Electronic Theses and Dissertations, 2004-2019

2005

Ritual, Myth, And Symbol In The Field Of Nuclear Posturing

Sean Noah Walsh
University of Central Florida

RITUAL, MYTH, AND SYMBOL IN THE FIELD
OF NUCLEAR POSTURING

by

SEAN WALSH
B.A. University of Central Florida, 1998

A thesis submitted in partial fulfillment of the requirements
for the degree of Master of Arts
in the Department of Political Science
in the College of Arts & Sciences
at the University of Central Florida
Orlando, Florida

Summer Term
2005

ABSTRACT

Since their inception, the actual use of nuclear weapons in conflict is extremely limited. There have been only two documented occurrences which were committed exclusively by the United States. By contrast, however, state posturing with nuclear weapons occurs with regularity transcending historical situations, national wealth, military power, or even the actual possession of nuclear weapons. Rationalist arguments that depict nuclear posturing as a means of deterrence appear insufficient given its tendency to unbalance perceptions of equilibrium, and the public nature in which it occurs.

Instead, I examine nuclear posturing by the United States during the Cold War as a form of political ritual providing for three distinctive, but complementary functions. First, posturing was a means to create coherence between foreign nuclear policy and domestic civil defense by manipulating symbols of fear. Second, posturing allowed the state to present itself in its new role as a shamanic authority over a new and powerful realm. Finally, posturing allowed for a normalization of the contradictory roles assumed by the state as it upheld its commission to defend the citizenry by means that would most probably destroy them all.

I wish to dedicate this work to Nancy and Sheldon Walsh for their tireless encouragement and endless support.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

LIST OF ACRONYMS/ABBREVIATIONS

A-Bomb   Atomic Bomb

FCDA   Federal Civil Defense Administration

H-Bomb   Hydrogen Bomb

ICBM   Intercontinental Ballistic Missile

NPR 2002   Nuclear Posture Review 2002

NPT   Non-Proliferation Treaty

MOAB   Massive Ordnance Air Burst

MOP   Massive Ordnance Penetrator

SDI   Strategic Defense Initiative

CHAPTER ONE: DETERRENCE, BALANCE, AND MAGIC

Three Theoretical Perspectives on Nuclear Posturing

I. Introduction

In early 2002 parts of a United States government document entitled the "Nuclear Posture Review" became public. Some sections were disseminated by the Bush administration; others were leaked to news publications such as the Los Angeles Times and the New York Times. The public aspect of the Nuclear Posture Review detailed a reduction in force of standing nuclear armaments from 6,000 to between 1,700 and 2,200 with much of the remainder being diverted to a reserve force over a ten-year period. It was however, the so-called "leaked" portion of the review that drew the most attention. In addition to the section concerning reduction in standing arms, the Nuclear Posture Review 2002 described a shifting of contingency strategies away from a mainly Russian orientation toward considering Iran, Iraq, China, Libya, Syria, North Korea, in addition to Russia as the potential targets of nuclear action.[1]

Richard Price and Nina Tannenwald established that even where the use would constitute a clear and considerable advantage, nuclear weapons have only rarely been employed. To do so, they argue, would violate a taboo (Price and Tannenwald, 1996).[2] Still, something solitary remains present in the absence of the actual use of nuclear weapons. Whereas many taboos tend

---

[1] "Profile: Nuclear Posture Review". NPR.org. 2002. National Public Radio. March 11, 2002. http://www.npr.org

[2] This particular taboo is an asymmetrical proscription against all but the symbolic use of nuclear weapons.

to govern the totality of the concept, proscribing against act and idea, states appear to have considerable latitude in gesturing with nuclear weapons symbolically. For example it would be generally inadvisable for an individual, or group for that matter, to announce that they were planning incest, or that if certain conditions were met they would respond with incest. The taboo restricts all aspects of the concept. Within the realm of nuclear weapons, only the actual is restricted while states remain less inhibited in their ability to posture. It is the functions of nuclear posturing, and the effects created by it as it circumvents the strictures of taboo that require further explanation.

Nuclear posturing is generally conceptualized in terms of its deterrent value. As varying forms of behavior, it is regarded as the capacity of the state to project representations, whether accurate or otherwise, of its nuclear power. Ostensibly, the symbolic gesturing of such force should mitigate the necessity of mobilizing a potent and ubiquitous conventional military. There remains little reason to suspect the stated objective of posturing as something other than a means to dissuade potential adversaries from initiating an attack. However, the various types of expressions manipulated in posturing create a multiplicity of observers. Beyond merely any potential or perceived adversary, posturing often involves a domestic audience, thereby establishing a link between what is presumably a purely foreign doctrine, the state that issues it, and its domestic constituency. Though it may therefore be argued within reason that its aim is to deter potential aggression from other states, nuclear posturing concurrently engenders a variety of other effects on the various categories of actors that observe it. It is those consequential functions of nuclear posturing on its various participating constituencies that is the object of exploration in this project.

This study will explore the functions concerning the use of nuclear gestures among and between states from a neorealist, rational choice, and finally critical theory perspective. Conceptually, nuclear posturing is a state-originated expression of orientation or policy regarding the capabilities and usage of nuclear weapons. Posturing will include speech-acts, such as declarations and threats, texts, such as treaties, references, and directives, along with physical exercises such as testing. Declarations may be those statements of capability or intent without any overtly specified target. Threats, regardless of how subtly they are issued, are invariably intended for some specific actor or group. The functions provided to states for international audiences by acts or gesturing will be considered along with an inverted domestic effect. The realist and rational choice arguments cannot be dismissed, and in fact provide considerable value toward understanding the manifest international dimension of the phenomena. However, they will ultimately be inadequate in accounting for the various ontological characteristics of nuclear posturing. Instead, analysis centering on the anthropological aspects (which one can label critical theory or constructivist if one chooses) finds that the act of nuclear posturing possesses the qualities and characteristics, and subsequently generates effects on its participants indicative of ritual behavior. Firstly, nuclear posturing will be examined for its effects on the category of the individual, where the effort to create a congruency between foreign and domestic policies through the manipulation of symbols facilitated the development of an altered identity. Next, the ritual nuclear posturing on the state will be analyzed as it depicts the historic conjunction of scientific and governing institutions resulting in a synthetic combination of technology and governance. Finally, cultural structure, in the form of the mythological corpus integral to nuclear

posturing and nuclear discourse will be explored revealing an effort to mediate ideological

contradictions pertaining to perceived responsibilities of the state.

II. A Brief Narrative of Nuclear Gestures

States adopt a nuclear posture through gestures such as speech-acts, texts (formal or

otherwise), and those actions that could be characterized as the more overt demonstrations of

nuclear force such as testing. Posturing signifies behavioral expectations (such as retaliation

doctrines), contingent upon the perception of possessing nuclear armaments. While posturing is

heavily documented within the United States, it is not unique to the superpowers, or even to

wealthy nations. In fact, nuclear posturing does not even require the actual possession of a

nuclear weapon, only the perception of one. The act of posturing is a relationship. An act cannot

be considered posturing if it is done entirely in secret. Thus while the French nuclear tests near

Tahiti in 1995 do not outwardly appear to be directed toward any specific nation, the public

nature of the event generates a world-audience.[3]

The Cold War

Whereas the atomic bombs used toward the end of World War II appear as the only

incidents of their kind, the act of threatening the use of nuclear weapons appears to be hardly

exceptional in any way. The first such threat describing the implementation of this weapon of

unusual magnitude, originates from the Potsdam conference of Truman, Churchill, and Stalin,

and predates the bombing of Hiroshima by approximately ten days (Finnis, Boyle, and Grisez

1987: 11). It bears the distinction of being the only nuclear posture of its kind; that is the only threat ever to be succeeded by the actual use of nuclear weaponry.

Though there was never any formal declaration establishing the beginning of the Cold War, the creation of National Security Council Document 68 captured the essence of these new hostile conditions. The finding, approved by President Truman, set the precedent for a doctrine of massive retaliation, specifically identifying the leadership of the Soviet Union as the most likely target of such a treatment (Finnis, Boyle, and Grisez 1987: 11). In 1954 Secretary of State John Foster Dulles reiterated a program of deterrence by means of massive retaliation in a public speech to the Council on Foreign Relations (Freedman 1986: 740). President Eisenhower's State of the Union Address for 1958 declared that the armed forces of the United States represent to an enemy "the prospect of virtual annihilation of his own country" (Finnis, Boyle, and Grisez 1987: 12). In 1960 Secretary of Defense Thomas Gates adjusted the massive retaliation deterrence to a "counterforce theory" of deterrence in testimony to the House Appropriations Committee (Finnis, Boyle, and Grisez 1987: 13).

During the Kennedy Administration, Defense Secretary Robert McNamara delivered several, public addresses concerning strategy for nuclear weapons use. In January of 1962 he announced that flexibility would be factored into offensive capabilities providing for the optional targeting of Soviet population centers (Finnis, Boyle, and Grisez 1987: 14 and Brown 1965:

---

[3] "France Continues Nuclear Testing Despite Condemnation". December 28, 1995. http://www.npr.org

118). Restraints against targeting cities were followed in February of 1965 by his testimony

regarding strategies to the Senate Appropriations and Armed Services Committee Joint Hearings:

> *"….we have basically two requirements for this strategic offensive force. One is to have such power that the Soviets will understand that they would be literally destroyed if they were to launch against us" (Finnis, Boyle, and Grisez 1987: 15).*

Public calls for nuclear force reorganization were tempered with descriptions of strategic

effect. In 1974 Defense Secretary James R. Schlesinger called for options more flexible than that

of "surrender or suicide", while concurrently stating "the terrifying elegance" second-strike

capabilities provided in being able to devastate the population and industry of an enemy (Finnis,

Boyle, and Grisez 1987: 16). Public address of nuclear strategy and capability continued through

the 1970's and 1980's with the affirmation that Soviet cities would no longer be targeted[4] and

even discussion with religious authorities regarding the morality of nuclear warfare[5]. President

Reagan aptly summarized the object of deterrence in 1985:

> *"Peacekeeping policy is based on the threat that if they kill our people, we'll kill theirs" (Finnis, Boyle, and Grisez 1987: 27).*

Concurrent to the aforementioned American examples, the Soviet Union issued its own

series of nuclear laden gestures with comparable repetitiveness during the Cold War. On

occasion, such expressions would incorporate American gestures. Defense Minister Rodian

Malinovsky during an address to the twenty-third Congress of the Communist Party of the

Soviet, for instance, cites an assessment by Defense Secretary McNamara that a Soviet missile

---

[4] 1976, Secretary of Defense Elliot Richardson testified before the House Armed Services Committee (Finnis, Boyle, and Grisez 19)

[5] January 15, 1983 National Security Advisor William Clark corresponds with US National Conference of Catholic Bishops who were examining the morality of deterrence policy. (Finnis, Boyle, and Grisez 23)

attack could "result in the annihilation of 149,000,000 people" (Malinovsky 1968: 285). Within

the context of the very same speech, the Defense Minister declares:

> *"Here the coals of the last war continue to glow; they can light the fires of a new*
> *war, which would be nuclear and still more destructive and catastrophic in its*
> *results" (Malinovsky1968: 281).*

During the same convention of the twenty-third Congress, General of the Army A.A. Yepishev

declared:

> *"Powerful atomic and thermonuclear weapons, rockets, for various combat*
> *designations, supersonic airplanes, atomic submarines, radioelectronics, and*
> *many other things- this is what determines the Armed Forces present image"*
> *(Yepishev1968: 292).*

Kintner and Scott (1968: 11) suggest a debate exists between characterizing this type of speech

as a form of externally directed "psychological warfare", or strictly for internal consumption.

Ex-Superpowers

Speech acts imbued with messages of the intent to respond to certain variables with

retaliatory nuclear force, or the more overt material display of nuclear testing, the conclusion can

be reached that such gestures sometimes constitute a threat (even if non-specific, and relatively

benign). The phenomenon is not uniquely American nor, given the proliferation of nuclear

weapons since 1945, isolated to the context of the Cold War. Reacting to the end of Cold War

hostilities, the United States produced a Nuclear Posture Review 1993-94 in January of 1994.

Much like the 2002 document, the 93-94 review was largely leaked before it was officially

presented. Though it attempted to portray the United States and Russia as former adversaries, the

orientation of the posture remained much the same, seeking to "assist Russian denuclearization" (Nolan 1999: 58). The focus was still on Russia.

And while the prolificacy of the Russian response became graduated, it did not cease altogether. In December of 1999, Russian President Boris Yeltsin, reacting to pressure by the Clinton Administration over the Russian war in Chechnya, stated:

> *"Russia has a full arsenal of nuclear weapons, but Clinton decided to flex his muscles. I want to say to Clinton that he should not forget in what kind of world he lives."[6]*

A short time later, then acting-President Vladimir Putin declared that Russia would reduce its threshold on conditions that would provoke a nuclear response.[7]

Non-Superpowers

Shortly before its 1995 Pacific tests, France released a "White Paper" describing the "credibility of the French deterrent posture" (Tertrais 1999: 16). The document supported the use of nuclear arms under two scenarios: a large-scale conflict, or a regional confined conflict affecting national interests. Following the release of the Strategic Defense Review, the government of the United Kingdom announced concurrent with its nuclear force reduction:

> *"the UK's missiles are 'operationally entirely independent of the US and do not require any US data or inputs in order to be targeted and fired" (Tertrais 1999: 15).*

---

[6] "'Don't Interfere' Yeltsin Warns Clinton". <u>BBC.com.</u> 1999. British Broadcasting Corporation. December 9, 2000. http://news.bbc.co.uk/1/hi/world/europe/556532.stm

[7] "Russia Lowers Nuclear Threshold". <u>BBC.com.</u> 2000. British Broadcasting Corporation. January 14, 2000.

Developing Nations

In May of 1998, India enacted a series of nuclear tests.[8] Later that month, Pakistan announced that it had carried out nuclear tests of its own.[9] With three wars waged against each other since their founding, the object of the tests was undoubtedly each other. However, the dominant regional power, China, is also thought to be a recipient of the gesture that two of its neighbors are nuclear armed.[10] In the case of Pakistan, with some 35% of its population below the poverty line[11], great wealth has not been required to engage in nuclear posturing.

Perceptions

Even nations that are alleged to be concealing their nuclear weapons can engage in such posturing. In February of 2000, the Israeli Knesset held a public discussion of the national nuclear weapons program. The discussion was apparently "reluctant" on the part of many participating legislators and quickly devolved into shouting (though the occurrence of high-volume exchanges is not unusual to the Knesset). Toward the conclusion of the discussion, Minister Haim Ramon refused to acknowledge the existence of any nuclear weapons, stating:

"Secrets such as this are necessary to Israel's existence and its defense." [12]

Similar ambiguous statements, such as the denial of a joint Israeli-South African nuclear test in 1979 (Van Creveld 1998: 278) appear to contrast with the stark punishment received by Mordechai Vannunu for revealing an ostensibly non-existent weapons program.[13]

---

[8] "Does Nuclear Status Boost India's Clout?". BBC.com. 2003. British Broadcasting Corporation. May 12, 2003.
[9] "Global Politics". 1998. NPR.org. National Public Radio. May 31, 1998.
[10] "India-Pakistan Military Balance". BBC.com. 2003. British Broadcasting Corporation. May 9, 2003.
[11] http://www.cia.gov/cia/publications/factbook/geos/pk.html
[12] "Profile: Israel's Knesset Discussion on Country's Nuclear Weapons". NPR.org. 2000. National Public Radio. February 2, 2000.

And while Israel operates on the perception that most nations believe they have nuclear weapons, since October of 2002, North Korea has issued a series of statements translated in the West as suggesting they are nuclear armed, contradicting conventional belief in that regard. Regardless of whether the statements were intentionally arranged to be duplicitous, North Korea used its potential as a nuclear weapons bearing state to manipulate bargaining with the United States and South Korea. In both cases, it is the perception and the possibility that states may have nuclear weapons that allows them to behave in a different manner, utilize certain gestures, and maintain a particular posture.

Treaties

Treaties may represent one of the more enigmatic attempts at posturing with nuclear weapons since they typically signify a de-escalation of forces or intentions. Yet they qualify precisely because this signifies often as much about positive nuclear doctrine as it does negative. In other words those features of treaties that attempt to narrow the scope of possession or behavior assist in creating a posture in the segmented domain of their antithesis. Thus, the Nuclear Non-Proliferation Treaty, which is designed "to prevent the spread of additional nuclear weapons" (Power 1986: 477) to states that do not currently possess them is as much an expression of hegemony as it is an attempt to somehow limit the possibility for nuclear catastrophe. As Ryukicki Imai (1978: 62) argues, the NPT is a "reflection of US national interest, but not of the universal moral principle of banning all nuclear weapons". Similarly, Gunter Hildenbrand (1978: 54) argued the Non-Proliferation Treaty "is designed to maintain the

[13] "Analysis: Release of a Former Israeli Nuclear Technician Who Has Been In an Israeli Prison for 18 Years". 004.

dependence of importing countries on the United States" for fuel essential to civilian energy programs, while P.R. Chari (1978: 60) agrees that non-proliferation regimes entirely neglect the problem of "vertical proliferation". The NPT clearly delineates who has nuclear weapons, who does not have them, and essentially who can have them according to who does have them. The treaty becomes incorporated into the policy of nuclear states and the gestures they express regarding those policies.

Less of a substantive effort at posturing than the NPT, the Limited Test Ban Treaty was more of a structural arrangement whereby the parties involved mutually agreed on the acceptable manner of how posturing could be conducted. The treaty which, as its proper title suggests, bans the testing of nuclear weapons "in the Atmosphere, in Outer Space, and Under Water" (Bonham, Sergeev, and Parshin 1997: 215) constrains the manner by which nuclear states may express themselves in an evident fashion. Treaties provide not only for the means to posture (as in expressing interest on the exclusivity of nuclear weapons possession, but for strictures on the proper means to posturing itself.

