, cute, harmless -- not terrifyingly destructive. Pat it, and its lethality disappears.

Much of the sexual imagery I heard was rife with the sort of ambiguity suggested by "patting the missiles." The imagery could be construed as a deadly serious display of the connections between masculine sexuality and the arms race. But at the same time, it can also be heard as a way of minimizing the seriousness of militarist endeavors, of denying their deadly consequences. A former Pentagon target analyst, in telling me why he thought plans for "limited nuclear war" were ridiculous, said, "Look, you gotta understand that it's a pissing contest -- you gotta expect them to use everything they've got." What does this image say? Most obviously, that this is all about competition for manhood, and thus there is tremendous danger. But at the same time, the image diminishes the contest and its outcomes by representing it as an act of boyish mischief.

Fathers, Sons, and Virgins

"Virginity" also made frequent, arresting, appearances in nuclear discourse. In the summer program, one professor spoke of India's explosion of a nuclear bomb as "losing her virginity"; the question of how the U.S. should react was posed as "whether we should throw her away." It is a complicated use of metaphor. Initiation into the nuclear world involves being de-flowered, losing one's innocence, knowing sin, all wrapped up into one. Although the manly United States is no virgin, and proud of it, the double standard raises its head in the question of whether a woman is still worth anything to a man once she's lost her virginity?

New Zealand's refusal to allow nuclear-armed or nuclear-powered warships into its ports prompted similar reflections on virginity. A good example is provided by (Ret.) USAF General Ross Milton's angry column in *Air Force Magazine*, entitled, "Nuclear Virginity." His tone is that of a man whose advances have been spurned. He is contemptuous of the woman's protestations that she wants to remain pure, innocent of nuclear weapons; her moral reluctance is a quaint and ridiculous throwback. But beyond contempt, he also feels outraged -- after all, this is a woman we've *paid* for, who *still* won't come across. He suggests that we withdraw our goods and services -- and then we'll see just how long she tries to hold onto her virtue.[19]

The patriarchal bargain could not be laid out more clearly. We'll protect you (under our "nuclear umbrella" and the ANZUS Pact), and provide goods and services -- but then you damn well better know your place -- to provide other services in return. And you better not try to tell us how to protect you, or claim that you yourself know what's best for you. We are the ones in charge here. And if you're going to play coy with us, we'll prove it, and leave you defenseless.

Another striking metaphor of patriarchal power came early in the summer program, when one of the faculty was giving a lecture on deterrence. To give us a concrete example from outside the world of military strategy, he described having a 17-year-old son whose TV watching habits he disapproved of. He dealt with the situation by threatening to break his son's arm if he turned on the TV again. "That's deterrence!," he said triumphantly.

What's so striking about this analogy is that it at first seems so inappropriate. The popular understanding of nuclear deterrence is that it describes a relation between two countries of more or less equal strength, in which one is only able to deter the other from doing it great harm by threatening to retaliate in kind. But in this case, the partners are unequal, and the stronger one is using his superior force not to protect himself from grave injury, but to coerce.

But if the analogy seems to be a flawed expression of deterrence as we have been taught to view it, it is none the less extremely revealing about U.S. nuclear deterrence as an operational, rather than rhetorical or declaratory policy. What it suggests is the speciousness of the defensive rhetoric that surrounds deterrence -- of the idea that we face an implacable enemy, and that we only stockpile nuclear weapons in an attempt to defend ourselves. Instead, what we see is the drive to superior power as a means to exercise one's will, and a readiness to threaten the disproportionate use of force in order to achieve one's own ends. There is no question of recognition of competing but legitimate needs here, no desire to negotiate, discuss, or compromise, and most important, no necessity for that recognition or desire, since the father carries the bigger stick.[20]

The U.S. frequently appeared in international politics as "father," sometimes coercive, sometimes benevolent, but always knowing best. The single time that any mention was made of countries other than the U.S., our NATO allies, or the U.S.S.R. was in a lecture on nuclear proliferation. The point was made that these younger countries simply could not be trusted to know what was good for them, nor were they yet fully responsible, so nuclear weapons in their hands would be much more dangerous than in ours. The metaphor used was that of parents needing to set limits for their children.

Domestic Bliss

Sanitized abstraction, sexual and patriarchal imagery, even if disturbing, seemed to fit easily into the masculinist world of nuclear war planning. What did not fit, what surprised and puzzled me most when I first heard it, was another set of words, words that evoked images which can only be called domestic.

Nuclear missiles are based in "silos." On a Trident submarine, which carries 24 multiple warhead nuclear missiles, crew members call the part of the sub where the missiles are lined up in their silos ready for launching "the Christmas tree farm." What could be more bucolic--farms, silos, Christmas trees?

In the ever-friendly, even romantic world of nuclear weaponry, enemies "exchange" warheads; one missile "takes out" another; weapons systems can "marry up." "Coupling" is sometimes used to refer to the wiring between mechanisms of warning and response. It is also used to refer to the psycho-political links between strategic (intercontinental) and theater (European-based) weapons.

The patterns in which a MIRVed missile's nuclear warheads land is known as a "footprint."[21] These nuclear explosives are not dropped; a "bus" "delivers" them (Federal Express?). In addition, nuclear bombs are not referred to as bombs or even warheads; they're referred to as "reentry vehicles," a term far more bland and benign, which is then shortened to "RVs," a term not only totally abstract and removed from the reality of a bomb behind it, but also resonant with the image of the "recreational vehicles" of the ideal family vacation. Put it all together for an image of a jumbo yellow school bus sailing cross the blue heavens, perhaps with Ronald Reagan playing the role of the smiling, friendly bus driver, cracking "jokes" about outlawing and nuking the Soviet Union, delivering RVs which fall gently to earth, drifting downward under big lovely pastel colored parachutes, landing in a footprint before grateful nuclear families.

Of course, I don't mean to say that this is the image that is in the heads of those who speak these words, but what is? What are the reasons they use these words? What are the effects of using them? How is one to interpret this whole phenomenon?

The one thing that seems clear is that these domestic images are more than simply one more form of distancing, one more way to remove oneself from the grisly reality behind the words, for plain, old-fashioned abstraction is adequate to that task. The fact that these words suggest the kind of imagery played with above suggests that something else, something very peculiar, is going on here. Calling the pattern in which bombs fall a "footprint" almost seems a willful distorting process, a playful perverse refusal of accountability -- because to be accountable to reality is to be unable to do this work.

The images evoked by these words may also serve to domesticate, to *tame* the uncontrollable forces of nuclear destruction. The metaphors minimize; they are a way to make phenomena that are beyond what the mind can encompass smaller and safer, and thus of gaining mastery over the unmasterable. Take the fire-breathing dragon under the bed, the one who threatens to incinerate your family, your town, your planet, and turn it into a pet you can pat.

Using language evocative of everyday experiences also may simply serve to make everyone more comfortable with what they are doing. "PAL" (permissive action links) is the carefully constructed, friendly acronym for the electronic system designed to prevent the unauthorized firing of nuclear warheads. BAMBI was the acronym developed for an early version of an anti-ballistic missile system (for Ballistic Missile Boost Intercept). The President's Annual Nuclear Weapons Stockpile Memorandum, which outlines both short and long-range plans for production of new nuclear weapons, is benignly referred to as "the shopping list." Carrying the culinary image farther, the National Command Authorities choose from a "menu of options" when deciding amongst different targeting plans. The "cookie cutter" is a phrase used to describe a particular model of nuclear attack. Apparently it is also used at the Department of Defense to refer to the neutron bomb.[22]

The imagery that domesticates, that humanizes insentient weapons, may also serve, paradoxically, to make it all right to ignore sentient human bodies, human lives.[23] Perhaps it is possible to spend one's time thinking about scenarios for the use of massively destructive technology, and to have human bodies remain invisible in that technological world, precisely because that world itself now *includes* the domestic, the human, the warm and playful -- the Christmas trees, the RVs, the affectionate pats. It is a world that is in some sense complete unto itself; it even includes death and loss. But it is weapons, not humans, that get "killed." "Fratricide" occurs when one of your warheads "kills" another one of your own warheads.

There is much discussion of "vulnerability" and "survivability," but it is about the vulnerability and survival of weapons systems, not people.

Male Birth and Creation

There is one set of domestic images that demands separate attention -- imagery that suggests men's desire to appropriate from women the power of giving life, and that conflates creation and destruction.[24] The bomb project is rife with images of male birth.[25] In December, 1942, Ernest Lawrence's telegram to the physicists at Chicago read, "Congratulations to the new parents. Can hardly wait to see the new arrival."[26] At Los Alamos, the atom bomb was referred to as "Oppenheimer's baby." One of the physicists working at Los Alamos, Richard Feynman, writes that when he was temporarily on leave after his wife's death, he received a telegram saying, "The baby is expected on such and such a day."[27] At Lawrence Livermore, the hydrogen bomb was referred to as "Teller's baby," although those who wanted to disparage Teller's contribution claimed he was not the bomb's father, but its mother. They claimed that Stanislaw Ulam was the real father; he had the all important idea, and inseminated Teller with it. Teller only "carried it" after that.[28]

Forty years later, this idea of male birth and its accompanying belittling of maternity -- the denial of women's role in the process of creation and the reduction of "motherhood" to the provision of nurturance (apparently Teller did not need to provide an egg, only a womb) -- seems thoroughly incorporated into the nuclear mentality, as I learned on a subsequent visit to U.S. Space Command, in Colorado Springs. One of the briefings I attended included discussion of a new satellite system, the not yet "on line" MILSTAR system.[29] The officer doing the briefing gave an excited recitation of its technical capabilities, and then an explanation of the new Unified Space Command's role in the system. Self-effacingly, he said, "We'll do the motherhood role -- telemetry, tracking, and control -- the maintenance."

In light of the imagery of male birth, the extraordinary names given to the bombs that reduced Hiroshima and Nagasaki to ash and rubble -- "Little Boy" and "Fat Man" -- at last become intelligible. These ultimate destroyers were the progeny of the atomic scientists -- and emphatically not just any progeny, but male progeny. In early tests, before they were certain that the bombs would work, the scientists expressed their concern by saying that they hoped the baby was a boy, not a girl -- i.e., not a dud.[30] General Grove's triumphant cable to Secretary of War Henry Stimson at the Potsdam conference, informing him that the first atomic bomb test was successful read, after decoding:

> Doctor has just returned most enthusiastic and confident that the little boy is as husky as his big brother. The light in his eyes discernible from here to Highhold and I could have heard his screams from here to my farm.[31]

Stimson, in turn, informed Churchill by writing him a note that read, "babies satisfactorily born."[32] In 1952, Edward Teller's exultant telegram to Los Alamos announcing the successful test of the hydrogen bomb, "Mike," at Eniwetok Atoll in the Marshall Islands, read, "It's a boy."[33]

The nuclear scientists gave birth to male progeny with the ultimate power of violent domination over female Nature. The defense intellectuals' project is the creation of abstract formulations to control the forces the scientists created -- and to participate thereby in the scientists' world-creating/destroying power. The history of the bomb project is permeated with imagery that confounds man's overwhelming technological power to destroy nature with the power to create -- imagery that inverts men's destruction, and asserts in its place the power to create new life, and a new world. Imagery that converts men's destruction into their rebirth.

William L. Laurence witnessed the Trinity test of the first atomic bomb, and wrote:

> The big boom came about a hundred seconds after the great flash -- the first cry of a new-born world.... They clapped their hands as they leaped from the ground -- earthbound man symbolising the birth of a new force.[34]

Watching "Fat Man" being assembled the day before it was dropped on Nagasaki, he described seeing the bomb as "being fashioned into a living thing."[35] Decades later, General Bruce K. Holloway, the Commander in Chief of the Strategic Air Command from 1968 to 1972, described a nuclear war as involving "a big bang, like the start of the universe."[36]

God and the Nuclear Priesthood

The possibility that the language reveals an attempt to appropriate ultimate creative power is evident in another striking aspect of the language of nuclear weaponry and doctrine -- the religious imagery.

In a subculture of "hard-nosed realism" and hyper-"rationality," in a world that claims as a sign of its superiority its vigilant purging of all nonrational elements, and in which people carefully excise from their discourse every possible trace of soft sentimentality, as though purging dangerous nonsterile elements from a lab, the last thing one might expect to find is religious imagery, imagery of the forces that science has been defined *in opposition to*. For surely, given that Western science's identity was forged by its struggle for freedom from the constraints of religion, the only thing as unscientific as the female, the subjective, the

emotional, would be the religious. And yet, religious imagery permeates the nuclear past and present. The first atomic bomb test was called Trinity -- the unity of the father, the son, and the holy spirit, the male forces of Creation. The imagery is echoed in the language of the physicists who worked on the bomb, and witnessed the test: "It was as though we stood at the first day of creation." Robert Oppenheimer thought of Krishna's words to Arjuna in the *Bhagavad Gita*: "I am become Death, the shatterer of worlds."[37]

Defense intellectuals, when challenged on a particular assumption that underlies their paradigms, will often duck out of having to justify or support their assumptions with a dismissing wave of the hand and a casual "now you're talking about matters of theology." And perhaps most astonishing of all is the fact that the creators of strategic doctrine actually refer to members of their community as "the nuclear priesthood." It is hard to decide what is most extraordinary about this: the easy arrogance of their claim to the virtues and supernatural power of the priesthood; the tacit admission (*never* spoken directly) that rather than being unflinching, hard-nosed, objective, empirically-minded scientific describers of reality, they are really the creators of dogma; or the extraordinary implicit statement about who, or rather what, has become god. If our new priesthood attains its status through an inspired knowledge of nuclear weapons, it gives a whole new meaning to the phrase "a mighty fortress is our God."

Stage II: Learning to Speak the Language

Although I was at first startled by the combination of dry abstraction and counter-intuitive imagery that characterizes the language of defense intellectuals, my attention and energy were quickly turned to decoding and learning to speak it. The first task was training the tongue in the articulation of acronyms.

Several years of reading the literature of nuclear weaponry and strategy had not prepared me for the degree to which acronyms littered all conversations, nor for the way in which they are used. Formerly, I had thought of them mainly as utilitarian. They allow you to write or speak faster. They act as a form of abstraction, removing you from the reality behind the words. They restrict communication to the initiated, leaving all others both uncomprehending and voiceless in the debate.

But, being at the Center, hearing the defense analysts use the acronyms, and then watching as I and others in the group started to fling acronyms around in our own conversation, revealed some additional, unexpected dimensions.

First, in speaking and hearing, a lot of these terms can be very sexy. A small supersonic rocket "designed to penetrate any Soviet air defense" is called a SRAM (for short-range attack missile). Submarine-launched cruise missiles are not referred to as "SLCMs," but "slick'ems."

Ground-launched cruise missiles are "Glick'ems." Air-launched cruise missiles are not sexy, but magical -- Alchems (ALCMs) replete with the illusion of turning base metals into gold.

TACAMO, the acronym used to refer to the planes designed to provide communications links to submarines, stands for "take charge and move out." The image seems closely related to the nicknames given to the new guidance systems for "smart weapons" -- "shoot and scoot," or "fire and forget." ("Love 'em and leave 'em"?)

Other acronyms work in other ways. The plane in which the President supposedly will be flying around above a nuclear holocaust, receiving intelligence and issuing commands for the next bombing, is referred to as Kneecap (for NEACP -- National Emergency Airborne Command Post). The edge of derision suggested in referring to it as Kneecap mirrors the edge of derision implicit when it is talked about at all, since few believe that the President really would have the time to get into it, or that the communications systems would be working if he were in it, and some might go so far as to question the usefulness of his being able to direct an extended nuclear war from his kneecap even if it were feasible. (I never heard the morality of this idea addressed.) But it seems to me that speaking about it with that edge of derision is *exactly* what allows it to be spoken about and seriously discussed at all. It is the very ability to make fun of a concept that makes it possible to work with it rather than reject it outright.

In other words, what I learned at the program is that talking about nuclear weapons is fun. I am serious. The words are fun to say; they're racy, sexy, snappy. You can throw them around in rapidfire succession. They're quick, clean, light; they trip off the tongue. You can reel off dozens of them in seconds, forgetting about how one just might interfere with the next, not to mention with the lives beneath them.

I am not describing a phenomenon experienced only by the perverse, although the phenomenon itself may be perverse indeed. Nearly everyone I observed clearly took pleasure in using the words. It mattered little whether we were lecturers or students, hawks or doves, men or women -- we all learned it, and we all spoke it. Some of us may have spoken with a self-consciously ironic edge, but the pleasure was there nonetheless.