To summarize, nuclear posturing appears to transcend weak and strong state models. Wealthy and developing nations both engage in the practice. States which have the largest arsenals, to states hiding alleged stockpiles, to states that might not even possess a single nuclear device can engage in the practice. Acts that may be "different in form, and dispersed in time form a group if they refer to the same object" (Foucault 1977: 32) similarly define the nuclear

---

National Public Radio. March 4, 2004.

discourse. Beyond even what might traditionally be thought of as nuclear posturing, can be considered as applicable to the practice. A host of state-initiated behaviors that perhaps defy a rigorous, definitive taxonomy can be conceptualized in this manner as states project the substantive nature and policy orientations of their respective arsenals.

III. A Continuum of Non-Posturing

Nuclear posturing is distinguished from other forms of posturing by its physically unique nature. In March 2002, the United States military distributed video footage for its test of the "MOAB" (Massive Ordnance Air Burst) shortly before its invasion of Iraq. Though the bomb itself was never used, the publicity surrounding the test suggested the United States' military was "engaged in a psychological warfare campaign against the Iraqi military".[14] Nuclear posturing is differentiated from this type only with respect to the category of weaponry. The MOAB episode might be considered akin to the posturing of nuclear weapons in that its use has been threatened but never substantiated. In fact, though not one MOAB has ever been used in combat, the United States Air Force announced plans in July 2004 for a similar device, the Massive Ordnance Penetrator. Designed to destroy targets entrenched deep beneath the ground; the MOP would be even larger than the MOAB.[15]

The MOAB, and its presently hypothetical cousin, the MOP are part of a long lineage of super-conventional weapons, such as the "Daisy Cutter" (another extremely large explosive used

---

[14] US Tests Massive Bomb. http://news.bbc.co.uk/1/hi/world/americas/2842619.stm
[15] 'Bunker busters' may grow to 30,000 pounds. http://www.cnn.com/2004/US/07/20/big.bomb/index.html

in the Afghan campaign of 2001) that have seen repeated use. They are distinguished from conventional ordnance largely by their magnitude. But the science which conceived of nuclear weapons will continue to render everything in its category as unique. Thus, there is posturing, and there is posturing with nuclear weapons, and the latter has remained distinctive if only by virtue of its specialized brand of science.

Under that same precept, it is the acquisition and continued exposition of that science that allows a state to create a posture of its nuclear arms. Posturing cannot be considered any expression, but those that indicate a programmatic approach toward achieving and perpetuating a nuclear weapons-oriented policy. Clandestine subterfuge notwithstanding, the abandonment of its nuclear weapons program by Libya in late 2003 does not qualify as nuclear posturing.[16] Though the announcement to end the initiative is an expressive orientation of the state's policy, it is a renouncement of the inimitable science that presents nuclear posturing unique. In essence, the abandonment of its nuclear weapons program was a form of conventional weapons posturing, as it suggests Libya (if one assumes it is being completely forthright) will rely on means other than nuclear, biological, and chemical weapons to ensure its defense. From the MOAB and MOP to the Libyan program repudiation, the critical components of nuclear weapons posturing can be elucidated. It may seem self-evident that nuclear posturing is distinguished by its nuclear modifier, and that it must indicate some orientation toward developing and maintaining nuclear capabilities, but it is also useful to consider how this form of posturing is unique from others as the various explanations are made for why such behavior is permissible in the first place.

---

[16] "Analysis: Libya To Disband Its Development of Weapons of Mass Destruction". http://www.npr.org

Posturing with nuclear weapons remains a fundamentally different category than posturing with other weapons and requires its own explanations.

In addition to its decidedly nuclear character, posturing, as considered in this research, must be public in the sense that its form and substance are freely observable. Therefore, private messages between elites that interminably remain private cannot be analyzed herein. Apart from the basic epistemic complications of being unable to empirically study them, the ontological status of such messages is quite reasonably questionable until they become public. In essence, the very existence in addition to the substance of private messages cannot be verified or observed, and cannot reasonably be considered posturing until the condition of privacy changes.

Contradistinctively, messages issued between elites that originated in a private fashion but have become public are applicable to the concept of posturing considered here precisely because they can no longer be considered private. Once publicly accessible, private acts of posturing become incorporated into the public discourse and lose their distinctive secrecy. Thus, archived recordings of President Kennedy declaring, "Of course, we then announce, well, if they do that, then we're going to attack with nuclear weapons" (Bundy 1985: 179) released decades after the Cuban Missile Crisis may no longer be situated in their original context, but continue carrying the indivisible denominator of nuclear weapons and American power. Communications, once limited between select groups of individuals, now declassified continue to serve as a reminder of the possession and potency of the state in the form of its nuclear weapons.

IV. Rationalist Explanations

In the estimation of realism, the currency of politics is "interest defined in terms of power" (Morgenthau 1948: 5). The acquisition and maintenance of power is the fundamental objective of states, and their actions must be understood in this context. Those states that do not comply with this basic, universal law of politics risk becoming powerless, and subject to the power of other states. Power is the immutable commodity because, as Kenneth Waltz stated, the international system is essentially lawless:

> *"With many sovereign states, with no system of law enforceable among them, with each state judging its grievances and ambitions according to the dictates of its own reason or desire-conflict, sometimes leading to war, is bound to occur" (Waltz 1954: 159).*

In an international system, where essentially there are no avenues of significance to redress complaints, or rectify perceived wrongs, realists argue that the only indisputable means of preserving interests is through the accumulation, and expression of power. For Hans Morgenthau, the manifestation of power is determined by the particular goals demanded from a culturally and historically fixed polity (Morgenthau 1948: 11). Thus, whereas states in one particular period might seek territorial acquisition, another period may find states seeking access to new markets, gold, or some other material means to enhancing their relative power.

Given this necessary fixation with power, realism might suggest, the motivation that compels states to initiate nuclear gestures is lucid. Nuclear gestures help preserve sovereignty by displaying power and demonstrating virility to other states. By offering threat-gestures, with varying degrees of hostility according to the perceived counter-threat posed by the object of the

gesture, states warn others not to impede on their sovereignty. For the United States in the post-Cold War era, nuclear testing could be perceived in a dispersed manner, providing there are no intended targets of the message at the time. For Pakistan in 1998, nuclear testing would be perceived by India in a very specific kind of way. Yet, for both cases the posture carries with it messages of deterrence to enemies, potential and existent, general and specified.

States involved in a game of deterrence, attempting to influence each other against launching an attack, are essentially seeking equilibrium. For George Tsebelis, actors will employ information to engage in strategies designed to achieve mutual equilibrium (Tsebelis 1990: 28), unless an alternative strategy will not incur negative consequences. If the nuclear arena can be likened to a game of "chicken", parity is established when all actors receive the same outcome.[17] This can be accomplished by simultaneously either using their weapons leading to a homogenously undesirable outcome (provided one ranks survival high among their preferences), or not using their weapons at all.

Deterrence was the prevailing theme within United States nuclear posture for the larger duration of the Cold War and more recent gestures, such as the Nuclear Posture Review 2002 perpetuate the concept. While the document states that the post-Cold War context is characterized by "varying and unequal stakes" as opposed to the "survival stakes" of the standoff

---

[17] In game theory "chicken" could be understood as a high stakes game wherein two actors compete to see which of them will back down first. In terms of nuclear warfare, if both actors commit, both will probably die. If both desist, they both live. If one actor commits, while the other desists, the second actor dies. Thus, parity is only achieved when both parties commit or desist to a relatively similar degree. This is true both of escalation or actual conflagration.

between the Soviet Union and United States, the objectives manifestly stated are: "assure, dissuade, deter, defeat".[18]

Accounting for Different States

Waltz' structural approach to realism hypothesized that the anarchical relationship between dissimilar states would motivate them toward similar behavior (Burchill 1996: 90). Ideological opposites, such as the Soviet Union and the United States during the Cold War, could be observed engaging in imitable patterns. Likewise, nuclear armed countries (or those thought to be) approach the international structure with a means to power different than non-nuclear states, but similar to each other. Thus, the gestures of open nuclear testing conducted first by superpowers, were reproduced by Britain, France, China, India, and Pakistan.

Counterargument

Realism explains, effectively, the structural environment that motivates states to communicate their capabilities with each other. In order to dissuade potential aggressors, states will convey information regarding their material capabilities. It is, however, the very means of this conveyance that presents the realist explanation as inadequate. Equilibrium is lost in the public character of posturing as states present themselves in terms of comparatively superior power. And while deterrence is undoubtedly the stated intention of nuclear posturing, the latent content integral within these symbolic acts is the very mechanism of ontological and pedagogical transformation.

---

[18] Nuclear Posture Review 2002. http://www.defenselink.mil/news/Jan2002/020109-D-6570C-001.pdf

The object of nuclear posturing is to present actor A as possessing more power by demonstrating either the superiority or quantity of its weapon systems. Posturing, therefore, alters the fundamental equality inherent to the game of "chicken", and introduces the added dimensions of perception and misperception. Regardless of whether actor A possesses as many nuclear weapons as it says, or has developed as sophisticated a delivery system as it purports, actor B, for lack of contradictory intelligence, must assume A's posturing is sincere, and develop a counterstrategy. It is only critical to this equation that actor A's gesturing has presented itself as possessing new power (A+1), and that actor B has no other recourse but to believe this is the truth. One such example might be the development of the Strategic Defense Initiative during the Reagan Administration. Envisioned as a space-based platform of devices designed to intercept and destroy Soviet intercontinental ballistic missiles, SDI (sometimes referred to as "Star Wars" for its nearly science fictional character) has often been characterized as more of a ploy designed to cause the Soviets to expend scarce resources toward maintaining parity than as a realistic means of defense. Regardless of the veracity of actor A's posture (that is, even if SDI had been successful beyond expectations, or if it had only existed on paper), equilibrium has been lost, and B must develop a new counterstrategy. As James Fearon explains, privately held information by actors in the same arena can lead to negative consequences:

> *"One explanation holds that a state's leaders may rationally overestimate their chance of military victory against an adversary, so producing a disagreement about relative power that only war can resolve" (Fearon 1995: 390).*

This reaction to posturing appears to resemble the type of misinformation model referred to as a possible cause for war.

If posturing is, as realism suggests, a series of gestures designed to deter through the expression of power, then equilibrium as a goal may only be attainable through a constant series of unbalancing steps (such as an arms race). At some point, actor B may reach a threshold which prevents the further advancement in maintaining parity. Other ranked preferences, such as material shortages, may now force the actor toward alternative choices, such as war.

Posturing, as analyzed herein, is a relationship. A state adopts a posture toward some object regardless of its specificity. In order to adopt a deterrence-posture, it is only mandatory that the object of a state's dissuasive energies be made aware of the posture. If state A prefers to deter what it perceives as the aggressive tendencies of state B, nothing more is required than the information being conveyed from that one state to the next. Even if state B is a decentralized, anarcho-syndicalist amalgamation that dispersed its nuclear arms among various constituents, a deterrence platform would still only require directing the preventative measures to those particular controllers.

Jacek Kugler (1984) and Daniel Geller (1990) have independently argued that the notion of deterrence is inherently flawed. In fact, they argue, states with nuclear capability receive no additional guarantee of securing international objectives from even non-nuclear armed states. Additionally they are somewhat constrained in relations with nuclear equivalents by this supposed means of power. Kugler (1984: 501) asserted that "conventional capabilities" offered a much greater decisive role in deterring adversaries than strategic nuclear power. Wells concurred that the "efficacy" of nuclear weapons as a preventative measure was, at best, "mixed":

19

"Nuclear balance between the superpowers has little effect on crisis outcomes, and that extended deterrence success is more strongly associated with usable conventional military power" (Geller 1990: 299).

Should Kugler and Geller be correct the implication follows that if nuclear weapons serve no actual deterrent value, then posturing with nuclear weapons is equally valueless as a deterrent. As Kugler essentially argued, the possession of nuclear weapons by states has not rendered them immune to war. Yet the behavior continued beyond the Cold War and whether by design or by accident, it must create some effect.

Regardless of any value incurred the type of posturing examined is inherently public, simultaneously received by a domestic audience if not a world audience. By delimiting the scope of observers, state-actors engaged in posturing either intentionally or unintentionally address the contents of their messages to a larger audience. This is not to suggest that deterrence is not the primary motivation behind acts of posturing, but the public component which is apparently inextricable from such acts implies the involvement of a larger, domestic audience. Given then, the discursive nature of posturing, the state is adopting a posture with its domestic constituency in addition to its international objective.

V. A Critical Theory Perspective

Though the rationalist theories offer compelling explanations for aspects of the nuclear gesture neither are equipped to explain the domestic component. While they can offer insight into the manifest function of gesturing, neither theory can explain the basic ontological design which, instead of constraining its activity toward potential or actual hostiles, also travels

inversely toward intrastate subjects. This travel is facilitated by a complex that intertwines ritual, myth, and symbol.

Indeed, it would be at the least uncomfortable to deny the stated purpose of nuclear posturing as part of a deterrence program. Penetrating texts to expose true intent of an author is, at best, problematic (Russett 1995: 165). Nor, is it intended to suggest that those who engaged in posturing sought consciously to author a new node of power. Regardless of intention, the public component of gesturing creates a channel of discourse between the state, its message, and the society that receives it.

Instead of attempting to provide for the real motivations of state and individual actors, the act of nuclear posturing should be analyzed as a form of cultural behavior. If the use of nuclear weapons violates a taboo, as Price and Tannenwald argue, but the symbolic use of nuclear weapons does not violate a taboo, then other cultural designs are at play. Actual use of prohibited weapons would violate a higher ranking cultural code than the symbolic use, but the reference of nuclear power as predicated upon acts of posturing now serves as a defining characteristic of state and society. Put differently, when states publicly discuss their nuclear armaments, conduct tests, or issue threats they are contributing to their own definition and that of the society they govern by invoking specific power and contrasting themselves with the object of that power. Price and Tannenwald suggest the discourse on nuclear power has been concentrated within the state (Price and Tannenwald 1996: 134). The means of defining this discourse, through channels of power are established through the process of ritual behavior. Others are engaged in the discourse of nuclear power through the issued symbolic acts.

21

In order to facilitate an understanding of the interdependent relationship between ritual, myth, and symbol, it may be useful to introduce the metaphor of a computer system. Ritual is analogous to the actual hardware of a computer. Ritual is the structure through which the other elements operate, and is inert without them as they without it. Ideology is the software or operating system. It is generally not unique to any single ritual just as most operating software is not unique to a particular computer. As most computer software is not engineered perfect, ideology likewise produces frequent contradictory tenets. Myth therefore is the patchwork of ideology. Finally, all languages, whether situated in a computer system or between humans requires basic elements to upon which to compose more complex structures. Symbols are loosely analogous to a programming language.

Ritual – Structure of Communication

Emile Durkheim (1912) held that rituals served a function of distinguishing between the sacred and the profane. They are the source of "discontinuity", assisting in the prevention of "unsanctioned mixture and contact" by prescribing only "negative acts" (Durkheim 1912: 303). Thus, for Durkheim, ritual was a means of delineating cultural prohibitions and exposing taboo. Designed to "excite, maintain, or recreate certain mental states" (McIntosh 1997: 234), ritual practice simplifies the experiential chaos for the adherent. David Kertzer offers a traditional definition of ritual as:

> *"Culturally standardized, repetitive activity, primarily symbolic in character, aimed at influencing human affairs, and involving the supernatural realm" (Kertzer1988: 8).*

Though some hold a distinction between religious ritual and secular ritual, the distinctions are found in arbitration between traditional magic and scientific magic. The absence of what has been historically understood as mysticism or magic does not preclude the presence of a new category. For Claude Levi-Strauss ritual is analogous to language, forming part of the "kinship system" by which cultural and social definitions are communicated (Levi-Strauss 1963: 84). Moreover, the feature of repetitiousness Kertzer introduces is at once a crucial but ambiguous element. As Sally Moore (1977: 152) argues, even relatively new behavior, designed for the purpose of becoming ritual, is founded on an "expectation that they will become permanent", and form "a tradition". Behavior predicated on even the expectation that it will achieve permanence through a sense of tradition is within the bounds of ritual practice. Yet the continuity between practices may be arbitrary. The question of how similar each observance of practice must be in order to qualify as identical to the previous episode is entirely debatable. Diachronic analysis reveals the transformation in nearly all such practices in relation to temporal context. As Victor Turner noted, rituals were "temporal products of a socio-cultural process" (Turner 1977: 153).

Participation in ritualized behavior does not require a conscious effort to do so. Doty (2000: 131) argued that the degree to which "formality" is maintained among different rituals is varied and that those "performers" involved may not recognize their role as instrumental within the ritual context. Contradistinctively, the presence of formality often projects a code to adherents regarding designs that are "socially unquestionable" (Moore 1977: 153). Therefore, those social artifacts taken as obvious are the reified product of ritual formalism. The behavior itself may not even be identified by the group as a ritual practice, assuming a status as practice of the mundane, and securing a presence below the level of awareness.

The vital elements of ritual practice, authored by Durkheim, and explored further by Levi-Strauss, Kertzer, Doty, Moore, and many others are not exclusive to either religion or secular spheres.

Myth – Ideological Patch

As a structural aspect of communication, ritual itself only defines the means by which messages are delivered. Instead, it is myth that is the essence of that communication. The ritual of communion, for example, with its highly ordered practices is rendered meaningless in the absence of Catholic doctrine. In any other context, ingesting a wafer is likely to be something other than consuming the body of Jesus Christ. Through the underlying narratives contained within myth, the ritual acquires signification. As Mircea Eliade argued (1963: 2-3), myth is "an extremely complex cultural reality" that "supplies models" providing "meaning and value to life".

The subject of continuing scholarly debate, it is more challenging to define what myth is, than to delineate its functions. Though these may also remain an object of contention, they are more pertinent to the analysis which follows. As the source of signification, myths are specialized forms of ideological discourse. They are components of a comprehensive world-view that serve to repair contradictory ruptures. Bronislaw Malinowski (1984: 101) described myth as "indispensable" in that it "codifies belief; it safeguards and enforces morality" and "contains practical rules for the guidance of man". Levi-Strauss (1978: 17) seems to have concurred with the practical function of myth as an epistemological system, suggesting that "it gives man the

illusion he can understand the universe and that he does understand the universe". As a coherent narrative, the meaning replete within myths and mythological systems is derived from the organization of individual, and independent elements; symbols.