Part of the appeal was the thrill of being able to manipulate an arcane language, the power of entering the secret kingdom, being someone in the know. It is a glow that is a significant part of learning about nuclear weaponry. Few KNOW, and those who do are powerful. You can rub elbows with them, perhaps even become one yourself.

That feeling, of course, does not come solely from the language. The whole set-up of the summer program itself, for example, communicated the allures of power: the luxurious accommodations with which we were provided, complete with young black women who came in to clean up after us each day; the generous funding that not only paid for our transportation and food, but also a large honorarium for attending; the lavishly appointed classrooms and

lounges. Access to excellent athletic facilities was guaranteed by a "Temporary Privilege Card," which seemed to me to sum up the essence of the experience. Perhaps most important of all were the endless allusions by our lecturers to "what I told John" [Kennedy] and "and then Henry [Kissinger] said," or the lunches where we could sit next to a prominent political figure and listen to Washington gossip.

A more subtle, but perhaps more important element of learning the language is that when you speak it, you feel in control. The experience of accomplishment, of mastering the words, infuses your relation to the material as well. You can get so good at manipulating the words that it almost feels like the whole thing is under control. Learning the language gives a sense of what I would call *cognitive mastery* -- the feeling of mastery of technology that is finally not controllable, not masterable, but is instead powerful beyond human comprehension, powerful in a way that stretches and even thrills the imagination.

The longer I stayed, the more conversations I participated in, the less frightened I was of nuclear war.

How can learning to speak a language have such a powerful effect? One answer, I believe, is that the *process* of learning the language is itself a part of what removes you from the reality of nuclear war.

I entered a world where people spoke what amounted to a foreign language, a language I had to learn if we were to communicate with one another. So I became engaged in the challenge of it -- of decoding the acronyms and figuring out which were the proper verbs to use. My focus was on the task of solving the puzzles, developing language competency -- not on the weapons and wars behind the words. Although my interest was in thinking about nuclear war and its prevention, my energy was elsewhere.

By the time I was through, I had learned far more than an alternate (if abstract) set of words to refer to familiar phenomena; for even when the ostensible *subjects* of a standard English and nukespeak description are the same, they are, in fact, about utterly different phenomena. Consider the following descriptions, in each of which the subject is the aftermath of a nuclear attack:

> Everything was black, had vanished into the black dust, was destroyed. Only the flames that were beginning to lick their way up had any color. From the dust that was like a fog, figures began to loom up, black, hairless, faceless. They screamed with voices that were no longer human. Their screams drowned out the groans rising everywhere from the rubble, groans that seemed to rise from the very earth itself. [38]

> [You have to have ways to maintain communications in a] nuclear environment, a situation bound to include EMP blackout, brute force damage to systems, a heavy jamming environment, and so on.[39]

There are no ways to describe the phenomena represented in the first with the language of the second. Learning to speak the language of defense analysts is not a conscious, cold-blooded decision to ignore the effects of nuclear weapons on real live human beings, to ignore the sensory, the emotional experience, the human impact. It is simply meeting the challenge of learning a new language; but by the time you're through, the *content* of what you can talk about is monumentally different, as is the *perspective* from which you speak.

In the example above, the differences in the two descriptions of a "nuclear environment" stem partly from a difference in the vividness of the words themselves -- the words of the first intensely immediate and evocative, the words of the second abstract and distancing. The passages also differ in their content; the first describes the effects of a nuclear blast on human beings, the second describes the impact of a nuclear blast on technical systems designed to assure the "command and control" of nuclear weapons. Both of these differences may stem from the difference of perspective: the speaker in the first is a victim of nuclear weapons, the speaker in the second is a user. The speaker in the first is using words to try to name and contain the horror of human suffering all around her; the speaker in the second is using words to ensure the possibility of launching the next nuclear attack. Techno-strategic language can be used only to articulate the perspective of the users of nuclear weapons, not the victims.[40]

Thus, speaking the expert language not only offers distance, a feeling of control, and an alternative focus for one's energies; it also offers escape -- escape from thinking of oneself as a victim of nuclear war. I do not mean this on the level of individual consciousness; it is not that defense analysts somehow convince themselves that they would not be among the victims of nuclear war, should it occur. But I do mean it in terms of the structural position the speakers of the language occupy, and the perspective they get from that position. *Structurally*, speaking techno-strategic language removes them from the position of victim, and puts them in the position of the planner, the user, the actor. From that position, there is neither need nor way to see oneself as a victim; no matter what one deeply knows or believes about the likelihood of nuclear war, and no matter what sort of terror or despair the knowledge of nuclear war's reality might inspire, the speakers of techno-strategic language are positionally allowed, even forced, to escape that awareness, to escape viewing nuclear war from the position of the victim, by virtue of their linguistic stance as users, rather than victims, of nuclear weaponry.

Finally, then, I suspect that much of the reduced anxiety about nuclear war commonly experienced by both new speakers of the language, and long-time experts, comes from characteristics of the language itself: the distance afforded by its abstraction; the sense of

control afforded by mastering it; and the fact that its content and concerns are that of the users, rather than the victims of nuclear weapons. In learning the language, one goes from being the passive, powerless victim to the competent, wily, powerful, purveyor of nuclear threats and nuclear explosive power. The enormous destructive effects of nuclear weapons systems become extensions of the self, rather than threats to it.

Stage III: Dialogue

It did not take very long to learn the language of nuclear war, and much of the specialized information it contained. My focus quickly changed from mastering technical information and doctrinal arcana, to attempting to understand more about how the dogma was rationalized. Instead of trying, for example, to find out why submarines are so hard to detect, or why, prior to the Trident II, submarine-based ballistic missiles were not considered counterforce weapons, I now wanted to know why we really "need" a strategic triad, given submarines' "invulnerability."[41] Or, I also wanted to know why it is considered reasonable to base U.S. military planning on the Soviet Union's military *capabilities,* rather than seriously attempting to gauge what their *intentions* might be. This standard practice is one I found particularly troubling. Military analysts say that since we cannot know for certain what Soviet intentions are, we must plan our military forces and strategies *as if* we knew that the Soviets planned to use all of their weapons. While this might appear to have the benefit of prudence, it leads to a major problem: when we only ask what the Soviets *can* do, we quickly come to assume that that is what they *intend* to do. We base our planning on "worst-case scenarios," and then come to believe that we live in a world where vast resources must be committed to "preventing" them from happening.

Since underlying rationales are rarely discussed in the everyday business of defense planning, I had to start asking more questions. At first, although I was tempted to use my newly acquired proficiency in techno-strategic jargon, I vowed to speak English. I had long believed that one of the most important functions of an expert language is exclusion -- the denial of a voice to those outside the professional community.[42] I wanted to see whether a well-informed person could speak English and still carry on a knowledgeable conversation.

What I found, however, was that no matter how well-informed my questions were, no matter how complex an understanding they were based upon, if I spoke English rather than expert jargon, the men responded to me as though I were ignorant, simple-minded, or both. It did not appear to occur to anyone that I might actually be purposefully choosing not to speak their language.

A strong distaste for being patronized and dismissed made my experiment in English short-lived. I adapted my everyday speech to the vocabulary of strategic analysis. I spoke of "escalation dominance," "pre-emptive strikes," and one of my favorites, "sub-holocaust engagements." Using the right phrases opened my way into long, elaborate discussions that taught me a lot about techno-strategic reasoning and how to manipulate it.

I found, however, that the better I got at engaging in this discourse, the more impossible it became for me to express my own ideas, my own values. I could adopt the language, and gain a wealth of new concepts and reasoning strategies -- but at the same time as the language gave me access to things I had never been able to speak about before, it radically excluded others. I could not use the language to express my concerns, because it was conceptually impossible. This language does not allow certain questions to be asked, certain values to be expressed.

To pick a bald example: the word "peace" is not a part of this discourse. As close as one can come is "strategic stability," a term that refers to a balance of numbers and types of weapons systems -- not the political, social, economic, and psychological conditions implied by the word "peace." Not only is there no word signifying peace in this discourse, but the word "peace" itself cannot be used. To speak it is to immediately brand oneself as a soft-headed activist, instead of an expert, a professional to be taken seriously.