Symbol – Monad of Myth

Texts are aggregated from a collection of many individual symbols. Each symbol requires the other in order to reflexively establish its meaning. Symbols are defined by what they do not represent (Palmer 1997: 39) and are mutually constitutive being defined by and simultaneously defining their observers (Wendt 1987: 359). Furthermore the symbol is a node, an access point for the individual to observe the myth that is constituted by the symbol. As Paul Ricoeur argued, "symbols are signs" which possess a meaning that continuously directs itself "analogically to a second meaning" (Ricoeur 1967: 14-15).

It is perhaps the analogical characteristic of symbols that distinguishes them from myth, and presents them as the constitutive components of myth. An observer derives meaning from the content of the myth independently. Symbols, however, require the context of analogical interdependency. Therefore, to follow the backwards through the constitutive process, the Menorah, a nine-pronged candle holder, is intimately associated with other symbols of Jewish mythology, such as the Star of David, or even "the jawbone of an ass". However, the Menorah provides direct access to a particular narrative of mythical content concerning the insurrection conducted by the Judean Maccabee clan against occupiers following which certain miracles were witnessed. This story, with its inherent supernatural component and designations of sacred and profane, is annually reenacted in the ritual form of Hanukkah.

Science and Supernature

Nuclear posturing exhibits most, if not all, of the attributes traditionally assigned to ritual. Symbols conjured in the process, such as Intercontinental Ballistic Missiles, compel the observer toward the mythical discourse of nuclear warfare. The myth is delivered through the medium of ritual posturing wherein the supernatural aspects of a bewildering form of knowledge are condensed into the aforementioned symbols. Cyclical in form, the relationship is one of interdependency. It is the effectively magical nature of nuclear science, inextricably linked with nuclear posturing that will ultimately facilitate its various ontological effects.

In the tribal system, a shaman is typically sole possessor of the exclusive knowledge of the spirit world. Likewise, only certain agents of state are permitted access to nuclear science. Even fewer agents of state may create nuclear policy, and invoke its power. Rituals typically define power, and those who control the sacred objects are likely to be the conductors. Durkheim argued that even profane objects can be imbued with sacred power in the context of ritual symbol (McIntosh 1997: 235). Even within the structure of ritual nuclear posturing, the dyad is perceptible. Herein the vulgar is contrasted with the sublime. Nuclear testing displays the more profane, material aspects of the power. Yet, the spoken gesture of posturing carries with it the mantra of destruction, and the invocation of consequence. The dyad continues as the ritual defines nuclear states from non-nuclear states, constituencies from enemies, and even morality from immorality. The messages of who possesses power, who will be attacked, who will be defended (or avenged) are all intrinsically condensed within the gestures of nuclear posturing.

Though a relatively larger number of physicists are typically versed in the mechanics of nuclear weaponry than there are shamanists with access to magic, the vast majority of citizens in nuclear states remain ignorant to the science. In essence, the workings of nuclear science are, to the majority, supernatural. Though it may very well be potentially explicable, it is a source of power that remains mystified. As Levi-Strauss argued:

> *"Magical operations, on the other hand appear to him as additions to the objective order of the universe" (Levi-Strauss 1962: 223).*

This notion is not to assume that citizens of a nuclear state who are ignorant of the principles of a combustion engine conclude spirits (good or bad depending on its current condition) are what therefore propel an automobile. Instead, it is to assert that power removed is mystified and regardless of the scientific principles, nuclear power lies outside the realm of the mundane. Superstitions often bridge the gap between precipices of knowledge. Rituals provide order for the chaos of experience. To juxtapose notions of magic with the methodology of science is to equate conceptual opposites. Yet modern science and mythology behave similarly, attempting to narrate perceived truths (Doty 2000: 92). Hugh Gusterson (1996: 140 and 146), over the objections of the nuclear physicists he studied, argued that in addition to providing for the reliability of nuclear weapons the act of testing helps to replicate nuclear scientists and knowledge, suggesting that the conscious act inadvertently creates non-conscious consequences. The ritual described is a function of scientific ideology.

Testing nuclear weapons is not merely an act of scientific faith. It is subsumed in the larger political reality of posturing. As one type of expression, testing is representative of a species holding in common with others, the larger genus of ritual posturing. When states

communicate about their nuclear weapons, through testing, threats, confidence building measures, treaties, and declarations, their gestures include symbolic code containing the intersubjective signs such devices possess. The structure of ritual and the kinship system are mutually constitutive, arranging and reinforcing social hierarchies while being arranged and rearranged by those hierarchies. As the shaman is the tribe's only authentic intermediary to the spirit world, Weber held that the state is the only legitimate executor of force (Poulantzas 1978: 80). This legitimacy, however, is still structurally constrained and far from limitless. States also possess the legitimate right to symbolic aspects of force, bound within the concept of general force. The use of symbolic force is likewise not unlimited, but provides the structural context that permits gesturing with weapons, that are prohibited from actual use.

VI. Concluding Remarks

Nuclear posture is a ritual clearly aimed at influencing political affairs. Moreover, it defines the state, the culture, and the individual. If only by virtue that it is the stated purpose contained within such gestures, the neorealist explanation that posturing is deterrence cannot be rejected. Displays of perceived power, along with the model of equilibrium a rational choice theorist might produce, provide a useful framework toward understanding the superficial nature of the object of study. The durability of theoretical approaches, such as neorealism and rational choice theory, suggests they have something useful to offer. If critical theorists reject a positivist epistemology, the concept of interests defined in terms of power still requires attention. And though human behavior may be bound by constraints of language and myth, the cogency of behavior within that cultural context may be understood as rational.

But there is more to posturing than currency between states. By the simple fact that so much of nuclear posturing is conducted publicly, there is an inevitable domestic effect. Posturing, in this dimension, is no longer a relationship merely between states, but now forms part of a dialogue between the state and the individual. Posturing becomes a ritual by which individuals learn, the category of the individual is changed, the state adopts new roles, and structure itself is altered. The pedagogical process of nuclear posturing communicates identity transforming symbols to the individual, exposits the state as a technologically enchanted institution, and attempts to reconcile the contradictions of an ideological system that presents the state as fulfilling nearly paradoxical roles.

Establishing nuclear posturing as a ritual is only one aspect of this question. Further study will be conducted in the area of nuclear posturing as a ritual of state and its effects on the aforementioned levels of analysis. Using the United States as the primary case study, the next steps will involve genealogical examination to identify and describe these effects. I have selected United States as the object of study because it has one of the longest historical records pertaining to nuclear weapons. First, I will examine the relationship between the state and the individual in order to analyze the effects on the individual as an ontological category. The second task will be to examine the projective and reflexive effects of the ritual in terms of the power of the state and how it is subsequently altered by the gaze of the individual. How the ritual defines state, society, and individual is an important step in comprehending the interface between structure and its components. Finally, I will analyze the ritual of posturing to identify the mythical content

inherent to it, and that content will be analyzed to identify the ideological inconsistencies it is

attempting to reconcile.

CHAPTER TWO: GENEALOGY, STRUCTURE, AND HERMENEUTICS

A Brief Methodological Exposition in the Study of Nuclear Posturing

I. Introduction

The object of analysis should always exert a considerable determination on the methodology employed. Although the actual appearance of nuclear posturing can be confined within the space of only sixty years, its historic foundations precede that span significantly. Nuclear posturing itself is only the most visible expression, the most apparent site of a process that originated with the beginnings of science in North America. Given this intersection of historical processes, mythical enunciations, symbolism, and ritual, an admixture of textual methodologies was deemed most appropriate. I have applied a genealogical approach perhaps similar in style but comparatively weaker in rigor to the kind largely conceived by Friedrich Nietzsche and rigorously enhanced by Michel Foucault in conducting the analysis of historical-epistemological features. Beneath this genealogical umbrella, I utilize a structural analysis of myth most deeply influenced by that of Claude Levi-Strauss, and a hermeneutic approach to symbol and text interpretation as exemplified in the works of Paul Ricoeur.

II. Genealogical Approach

The genealogical method of Nietzsche and Foucault is, on the surface, essentially a basic analysis of the epistemological characteristics of a given historical period. By virtue of the

uniqueness of these characteristics, the scrutinized period becomes its own discernible episteme. Thus in "Discipline and Punish" (Foucault 1977), the discourse on criminal punishment is divided into epistemes characterized by a violent struggle waged between the state and the public through the body of the criminal, followed by a struggle by the state to impose its concepts of orderliness and discipline onto the mind of the citizen. Foucault's method involves the identifying and isolating of particular historical epistemes in order to compare them. Using this method in working toward the recreation of the discursive relations that define an episteme "each period is studied 'vertically', that is to say, archaeologically, rather than 'horizontally' or historically" (White 1979: 98). The researcher is not necessarily dedicated to following a timeline (along the horizontal axis), concerning themselves instead with the identifying and analyzing the breach between discursive relations of one period, and those of another. Foucault (1972: 7) articulated that genealogy (or archaeology as he briefly referenced it) would mediate the "proliferation of discontinuities in the history of ideas".

Nuclear posturing is symptomatic of a breach between scientific epistemes. It reveals prevalent discursive relations submerged in the preceding era. The breach is a clear one delineating science in the United States prior to the advent of the Manhattan Project, and the science that emerged from it as an institutional apparatus of the state. The genealogy of science in the United States that follows will attempt to ascertain the epistemic properties that characterized scientific discourse from its origins to its rupture, and then to the characteristics of the era that followed. Therefore, the first episteme analyzed will begin with the founding of science in the United States, and end at the onset of World War II. In this episteme, science was perceived as largely egalitarian, democratic, and accessible. The episteme which follows the

32

Manhattan Project is nearly the inverse of its predecessor as science is largely inaccessible, confounded by secrecy, and in the purview of an elite. Again, nuclear posturing is situated as a discursive relation of this more recent episteme, and one that presents the state in its new role.

III. Applying Levi-Strauss' "Structural Study of Myth"

Applying Levi-Strauss' method, even if it were not to a contemporary political subject, might provoke some justifiable criticism. Doty (2000: 282) notes that his critics accused Levi-Strauss of failing to account for a variety of deficiencies within his method. Primarily, he presents analyses that can be argued as "imposing systems of logic" rather than discovering them (Doty 2000: 282). This tendency toward arbitrariness might seem to be an unavoidable difficulty when conducting intercultural analyses as the identity of the researcher and their own culture are mutually constitutive (Wendt 1987: 359). Conversely, a more purely scientific methodology might be critical of making intracultural analyses based on the potential bias induced by the proximity of the researcher to the object of study. Therefore, whether running the risk of bias by "imposing logics" or being too enmeshed in the research-object, the possibility remains for predisposed conclusions. The researcher, unable to exist in the absence of context (social, psychological, cultural), can only manipulate what they determine as the most effective methods. In this case, with a reasonable level of confidence, Levi-Strauss' methodology will be applied as, regardless of the proximity to the object of study, it offers the most comprehensive perspective to simultaneously analyze the diachronic and synchronic axes.

A second legitimate criticism of Levi-Strauss' structural approach is that it is insensitive to the organic and evolutionary nature of myth (Doty 2000: 282). Mythical narratives are delivered through varying social contexts and conditions. Levi-Strauss' method effectively freezes the myth into a specific manifestation and ignores preceding or successive versions. While this assessment is perhaps valid diachronically, it is irrelevant to this instance of analysis. Within a single episteme, a myth should remain a largely coherent and similar. Evidence of any significant deviation indicates the appearance of new epistemic characteristics, and thus the passage into a different episteme.

The Method

Given the analysis of a single myth through its various versions, rather than a comparative analysis of interrelated myths the focus remains narrowed on interpreting a univocal mythographic text. The first and most difficult step, due to its essentially subjective nature, is identifying the key myth. There may indeed be numerous versions, but provided they contain the same elemental units, they are part of the same corpus. Secondly, the "mythemes", as Levi-Strauss termed the irreducible units of myth (Levi-Strauss 1963: 211), must be organized in a comparative fashion to illustrate the mechanisms and objects of mediation.

The object of this endeavor is to identify the contradiction mediated by a single myth or its variants; not to establish a structural relationship between myths which would require an infinitely more exhaustive approach. One foreseeable objection may be the distinction between what is considered "myth" and what is considered "prophecy" or "prediction". Such a distinction will be rejected here in place of a taxonomic order that observes myth as the larger genus to

34

subspecies of prophecy. The temporal dynamic that places some myths as artifacts of the past and others as yet unrealized propositions does not extricate their inherently mythic qualities; time has no ontological bearing in this case. Apocalyptic rituals are performed, not because something has already occurred, but because that particular something is anticipated. Narratives related to the end of things are no less mythical than those describing the beginning.

The relevant sources of myth provided by nuclear discourse are abundant. These sources are created in the imaginations of writers of comic books, films, novels, academic works, survival guides, and in other places that have become the site of envisaged nuclear wars. Nuclear posturing is a gateway to these sites. It is a condensed reminder of apocalyptic narratives. It is the myth of nuclear war that is sustained within the ritual of nuclear posturing. Clearly this mythical content can exist independently of posturing as in the aforementioned mediums, but nuclear posturing points back to these mediums. Levi-Strauss' approach requires the researcher to identify and essentially freeze in position a particular version of the myth. In the discourse of nuclear warfare, differentiation can clearly be made between the mythical content of the Cold War environment, with its emphasis on large-scale conflict between superpowers with its inevitable eschatological themes, and the post-Cold War, low-intensity conflict environment replete with images of "dirty bombs" (explosive devices laced with radioactive material; radiological as opposed to nuclear bombs). It is the former episteme of the Cold War that produced the mythical content which will be analyzed hereafter.

IV. Hermeneutic Approach

Paul Ricoeur can probably not be said to delineate any rigorous methodology for hermeneutics, or the interpretation of symbols and texts. Such a process remains fundamentally subjective in its orientation. However, in works such as "Symbolism of Evil" (1967), and "Hermeneutics and the Human Sciences" (1981), he provides a constructive framework for recognizing the functions and properties of symbols. First, symbols are interrelated and context oriented. As Ricoeur notes, it is within "the universe of discourse that these realities take on symbolic dimensions" (Ricoeur 1967: 14). Second, he treats symbols as a subspecies of signs.

As argued by Ferdinand de Saussere, signs are composed of two requisite integrated components: the signifier and the signified. The signifier is the "image" of the sign (Saussere 1911: 67). In terms of a word, this might be represented by the conjunction of the letters "h-o-r-s-e". The signified is the underlying "concept" (ibid), which, in this case, would encompass the idea of a large, four-legged mammal that is capable of running at great speeds.

In the case of symbols, the signifier, though not precluded from it, does not necessarily take the form of a sound, and can just as readily be represented as a visual object. Symbols, are further distinguished from the general category of signs by their multivocality, or what Ricoeur refers to as "polysemy" (Ricoeur 1981: 44), a multitude of meanings. Though symbols themselves "precede hermeneutics" (Ricoeur 1967: 16), they do not precede culture. They must be confronted by subjectivity to be realized.

Nuclear posturing invokes symbols as diminutive as the atom, and as violently expansive as explosions wrought through manipulation of the atom. Moreover, the devices that present the culmination of human interaction with the atom as a destructive force, such as a missile or its various infrastructural agencies (submarines, silos, long-range bombers) also lend themselves toward representing a larger oeuvre of meaning.

V. Concluding Remarks: Application of the Framework

It is the objects of analysis that have necessitated the means used. There are no exacting means for the qualitative examination of ritual, myth, or symbol. However, aforementioned approaches have provided remarkable and powerful perspectives on similar subject matter. Genealogies are adept at unraveling the discursive formations of a given episteme. In this instance, the beginnings of science in the United States through the Cold War provide the context through which the beginnings of a historically unique discourse were created and engaged. Nuclear posturing did not spontaneously erupt. Rather, it appears to have been the logical progression of relations between previously independent institutions. The structural approach to mythographic analysis can isolate, within that particular episteme, the ideological contradictions under mediations. The discourse of nuclear posturing carries within it a volume of mythical content. Analyzed in synchronic fashion, this volume can be isolated from its obfuscated place in the morass of diachronic transformation. Finally, the hermeneutic expositions of Paul Ricoeur provides for an initial framework for the interpretation of symbols. Posturing is replete with these symbols.

CHAPTER THREE: POLICY, PROPHECY, AND PEDAGOGY

The Path of Heuristics from State to Individual in Nuclear Discourse

I. Prologue: Merlin the Magician, the Reverend Billy Graham, and Policy

The end of times was steadily drawing closer in March of 1990. Under the auspices of their leader Elizabeth Clare Prophet (or "Guru Ma"), members of the Church Universal and Triumphant feverishly made preparations for the imminent cataclysm. Prophet, a political science graduate of Boston University, claimed to be divinely informed by Merlin the Magician, the mighty Hercules, William Shakespeare, the Archangel Michael, and, of course, Jesus Christ[19]. Additionally, she claimed to be "the reincarnation of Queen Guinevere and Marie Antoinette"[20]. Perhaps not isolated in her assessment, Prophet concluded though her auguries that the warming of relations between the United States and the Soviet Union was, in fact, a diabolical subterfuge. While the West was preoccupied with the possibility of ending the Cold War, the Soviet Union was scheming to prepare the final stages of its nuclear assault[21]. Church adherents across the United States liquidated savings, fled large metropolitan areas, and began stockpiling supplies and weaponry to be stored in underground shelters. Members could pay up to $200,000 to inhabit a "specially designed survival condominium"[22].

---

[19] "A Question of Good Neighbors" Boston Globe August 9, 1987. http://www.boston.com
[20] "Flock Goes on Alert" Washington Post March 17,1990. http://www.washingtonpost.com
[21] "Flock Goes on Alert" Washington Post March 17,1990. http://www.washingtonpost.com
[22] "Flock Goes on Alert" Washington Post March 17, 1990. http://www.washingtonpost.com

Prophet's husband had been arrested in late 1989 for illegally purchasing "$100,000 worth" of firearms, and 120,000 rounds of ammunition to accompany them. His arsenal included eight .50 caliber sniper rifles, "several" submachine guns, a rocket launcher (Lamy 1996: 2) and armored personnel carriers[23]. On the very day when the Soviet missiles were predicted by Prophet to begin their fiery rain across America, a Montana judge issued an order for construction to cease on the Church's bomb shelter (Lamy 1996: 2). Though to this date there is no evidence that Soviet nuclear weapons have ever directly led to destruction on American soil, it is possible they have indirectly contributed to some damage in the form of 31,000 gallons of diesel fuel and gasoline leaked into Yellowstone National Park by members of the Church Universal and Triumphant during the construction of their bomb shelter[24].