If I was unable to speak my concerns in this language, more disturbing still was that I began to also find it hard even to keep them in my own head. I had gone to the Center expecting abstract and sanitized discussions of nuclear war, and had readied myself to replace my words for theirs, to be ever vigilant against slipping into the never-never land of abstraction. But no matter how prepared I was, no matter how firm my commitment to staying aware of the reality behind the words, over and over I found that I *couldn't* stay connected, couldn't keep human lives as my reference point. I found I could go for days speaking about nuclear weapons without once thinking about the people who would be incinerated by them.

It is tempting to attribute this problem to qualities of the language, the words themselves -- the abstractness, the euphemisms, the sanitized, friendly, sexy acronyms. Then all we would need to do is change the words, make them more vivid; get the military planners to say "mass murder" instead of "collateral damage," and their thinking would change.

The problem, however, is not only that defense intellectuals use abstract terminology that removes them from the realities of which they speak. There *is* no reality of which they speak. Or, rather, the "reality" of which they speak is itself a world of abstractions. Deterrence theory, and much of strategic doctrine altogether, was invented largely by mathematicians, economists, and a few political scientists. It was invented to hold together abstractly, its validity judged by its internal logic. Questions of the correspondence to observable reality were not

the issue. These abstract systems were developed as a way to make it possible to "think about the unthinkable"-- not as a way to describe, or codify relations on the ground.[43]

So the problem with the idea of "limited nuclear war," for example, is not only that it is grotesque to refer to the death and suffering caused by *any* use of nuclear weapons as "limited," or that "limited nuclear war" is an abstraction that obfuscates the human reality beneath any use of nuclear weapons. It is also that "limited nuclear war" is itself an abstract conceptual system, designed, embodied and achieved by computer modeling. It is a fictional abstract world in which hypothetical, calm, rational actors have sufficient information to know exactly what size nuclear weapon the opponent has used against which targets, and adequate command and control to make sure that their response is precisely equilibrated to the attack. In this scenario, no field commander would use the tactical so-called "mini-nukes" at his disposal in the height of a losing battle; no EMP-generated electronic failures, or direct attacks on command and control centers, or human errors would destroy communications networks. Our rational actors would be free of emotional response to being attacked, of political pressures from the populace, free from madness or despair or any of the myriad other factors that regularly affect human actions and decision-making. They would act solely on the basis of a perfectly informed mathematical calculus of megatonnage.

So to refer to "limited nuclear war" is already to enter into a system that is de facto abstract and removed from actuality. To use more descriptive language would not, by itself, change that. In fact, I am tempted to say that the abstractness of the entire conceptual system makes descriptive language nearly beside the point. In a discussion of "limited nuclear war," for example, it might make some difference if in place of saying "In a counter-force attack against hard targets collateral damage could be limited," a strategic analyst had to use words that were less abstract -- if he had to say, for instance, "If we launch the missiles we have aimed at their missile silos, the explosions would cause the immediate mass murder of 10 million women, men, and children, as well as the extended illness, suffering, and ultimately death, of many millions more." It is true that the second sentence does not roll off the tongue or slide across one's consciousness quite as easily. But it is also, true, I believe, that the ability to speak about "limited nuclear war" stems as much, if not more, from the fact that the term "limited nuclear war" refers to an abstract conceptual system rather than events that might take place in the real world. As such, there is no need to think about the concrete human realities behind the model; what counts is the internal logic of the system. [44]

The realization that the abstraction was not just in the words, but characterized the entire conceptual system itself, helped me make sense of my difficulty in staying connected to human lives. It also helped make sense of some of the bizarre and surreal quality of what people said. But there was still a piece missing. How is it possible, for example, to make sense

of the following paragraph? It is taken from a discussion of a scenario ("regime A") in which the U.S. and the U.S.S.R. have revised their offensive weaponry, banned MIRVs, and gone to a regime of single warhead (Midgetman) missiles, with no "defensive shield" (what is familiarly known as "Star Wars," or SDI):

> The strategic stability of regime A is based on the fact that both sides are deprived of any incentive ever to strike first. Since it takes roughly two warheads to destroy one enemy silo, an attacker must expend two of his missiles to destroy one of the enemy's. A first strike disarms the attacker. The aggressor ends up worse off than the aggressed.[45]

"The aggressor ends up worse off than the aggressed"? The homeland of "the aggressed" has just been devastated by the explosions of, say, a thousand nuclear bombs, each likely to be ten to one hundred times more powerful than the bomb dropped on Hiroshima, and the aggressor, whose homeland is still untouched, "ends up worse off"? What would make it possible to think such a thing? Abstract language and abstract thinking surely contribute, but they do not seem to be a sufficient explanation; to the uninitiated mind, this sentence remains insane.

I was only able to "make sense of it" when I finally asked myself the question that feminists have been asking about theories in every discipline: What is the reference point? Who (or what) is the *subject* here?

In other disciplines, we have frequently found that the reference point for theories about "universal human phenomena" has actually been privileged Euro-American white men. In techno-strategic discourse, the reference point is not white men, it is not human beings at all; it is the weapons themselves. The aggressor thus ends up worse off than the aggressed because he has fewer weapons left; human factors are irrelevant to the calculus of gain and loss.

In "regime A" and throughout strategic discourse, the concept of "incentive" is similarly distorted by the fact that weapons are the subject of strategic paradigms. Incentive to strike first is present or absent according to a mathematical calculus of numbers of "surviving" weapons. That is, incentive to start a nuclear war is discussed not in terms of what possible military or political ends it might serve, and certainly not in moral terms, but in terms of numbers of weapons, with the goal being to make sure that you are the guy who has the most left at the end. Hence, it is frequently stated that MIRVed missiles create strategic instability because they "give you the incentive to strike first." Calculating that two warheads must be targeted on each enemy missile, one MIRVed missile with ten warheads would theoretically be able to destroy five enemy missiles in their silos; you destroy more of theirs than you have expended of your own. You win the numbers game. In addition, if you don't strike first, it would

theoretically take relatively few of their MIRVed missiles to destroy a larger number of your own -- so you must, as they say in the business, "use 'em or lose 'em." Many strategic analysts fear that in a period of escalating political tensions, when it begins to look as though war may be inevitable, this combination makes "the incentive to strike first" well nigh irresistible.

"Incentive" to launch a nuclear war is said to arise from a particular configuration of weapons, and their hypothetical mathematical interaction. Incentive can only be so narrowly defined because the referents of techno-strategic paradigms are weapons -- not human lives, not even states and state power.

The fact that the subjects of strategic paradigms are weapons has several important implications. First, and perhaps most critically, there simply is no way to talk about human death or human societies when you are using a language designed to talk about weapons. Human death *is* collateral damage -- collateral to the real subject, which is the weapons themselves.

Understanding this also goes some distance toward explaining a phenomenon that was at first so surprising to me: most of the men I met who do this work are on the whole nice, even good, men, many with liberal inclinations. They often identify their *motivations* as being concern about humans -- humans *are* the reference point there. Yet, at the same time, in the work they do, humans are *never* the reference point, because they have entered into a language and paradigm that precludes people. Thus, the nature and outcome of their work can, I believe, utterly contradict their genuine motivation for doing it.

In addition, if human lives are not the reference point, then it is not only impossible to talk about humans in this language, it also becomes in some sense *illegitimate* to ask the paradigm to reflect human concerns. Hence, questions that break through the numbing language of strategic analysis and raise issues in human terms can be dismissed easily. No one will claim that the questions are unimportant; but it is inexpert, unprofessional, irrelevant to the business at hand to ask. The discourse among the experts remains hermetically sealed.

The problem, then, is not only that the language is narrow, but that it is seen by its speakers as complete, or whole unto itself -- as representing a body of truths that exist independently of any other truth or knowledge. The isolation of this technical knowledge from social or psychological or moral thought, or feelings, is all seen as legitimate and necessary. The outcome is that defense intellectuals can talk about the weapons that are supposed to protect particular political entities, particular peoples and their way of life, without actually asking if they *can* do it, or if they are the best *way* to do it, or whether they may even damage the entities you are supposedly protecting. Again, it is not that the men I spoke with would say that these are invalid questions. They would, however, simply say that they are separate questions, questions that are outside what they do, outside their realm of expertise. So their

deliberations go on quite independently, as though with a life of their own, disconnected from the functions and values they are supposedly to serve.