II. Introduction

Perhaps the single theme which is conveyed with greatest lucidity in any text concerning nuclear weapons is their propensity toward incurring cataclysmic results. Apocalypse, in varying gradients, is always at least implicit in the discourse of nuclear armaments. There is a form of symmetry between the prophetic ranting of a doomsday cult, and the orderly policy descriptions of a state doctrine. The object here is not necessarily to blur the distinction between "state" and "cult", though being spiritually informed by "Merlin the Magician" is perhaps only marginally absurd given that almost every president since Harry Truman has conferred with the Reverend Billy Graham[25], a "veritable prophet" himself (Barthes 1979: 64). Instead, the purpose is to

---

[23] "Survivalist Church Agrees to End Arms Stockpile" Boston Globe June 4, 1994. http://www.boston.com
[24] "Montanans Feel 'invaded'", Washington Post April 22, 1990. http://www.washingtonpost.com
[25] "Profile: Billy Graham". http://www.pbs.org/wnet/religionandethics/week210/profile.html

confer by virtue of behavioral analogies that the defining characteristics of specific practices

common to both religious and state bodies are nearly identical rituals. That one is called "policy"

while the other is "prophecy" seems purely incidental. Rituals convey messages. Those messages

proscribe action, and engender identity. The state ritual of nuclear posturing produced results not

altogether unlike those of the Church Universal and Triumphant.

Certainly not all observers of a ritual carry out its instructions verbatim. Yet, the

appearance of a new ritual can be demonstrated by the appearance of hitherto unseen or

uncommon behavior. The pedagogical effect of ritual is most visibly expressed in the behavior of

adherents. That which is learned through messages imbued in ceremony and rite can be

translated into behavioral practices. It is these practices which the expressions of an ontological

change engendered by the programmatic manipulation of symbols in order to create coherence

between domestic and foreign policies. As the state moved toward a foreign policy predicated on

massive retaliation, its domestic policy was configured to lend it credibility. In order to appear

resolute to its Soviet adversaries, the United States neglected any nationalized shelter system

leaving the citizenry largely to their own devices. In order to motivate the citizenry toward

preparing defensive measures, messages with varying levels of fear were directed domestically.

These messages contained the symbols that would become bonded to the collective totem, and

though they resulted in different manifestations of behavior, the general result was an ontological

alteration of identity to the citizens of the nuclear state.

If groups such as the Church Universal and Triumphant entered into apocalyptic behavior

based on the prophetic auguries of its leader, then perhaps those same principles were formed

upon a foundation resembling Northrop Frye's "master myth" (Doty 2000: 282). Even if the assumptions of the Church were considered irrational hallucinations, even the madman maintains a consistency of logic within a coherent system (Foucault 1965: 94). Their vision of the world's end would appear to stem from an admixture of Christian Biblical text and the political narrative of nuclear posturing. If the link between nuclear arms policy and religious cult behavior at first seems tenuous, it will hopefully find resolve shortly. The provocation for individuals and groups within the United States to assume the end of days were near, had as much to do with nuclear posturing by the state, as it did with ancient apocalyptic scripture or supernatural augury. Posturing, received domestically, began to constitute a new form of apocalyptic apocrypha and was incorporated into the collective consciousness of its audience.

In a play produced by the Department of Education at the beginning of the Cold War, which elementary school students were encouraged to both read and perform, the character of sixth-grade "Judy" responds to her father's assent in converting the family basement to a nuclear fallout shelter with, "I can hardly wait to tell my teacher what we're going to do. We're going to have the best shelter in town" (Rose 2001: 130). If the fictitious Judy suggests a certain status-driven ostentation with her family's prospective shelter, the very real Pat Frank might have been less enthused about publicizing his family refuge. Frank, author of a novel on post-nuclear devastation, and a survival guide threatened to fire upon "anyone found rummaging in his emergency supplies" (Rose 2001: 94). Likewise, one resident of Austin, Texas kept a gun capable of firing tear gas to flush out any unauthorized persons who reached the family shelter before they could (Rose 2001: 94). At a community meeting in Hartford, Connecticut a woman asked of her next door neighbor, "Would you shoot us?" if she and her child tried to gain

admittance into his family's shelter (Rose 2001: 94). He replied in the affirmative (Rose 2001: 94).

If the declaration of a doctrine to possibly kill one's neighbor in the event of a nuclear catastrophe seems indicative of marginal and essentially hypothetical behavior, it is still representative for the larger corpus of nuclear survival discourse. Such examples of orbital behavior are navigationally useful in determining the center of gravity. In fact, despite the preoccupation with the possibility of nuclear devastation during the early Cold War, there were relatively few efforts made toward the construction of survival shelters; public or private (Rose 2001: 148). Yet, for those who sought such protection, the concept of survival was treated with particular significance. From the expedient to the intricate, shelters was one of a few actionable recourses available to the public. Bruce Clayton (1980: 72) advises that with the purchase of two steel bolts and a length of wire, one can create a "key" to the most abundant urban shelter; sewer systems. The underground tunnels "will serve admirably as shelter from nuclear effects" and while some can be quite septic, "others are nice and dry and clean". (Clayton 1980: 72).

The survival-oriented attitudes and actions of the public, wide ranging as they were demonstrated to be were the calculated effects of a government sanctioned civil defense program designed to manipulate psychological states. In order to create continuity and coherence between domestic and foreign policies a ritual of nuclear discourse was developed through nuclear posturing posturing. Through its civil defense apparatus, the state would, in essence, terrorize the public into variegated degrees of observance, and support of its nuclear weapons strategy. Ultimately this effort would alter the ontological composition of the individual, transforming

identities, both individual and collective, through the incorporation of symbol into the social totemic system.

III. Evacuation, Excavation, and Bodies in Motion

Before George Romero's "Night of the Living Dead" (1968) provided a metaphor of the bomb-shelter mentality, and before Marvel Comics transformed Dr. Bruce Banner, via gamma rays, into "The Incredible Hulk" (1962), there was the government of the United States to tantalize the imagination. Assuming a combination role as tepid financier/robust advisor the government, through the Federal Civil Defense Administration, brought the reality of nuclear war to the public mind. As the effectiveness of the FCDA campaign to stimulate public awareness of the possibilities of such catastrophe took root, a parallel effect began in Congress where the "mounting concern that citizens would feel dependent on, or worse, entitled to government protection and post-attack welfare assistance" consequently produced the doctrine of "self-help" (McEnaney 2000: 23). Though Congress did approve some funding, the tangible form of civil defense was "a system based on the unfunded mandate" (McEnaney 2000: 26), in which the individual citizen was essentially left to provide for their own safety. The apparent lack of tangible assistance, and vague instruction prompted the Mayor of San Francisco to conclude that the federal program could only advise the public "to lick your wounds, nurse your injuries, and die" (Rose 2001: 23). Eventually, the discourse of civil defense would concentrate on three interrelated categories: spatial movement, the home-as-fortress, and the body of the citizen.

Evacuation

If it was reticent to provide dollars to civil defense, the government appeared to have a surplus of advice to the public on how to survive a nuclear war. The earliest recommendations given followed the profound idea proffered by FCDA Director Val Peterson that "the best way to be alive when an atomic bomb goes off in your neighborhood is not to be there" (Rose 2001: 4). This rudimentary idea appears to have been considered at least somewhat legitimate as the author of one guide promoting the survival of nuclear attack advises, "Move to Tasmania" (Frank 1962: 11). Another author recommends to residents of large urban areas to "think about sending your children away to the country" (Gerstell 1950: 27).

In the segment of the Cold War prior to the proliferation of intercontinental ballistic missiles, it was thought that there would be sufficient warning time of impending enemy aircraft to allow for evacuation. Drills, such as "Operation Kids" conducted in 1955 where tens of thousands of schoolchildren in Mobile, Alabama were moved during an attack simulation, are indicative of the brief era when the capability to effectively deliver atomic weapons was questionable (Rose 2001: 28). The wisdom of such evacuation drills was rendered increasingly dubious concurrent to the development and improvements made to missile and guidance systems. Yet even before such systems became feasible, the notion of evacuation was highly problematic. The logistics of evacuating the populace of major metropolitan areas, the traffic of which has been generally observed to be paralyzed at the most minor provocation, and the question of to where the evacuees would be sent were all rendered irrelevant after the test of the first hydrogen bombs in 1954. Post-detonation tests indicated that lethal levels of fallout had been dispersed over seven thousand square miles (Rose 2001: 26).

44

With the actual objects of Soviet attack as the subject of conjecture and some projections of radioactive fallout consistently smearing the majority of the United States, the discourse of civil defense changed from special relativity to depth. Citizens would receive less advice to move away, as much as they would be instructed to move down. In 1957 Congress and President Eisenhower's Gaither Commission both recommended nationally funded shelter programs (Rose 2001: 28). The concept was further endorsed by the Rockefeller Report on international security, nuclear physicist Edward Teller, and the Chief of the Army Corps of Engineers (Rose 2001: 30).

Shelters

The doctrinal evolution between evacuation and excavation was manifested in a transitory stage during the Eisenhower administration. In the 1955 execution of "Operation Alert", the FCDA conducted simulated nuclear attacks on the United States to test civil defense responsiveness (Rose 2001: 27). The president and an additional fifteen thousand employees of the federal government were evacuated to clandestine facilities on a route that oddly passed by waiting "schoolchildren and parents with cameras" (Rose 2001: 27). The operation was met by many of the evacuees with a general sense of apathy, including the Secretary of Health and Education who arrived late in order to procure lunch (Rose 27). No indication was provided to conclude if the official had been "killed" in the simulation.

After rejecting the expenditure a national shelter system would incur, Eisenhower essentially reinforced the "self-help" doctrine of civil defense. The task of securing oneself was to be self-financed and located within the confines of the private home. Apartment dwellers, renters, and the poor were obviously excluded in this system. President Kennedy inherited and

renewed the do-it-yourself nuclear survival plan by endorsing with a letter the contents of an issue of Life magazine detailing the construction of a home shelter (Rose 2001: 84).

Though improvised shelters, such as the sewer, were suggested for those too far from more premeditated refuge, the home shelter was the object of a significant cognitive exercise. Bruce Clayton (1980) advised the prospective home builder to consider constructing the actual house as a shelter. The incorporation of natural features could be manipulated to offset the effects of radiation by building the home on the side of a hill opposite to prospective target (Clayton 1980: 58). Moreover, the entire home could be built submerged into the earth, offering even more protection from fallout and some blast effects (Clayton 1980: 67).

Any cogitated shelter would of course require supplies to sustain its inhabitants during the post-attack period. Frank (1962: 38) recommended procuring radiation detection equipment such as a Geiger counter. Should one be unavailable or if the cost is prohibitive, Clayton (1980: 130) advised placing a sheet of white paper on the ground to observe any flakes or grains of fallout. Both authors strongly advised their readers to avoid eating fallout (Clayton 1980: 130 and Frank 1962: 110). Clayton (1980: 131) also suggested that any durable shelter should be supplied with a chemical toilet, camping equipment (Clayton 1980: 76), food stores including crackers, candy, sugar, salt, juices, fruits, vegetables, and meats (Clayton 1980: 82), and medical supplies such as aspirin, alcohol, penicillin, Phenobarbital, and iodine (Clayton 1980: 103). Farming equipment should also be safeguarded if possible (Frank 1962: 27).

The Body

Complementary to both evacuation and sheltering programs, the public was directed to engage in practices designed to complement spatially oriented measures. The body itself became the object of civil defense procedures. Given that it is the "body" of the individual that most immediately requires protection from nuclear attack, this new program may not necessarily seem odd. It is however, the suggestion that the body possesses physical characteristics which can offset the effects of a nuclear blast.

In this aspect of the monologue, bodies are always in motion. They are moved in conjunction with other safety measures to augment existing designs. Bodies are moved out of urban areas. Bodies are moved into basements and shelters. They are moved out of the cities, and down into the earth. Clayton (1980: 70) asserted that the bodies of multiple people should be crammed into a small space during a nuclear attack. Those in the center of the phalanx will be shielded from exposure to radiation. Presumably those on the periphery will be contaminated, and subsequently avoided by those they fortified with their flesh.

Schoolchildren were perhaps the most focused object of the power to move bodies. Animated films and texts were developed by the FCDA for use in schools incorporating cartoon figures. The instruction of "Bert the Turtle" was to "duck and cover" during a nuclear explosion (Rose 2001: 128). Drills were conducted in which students, uncertain as to the actual nature of the situation, were observed by teachers and school authorities in their execution of the "duck and cover", and the "atomic clutch" (Rose 2001: 131). For students in particular, such drills were

the embodiment of a discipline which demanded adherence to its civil defense rituals. As Foucault states:

> *"Discipline 'makes' individuals; it is the specific technique of a power that regards individuals both as objects and as instruments of its exercise." (Foucault 1977: 170)*

Indeed the focus of this discipline exercised itself upon the body with a rigor and precision only marginally different than the Napoleonic soldiers in "Discipline and Punish" (Foucault 1977:188). Subject to a nuclear attack, the individual was expected to "lie down, full length on the stomach. Fold your arms, and bury your face tightly in your arms. (If you happen to be a pregnant woman, you will of course have to lie on your side. But turn your face down, and cover it with your arms)" (Gerstell 1950: 52). Practicing of the technique was advised (Gerstell 1950: 54). As in military maneuvers, time intersects with the body. The individual is advised to assume them quickly, and remain in the prescribed positions "until the all-clear signal sounds. Except in certain cases" (Gerstell 1950: 55). Presumably, those "certain cases" include vaporization of the machine which produces the "all-clear signal".

In addition to prescriptions for bodily exercises, there are also proscriptions against certain activities, such as the admonishments against watching a nuclear explosion (Gerstell 1950: 47). Moreover, the body should appear in a particular fashion during these events, garbed with white, or light-colored clothing (Clayton 1980: 76), and preferably "a hat" (Gerstell 1950: 32).

IV. "Atom-Splitting is Just Another Way of Causing an Explosion": The Mechanisms of Fear

Despite all evidence to the contrary, according to the Buffalo Evening News, Buffalo, New York and its surrounding areas were the scene of two nuclear explosions. The July 20, 1956 edition, which displayed a "photograph" of a smoldering, crumbling city hall declared that the dead exceeded 125,000 and that "unknown thousands of Buffalonians (sic) are presumed dead and many more thousands injured" (Rose 2001: 63). At the very top of the front page, somehow obscured by the graphic depiction of Buffalo in ruins, and the headlines heralding a now ever present miasma of death was an innocuous byline: "Warning: This Didn't Happen….But It Could!" (Rose 2001: 63). The "photograph of a pulverized, immolated city hall was an artistic rendition (Rose 2001: 63).

One day later, the Soviet Union fictitiously struck Grand Rapids, Michigan. The July 21, 1956 edition of the Grand Rapids Herald pronounced the deaths of 16,200 area residents (Rose 2001: 64). Conjured fate, it appears, was more generous to the citizens of Grand Rapids than to Buffalo as 136,000 persons "were saved by a Civil Defense evacuation" (Rose 2001: 64). The image of a billowing mushroom cloud consuming Grand Rapids belied the comparatively minuscule warning text: "As Page One Of The Herald Might Look After H-Bomb Attack" (Rose 2001: 64).

If the savior of thousands in the Grand Rapids "attack" was civil defense, it should come as little surprise that the author of both newspaper editions was the Federal Civil Defense Administration. The ambition for the newspaper campaigns, as part of the yearly Operation

Alert, was clearly not designed as an appeal to rationality. Instead, it would seem that pictures of incinerated cities, charts showing fallout projections, and stories about the decimation of two large urban populations are more likely to incite fear.

Such campaigns and others of similar intent were successful in manipulating, at least to some degree, the psychological condition of the public. In 1961 a Gallup Poll showed that 53% of Americans believed there would be another world war within five years[26]. The pedagogical program began early. Even prior to the Soviet development of nuclear weapons Americans were warned by General Henry "Hap" Arnold that attacks could now occur within the continental United States (Herken 1980: 211-212). Federal Civil Defense Administration posters boldly warned that civilians were "Enemy Target No. 1", and that "Civilians Can Be Bombed" (Rose 2001: 6-7). By 1950 the possibility of nuclear conflict "transformed every citizen into a potential combatant or casualty" (McEnaney 2000: 23). With the menace of apocalypse cast by means of an indiscriminate destroyer, the public was essentially left with a do-it-yourself survival system in the face of an indiscriminate, globally destructive threat.

Indeed, the message to prepare oneself, to drill, to practice, to dig was ubiquitous. The consequences of failing to do so were pronounced explicitly. As Todd Gitlin commented, "under the desks and crouched in the hallways, terrors were ignited, existentialists were made" (Gitlin 1987: 23). As McEnaney argues:

> *"The association of civil defense with death and destruction was inescapable."*
> *(McEnaney 2000: 28)*

---

[26] "Fear of World War Is At 10-Year High" Washington Post, October 8, 1961. http://www.washingtonpost.com

If the state recognized that its manipulation of fear had exceeded its expectations and resulted widely in attitudes of fatalism, its efforts to balance terror with rationality largely failed. Achieving this balance was needed to induce motivation through fear, but not exceed the threshold for despair and fatalism. A populous overwhelmed by fear would not bother to take precautionary measures and would not be a valuable human commodity following a nuclear conflict. Survivors would rebuild what had been destroyed or continue fighting. Projections of the number of casualties (and conversely, the number of survivors) became a primary indicator for achieving victory in a nuclear conflict. The commander of the Strategic Air Command in 1960, General Tommy Power, explained, "Look, at the end of the war, if there are two Americans and one Russian, we win!" (Caldicott 1986: 75). The state needed survivors, without actually funding the means of their survival.

The pamphlet, "Survival under Atomic Attack" astutely informed readers, "atom-splitting is just another way of causing an explosion" (Rose 2001: 23). That the public did not build shelters en masse and instead resigned itself to the futility of the inevitable seems the reasonable outcome of combining the sensational "attacks" on Buffalo and Grand Rapids, and the stultifying understatements in "Survival under Atomic Attack". Many questioned the desire to endure the prospective gloom of what might follow a nuclear war. Gerstell (1950: 65) advises the survivor of nuclear war that "things are going to look different". FCDA Director Val Peterson invoked a post-nuclear reality in the clearest Hobbesian metaphor as "stark, elemental, brutal, filthy, and miserable" (Rose 2001: 26).

51

The heuristic process, through the FCDA's implementation of discipline and propaganda attempted to develop "bomb consciousness" and "make up the national mind" (McEnaney 2000: 11 and 28). The state's apparatus of psychological manipulation was overt. The consequences were palpable. "Bomb consciousness" metastasized into "shelterism" and "survivalism". And for those that did internalize the survival thematic, they often did so in a vigorous fashion. For the true adherents of these new doctrines, it was no longer a question of which assault rifle was advisable to purchase, but that failing to do so would result in a "noisy suicide" in the post-apocalypse world (Clayton 1980: 112). Individual survivalists coagulated into organizations such as "the Minutemen", a precursor of groups like the Montana Freemen, and the Michigan Militia. The admixture of theosophical text, nuclear discourse, and a policy of "self-help" replete with psychologically provocative imagery helped to initiate doomsday prophets like Guru-Ma. In essence, such "fringe" groups, are doing exactly as the FCDA prescribed.

<u>V. Between Policy and Ritual</u>

While the larger segment of the population was felled into fatalism, a comparatively smaller segment found survivalism. Both groups represent gradients of the Federal Civil Defense Administration's program of psychological manipulation. This program was designed to instill, through the motivation of fear, a sense of "self-help" in the public to construct private shelters and defensive measures. As previously mentioned, "self-help" was adopted as domestic policy by a government unwilling to burden the cost of a national shelter system. The pedagogy of "self-help" would ultimately link the domestic component of civil defense to national nuclear arms strategy, completing the national nuclear posture as a political ritual.

Cost was clearly one consideration for the dedicatedly frugal Eisenhower administration. Yet the precedent set forth of rejecting a nationally funded shelter system was never seriously broached by successive regimes, even those which were less fiscally constrained. The expense of sheltering the American populace may have been an issue, but does not adequately explain the final policy. There appears to have been, for example, far less deliberation of the expense incurred by sheltering thousands of missiles in reinforced silos, refitting and constructing submarines to facilitate Submarine Launched Ballistic Missiles, or the excavation of a variety of underground facilities for military and government personnel. Perhaps these measures were cheaper than public shelters would have been, but this serves to demonstrate that the issue was less one of unwillingness to spend any money whatsoever than it was one of ascertaining priorities. For Eisenhower "national security was an absolute objective to which unlimited resources should be allotted" (Craig 1998: 44).

Conjuring images of a nuclear conflict typically concludes with the doctrine of "massive retaliation". Defined as something of a quasi-defensive posture, massive retaliation suggests that tremendous nuclear force will be delivered upon any enemy "aggression" (Peeters 1959: 17). Given the inability of the state to defend against all conceivable forms of nuclear attack, the idea of massive retaliation was predicated on the notion that "defense has thus ceased to be a reality" (Peeters 1959: 10). Yet massive retaliation was not the instantly deducible obvious conclusion of Cold War strategists. Whereas retaliation by its nature suggests a response to something, regardless of how minimally provocative it may be, initial policy planning gravitated strongly toward limited but proactive measures:

"The startling result of Eisenhower's reflection was that preventive thermonuclear war might be the nation's best option." (Pach, Jr. and Richardson 1991: 83)

Initiatives such as an unprovoked attack focused on "Soviet thermonuclear production" were given serious consideration (Craig 1998: 48). Contradictory voices within the Eisenhower administration suggested that if contained the Soviet Union would ultimately collapse (Craig 1998: 45). Influenced by the military philosophy of Karl von Clausewitz, Eisenhower recognized the futility of attempting to manage a limited war with the Soviets and adopted the massive retaliation platform (Craig 1998: 44). Campbell Craig (1998: 69) asserts that Eisenhower's policy "was to make American military policy so dangerous that his advisers would find it impossible to push Eisenhower toward war and away from compromise". Any war with the Soviets would thereafter become a total war.

In terms of praxis, massive retaliation requires two essential components: something to retaliate against (as in a pretext to attack, and a target of attack), and something to retaliate with (preferably in quantities that could be said to be massive). In heuristic terms "the potential aggressor must be deterred, not merely punished after he has acted" (Peeters 1959: 17). The rationalist explanation again presents itself as the perceptual component of the doctrine becomes necessary. A potential adversary must be aware of the massive retaliation doctrine, and have a reasonable degree of certainty that it will be implemented upon any threat of transgression. Thus, if a state adopts massive retaliation then it must generate credibility in order to create an effective deterrent.

For the Eisenhower administration, credibility would be the first casualty of diverting any substantive resources from the national nuclear doctrine. In a conversation between President Eisenhower and Secretary of State John Foster Dulles, Dulles remarked:

> *"But it's hard to sustain simultaneously an offensive and defensive mood in a population. For our security, we have been relying above all on our capacity for retaliation." (Eisenhower1965: 222-223)*

To present the image of an America focused on welfare and protection of its citizenry, it was felt, would invite Soviet aggression by, at the minimum, presenting the perception of an America less than fully dedicated to a program of retaliation. Publicly funded shelters, in Eisenhower's estimation, would "conjure up images of people burrowing underground, which suggested cowardly escape" (McEnaney 2000: 61). This was clearly not the message desired for Soviet perception. Private shelters were encouraged, public shelters were not.

President Eisenhower, in order to avoid being coerced into an undesirable limited war, endorsed policies designed to immediately trigger massive retaliation in the event of Soviet aggression. Massive retaliation, by its nature, requires the perception of credibility. The perception of credibility, it was assumed, was best facilitated by ensuring the onus of American resources was directed toward the actual tools of retaliation. Civil defense agencies, such as the FCDA, were prohibited from building public shelters and instead proffered the concept of "self-help" for the citizenry. Thus, the manifest expressions of "self-help" (shelter construction, evacuation drills, ducking-and-covering, accumulation of food and medical supplies, and the arming of private militias) were all coherent with an offensively oriented national foreign policy.

Both components, domestic and foreign, comprise the nuclear posture. Each is necessary for the cogency of the ritual. Without the foreign policy component of "massive retaliation" (or even later manifestations of "limited response"), civil defense programs might have been more substantive. And from the perspective of the Eisenhower administration, without "self-help", the emphasis could not have remained as ardently as it did upon a heuristic program designed to suggest the seriousness of American deterrence. "Self-help" was part of deterrence. Every shelter constructed by private citizens was an acknowledgment, at least tacitly if not enthusiastically, of the foreign policy. The totality of domestic and foreign policies combined into a nuclear posture. And reconstituted as a whole, the posture becomes a series of messages, a heuristic device, obeyed or disregarded by the masses, in the form of a ritual.

"Duck and Cover" to Duct Tape

So-called "bomb consciousness" did not evaporate with the waning of the Cold War. In 1980 the Federal Emergency Management Administration, successor to the FCDA produced an updated publication shelter construction. The document details materials and blueprints for completing a six person "outside concrete shelter", an "above ground home shelter" that will withstand overpressures of five pounds per square inch", and a "modified ceiling shelter" fabricated out of a standard home basement[27].

Eventually, nuclear conflict metastasized from potential cataclysm between principally state actors to a localized catastrophe devised by non-state, international organizations. Prospects

of an unlimited thermonuclear war between superpowers appear to have been largely supplanted by the detonation of a radiological device delivered not on an intercontinental missile system, but in the back of a rental truck by a member of a militant group.

Stripping away the material distinctions between a thermonuclear war and a radiological attack, only the pure psychological state remains. Whether it is the destruction of a set of cities, numbering from one to all, or the localized dispersing of radioactive debris, it is the mind that is the object of the nuclear posturing ritual. At one point the public was advised to construct private shelters to protect against an attack that, had it materialized, would likely have befallen all or most cities. Later the public was advised to procure materials designed to insulate against the effects of a radiological attack, the scope of which would probably be contained to no more than several cities. In early 2003 "stores in the greater Washington, D.C. area reported a surge in sales of plastic sheeting, duct tape, and emergency supplies". Hardware supermarkets were emptied of the items[28]. The domestic component remained essential to foreign policy such as the Nuclear Posture Review 2002, which identified "multiple potential opponents", "unprecedented sources of challenge"[29] in the form of "terrorists and rogue states"[30].

---

[27] United States. Department of Homeland Security. Federal Emergency Management Administration. <u>Aboveground Home Shelter.</u> June 1980.

[28] "Duct Tape Sales Rise Amid Terror Fears". CNN.com. February 11, 2003
[29] Nuclear Posture Review 2002
[30] "Nuclear Posture Review Exerpts". "Globalsecurity.org. January 8, 2002.

VI. A Plague of Identity and the Nuclear Totem

Shelter construction, or, to some degree, fatalism, is the tangible effect of the psychological manipulation engendered by the nuclear posturing ritual. Yet neither the impulse to dig nor the resignation to await inevitability occurs simply by observing the form of nuclear discourse. Such a form is only the signifier, the medium or vehicle of the message. The initiated observer must not only acknowledge the vessel, but participate in its signified, in its meaning. Whereas the shelter-builder exhibits physical manifestations of this participation, the shelter builder and the fatalist both assimilate the signified by their altered psychological state. Rituals distinguish the sacred from the profane, and therefore the identity of things, and things from other things. It is the symbolism of myth that conveys the messages through ritual practice. And betwixt the text of myth and the structure of ritual, the prolix combinations of these symbols form nuclear totems.

It may be argued that the artifacts which comprise nuclear symbols are, in fact, real things. Symbols, for instance, did not devastate Hiroshima and Nagasaki in August of 1945, nor were countless silos burrowed out of the American Midwest for the purpose of arming the nation with myths. Yet a symbol is not a phantasm, nor is a myth unreal. Scott Sagan (1996: 55) argued that state decisions made in regards to the manufacture of nuclear weapons create "an important normative symbol of a state's modernity and identity". Such decisions, made publicly and compounded by additional communicative actions, continually influence the constitutive identity.

Ricoeur (1967: 10) argues that every "authentic symbol" is constituted by three dimensions: the cosmic, the oneiric, and the poetic. Of the first dimension, he maintains:

> *"First of all, then, it is the sun, the moon, the waters-that is to say, cosmic realities-that are symbols." (Ricoeur 1967: 11)*

The sun is a symbol, and yet it burns. The waters are symbols, but they will drown. The duality exists within all objects to become both physical manifestations interacting with reality, and the objects of discourse to be hypostatized as symbol. For instance, the most immediate symbol of this discourse, the nuclear device in whatever shape it is conjured, might most easily be recognized analogically to the sword as a weapon, or as a source of justice or retribution. Symbols relevant to nuclear discourse and mythical narratives fulfill each dimension Ricoeur describes. Cosmically, objects such as missiles, mushroom clouds, or atoms occupy a space in reality. Regardless of how they are approached, these objects exist prior to and independently of ideational assertions. Each object occupies a space in the oneric, or cognitive-interpretive dimension. Through the poetic enterprise, which could appear in the form of narrative retelling, or ritual behavior, symbols of nuclear discourse assume a value-laden place in the individual mind.

Real objects passed through discourse become symbolic. There are indeed numerous symbols associated with nuclear discourse, but the majority of these, such as shelters, scientists, and apocalypse are secondary or tertiary. That they are symbolic of nuclear conflict is conditional upon their association with the primary symbol; that of "the bomb". In whichever form it takes (from Multiple Independently Targeted Reentry Vehicles to suitcase radiological devices) it is the bomb compounded upon a pre-existing secondary or tertiary symbol which

draws them into the discourse. For example, a scientist is quite a different thing, politically, from a nuclear scientist. Likewise, shelter is often given as an essential necessity, whereas a "bomb" shelter creates an entirely new set of social implications. "The bomb" is the only symbol which did not predate the discourse, or the posturing ritual.

The primary symbol is delivered through the poetic devices of narrative into the oneiric (cognitive-imaginative) process of the individual. Therein, the symbol becomes incorporated into the identity of the individual. Individuals precede the symbol with the recognition of their membership in a community that is a component of the state. The poetic process presents the symbol-object as a possession of the state and, therefore, as an element of the state the symbol-object becomes part of the individual's community identity. The symbol-object, in the case "the bomb" or one of its compound symbols, becomes internalized as a distinguishing characteristic, differentiating the individual who now "possesses" the symbol from those individuals, communities, and states that do not. The symbol now appears as a negation, defining the symbol-bearing individual by its absence in symbol-lacking individuals. Hence it becomes integral to the "totem" of the individual and their clan.

The Nuclear Totem

The term totem, in the context of "totemism" may appear antiquated, and perhaps even obsolete, but has been selected because it most aptly describes the phenomena. Totems are a kind of intersectional space in the mutually reflexive identity of an individual and their community offering proscriptions for specific types of behaviors such as consumption. It is a mode of community identity experienced at the level of the individual. As Durkheim (1912: 100) notes,

totems are "the species of things" that, in their aggregation, form an identity among the group. Moreover (ibid. 1912: 100) the totem of the group is also the totem of the individual within the group. For example, the individual American is thus connected with the idea of being an American through the incorporation of totemic symbols. Neither a pure form of community character nor strictly that of the individual, totem is, therefore, a kind of central access point for an individual relationship with the community identity. Durkheim's "things" are most often symbolic representations and it is these symbols that denote the site of intersection between individual and community. The classical conception of such totemic symbols might be animal images engraved upon stone or wood. However, modern objects of military potency such as aircraft carriers, small arms, or nuclear weapons are equally applicable. It is only required of totemic symbols that they distinguish one group from the next. The term totem has been applied here, in lieu of simply using "identity" because of the aforementioned nature of reflexivity. As Levi-Strauss explains:

> "The term totemism covers relations, posed ideologically, between two series; one natural, the other cultural." (Levi-Strauss 1961: 16)

Again, those objects posited with symbolic value present themselves as combining an actuality beyond the aegis of human thought in synthesis with condensed ideological deposits. Therefore, the signification of symbols such as nuclear weapons is ontologically dialectic as it introduces the thing-in-itself to meaning ascribed to it by human observers. The totem is the site of individual ontological transformation, and it is the symbols of nuclear posturing which facilitate this transformation. Symbols as previously suggested are the access nodes for the observation of myth. As the individual confronts these symbols, they are incorporated into the individual identity, and assume a position in that identity with respect to preexisting ontological

61

structure. For example, the Cold War citizen of the United States approaches the image of a submarine launched Polaris missile. The symbol offers access to the wider mythical content of an as yet unrealized eschatological catastrophe. Along with the suggested meanings it condenses, the symbol now assumes a space within the configuration of the individual identity. As an American, the symbol is one of possession, one of sacred power. But it also suggests an antithetical component; the profane Soviet counterpart. Totem therefore, is not individual identity alone. It is individual identity *structured.* Totem is a culturally influenced reflexive form of identity composed of symbolic objects.

Nuclear weapons and their discourse are keenly totemic as they are constitutive of both individual and community identity. Totems involve the intimate association of a symbol with a particular group and "proscribes certain behavior" (Levi-Strauss 1961: 25). The objects of such association are unique to the particular group (Durkheim 1912: 100), and in the case of nuclear weapons states are generally not known to share or trade as they might with conventional arms. The particular symbols selected, most often animals, are chosen because of their "superior and inhuman powers" though they may "represent dangerous or disagreeable objects" as well (Levi-Strauss 1961: 57 and 64).

The nuclear totem prohibits all but the shaman, in this case the state, from coming into contact with the sacred emblem. And whereas most commonly held forms of totemism (those which describe a relationship between human and animal beings) prohibit the eating of the totemic emblem in order to prevent a kind of "auto-cannibalism" (Levi-Strauss 1961: 38), the aspect of the nuclear emblem conceived as a weapon is likewise forbidden from use or

62

consumption. Strictly regulated, nuclear energy is used widely for domestic purposes, but as Durkheim (1912: 102) notes, in certain instances, "the totem is not a whole object but part of one". To use the nuclear-totem would likely induce more undesirable results of self-consumption.

Ritual posturing of nuclear weapons created a vivid channel for the delineation and reinforcement of the nuclear totem. An object of tremendous power has been made sacred in the society that possesses it. The formalities of this possession render the realities of who will maintain control of it as unquestionable. For instance, there are few arguments about the reasonableness of private citizens maintaining their own ICBM stockpiles. Meanwhile, individuals become ontologically distinguished from one another. There are those in a nuclear state, and those in a non-nuclear state. There are those to be (somehow) "protected" by nuclear weapons, and those who might potentially be destroyed by them. Conversely, the same individuals at once protected, become the object of the other's nuclear weapons and their destructive power. Simultaneously, the totem presented in the posturing of ritual casts the individual as intermittently sacred and profane. The polysemy of meaning is fundamentally transforming at the ontological level; existence itself is changed.

VII. Concluding Remarks: Of Authors and Authenticity

Through the manipulation of symbols the apparatuses of state deliberately sought to influence the psychical perspective of the individual in order to create a monolithic nuclear posture. Replete with symbols and images of terror, the discourse of nuclear power became

63

incorporated into the public consciousness, shaping collective and individual identity. As a component of the totality of American nuclear posturing, the civil defense discourse was the node aimed at the domestic audience with explicit intent. Directing messages that the individual American, possibly subject to a nuclear attack, should provide for their own defense, can only be integrated within the larger context of a nuclear posture whose foreign component relies exclusively on the principle of complete destruction of the enemy. And while the foreign component would also be responsible for the production of powerful symbols imbued by the domestic audience, civil defense created the most vivid and directed images for public consumption.

Compelled by the recognition that they were the object of attack, the domestic audience was either mobilized toward the prospects of a subterranean refuge, or the dispassionate fatalism of accepting the futility of the nuclear human condition. The ritual of nuclear posturing served to reinforce the totemic principles shaping this reflexive identity as it continuously reiterated the definitions between the sacred group (the United States) and the profane group (the Soviet Union).