Finally, the third problem is that this discourse has become virtually the only response to the question of how to achieve security that is recognized as legitimate. If the language of weaponry were one competing voice in the discussion, or one that was integrated with others, the fact that the referents of strategic paradigms are only weapons might be of less note. But when we realize that the only language and expertise offered to those interested in pursuing peace talks about nothing *but* weapons, the limits of this language and body of knowledge become staggering. And its entrapping qualities -- the way in which, once you adopt it, it becomes so hard to stay connected to human concerns -- become more comprehensible.

Stage IV: The Terror

As a newcomer to the world of defense analysts, I was continually startled -- by finding likeable and admirable men, by their gallows humor, by the bloodcurdling casualness with which they regularly blew up the world while standing and chatting over the coffee pot. I also *heard* the language they spoke -- heard the acronyms and euphemisms, and abstractions, heard the imagery, heard the pleasure with which they used it.

Within a few weeks, what had once been remarkable became unnoticeable. As I learned to speak, my perspective changed. I no longer stood outside the impermeable wall of techno-strategic language and once inside, I could no longer see it. Speaking the language, I could no longer really hear it. And once inside its protective walls, I began to find it difficult to get out. The impermeability worked both ways.

I had not only learned to speak a language: I had started to think in it. Its questions became my questions, its concepts shaped my responses to new ideas. Its definitions of the parameters of reality became mine. Like the White Queen, I began to believe six impossible things before breakfast. Not because I consciously believed, for instance, that a "surgically clean counterforce strike" was really possible; but instead because some elaborate piece of doctrinal reasoning I used was already predicated on the possibility of those strikes, as well as on a host of other impossible things.[46]

My grasp on what *I* knew as reality seemed to slip. I might get very excited, for example, about a new strategic justification for a "no first use" policy, and spend time discussing the ways in which its implications for our force structure in Western Europe were superior to the older version.[47] And after a day or two of thinking and arguing about the different strategic rationalizations of a "no first use" policy, I would suddenly step back, aghast that I was so involved with the *military* justifications for not using nuclear weapons -- as though the moral

ones were not enough. What I was actually talking about -- the mass incineration of a nuclear attack -- was no longer in my head.

Or I might hear some proposals that seemed to me infinitely superior to the usual arms control fare. First I would work out how and why these proposals were better, and then work out all the ways to counter the arguments against them. But then, it might dawn on me that even though these proposals sounded so different, they still shared a host of assumptions that I was not willing to make -- assumptions about an inevitable, eternal conflict of interests between the U.S. and the U.S.S.R., or the desirability of having some form of nuclear deterrent, or the goal of "managing," rather than ending, the nuclear arms race. After struggling to this point of seeing what united both positions, I would first feel as though I had really accomplished something. And then all of a sudden, I would realize that these new insights were things I actually knew *before I ever entered* this community -- and had since forgotten, at least functionally, if not absolutely.

I began to feel that I had fallen down the rabbit hole -- and it was a struggle to climb back out.

Conclusions

This piece describes only the beginning of a much lengthier, more complex experience which is the subject of a longer work-in-progress. For now, suffice it to say that the issues about language do not disappear after you have mastered techno-strategic discourse. The seductions remain great. You can find all sorts of ways seemingly to beat the boys at their own game; you can show how even within their own definitions of rationality, most of what is happening in the development and deployment of nuclear forces is wildly irrational. You can also impress your friends and colleagues with sickly humorous stories about the way things really happen on the inside. There is tremendous gratification in it, especially for those of us who have been closed out, who have been told that it is really all beyond us and we should just leave it to the benevolently paternal men in charge.

But, as the pleasures deepen, so do the dangers. The activity of trying to out-reason defense intellectuals in their own games gets you thinking inside their rules, tacitly accepting all the unspoken assumptions of their paradigms. You become subject to the tyranny of concepts. The language comes to shape your categories of thought (e.g., here the categories become "good nukes" or "bad nukes," not, nukes or no nukes) and to define the boundaries of imagination (as you try to imagine a "minimally destabilizing basing mode," rather than a way to prevent the weapon from being deployed at all).

Yet, the issues of language have now become somewhat less vivid and central to me. Some of the questions raised by the experiences described here remain important, but others have faded and been superseded by new questions. These, while still not precisely the questions of a full-fledged insider, are questions I could not have had without being inside, without having access to the knowledge and perspective the inside position affords. Many of my questions now are more practical -- which individuals and institutions are actually responsible for the endless modernization and proliferation of nuclear weaponry, and what do they gain from it? What role *does* techno-strategic rationality actually play in their thinking? What would a reasonable, genuinely defensive "defense" policy look like? Others are more philosophical. What is the nature of the rationality and "realism" claimed by the defense intellectuals for their mode of thinking? What are the many different grounds on which their claims to rationality can be shown to be spurious? What is an alternative vision of rationality?

My own move away from a focus on the language is quite typical. Other recent entrants into this world have commented to me that while it is the cold-blooded, abstract discussions that are most striking at first, within a short time "you get past it -- you stop hearing it, it stops bothering you, it becomes normal -- and you come to see that the language, itself, is not the problem."

However, I think it would be a mistake to dismiss these early impressions. They can help us learn something about the militarization of the mind, and they have, I believe, important implications for scholars and activists who seek to create a more just and peaceful world.

Mechanisms of the mind's militarization are revealed through both listening to the language and learning to speak it. *Listening*, it becomes clear that participation in the world of nuclear strategic analysis does not necessarily require confrontation with the central fact about military activity -- that the purpose of all weaponry and all strategy is to injure human bodies.[48] In fact, as Elaine Scarry points out, participation in military thinking not only doesn't require confrontation with, but actually demands the elision of this reality.[49]

Listening to the discourse of nuclear experts reveals a series of culturally-grounded and culturally acceptable mechanisms that serve this purpose, and that make it possible to "think about the unthinkable," to work in institutions that foster the proliferation of nuclear weapons, to plan mass incinerations of millions of human beings for a living. Language that is abstract, sanitized, full of euphemisms; language that is sexy and fun to use; paradigms whose referent is weapons; imagery that domesticates and deflates the forces of mass destruction; imagery that reverses sentient and non-sentient matter, that conflates birth and death, destruction and creation -- all of these are part of what makes it possible to be radically removed from the reality of what one is talking about, and from the realities one is creating through the discourse.[50]

Learning to speak the language reveals something about how thinking can become more abstract, more focussed on parts disembedded from their context, more attentive to the survival of weapons than the survival of human beings. That is, it reveals something about the process of the mind's militarization -- and the way in which that process may be undergone by man or woman, hawk or dove.

Most often, the act of learning techno-strategic language is conceived of as an additive process: you add a new set of vocabulary words; you add the reflex ability to de-code and use endless numbers of acronyms; you add some new information that the specialized language contains; you add the conceptual tools that will allow you to "think strategically." This additive view appears to be held by defense intellectuals themselves; as one said to me, "Much of the debate is in technical terms--learn it, and decide whether it's relevant later."

This view also appears to be held by many in the opposition, be they critical scholars and professionals attempting to change the field from within, or public interest lobbyists and educational organizations, or some feminist anti-militarists.[51] They believe that learning and using the language can be a valuable political tool: some think that our nuclear policies are so riddled with irrationality that there is lots of room for well-reasoned, well-informed arguments to make a difference; others, even if they don't believe that the technical information is very important, see it as necessary to master the language simply because it is too difficult to attain public legitimacy without it. In either case, the idea is that you *add* the expert terms and information to your linguistic repertoire, and proceed from there.

However, I have been arguing throughout this paper that learning the language is a transformative, rather than an additive, process. When you choose to learn it you are not simply choosing to add new information, new vocabulary, but to enter into a mode of thinking -- a mode of thinking not only about nuclear weapons, but also, de facto, about military and political power, and about the relationship between human ends and technological means.

Thus, those of us who find U.S. nuclear policy desperately misguided appear to face a serious quandary. If we refuse to learn the language, we are virtually guaranteed that our voices will remain outside the "politically relevant" spectrum of opinion. Yet, if we do learn and speak it, we not only severely limit what we can say, but we also invite the transformation, the militarization, of our own thinking.

I have no solutions to this dilemma, but I would like to offer a couple of thoughts in an effort to push it a little further -- or perhaps even to reformulate its terms.