While the ritual structure is apparent, and the symbols are likewise made readily evident, it is the presence of myth which remains eluded at this point. It might be objected as to whether or not this type of political discourse could even constitute myth. As Levi-Strauss observes:

> *"Myths are anonymous: from the moment they are seen as myths, and whatever their origins, they exists only as elements embodied in a tradition." (Levi-Strauss 1969: 18)*

64

Clearly in most cases of nuclear posturing there is a recognizable author even if it is not the speaker.

Those authors of nuclear posturing rituals attempt to divest themselves of authorship, transferring the helm of creativity on to the tenets of realism. The posture is made to appear, whether or not it actually is, as the only available recourse. Through the realist perspective, the posture is "naturalized" which Barthes concluded:

> *"Is why myth is experienced as innocent speech: not because its intentions are hidden- if they were hidden, they could not be efficacious- but because they are naturalized." (Barthes 1957: 131)*

Thus removed from the realm of artifice, the symbols of nuclear posturing, presented through ritual are portrayed as a natural extension of tradition; discovered, but never authored.

It is the aggregation of symbols through "innocent speech" that must be analyzed hereafter. If myth, as Levi-Strauss contends, is the attempt to reconcile contradictions of artificial systems, then the orderly collection of symbols conveyed in the nuclear posturing ritual should be expected to have relevance to some form of contradiction. A synchronic structural analysis, analogous to the method Levi-Strauss devised, will be utilized.

Prior to such an analysis, however, the role of the state will be observed for the effects posturing has levied against it reflexively. If the category of the individual has been altered by a surge of identity, the state must be regarded similarly. As Levi-Strauss argued, the symbols inherent to totemism and ritual are "ideological landmarks", and that "all ritual tends toward

magic" (Levi-Strauss 1961: 74 and 57). The confluence of ideology and magic within the practice of ritual purports significant implications for nuclear posturing as a relationship. Thus far, the category of the individual has been examined. Next, the state's reconfigured role in the relationship will be subject to analysis.

CHAPTER FOUR: OF WITCHCRAFT AND STATECRAFT

The State as Shaman

I. Introduction

Nuclear posturing provides the state with a unique opportunity to present itself publicly in conjunction with some of the most potent symbols of its power. While the military parade, or even the conventional war may demonstrate the foundation of its coercive authority, those gestures which remind the observer of the state's nuclear monopoly do so by positing the possession of a powerful knowledge in a concentrated space. Many of the technologies at work in the conventional military setting, regardless of their actual complexity, appear as something comprehensible or at least belonging to the world of the commonplace. The machine gun, the bomb, and perhaps even the tank can all be translated from the realm of the ordinary and the mundane into a more militarized setting. Observers may understand tanks as they might understand construction or farming equipment. The ingredients for explosives, powerful ones, are widely commercially available. Even the machine gun can be understood as a more powerful and rapidly firing version of civilian firearms. Perhaps, as suggested previously, the mechanical workings of such contraptions may remain outside the average understanding. And though an individual not granted clearance by the military may not have direct access to a tank, its basic functions, principles, and operations are accessible. The schematics of the diesel engine, the rotating turret, and even the machine gun and modern explosives are readily available from a variety of publication houses.

Nuclear weapons, however, are something apart, something mystified. It is their simultaneous presence and absence that demands attention to an object that refuses to reveal itself. They are held aloft in the ritual of posturing, but always remain somewhat shrouded in the veil of state secret. An observer may see and know the form of an intercontinental ballistic missile, profess to understand its effects, and even suggest to understanding something of the processes involved in its application (ie. Atom-splitting or fusing), but such knowledge is exclusively reserved for a selected group of the initiated. Though, on occasion, individual agents of the state have acted in an unauthorized fashion to distribute this knowledge, it remains a closely guarded secret[31].

The reservation and exclusivity of knowledge caused sufficient concern for some to believe that democracy in the United States was in jeopardy from "quiet 'usurpers'" (Lapp 1965: 2). Indeed the concern that the state was becoming an instrument of the scientific elite might be the reasonable conclusion of observing the amalgamation of government and science. As a former director of the Oak Ridge National Laboratory commented, ensuring the perpetuated stability of nuclear power management might require the auspices of a "technological priesthood". Patterned after the durability and contiguity of the "Catholic Church", this "permanent cadre of experts" (Weinberg 1972: 34) would be a similarly designed extra-national institution:

> *"a central authority that proclaims and to a degree enforces doctrine, maintains its own long-term social stability, and has connections to every country's own Catholic Church" (Speth 1974: 20).*

---

[31] "No Freedom For Nuclear Scientist". http://news.bbc.co.uk/1/hi/world/south_asia/3999429.stm

However this "new priesthood", as Ralph Lapp argued the scientific class had become, had instead been subsumed by the state and reorganized as its instrument.

Regardless of whether the power of scientific advisors has exceeded appropriate parameters, it is the conjunction of science and government, beginning with nuclear science, which has afforded the state a new role. The ritual of nuclear posturing allows the state to expose this new role. This ritual engenders a reflexively dichotomous effect on the state. First, the assimilation of science by the state is normalized. Second, and consequent to the first effect, the state attempts to reify its self-appointment as the pre-eminent shaman-figure.

II. Idiots Savants: A Brief History of the Relationship Between State and Science in the United States

Accessibility to Exclusivity

In considering the technologies of nuclear science, few can demonstrate a precise understanding. Only specialized agents of the state are permitted access to such knowledge. This preclusion of knowledge, however, was not a historically institutionalized feature of science, and is rather antithetical to the process of scientific discovery. Some have argued the process originates to a single pre-Aristotelian Greek named Thales (Lee 1943: 67). Though significantly revised and modified since its ancient precursors, science remained as a methodical approach toward obtaining "a systematic and orderly body of general knowledge" (Lee 1943: 68). As science transcends the boundaries of innumerable disciplines, its means have likewise achieved an inestimable diversity. However, its primary tenets, the norms by which authentic science is

governed, remain constant. As expounded by sociologist Robert Merton (1996: 267), the "ethos of science" provides something of an ethical and epistemological structure. Additionally, these norms function to "preserve the autonomy of science", keeping it from becoming "the handmaiden of theology or economy or state" (Merton 1996: 282).

Firstly, the scientific endeavor is expected to be one of "universalism", producing discoveries that are valid across space and time (Merton 1996: 269). Furthermore, the product of research is not contingent upon particular circumstances such as "race, nationality, religion, class, and personal qualities" (Merton 1996: 269). That which one researcher discovers should be replicable by any other under the same conditions. Secondly is the principle of "communism" which may be more accurately interpreted as "non-ownership". As Merton explains:

> *"The substantive findings of science are a product of social collaboration and are assigned to the community" (Merton 1996: 271).*

In principle, discovery is beyond possession. Third, the researcher is expected to adopt an attitude of "disinterestedness" (Merton 1996: 275). It is knowledge alone that is the object of study, and the researcher is required to vacate any predispositions or concerns in their quest. As a means to inhibit fraudulent research, "disinterestedness has a firm basis in the public and testable character of science" (Merton 1996: 275). Next, science assumes a posture of skepticism, holding that what is given as fact is always subject to verification. As a "temporary suspension of judgment", skepticism provokes a demand for evidence (Merton 1996: 276) The fundamental goal of these scientific norms is "the production of objective knowledge" (Chubin 1985: 73).

Science is an epistemological framework that relies on divorcing the subject from the object of perception. The researcher is preconditioned against the concern for producing specific results. It is only the results that matter regardless of the degree to which they support or reject the hypothesis. The final tenet of science, and perhaps the most consequential, is that of openness. In the absence of openness, the other tenets become less relevant as the degree to which a researcher has maintained disinterested skepticism becomes decreasingly verifiable or replicable. Critical to achieving a systematic nature, the concept of openness, considered by some to be "an imperative for scientific integrity" (Chubin 1985: 73), is essential feature in distinguishing science from other epistemological approaches.

Openness characterized the early period of science in the United States. From the founding of American democracy in the late eighteenth and early nineteenth centuries, science along with government was conceived of as the tool of the masses rather than the inverse. Unlike its institutional counterpart in Europe, sciences in the United States developed in the absence of a "centralized bureaucratic control and patronage" (Rothenberg 2001: 501). Science and democratic government were seen to be analogous through maintaining the common denominator of accessibility. However democracy or science might have actually been, they were widely thought of, during this nascent period, as egalitarian institutions. Donald Zochert argued that the spread of democracy led to:

> *"the rapid diffusion of science, along with the corollary notion that the common man-no less than the philosopher- could fasten upon it to his advantage" (Zochert 1976: 7).*

Zochert's description of the prevailing attitude is not that the average person might merely enjoy the products of science, but of the very methods and processes of science and of the access to empirical knowledge it purports to offer. Practitioners included "medical men", "teachers", "various kinds of practical men without college education", and some among the ranks of "the clergy" (Rothenberg 2001: 501). The position of science and the common person supposedly derived its egalitarian basis from democratic principles. It was not considered "sacrosanct nor inexplicable" (Zochert 1976: 26), even as the methodologies, material requirements, and objects of research began inexorably "moving beyond the grasp of the common man" (Zochert 1976: 7). Due directly to this process of elevation, science remained integral to the collective consciousness while becoming increasingly like the superstition it diametrically opposed. Evidence of the benefits of science remained in the residual form of its products, its medicines, and its laboratories. Yet, gradually the institution itself was ascending beyond the egalitarian and toward the elite. Americans began looking to science as "the New Providence" (Lowi 1976: 29).

A Return to Enchantment

Steadily, the amateur scientist of democratic inspiration began being replaced by the college-educated, corporate-sponsored, technocratic elite; "the trained specialist-the professional" (Daniels 1976: 63). It only became possible during this transitory phase, to acknowledge the distinction between "amateur" and "professional" science. Knowledge was becoming segmented. Channels of power were being created and a new scientific class was emerging. Karl Marx argued that this new class was organized from its onset as "subordinated" to capital (Marx 1906: 318). A somewhat dispersed hierarchical arrangement would remain in place for nearly a century.

Science began drifting away from the ideals of the Enlightenment and toward becoming the aggregation of "its theatricality and its inventions" (Tobey 1971: 6). Rather than the antithesis of superstition and enchantment, the end of the 19th century found science becoming synonymous with them. Removed from its egalitarian foundations by the inexorable ascension toward complexity, science had become mystified, shrouded in its own opaqueness of professionalization. There had long been complicated knowledge, but coupled with the need for increasingly extensive education in a largely illiterate society, the introduction of corporate sponsorships and institutional hierarchies created a new sense of dislocation among knowledge and mystery around the laboratory. As Ronald Tobey notes:

> *"For the common man, science was a 'black art', Marconi was a 'magician',*
> *Edison was a 'wizard" (Tobey 1971: 6).*

Science failed, in this respect, to achieve its main ambition of dispelling the magic and superstition of the old world. It only succeeded in replacing them with itself.

As the relationship between the individual and science changed, so too did the relationship between science and the state. Clearly, in one form or another, the state has had a venerable association with processes of discovery, and science in particular. Lawrence Badash argues that while the "utilization" of scientists by government was not in itself new to the 20th century, there had generally existed a separation between the scientific community and those in "the corridors of power" (Badash 1995: 6). The relationship between the government of the United States and the scientific community appears to have been characterized by general ambivalent contiguity. In essence, the notions of laissez faire included official attitudes toward

research as well as economy. The transformation in the relationship between the two institutions would begin with war, and would achieve a finality resulting in its current configuration due to war as well.

The relationship between the government of the United States and science began to adopt a more permanent tone during the Civil War. In 1863, President Lincoln signed into law a bill establishing the National Academy of Sciences, which was commissioned to advise the Department of the Navy (Reingold 1976: 162). Following the Civil War, there was a "decline of the scientific function in the military", though not a total one as some hydrographic and astronomic research continued (Dupree 1986: 184). Nor was the National Academy of Sciences discontinued during this period. The First World War inspired the revival and steady ascension in the state-science relationship. At the outset of hostilities, Thomas Edison was asked to contribute to a naval project the object of which was the production of a defense against submarine attack (Kevles 1976: 278). The nationalism that had swept Europe into the hitherto unseen conflagration affected American scientists with similar potency as it "revived the vision of a national science in service to America" (Tobey 1968: 33). Collective efforts by the American scientific elite to encourage federal cultivation of "wartime science" resulted in the establishment of the National Research Council in 1916. Of the six tenets expressed within its charter, the sixth is "to encourage research relating to national defense" (Tobey 1968: 35-36). New technologies were produced and implemented by all combatants including hitherto unheard of forms of transportation, armaments, and chemicals.

Consummation at Los Alamos

This initially unstable trajectory charts the gradual marriage of science and state-military

projects. It would ultimately conclude in the loss of independent scientific identity. In the

intervening period after World War I and before World War II, independent and corporate

science was confronted with the Great Depression and its subsequently diminishing effect on the

availability of funding. Though some corporations attempted to maintain or even increase

research grants many scientists were compelled "to look beyond corporations toward the state as

a source of funding" (McGrath 2002: 33). As they gravitated toward the auspices of the state, the

scientists hoped to maintain an influential role and be regarded as "governing partners". Instead:

> *"the very ideas that scientific elites used to create their relationships with*
> *corporate and military elites would be used by other political and scientific*
> *leaders to subordinate the scientists and to make it brutally clear, as in the case of*
> *J. Robert Oppenheimer, that scientists were regarded as mere 'technicians', not*
> *governing partners" (McGrath 2002: 2).*

Scientists aspiring to be engaged as equals found themselves quickly subordinated. From

Enrico Fermi's initial proposal to a military conference about the potential power of nuclear

fission, physicists, chemists, and others involved in the effort to create an atomic bomb were

placed under a military command structure, and compelled into compliance with its dictums. The

advent of modern scientific secrecy, originally self-imposed by scientists during the research

prior to the Manhattan Project, became mandatory as military personnel would scorn and

supervise scientists like "naughty children" if they had neglected to properly account for

classified papers (Lapp 1965: 69). Ardent supporters of "prompt publications of their

investigations", scientists such as Enrico Fermi belonged to an episteme that demanded lucidity

and were "shocked" by this unfamiliar sensibility that emphasized secrecy (Lapp 1965: 55).

In the immediate aftermath of the Trinity test explosions, physicist Leo Szilard would initiate perhaps the first documented case of science attempting to overtly influence nuclear policy. Notwithstanding the combined efforts of Szilard, Einstein and others to advocate federal funding for an atomic weapon, Szilard's effort was representative of the attitudes of numerous Los Alamos scientists, imploring President Truman to refrain from using atomic weapons,:

> *"until the terms which will be imposed after the war on Japan were made public in detail and Japan were given an opportunity to surrender" (Szilard 1945: 66).*

Their efforts did not succeed. The attempt, by the scientists, to influence policy concerning the product of their research had failed. Secretary of War Henry Stimson had made the decision as early as May 26, 1945 that atomic weapons would be used. This was fifty-one days before one had even been tested (Lapp 1965: 75). Regardless of Szilard's letter and the other efforts made by his colleagues, nuclear scientists were hardly equals. Policy decisions had been made in the absence of any scientific advisement. They were technicians. Science as a national institution had become a clandestine matter, and its agents had been subordinated. Thereafter, individual scientists might maintain advisory roles within the government. Institutional science itself, however, would adopt only an instrumental role.

III. The Task of Mystification: Absence and Presence

In the dialectic process, the nature of the state did not fundamentally change. Synthetically, its composition merely became the state plus "x". Science, however, was unmistakably altered. If the end of the Progressive Era found science characterized as a "black

art", its enchantments were anything but dispelled through the advent of nuclear power. As Lapp argued:

> *"The world of the scientist is so remote, so invisible to the untutored, that it is as though the scientist and layman are of different species" (Lapp 1965: 9).*

As this suggests, science did not become magic only as a result of its exploration of the atom. However, the process of enchantment was quite possibly accelerated and remains potent. The transition of science from an autonomous institution toward a subordinate of the state is characterized by the transformation from accessibility to mystification. Initially transformed into a new form of magic by its increasing complexity, science achieved new heights of mystification through the introduction of secrecy, which changed the lucid nature of science into its antithetical form; anti-science. As Abner Cohen argues:

> *"The degree of mystification mounts as the social inequalities between people who should identify in communion increase" (Cohen 1969: 221).*

What had been egalitarian and accessible, first became complicated and elitist, and finally became bewildering and sacred.

There is, of course, science outside the auspices of the state, but there is a singular authority on this new magic of nuclear science and it is the state. As Lapp (1965: 38) notes, even within the scientific community there are those with access to the exclusive realm of "military secrets", and those without. Prior to the nuclear project there was distance, autonomy even between the state and scientific institutions. A principal event eliminated the distance. The Manhattan Project marks "the very first place where we can see the new, collaborative sensibility emerging" (McGrath 70). Now the zeniths of science, power, and violence are concentrated in

77

one space. Simultaneously, this space is obscured from view. Never fully hidden, it is only

partially revealed so that all may know it is there, but can never fully comprehend it. The power

of scientific consequence is expressed in the vivacity of a mushroom cloud, but its knowledge is

strictly controlled. While such displays of power are presented in an unmistakable fashion, the

capacity of state agencies "to restrict information is awesome" to the degree that:

> *"Whatever the Department of Energy declares secret remains secret until the*
> *DOE determines it no longer is secret. The documents that stipulate which*
> *information is secret are secret. And the very existence of a particular secret*
> *document may itself be secret. Moreover, the DOE has the legal authority to*
> *prevent any information having anything to do with nuclear technology-whether*
> *related to atomic weapons or power production- from being made public"*
> *(Hilgartner, Bell, O'Connor 1982: 57).*

It is the introduction of secrecy that denotes the change in the state/science discourse. As

Foucault notes the disappearance of leprosy marks the transition into a new episteme in the

discourse on madness (Foucault 1965: 5) while the appearance of the plague marked the passage

from one episteme to another in the discourse of punishment (Foucault 1977: 195). Similarly, the

splitting of the atom demonstrates in the most vivid terms, the end of one episteme and the

beginning of another.

Thus, the ritual of nuclear posturing which, when issued, reminds the observer that within

the state is the acme of science and the acme of power. Lapp's assertion that the scientific elite

had come to constitute a quasi-religious entity appears to have been accurate. Any autonomy this

new class may possess, however, is severely limited. Regardless of whether appearing in the

form of a declaration, a threat of varying specificity, a treaty, a confidence-building measure, or

a demonstration such as a test the effect upon the state is to normalize the acquisition of scientific authority within the state and to present the state in its new role; as shaman.

IV. The State as Shaman

As the state assimilated the power of scientific authority through the 1930's and 1940's it gradually began developing a role for itself in concordance. This new power would soon be expressed in a field of twilight. Following the use of atomic weapons against Japan at the end of the Second World War, the new science was no longer a clandestine one, but neither was it subject to an unobstructed gaze. The possession of this knowledge required management in order to maintain exclusivity over the domain of its most sensitive operational mechanics. In addition to the continuing effort to limit possession among states, there has been an equal segmentation of knowledge within states. Thus it remains in betwixt the realm of private knowledge and public consciousness; mystified by a proximity which is both ubiquitous, and tantalizingly close yet perpetually nebulous and incomprehensible. As Bronislaw Malinowski asserted:

> *"The spell is that part of magic which is occult, handed over in magical filiations, known only to the practitioner" (Malinowski 1984: 73).*

Nuclear science remains, therefore, a kind of ascientific enterprise to those whom it is inaccessible. It is a most modern form of magic. Those who are selected to access its secrets are generally (though not always), in that most modern class; the shaman-state.

Exactly what constitutes shamans and shamanism has been the subject of scholarly debate since shamans and shamanism were encountered by Russians migrating into Siberia in the

seventeenth century. Mircea Eliade and Arnold Van Gennep, among others, expressed concern about the ambiguity with which "shamans" and "shamanism" were being applied. Noting its origins in the language of the Tungus, Van Gennep argued it was "pointless to borrow one of their words, to divert it from its etymological meaning" (Van Gennep 1903: 52). Nevertheless, the terms are widely distributed among disparate geographic regions and are employed to describe a variety of cultural phenomenon. Concerns over the use of the word "shaman" belie its present condition as a largely generic term. For example, Franz Boas applies the term to North American Indians as a "means of establishing communication with the spirit world" which is "found practically all over the continent" (Boas 1910: 69-70). Thus, the two primary modes of thought concerning shamanism can be summarized as either the rejection of an abstraction in favor of an acutely specific role in several Siberian societies, or as a category of behavior that transcends particular social or cultural contexts.

Van Gennep, and to perhaps a lesser extent, Eliade, would probably have held serious reservations to the application of shamanism in describing the behavior of states. Yet their dispute was the conditions under which the term could be extricated from its original and particular context. Etymological processes, however, have rendered a more generalized signification. Provided one holds shamanism as a form of behavior rather than an entity unique to certain societies, there remains a distinctive meaning. First, the shaman is an intermediary between the group and magic as an actor who is able to manipulate the supernatural "without thereby becoming their instrument" (Eliade 1951: 6). Second, though not without occasional exception, the shamanic use of magic is dedicated toward the benefit of society. Third, though

the interaction between the two are generally strong, the shaman and the group reify the dyad of sacred and profane by establishing a form of separation.

Being a bridge between worlds is perhaps the most venerable of characteristics understood of shamanism as Denis Diderot described:

> *"these shamans claim they have an influence on the Devil, whom they consult to know the future, to cure illnesses, and to do tricks that seem supernatural to an ignorant and superstitious people" (Diderot 1765: 32).*

Thusly, we can establish that as their lowest common denominator, the shaman has an intimate connection with some form of magic, be it understood as witchcraft or sorcery. Similarly, the state cannot claim to be the source of magical power, and adopts only the role of vessel or intermediary for it. The supra-microscopic world of the atom, well beyond the observational powers of most, is identified as the source of power.

Yet, the utilization of magic alone does not constitute shamans or shamanic behavior. They are considered as somehow being different than other types of actors who employ magic, and it is the object of their extra-normal abilities that distinguish them. As Boas (1910: 71) maintains "witchcraft is everywhere considered as a crime, and is so punished", whereas shamans are often held in high regard within their societies to the point of being "usually considered doctors by their peers" (Narby and Huxley 2001: 3). Rather, it is the socially derivative aspects of shamanism that distinguish it from mere witchcraft or sorcery. Put simply, the shamanic use of magic is contextualized in some form of service to society. Noted as healers and protectors of society, shamans are called upon to service the ill, or vanquish enemies of the

group by soliciting beneficent spirits. Even Van Gennep's disdain for the term shamanism ultimately allows for some provision as "a certain kind of person who plays a religious and social role" (Van Gennep 1903: 51). An actor who uses magic strictly for personal benefit or in the absence of some socially pertinent and sanctioned objective does not qualify as a shaman.

Shamanic interaction with the group is structured through the medium of magic. The bond between the shaman and the adherent individual is established through the magic that is operated by the shaman and observed by the adherent. As Levi-Strauss notes:

> *"An individual who is aware that he is the object of sorcery is thoroughly convinced that his is doomed according to the most solemn traditions of his group" (Levi-Strauss 1963: 167).*

Moreover, the "doomed" individual also finds themselves deserted by relatives and associates (Levi-Strauss 1963: 167). Though such a depiction of malevolence issued against the group may be an indication of a selfish magical practice, it likewise may fulfill a role similar to justice. Sorcery or magic are kinds of specialized knowledge, secluded within elite social classes. Those things which are the traditional objects of sorcery that science attempts to explain, such as diseases or naturally occurring phenomenon, still function in the mind as though they were originating from another world. Even disease which is, perhaps, best understood is often depicted as a kind of invading army engaged in a war. The metaphor serves not only to anthropomorphize bacteria or viruses but to provide the individual with an understanding of the world through mythical narrative; hence magic. And it is magic that at once establishes the bond by which shamans interact with the group in addition to their unique separation from society. Their access to a sacred knowledge causes shamans to be "separated from the rest of the community" (Eliade

1964: 8) and exist as "outsiders" to a certain extent (Turner 1974: 233). As one self-proclaimed

shaman named Igjugarjuk declared:

> *"True wisdom is only to be found far away from people, out in the great solitude,*
> *and it is not found in play, but only through suffering" (Narby 2001: 3).*

And so it is with the contemporary state-science complex. Its rite of ascension, where it first

acquired its knowledge of magic, occurred in the most remote regions of New Mexico. By

necessity, its tests of this power were likewise held beyond the auspices of the public. The initial

remoteness of its ascension is perpetuated through its institutional secrecy as the state maintains

and recreates its magic. Secrecy, the same characteristic that removed science from the grasp of

the ordinary into a form of magic, creates a distance between the state and its constituents.

Indeed though science can explain the workings of radiation, the popular imagination is

captivated by that of a magical and mutating force. The myriad comic books and films with titles

such as "Bride of the Atom", or "Godzilla" suggest a quasi-science, or a science mystified. It is

through this mystified knowledge of nuclear science that the state, as an ex facto institution of

elites, becomes shaman. Delivering the mystified knowledge through the ritual of posturing, the

state becomes the sorcerer of Malinowski's study, mimicking an attack upon "the man to be

killed by sorcery" (Malinowski 71). Through its ritual, the state, like the shaman, evokes:

> *"all the symptoms of the disease which he is inflicting, or in the lethal formula he*
> *will describe the end of his victim" (Malinowski 74).*

In many respects the state presents itself in the manner of a shamanic figure. As an

intermediary of what are essentially incomprehensible powers, it delineates the sacred from the

profane, the nuclear from the non-nuclear, the object of destruction from the subject of security.

Furthermore, beyond its assimilation of a particular brand of knowledge, there is no inherent quality of the state itself that renders it the source of magical power. States are not magical. States with particular kinds of exclusive knowledge are. The state employs the new magic in its traditional role as defender of the society, and incorporates it into its domestic infrastructure as a source of electricity. If not a healer in the direct sense, there are clearly attempts to manipulate nuclear energy in a benign fashion. Finally, the programmatic secrecy surrounding its magic (which rendered knowledge into magic in the first place), generates a separation between the society at large, and the holder of this enchanted knowledge.

V. Concluding Remarks

Due to its gradual transformation away from an egalitarian institution toward one of complexity, sponsorship, and professional hierarchy science became the new magic. As Marx asserted, science was originally assimilated by the capitalist class as evidenced in the form of corporate sponsors and grants. Ultimately, it would find this initial subsuming radically reorganized following with the advent of the Manhattan Project. The notion of independent science had vanished long before work had ever begun on an atomic bomb, but the dispersion of its control has been reduced largely to one body. Again, there surely exist other sources of science, but the state claims possession of its greatest product, its greatest power, and its most magical operations. It is able to express this possession in the practice of ritual posturing with nuclear weapons.

Nuclear posturing offers the state an opportunity similar to that offered to all shamanic actors by the rituals they administer. Essentially separated in some sense from society by virtue of their unique knowledge, shamans require a theater upon which to present themselves back to the group. For the state, nuclear posturing is this ritualized theater. States do not describe nuclear weapons in the form of some abstract otherness beyond their control. Instead there is always a sense of ownership or authority depicted in an explicit fashion.

As the category of the individual has been altered by observing and participating in the ritual of nuclear posturing, and as the state has projected itself as shaman within society, aspects of social structure have also been affected. Ritual carries with it, in varying degrees, mythical code. The next phase in this research will be to identify the underlying myth inherent to the ritual of nuclear posture and structurally analyze it using Claude Levi-Strauss' method to determine the ideological contradictions that are in mediation.

CHAPTER FIVE: EXILE TO THE STATE OF NATURE

A Structural Analysis of Nuclear Posturing Mythology

I. Prologue: Myth, Contradiction, and Transvaluation

Migrating from the east they gathered together, and settled in a valley in a land called Shinar. All shared the same language and were familiar with the words of each other. Bricks and mortar were made and stone was cast. "Come, let us build us a city, and a tower with its top in the sky, to make a name for ourselves; else we shall be scattered all over the world" (Genesis 11.11). Their city was great, and the tower at its center stretched far into the sky. The Lord took notice of their work and said, "If as one people with one language for all, this is how they have begun to act, then nothing that they may propose to do will be out of their reach" (Genesis 11.11). He went down to the city and confounded their speech, so that they would not understand each other's words, and scattered them throughout the world (Genesis 11.11).

Within the text of the aforementioned story there are numerous elements in contradiction. These contradictions are not necessarily natural, but are instead the product of a cultural system developed from human inferences (Levi-Strauss 1963: 95). Mythical enunciations serve to condense into symbols the chaotic experiences of these perceived oppositions (Levi-Strauss 1962: 229). At the Tower of Babel, for instance, the deity exists high above, while humanity is beneath. Humanity attempts to ascend (become more god-like) in order to maintain its unity, while the deity descends (becomes more human) in order to disunite. The story of Babel

mediates between the reality of variegated forms of communication, and the identity of the story-telling group.

Likewise, the mythical champion of European Jewish ghettos during the Renaissance provides experiential orderliness to social and political imbalances perceived through a structural framework of justice and the right. The golem is forged by the hand of men, specifically those of the rabbinical caste, but animated and unanimated only by the inscription of a supernatural name (Singer 1982: 23). Remotely in possession of consciousness, it is limited in intellectual capacity and relies on the guidance of others. The golem is a mediation of contradiction between power and powerlessness. Those who create it are powerless in their society, but are charged with a great power through their protector. Conversely, those who are powerful in their society are made weak by its appearance. It was through mythical enunciations, such as the tale of the golem that its authors succeeded in a transvaluation of morals, reversing the formula which previously equated "strong" with "good":

> *"the wretched are alone the good; the poor, the weak, the lowly, are alone the good; the suffering, the needy, the sick, the loathsome, are the only ones who are pious, the only ones who are blessed, for them alone is salvation" (Nietzsche 1913: 17).*

Common to both myths is the mediation of contradictions perceived from within a cultural context. The myth is essentially a patch attempting to remedy a design flaw in an ideological program. This mediation is temporally sensitive, and only arises as its environmental context mandates it to do so. Thus, until some stimulus engenders awareness of a contradiction, there will be no motivation toward myth. Once established, mythic code is transmitted through the delivery system of a ritual some of which are

simple and passive (the retelling of a story), while other rituals remain elaborate and more strenuous in their requirements for activity and participation. The effect of nuclear posturing as a ritual, on the individual, the state, and culture is contingent on the reconstruction of the mythic content. The ontological status of the individual, for instance, is altered by its encounter with ritual posturing insofar as it delivers code; messages in the form of myth.

It is the functions of myth to mediate ideological contradictions (Levi-Strauss 1963: 229) and to disassociate or "distort" the immediacy of the mediation with the contradiction (Barthes 1957: 121). Thus, mythical narratives work not only to resolve paradoxical problems within an ideological system, but to present the resolutions as being somehow natural. In the aforementioned example, the narrative of the Golem serves to rectify contradicting themes of suffering indignities, injustice and the virtues of being oppressed with the aspiration to retaliate by means of brute force. Yet the conditions experienced by the characters are attributed to providence. Myth mediates and normalizes in simultaneous fashion. Nuclear discourse is saturated with code addressing the fundamental role of the state as a protective entity contradicted with its inability to do more than avenge the dead within the context of a nuclear war. Mythical enunciations associated with this discourse render a potential absurdity as a kind of normal, a priori. The contradiction under mediation addresses the fundamental ideological function of the state, as the institution that delivers its constituents from the state of nature, against the diametrically opposed notion of the state being the very institution that will return its constituents to the state of nature in the context of nuclear war.

II. Elements of the Myth

Posturing directly reveals aspects of the key myth in such doctrinal assertions of "massive retaliation" or "flexible response. First among the strategies developed as a nuclear posture, massive retaliation relied on an adversary (in this case the Soviet Union) being aware that sufficient provocation would result in an essentially unrestrained counterattack of nuclear weapons for its deterrent abilities. Samuel Wells (1981: 33) argues that its origins could be found in the frugality of the Eisenhower Administration as it "would permit reductions in manpower needs". Though flexible response does not preclude the possibility of a total and cataclysmic deluge of nuclear weapons, it operates on the precept that, if necessary, the path toward such an event should be "graduated" (Davis 1981: 78). Whereas massive retaliation immediately triggers the full force of a nation's nuclear arsenal, flexible response provides for deterrent capability (provided the aggressor's first strike was not completely crippling) while simultaneously allowing the leadership sufficient latitude in deescalating the crisis and averting global catastrophe. Under flexible response, conventional forces, in opposition to the Eisenhower plan, would necessarily be augmented "in order to give the President additional choices" (Zagare 1992: 437). Nuclear armaments of varying range were also developed in order to provide an additional dimension in capabilities and create "an intermediate or transitional stage in a three-stage game" (Zagare 1992: 437).

The observer, by semantics alone, can arrive at a reasonable, if unsophisticated, assessment as to the implications suggested by such doctrines. Inherent to the terms are the elements "retaliation", and "response"; implying that something prior has occurred to their

activation. Regardless of whether the consequences are to be "massive" or "flexible", they are

fundamentally reactionary in nature, responding to some form of provocation. A nuclear posture,

therefore, is explicitly conditional, mandating the requirement that some initial act must transpire

before any responsive action can be issued. The myth conveyed within the ritual of nuclear

posturing is most commonly perceived as a scenario that could be categorized under one of the

two aforementioned doctrines. They structure the imagined situations and hypothetical

consequences regarding the set of events which precipitates nuclear exchange.

It is the shared imagination of those circumstances and their aftermath that comprise the

nuclear myth. Richard Fryklund (1962: 129) correctly points out that, even if there is a very

reasonable idea about it, in truth "no one knows" what the experience of a nuclear war would be.

Indeed, the assertion that precludes true knowing of such an event provides the space for a very

reasonable approximation in the collective imagination. As E.L.M. Burns notes, there have only

been two instances of actual nuclear weapons use:

> *"Hence it is necessary to imagine what will happen when the thousand-fold more*
> *powerful and very numerous thermonuclear weapons of today are used"*
> *(Burns1966: 4).*

Extrapolations from the limited incidence of actual use and the prolific testing that occurred in

the early part of the Cold War are the phenomenon perceived in the public mind. Any distinction

between the scenarios Fryklund aptly describes and what he considers "science-fiction"

(Fryklund 1962: 128), such as by Nevil Shute's novel of nuclear devastation entitled "On the

Beach" (1957) , are only functions of technique. The scientifically driven scenario and the purely

literary novel are both conjurations of the imagination. Neither is historically observable, and

therefore both are hypothetical summoned from the domain of fragmentary scientific knowledge and the collective imagination. Instead of somehow being wildly disparate, they actually belong to the same discourse of apocalyptic myth. Literary works such as Shute's and similar prognostications such as the film "The Day After" (1983) became the fabric of community thought. They are woven into a shared identity that expounds the "images" of a post-nuclear environment where children were given cyanide to spare them an agonizing death by radiation (Caldicott 1986: 1), or "a nightmare that there was a bloodstained body in my bedroom", or perhaps even "a strange waking vision of a mushroom cloud over the city" (Gusterson 2004: 5). They fall within the realm of consciousness, and therefore the realm of reality.

Scenarios, of course, are varied in both their stimuli and output. Depending on the conditions, a number of different outcomes are possible. It is possible, for instance, that during a nuclear war no enemy missiles or no allied missiles manage to strike their targets. It is conceivable that every single warhead is a dud and absolutely no damage occurs anywhere. Additionally, it could be conceived of a situation where all allied missiles perform as expected, yet no enemy missiles are even remotely effective. Perhaps God intervenes.

These, however, are not the images conjured in the mind at the thought of nuclear war; a thought suggested by nuclear posturing. These are not the images which provoke anxiety, and it is the production of anxiety that is, in the case, the object of ritual:

> *"That the psychological effect of the rite is to create in him a sense of insecurity or danger" (Levi-Strauss 1961: 67).*[32]

---

[32] Levi-Strauss quoting Radcliffe-Brown

91

If such scenarios were considered probable, the condition of fear nuclear weapons elicit would likely be far less prevalent. Instead it is the commonly understood scenario of nuclear exchange, wherein there is real and significant destruction that is the common thematic of the posturing ritual. The reality of a nuclear war may very well be an obscure range of possibilities among the proliferation of scenarios, but the myth itself belongs to an intersubjective interpretation that demonstrates specific recurring elements.