First, it is important to recognize an assumption implicit in adopting the strategy of learning the language. When we assume that learning and speaking the language will give us a voice recognized as legitimate and will give us greater political influence, *we are assuming that the language itself actually articulates the criteria and reasoning strategies upon which*

nuclear weapons development and deployment decisions are made. I believe that this is largely an illusion. Although I do not have space to support this argument here, I want to suggest that techno-strategic discourse functions more as a gloss, as an ideological curtain that hides the actual reasons these decisions get made. That rather than informing and shaping decisions, it far more often functions as a legitimation for political outcomes that have occurred for utterly different reasons.[52] If this is true, it raises some serious questions about the extent of the political returns we might get from using it, and whether they can ever balance out the potential problems and inherent costs.

I do not, however, want to suggest that none of us should learn the language. I do not believe that that language is well-suited to achieving the goals desired by anti-militarists, yet at the same time, I, for one, have found the experience of learning the language useful and worthwhile (even if at times traumatic). The question for those of us who do choose to learn, I think, is what use are we going to make of that knowledge?

One of the most intriguing options opened by learning the language is that it suggests a basis upon which to challenge the legitimacy of the defense intellectuals' dominance of the discourse on nuclear issues. When defense intellectuals are criticized for the cold-blooded inhumanity of the scenarios they plan, their response is to claim the high ground of rationality; they are the only ones whose response to the existence of nuclear weapons is "objective and realistic." They portray those who are radically opposed to the nuclear status quo as irrational, unrealistic, too emotional. "Idealistic activists" is the pejorative they set against their own hard-nosed professionalism.

Much of their claim to legitimacy, then, is a claim to objectivity born of technical expertise and to the disciplined purging of the emotional valences that might threaten their objectivity. But if the smooth, shiny surface of their discourse -- its abstraction and technical jargon -- appears at first to support these claims, a look just below the surface does not. There we find strong currents of homoerotic excitement, heterosexual domination, the drive toward competency and mastery, the pleasures of membership in an elite and privileged group, of the ultimate importance and meaning of membership in the priesthood, and the thrilling power of becoming Death, shatterer of worlds. How is it possible to point to the pursuers of these values, these experiences, as paragons of cool-headed objectivity?

I do not wish here to discuss or judge the holding of "objectivity" as an epistemological goal. I would simply point out that as defense intellectuals rest their claims to legitimacy on the untainted rationality of their discourse, their project fails according to its own criteria. Deconstructing strategic discourse's claims to rationality is, then, in and of itself, an important way to challenge its hegemony as the sole legitimate language for public debate about nuclear policy.

I believe that those who seek a more just and peaceful world have a dual task before us -- a deconstructive project and a reconstructive project that are intimately linked.[53] As part of our reconstructive project, we must recognize and develop alternative conceptions of rationality, we must invent compelling alternative visions of possible futures, and we must create rich and imaginative alternative voices -- diverse voices whose conversations with each other will invent a future in which there *is* a future.

But at this moment, the dominant voice of militarized masculinity and decontextualized rationality speaks so loudly in our culture, it is difficult for any other voices to be heard. And it will remain difficult until that dominant voice loses some of its power to define what we hear and how we name the world -- until that voice is delegitimated. Part of our deconstructive task, then, is to pay close enough attention to techno-strategic discourse that we might begin to know how to dismantle it.

* * *

"I don't know what you mean by 'glory,'" Alice said.

Humpty Dumpty smiled contemptuously. "Of course you don't -- till I tell you. I mean there's a nice knock-down argument for you!'"

"But 'glory' doesn't mean a 'nice knock-down argument,'" Alice objected.

"When *I* use a word," Humpty Dumpty said, in rather a scornful tone, "it means just what I choose it to mean -- neither more nor less."

"The question is," said Alice, "whether you *can* make words mean so many different things."

"The question is," said Humpty Dumpty, "which is to be master -- that's all."

Alice was too much puzzled to say anything; so after a minute Humpty Dumpty began again. "They've a temper, some of them -- particularly verbs: they're the proudest -- adjectives you can do anything with, but not verbs -- however, *I* can manage the whole lot of them! Impenetrability! That's what *I* say!"

"Would you tell me, please," said Alice, "what that means?"

"Now you talk like a reasonable child," said Humpty Dumpty, looking very much pleased. "I meant by 'impenetrability' that we've had enough of that subject . . . ."

Lewis Carroll

Notes

1. Thomas Powers, "How Nuclear War Could Start," *The New York Review of Books*, January 17, 1985, p. 33.

2. George Kennan, "A Modest Proposal," *The New York Review of Books*, July 16, 1981, p. 14.

3. It is unusual for defense intellectuals to write for the public, rather than their colleagues, but a recent, interesting exception has been made by a group of defense analysts from Harvard. Their two books provide clear expression of the stance that living with nuclear weapons is not so much a problem to be solved but a condition to be rationally managed. Albert Carnesale and the Harvard Nuclear Study Group, *Living with Nuclear Weapons* (Cambridge, MA: Harvard University Press, 1984), and Graham T. Allison, Albert Carnesale, and Joseph Nye, Jr., eds., *Hawks, Doves, and Owls: An Agenda for Avoiding Nuclear War* (New York: Norton, 1985).

4. For useful introductions to feminist work on gender and language, see Barrie Thorne, Cheris Kramarae, and Nancy Henley, eds., *Language, Gender and Society* (Rowley, MA: Newbury Publishing House, 1983), and Elizabeth Abel, ed., *Writing and Sexual Difference* (Chicago: University of Chicago Press, 1982).

5. For feminist critiques of western rationality, see: Nancy Hartsock, *Money, Sex and Power* (New York: Longman, 1983); Sandra Harding and Merrill Hintikka, eds., *Discovering Reality: Feminist Perspectives on Epistemology, Metaphisics, Methodology and the Philosophy of Science* (Dordrecht, Holland: Reidel, 1983); Evelyn Fox Keller, *Reflections on Gender and Science* (New Haven: Yale University Press, 1985); Jean Bethke Elshtain, *Public Man, Private Woman: Woman in Social and Political Thought* (Princeton, N.J.: Princeton University Press, 1981); Genevieve Lloyd, *The Man of Reason: "Male" and "Female" in Western Philosophy* (Minneapolis, Minnesota: University of Minnesota Press, 1984), which contains a particularly useful bibliographic essay; Sara Ruddick, "Remarks on the Sexual Politics of Reason," forthcoming in *Women and Moral Theory*, eds. Eva Kittay and Diana Meyers, to be published by Rowman and Allenheld.

Some of the growing feminist work on gender and war is explicitly connected to critiques of rationality. See: Virginia Woolf, *Three Guineas* (New York: Harcourt, Brace, Jovanovich, 1966); Nancy C. M. Hartsock, "The Feminist Standpoint: Developing the Grounds for a Specifically Feminist Historical Materialism," in Harding and Hintikka, pp. 283-310; Nancy C.M. Hartsock, "The Barracks Community in Western Political Thought: Prologomena to a Feminist Critique of War and Politics," in *Women and Men's Wars,* ed. Judith Stiehm (Oxford: Pergamon Press, 1983); Jean Bethke Elshtain, "Reflections on War and Political Discourse: Realism, Just War and Feminism in a Nuclear Age," *Political Theory*, vol. 13, no. 1 (February 1985) pp. 39-57; Sara Ruddick, "Preservative Love and Military Destruction: Some Reflections on Mothering and Peace," in *Mothering: Essays in Feminist Theory*, ed. Joyce Trebilcot (Totowa, N.J.: Rowman and Allenheld, 1984), pp. 231-62; Genevieve Lloyd, "Selfhood, War, and Masculinity," in *Feminist Challenges*, ed. E. Gross and C. Pateman (Boston: Northeastern University Press, 1986).

There is a vast and valuable literature on gender and war which is somewhat aslant of what I'm doing, but indirectly informs my work. See, for example: Cynthia Enloe, especially *Does Khaki Become You?: The Militarization of Women's Lives* (Boston: South End Press, 1984); Judith Hicks Stiehm, ed., *Women and Men's Wars*, (Oxford: Pergamon Press, 1983); Jean Bethke Elshtain, "On Beautiful Souls, Just Warriors, and Feminist Consciousness," in Stiehm, pp. 341-348; Sara Ruddick, "Pacifying the Forces: Drafting Women in the Interests of Peace," *Signs 8* (Spring 1983), pp. 471-89; Sara Ruddick, "Drafting Women: Pieces of a Puzzle," *Conscripts and Volunteers: Military Requirements, Socials Values, and the All-Volunteer Force*, ed. Robert K. Fullinwider, Maryland Studies in Public Philosophy (Totowa, N.J.: Rowman and Littlefield, 1983); Amy Swerdlow, "Women's Strike for Peace Versus HUAC," *Feminist Studies*, vol. 8, no. 3, (Fall 1982), pp. 493-520; Mary C. Segers, "The Catholic Bishops' Pastoral Letter on War and Peace: A Feminist Perspective," *Feminist Studies*, vol. II, no. 3, (Fall 1985), pp. 619-647.

6. I have coined the term "techno-strategic" to represent the intertwined, inextricable nature of technological and nuclear strategic thinking. The first reason is that strategic thinking seems to

change in direct response to technological changes, rather than political thinking, or some independent paradigms that might be isolated at "strategic." (On this point, see Lord Solly Zuckerman, *Nuclear Illusions and Reality* (New York: Viking Press, 1982). Even more importantly, strategic theory not only depends upon and changes in response to technological objects, it is also based on a kind of thinking, a way of looking at problems--formal, mathematical modeling, systems analysis, game theory, linear programming--that are part of technology itself. So I use the term "techno-strategic" to indicate the degree to which strategic language and thinking are imbued with, indeed constructed out of, modes of thinking that are associated with technology.

7. Fusion weapons' proportionally smaller yield of radioactive fallout led Atomic Energy Commission Chairman Lewis Strauss to announce in 1956 that hydrogen bomb tests were important "not only from a military point of view but from a humanitarian aspect." Although the bombs being tested were 1,000 times more powerful than those which devastated Hiroshima and Nagasaki, the proportional reduction of fallout apparently qualified them not only as clean, but as humanitarian. Lewis Strauss is quoted in Ralph Lapp, "The 'Humanitarian' H-Bomb," *Bulletin of Atomic Scientists*, vol. XII, no. 7, September 1956, p. 263.

8. I must point out that we cannot know whether to take this particular example literally: America's list of nuclear targets, is, of course, classified. The defense analyst quoted, however, is a man who has had access to that list for at least two decades. He is also a man whose thinking and speaking is careful and precise, so I think it is reasonable to assume that his statement is not a distortion, that "shoe factories," even if not themselves literally targeted, accurately represent a category of target. As such, they are worth thinking about. Shoe factories would be one among many "military targets" other than weapons systems themselves; they would be military targets because an army needs boots. The likelihood of a nuclear war lasting long enough for foot soldiers to wear out their boots might seem to stretch the limits of credibility, but that is not a sufficient reason to assume that they are not nuclear targets. Nuclear targeting and nuclear strategic planning in general frequently suffer from "conventionalization" -- the tendency of planners to think in the old, familiar terms of "conventional" warfare, rather than fully assimilating the ways in which nuclear weaponry has changed warfare.

In avoiding talking about murder, the "defense" community has long been ahead of the State Department. It wasn't until 1984 that the State Department announced it will no longer use the word "killing," much less "murder," in official reports on the status of human rights in allied countries. The new term is "unlawful or arbitrary deprivation of life." *New York Times*, February 15, 1984, as cited in *Quarterly Review of Doublespeak,* vol. XI, no. 1 (October 1984), p. 3.

9. "Kiloton" (or KT) is a measure of explosive power, measured by the number of thousands of tons of TNT required to release an equivalent amount of energy. The atomic bomb dropped on Hiroshima is estimated to have been approximately 12 KT. An MX missile is designed to carry up to ten Mk 21 reentry vehicles, each with a W-87 warhead. The yield of W-87 warheads is 300 KT, but they are "upgradable" to 475 KT.

10. Since the MX would theoretically be able to "take out" Soviet land-based ICBMs in a "disarming first strike," the Soviets would have few ICBMs left for a retaliatory attack, and thus damage to the U.S. would theoretically be limited. However, to consider the damage that could be inflicted on the U.S. by the remaining ICBMs, not to mention Soviet bombers and sub-based missiles "limited" is to act as though words have no meaning.

11. Conservative government assessments of the number of deaths resulting from a "surgically clean" counterforce attack vary widely. The Office of Technology Assessment projects 2-20 million immediate deaths. (See James Fallows, *National Defense* [New York: Random House, 1981], p. 159.) A 1975 Defense Department study estimated 18.3 million fatalities, while the U.S. Arms Control and Disarmament Agency, using different assumptions, arrived at a figure of 50 million, as cited by Desmond Ball, "Can Nuclear War Be Controlled?" Adelphi Paper No. 169 (London: The International Institute for Strategic Studies, 1981).

12. The phrase is Helen Caldicott's. *Missile Envy: The Arms Race and Nuclear War* (Toronto: Bantam Books, 1986).

13. For the uninitiated, "penetration aids" refers to devices that help bombers or missiles get past the "enemy's" defensive systems; e.g., stealth technology, chaff, or decoys. Within the defense intellectual community, they are also familiarly known as "penaids."

14. General William Odom, "C3I and Telecommunications at the Policy Level," in *Incidental Paper: Seminar on Command, Control, Communications and Intelligence*, Spring 1980. Center for Information Policy Research, Harvard University, p. 5.

15. This point has been amply documented by Brian Easlea, *Fathering the Unthinkable: Masculinity, Scientists and the Nuclear Arms Race* (London: Pluto Press, 1983).

16. *Air Force Magazine*, vol. 68, no. 6 (June 1985), p. 77-78.

17. Ibid., p. 114.

18. William L. Laurence, *Dawn Over Zero: The Study of the Atomic Bomb* (London: Museum Press, 1974), p. 198-9.

19. General T. R. Milton, USAF (Ret.), "Nuclear Virginity," in *Air Force Magazine,* vol. 68, no. 5 (May 1985), p. 44.

20. I am grateful to Margaret Cerullo, a participant in the first Summer Program, for reporting the use of this analogy to me, and sharing her thoughts about this and other events in the Program. The interpretation I give here strongly draws on hers.

21. MIRV stands for "multiple independently targetable re-entry vehicles." A MIRVed missile not only carries more than one warhead; its warheads can be aimed at different targets.

22. Henry T. Nash, "The Bureaucratization of Homicide," in *Bulletin of Atomic Scientists* (April 1980), reprinted E.P. Thompson and Dan Smith, eds., *Protest and Survive* (New York: Monthly Review Press, 1981), p. 159. The neutron bomb is notable for the active political contention that has occurred over its use and naming. It is a small warhead that produces six times the prompt radiation but slightly less blast and heat than typical fission warheads of the same yield. Pentagon planners see neutron bombs as useful in killing Soviet tank crews while theoretically leaving the buildings near the tanks intact. Of course, the civilians in the nearby buildings, however, would be killed by the same "enhanced radiation" as the tank crews. It is this design for protecting property while killing civilians along with soldiers that has led people in the anti-nuclear movement to call the neutron bomb "the ultimate capitalist weapon." However, in official parlance the neutron bomb isn't called a weapon at all; it is an "enhanced radiation device."

It is worth noting, however, that the designer of the neutron bomb did not conceive of it as an anti-tank-personnel weapon to be used against the Russians. Instead, he thought it would be useful in an area where the enemy *did not have* nuclear weapons to use. (Samuel T. Cohen, in an interview on National Public Radio, as reported in Fred Kaplan, "The Neutron bomb: what it is, the way it works," *Bulletin of Atomic Scientists*, October 1981, p. 6.)

23. See Elaine Scarry, *The Body in Pain: The Making and Unmaking of the World* (New York: Oxford University Press, 1985), chapter 2, for further discussion of language that reverses sentient and insentient matter, "th[at] exchange[s] idioms between weapons and bodies" (p. 67).

24. For further discussion of men's desire to appropriate from women the power of giving life and death, and its implications for men's war-making activities, see Dorothy Dinnerstein, *The Mermaid and the Minotaur* (New York: Harper & Row, 1977).

25. For further analysis of male birth imagery in the atomic bomb project, see Evelyn Fox Keller, "From Secrets of Life to Secrets of Death." Paper delivered at The Kansas Seminar, Yale University, November 20, 1986; and Easlea (note 15 above).

26. Lawrence is quoted by Herbert Childs in *An American Genius: The Life of Ernest Orlando Lawrence* (New York: Dutton, 1968), p. 340.

27. Feynman writes about the telegram in Richard P. Feynman, "Los Alamos from Below," in Lawrence Badash, Joseph O. Hirshfelder, and Herbert P. Broida (eds.), *Reminiscences of Los Alamos 1943-1945* (Dordrecht, Holland: Reidel, 1980), p. 130.

28. Hans Bethe is quoted as saying that "Ulam was the father of the hydrogen bomb and Edward was the mother, because he carried the baby for quite a while" in J. Bernstein, *Hans Bethe: Prophet of Energy* (New York: Basic Books, 1980), p. 95.

29. The MILSTAR system is a communications satellite system which is jam resistant, as well as having an "EMP-hardened capability." (This means that the electromagnetic pulse set off by a nuclear explosion would theoretically not destroy the satellites' electronic systems.) There are, of course, many things to say about the sanity and morality of the idea of the MILSTAR system and of spending the millions of dollars necessary to EMP-harden it. The most obvious point is that this is a system designed to enable the U.S. to fight "a protracted nuclear war" -- the EMP-hardening is to allow it to act as a conduit for command and control of successive nuclear shots, long after the "initial exchange." The practicality of the idea would also appear to merit some discussion -- who and what is it going to be communicating to and from after the "initial exchange"? And why bother to harden it against EMP when all an opponent has to do to prevent the system from functioning is to blow it up, a feat certain to become technologically feasible in a short time? But, needless to say, exploration of these questions was not part of the briefing.

30. Robert Jungk, *Brighter Than a Thousand Suns*, trans., James Cleugh (New York: Harcourt, Brace & Co., 1956), p. 197.

31. Richard E. Hewlett and Oscar E. Anderson, *The New World, 1939/46: A History of the United States Atomic Energy Commission*, 2 vols. (University Park: Pennsylvania State University Press, 1962) vol. 1: p. 386.

32. Winston Churchill, *The Second World War*, vol. 6, "Triumph and Tragedy" (London: Cassell, 1954), p. 551.

33. Quoted by Easlea, p. 130.

34. William L. Laurence, *Dawn Over Zero: The Story of the Atomic Bomb* (London: Museum Press, 1947), p. 10.

35. William L. Laurence, *Dawn over Zero*, p. 188.

36. From a 1985 interview in which Holloway was explaining the logic of a "decapitating" strike against the Soviet leadership and command and control systems -- and thus how nuclear war would be different from World War II, which was a "war of attrition," in which transportation, supply depots and other targets were hit, rather than a "big bang." Daniel Ford, "The Button," Part II, *The New Yorker,* vol. 61, no. 7, April 8, 1985, p. 49.

37. Jungk, p. 201.

38. Hisako Matsubara, *Cranes at Dusk* (Garden City, New York: Dial Press, 1985). The author was a child in Kyoto at the time the atomic bomb was dropped. Her description is based on the memories of survivors.

39. General Robert Rosenberg, formerly on the National Security Council staff during the Carter Administration, speaking at the Harvard Seminar on C3I. "The Influence of Policy Making on C3I," in *Incidental Paper: Seminar on Command, Control, Communications and Intelligence*, Spring 1980. Center for Information Policy Research, Harvard University, p. 59.

40. Two other writers who have remarked upon this division of languages between the "victims" and the professionals (variously named) are Freeman Dyson, *Weapons and Hope* (New York: Harper & Row, 1984) and Glenn D. Hook, "Making Nuclear Weapons Easier to Live With: The Political Role of Language in Nuclearization," *Journal of Peace Research*, vol. 22, no. 1 (1985), pp. 67-77. Dyson notes that there are two languages in the current discussion of nuclear weapons, which he calls the language of "the victims" and the language of "the warriors." He sees the resulting problem as being the difficulty the two groups have in communicating with each other, and thus in appreciating each other's valid concerns. His project, then, is the search for a common language, and a good portion of the rest of the book is directed toward that end. Hook follows Camus in naming the two groups "the victims" and "the executioners." He is more explicit than Dyson about naming these as perspectives, as coming from positions of greater or less power, and points out that those with the most power are able to dominate and define the terms in which we speak about nuclear issues, so that no matter who we are, we find ourselves speaking as though we were the users, rather than the victims of nuclear weapons. Although my analysis of perspectives and the ways in which language inscribes relations of power is similar to his, I differ from Hook in finding in this fact one of the sources of the experts' relative lack of fear of nuclear war.

41. The "strategic triad" refers to the three different modes of basing nuclear warheads: at land, on intercontinental ballistic missiles; at sea, on missiles housed in submarines; and "in the air," on the Strategic Air Command's bombers. Given that nuclear weapons based on submarines are "invulnerable" (i.e., not subject to attack), since there is not now nor likely to be in the future any reliable way to find and target submarines, many commentators (mostly from outside the community of defense intellectuals) have suggested that the Navy's leg of the triad is all we need to ensure a capacity to retaliate against a nuclear attack. This suggestion that submarine-based missiles are an adequate deterrent becomes especially appealing when you consider that the other basing modes -- ICBMs and bombers -- act as targets that would draw thousands of nuclear attacks to the American mainland in time of war.

42. For an interesting recent discussion of the role of language in the creation of professional power, see JoAnne Brown, "Professional Language: Words That Succeed," *Radical History Review*, no. 34 (1986), pp. 33-51.

43. For a detailed account of the development of strategic doctrine, see Fred Kaplan, *The Wizards of Armageddon* (New York: Simon & Schuster, 1983), and Gregg F. Herken, *The Counsels of War* (New York: Knopf, 1985).

44. The work of Steven Kull provides thought-provoking data on the extent to which defense intellectuals are themselves actually aware of the disjunctions between their internally logical systems and the outside world. It would appear that on some level, some of the time, some of these men are aware of this disjunction. Their justification for going on using these models is that "other people" (unnamed, and, upon questioning, unnameable) believe in the models, thus giving them an important reality. See "Nuclear Nonsense," *Foreign Policy*, no. 58 (Spring 1985), pp. 28-52; and "Mind-Sets of Defense Policy-Makers," *The Psychohistory Review*, vol. 14, no. 3 (Spring 1986), pp. 21-37.

45. Charles Krauthammer, "Will Star Wars Kill Arms Control?," *The New Republic*, Issue 3, 653, January 21, 1985, pp. 12-16.

46. For an excellent discussion of the myriad uncertainties that make it ludicrous to assume the targeting accuracies posited in the notion of "surgically clean counterforce strikes," see Fallows, chapter 6.

47. "No first use" refers to the commitment to not be the first side to introduce nuclear weapons into a "conventional" war. The Soviet Union has a "no first use" policy, but the United States does not. In fact, it is NATO doctrine to use nuclear weapons in a conventional war in Western Europe, as a way of overcoming the Warsaw Pact's supposed superiority in conventional weaponry and troop strength.

48. For an eloquent and graphic exploration of this point, see Scarry, p. 73.

49. Scarry catalogues a variety of mechanisms that serve this function (60-157). The point is further developed by Sara Ruddick, "The Rationality of Care," forthcoming in Jean Bethke Elshtain and Sheila Tobias, eds., *Thinking About Women, War, and the Military* (Totowa, N.J.: Rowman and Allenheld, 1987).

50. My discussion of the specific ways in which this discourse creates new realities is in the next part of this project, entitled, "The Emperor's New Armor." I, like many other social scientists, have been influenced by post-structuralist literary theory's discussion of de-constructing texts, point of view and narrative authority within texts, and take the language and social practice of the defense intellectuals as a text to be read in this way. For a classic introduction to this literature, see Josue Harari, ed., *Textual Strategies: Perspectives in Post-Structuralist Criticism* (Ithaca, New York: Cornell University Press, 1976); and Jacques Derrida, *Of Grammatology* (Baltimore: Johns Hopkins University Press, 1976).

51. Perhaps the most prominent proponent of this strategy is Sheila Tobias. See, for example, "Demystifying Defense: Closing the Knowledge Gap," *Social Policy*, vol. 13, no. 3 (1983), pp. 29-32; and Sheila Tobias, Peter Goudinoff, Stefan Leader, and Shelah Leader, *What Kinds of Guns Are They Buying for Your Butter?* (New York: William Morrow & Co., 1982).

52. I develop this argument at greater length in a work-in-progress: "The Language of Peace or a Piece of the Language?".

53. Sandra Harding and Merrill Hintikka articulate the model of the deconstructive and reconstructive projects of feminist philosophical inquiry in Harding and Hintikka, op. cit., pp. ix-xix, esp. p. x.

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*These papers also appear in *Multilingua* (January/April 1988).