Thusly, the mythemes identified are present due to their prevalence in the literature of hypothetical nuclear war. Regardless of particular deviations, such as which combatant is projected to "win", which cities are struck first, or other such specific details, these constitutive units will be present. The mythemes will be presented diachronically at first in order to offer a familiar conception, and then synchronically in order to facilitate analysis. One obvious criticism the observer may suggest is: are these the only mythemes present in the text, and if not, if there are further such thematic elements, would that not affect the final analysis? The response offered at this time is, undoubtedly. If there are other elements critical to the composition of the myth, the true contradiction might be different than the one delineated here. Yet to suggest that the analysis could change is not equivalent to asserting that its initial form was incorrect. The presence of additional mythemes may also suggest a surplus of ideological contradictions. In other words, the repletion of myths with symbolic code guarantees a polysemic content, subjecting them to multiple contradictions and countless interpretations. With respect to political implications, only one is offered here.

1. *The nuclear war begins due to the fault of the other.*

Though neither combatant explicitly wishes "to incur the odium of being the first to unleash nuclear war" (Burns 1966: 120), their preparations remain predicated on the possibility of fighting one. Whatever particular provocation occurs, a nuclear war, in the context of myth, is invariably the responsibility of the other. Mythically, the notion that "we" could somehow be responsible for this catastrophe is simply inconceivable to the point that any nuclear war:

> *"Ought never to be necessary and , if it were, it would be the other fellow's fault"* (Calder 1979: 11).

Fryklund's graphic description of a nuclear battle begins invariably with the fault resting unequivocally upon the Soviet Union. In his first depiction "America had been attacked without warning" with an inexplicable nuclear strike (Fryklund 1962: 2). Even in a version where the United States elects using nuclear force first, it is always portrayed in the face of Soviet provocation such as "Soviet troops pushing out from East Germany in overwhelming numbers" (Fryklund 1962: 4).

Analysis

The implication that any prospective nuclear war would be the fault of an entity other than oneself, either through hostilities or accident, suggests that the subject is bereft of responsibility. The other, which in this case might be an ideologically opposed actor or the inadvertent catalyst of a random accident, exculpates the subject's state. Thusly, the proposition is that *the state is benevolent.* The artifacts of nuclear warfare discourse exhibit this principle in an overt fashion. Nominal symbolism suggests that the characteristics an actor reflexively posits,

whether sacred or profane, is proffered in the names they apply to their symbolic objects. The

Soviet Union, for example, provided appellations for some of their various missile systems as

SS-19 "Granite", the SS-15 "Blizzard", the SS-25 "Poplar Tree", and the SS-18 "Commander"[33].

Subsequent designations by the North Atlantic Treaty Organization of the same missiles are "the

Stiletto", "the Scrooge", "the Sickle", and the less than magnanimous "Satan" respectively[34].

Other NATO renaming efforts of Soviet nuclear weapons have included "the Sinner" (SS-16),

"the Savage" (SS-13), "the Scalpel" (SS-24), and the somewhat flippant "Spanker" (SS-17)[35].

Incidentally, the United States appears to have been somewhat more favorable with the

designations of its own missile systems. Whereas the Soviet missiles were translated away from

their original names to something far more sinister sounding, American missiles were not seen as

similarly pernicious. In opposition to "the Satan" stood the SM-68 "Titan", the SM-80

"Minuteman", and the MX "Peacekeeper"[36]. Other American systems followed the

aforementioned "Titan" in bearing names of mythological figures such as the C-3 "Posiedon",

the C-4 "Trident", the SM-78 "Jupiter", the SM-65 "Atlas", and the SM-75 "Thor"[37]. Still others

---

[33] "Soviet/Russian and PR China Missile Designations: Introduction".
http://www.johnstonsarchive.net/nuclear/sovietmissiledes-i.html
[34] "Soviet/Russian and PR China Missile Designations: Introduction".
http://www.johnstonsarchive.net/nuclear/sovietmissiledes-i.html
[35] "ICBM Intercontinental Ballistic Missile – Russian/Soviet Nuclear Forces".
http://www.fas.org/nuke/guide/russia/icbm.index.html
[36] "ICBM Intercontinental Ballistic Missiles – United States Nuclear Forces".
http://www.fas.org/nuke/guide/usa/icbm/index.html
[37] "ICBM Intercontinental Ballistic Missiles – United States Nuclear Forces".
http://www.fas.org/nuke/guide/usa/icbm/index.html

were given the names of constellations including the "Polaris", "the Regulus", and the "Triton"[3839].

Rather than identifying Soviet missiles as "Poplar Trees", or "Commanders", in American terms, they became symbols of "the Savage" and "Satan". Conversely, the American weapons became associated with godliness and heavenly might. Given the process of renaming enemy weapons into something more malevolent while designating one's own weapons as beneficent, it does not seem to be the case that states view nuclear weapons as intrinsically evil. In the possession of an adversary, however, such weapons are recast as the tools of the diabolical. The symbols of the other are represented as violent, greedy, wicked tools of evil while the symbols of the subject indicate divinely inspired justice, and virtuous might. Again, the profane and the sacred are exhibited and should there be nuclear devastation, it will be the fault of the other; the profane.

2. The war is characterized if not by the exclusive use of nuclear forces, then the primacy of their effect.

In such a nuclear exchange, the intercontinental ballistic missile would be "the principal means" (Burns 1966: 119). Fryklund (1962: 2) vividly describes the successive chain of events as nuclear exchange occurs between superpowers. Concentrating on military targets at first, the adversaries ultimately attack population centers. American military installations are subject to

---

[38] "ICBM Intercontinental Ballistic Missiles – United States Nuclear Forces".
http://www.fas.org/nuke/guide/usa/icbm/index.html
[39] "Submarine Launched Ballistic Missiles United States Nuclear Forces Guide"
http://www.fas.org/nuke/guide/usa/slbm/index.html

nuclear attack by Soviet nuclear forces. American air and submarine forces retaliate against Soviet cities; again exclusively with nuclear weapons. Finally, the Soviets respond with a second wave of missiles to secondary military targets and then bombers that strike against population centers. It is noteworthy that conventional forces only appear insofar as they are either modified to deliver nuclear weapons (in the case of bombers, submarines, and missile systems), or become the object of their attack.

Analysis

Some form of hierarchy is present in this mytheme as the zenith consumes the subaltern forms of technological expression. It is suggested that no form of previously discovered technology is resistant to this latest of marvels. Only burrowing deep in to the earth, a somewhat comparatively primitive behaviors, is offered as a possible defense. Herein the suggestion is *the application of the acme of sciences.*

3. Inability to "emasculate" opponent and protect constituents.

This foundation to the myth is both essential and interesting for two reasons. First, is the presence of a strategy to initially destroy the enemy's nuclear missile force or what Calder (1979: 11), describes as "emasculation". Though the enemy is purported to have provoked a nuclear attack, presumably through one of their own or evidence of one that is impending, the strategy connotes the responsibility of defending the state by eliminating an adversary's ability to threaten. In the traditional key myth, this attempt universally fails (if it succeeds then the enemy's potency is negated, and there is no anxiety; hence no myth) for both combatants. Second, after successive rounds of attacks, both American and Soviet forces remain combat

96

ready (Calder 1979: 122-124). The inability of either side to immediately emasculate the other is apparent in the Fryklund depictions as well (Fryklund 1962: 2-4). Both opponents are able to reciprocate attacks and in the common theme of nuclear war-fighting emerges.

Analysis

While science lays waste to everything it encounters, everything it encounters is laid waste accordingly. Thus the acme of science encounters the nadir of the individual in the form of magic wielded by the state. The state wages its war, not necessarily in the interest of protecting the populace, but at its very expense. The individuals become nearly detached from the equation, as the immediacy of the situation compels the state to function independently of concerns for its constituents. Surrender, for example, is generally not thought of as an appropriate option to nuclear war. This suggests *the impotency of the sphere of the individual and the impotency of the state to protect that sphere within the context of nuclear conflict.*

4. Inexorable escalation. End of the World

The myth stands completely independent of the superfluous variables of scenario-devising. As mentioned, the cause of war is universally "the other fellow's fault" (Calder 1979: 11) but even the ascertaining of victory is generally considered an extremely subjective position. Regardless of what stimuli induced the nuclear exchange, the mythic core entails an attack that gradually but consistently escalates until it ultimately strikes the centers of the observer's population. As Herman Kahn argues, an attack against cities would be conducted:

> *"In a manner designed to cause the greatest possible number of deaths and injuries and handicaps to recuperation" (Kahn 1960: 60).*

In spite of the conscious efforts by planners such as Secretary of Defense Robert McNamara to introduce strategies of constraint such as "flexible response", the myth suggests a steady march toward total, climactic catastrophe. It implicitly acknowledges the disintegration of any restraint, echoing Clausewitz:

> *"If one side uses force while the other side refrains, the first will win" (1832: 76).*
>
> *"To introduce moderation to war is a logical absurdity" (1832: 76).*

Burns (1966: 136) concurs that "any use of nuclear weapons is inconsistent with the concept of limitation" and "once they were used all restraint would disappear".

The myth does not end with the exchanging of missiles. The text displays for the reader a vision of consequences. The devastation due to a conflict of such magnitude is generally surmised to be comprehensive. It is difficult to contest the probability that there will be quite a lot of dead people. Katz (1982: 39-41) concludes domestic casualties could range anywhere from eight-hundred thousand dead to over sixteen million. Fryklund (1962: 2-3) proposes one hundred and fifty million American and seventy million Russian deaths, while Calder (1979: 7) proposes a relatively conservative estimate of twenty million American deaths. Others were prepared for even more unfathomable results. As previously mentioned, General Tommy Power exhorted that victory would be achieved so long as there were at least two American survivors and only one from the Soviet Union (Caldicott 1986: 75). Regardless of whether there will be millions of survivors, or three, the suggestion proffered is a resulting situation of tremendous human victims. Clearly there is room for argument in the analysis of the unknowable, but the myth employs a

range of casualty figures strictly for the purpose of suggesting the onset of a truly terrible

catastrophe:

> *"You visualize so many dead that the living cannot bury them until the stench of decay seeps through the nation" (Fryklund 1962: 130).*

Destruction, in the myth, transcends the end of individuals. The strategic discharge of

electromagnetic pulses, have "ranges of hundreds or thousands of miles"[40] that, in effect would

be "disrupting critical elements needed to maintain a functioning society" (Katz 1982: 24) such

as electronic and telecommunications equipment. In addition to the dead, millions would be

injured or plagued with "genetic abnormalities" that would critically burden any remaining

medical system (Katz 1982: 45). Fryklund depicts the care of the wounded in far more dire

terms:

> *"So many injured that most of them must care for themselves or die slowly of their wounds" (Fryklund 1962: 130).*

There would be a "dislocation of the food producing system" (Katz 1982: 75). Cities would

"melt" and "shatter (Fryklund 1962: 2-3).

Katz (1982: 76) describes the condition of the community in the aftermath of a nuclear

conflict as one of "social disorganization". Again, Fryklund provides the more vivid depiction:

> *"You picture yourself fighting other people for scraps of radioactive food and bits of shattered shelter. You look for law and decency, but these do not endure in a world where selfishness and cruelty are keys to survival" (Fryklund 1962: 130).*

---

[40] Office of Technology Assessment p. 22

The threat posed by nuclear war is unique to human conflict in possessing a hitherto unseen potential to rapidly waste whole societies, cultures, and "threatens to destroy civilization as a result of any aggression to powerful for our small conventional forces to handle" (Buzzard 1956: 228). The suggestion is that in addition to the appalling human casualties, the effects of nuclear war are likely to be unredeemable. Governments would collapse, states would disappear, and even fundamental principles of civilization such as justice would be irretrievably lost.

Analysis

As the world around it vaporizes the state continues its absurd battle. Eventually, with much of its constituency reduced to radioactive ash, it too will whither away, but for the duration of battle the state remains steadfast suggesting the venerable theme of revenge.

The retaliation motif of nuclear posturing is explicit. Again, the necessity to commit to a nuclear war is "the other fellow's fault" (Calder 1979: 11) whether by a first-strike assault or some more indirect provocation. Theories of deterrence are conceived upon this foundation of "the great retaliation" (Calder 1979: 123), and the collective imagination surely possesses the concept of either side having to "absorb the revenge" (Fryklund 1962: 4). Revenge, or retaliation is so integrated into the strategic doctrines that is has become a shared notion of nuclear war. There is little doubt in the collective imagination that a provocation would, as General Curtis LeMay expressed, result in "national suicide" (Peeters 1959: 29).

III. Contradiction in Mediation

With the mythemes exposed, the contradiction mediated becomes increasingly lucid. The benevolence of the state confronts the application of scientific acme. The inability to protect the individual in their sphere of relative weakness confronts the potency of the state and its singular capacity for committing to acts of revenge. The constituent units form themes that, in alternation, depict the simultaneous power and powerlessness, potency and impotency of the state and its science. Nuclear weapons, in the narrative, at once destroy the enemy and the world, yet are unable to avert the catastrophe from befalling the individual and the state. Still the paradox is even more pronounced. Mythical roles of the state, one primeval, the other contemporary are brought into conflict.

The modern state, no less than any other monumental artifact, has been the subject of creation or genesis-type myths. Notions of absolute monarchs, contracts, and nature were skillfully employed as devices for the construction of treatises. The very pretexts upon which legitimacy of the state is founded are steeped in the mythical designs of political philosophy. However, these features of political theory were not empirical categories. As Michel Foucault notes:

> *"In order to make rights and laws function according to pure theory, the jurists place themselves in imagination in the state of nature"* (Foucault 1977: 199).

Thomas Hobbes did not observe "the state of nature", nor did Jean-Jacques Rousseau observe "the general Will". This is not to suggest the irrelevance of the concepts or treatises, but to

render explicit the artificial, and mythic (again mythic meaning counter-science as opposed to false or untrue) nature of the origins and functions of state.

Social contract theories confer legitimacy of the state based on the voluntary deferment of rights or, as Thomas Hobbes asserted:

> *"The mutuall transferring of Right, is that which men call Contract" (Hobbes 1651: 74).*

Primarily, the purpose of the social contract is to alleviate the impetus to commit violence. One transfers the right to enact violence to the state on the condition that the state imposes order, security, and justice with that right. Specifically, Hobbes elaborates:

> *"To erect such a Common Power, as may be able to defend them from the invasion of Forraigners, and the injuries of one another, and thereby to secure them in such sort, as that by their owne industrie, and by the fruites of the Earth, they may nourish themselves and live contentedly; is, to conferre all their power and strength upon one Man, or upon one Assembly of men, that may reduce all their Wills, by plurality of voices, unto one Will: which is as much as to say, to appoint one Man, or Assembly of men, beare their Person; and every one to owne, and acknowledge himselfe to be Author of whatsoever he that so beareth their Person, shall Act, or casue to be Acted in those things which concerne the Common Peace and Safetie; and therein to submit their Wills, every one to his Will, and their Judgements, to his Judgement" (Hobbes1651: 95).*

In the passage offered, Hobbes provides a teleological thesis for the state. Its very design is to remove humanity from a condition of warfare and brutality. Regardless of their variations, most social contract theory tends toward the notion that some right is transferred for the luxury of some form of security. If not always for the immediate concern of the body, as in the case of Hobbes, then perhaps the object of security becomes property (Locke 1690: 350) or equality (Rousseau 1755: 93). Therein lies the first mythical proposition of the contradictory binary

opposition. Citizens confer their rights to the state in order to receive protection of some sort from the state.

Immediately, the aforementioned thesis encounters a problem within the myth of nuclear posturing. The world dies. Or, at the very least, a significant part of it is destroyed. Nuclear myth is an apocalypse myth confronting the genesis myth of state origins. The conjunction of state and science renders the historical objective of the state, to provide protection, in conflict with a program that will more likely incur destruction of life, property, and equality. *Therefore, the contradiction is that the state, whose sole claim to legitimacy is based on its mythical (and legally documented) responsibility to provide security and protection, is now in an obligatory position to universally ensure death and insecurity.* As part of its own programmatic approach to ensuring the common defense, the state potentially offers its common destruction. While Foucault (1977: 199) and Rousseau (1755: 9) may reasonably doubt the empirical or even theoretical veracity of Hobbes' state of nature, the irony remains that such an environment might very well exist following a nuclear war, at least according to the key myth. The state may not have evolved from the state of nature, but, in mythical terms, the power to produce it seems well within its capabilities. Thus, by conferring rights to the state in order to receive security and protection, the individual not only risks insecurity and death, but the implosion of the state and a swift exile back into the state of nature.

Mediation, in this instance, occurs through the concept of revenge. The suggestion implicit to the myth of nuclear posturing is essentially that long after the individual is incinerated, blasted, or poisoned by radiation, the state will continue to wage war in their name.

103

Having failed therefore the most fundamental promise of statecraft, to protect the citizen in exchange for the transfer of rights, the state can deliver only ex post facto form of justice. Nuclear posturing ritual, through its mythical narrative attempts to mediate the contradiction of imploding state legitimacy with the concept of post-human revenge.

IV. Concluding Remarks

There are, of course, a multitude of competing interpretations. The objective here was to provide a possible explanation for the discrepancy between the taboo of using nuclear weapons and the apparent lack of proscription against evoking their image. The constructivist ritual model provides a complementary account to the rationalist models, suggesting the cultural and domestic objectives of nuclear posturing. Foreign policy requires some domestic cohesion, and the state must normalize new roles; it cannot simply adopt them. The ritual of nuclear posturing attempts to balance policy with the legitimacy of state. It is a precarious act of juggling skill. This case study had dealt primarily with the United States during the period between 1947 and 2002. While it is the suggestion that all nuclear-capable or prospectively nuclear-capable states engage in posturing-ritual, it is not the suggestion herein that the conclusions drawn are inferable upon all those states. The effects may very well be different, and individual analyses are recommended before any such conclusions can be made.

The field of political ritual is most often conceptualized in the form of state funerals, inaugurations, and military parades. If there is a general conclusion to be drawn here it may be the suggestion that a wider view of political activity as ritual may provide for useful

complementary observations. Half is the most of a sphere that can ever be viewed at once by the unaided observer. It may sometimes be necessary to briefly lose sight of the current vantage to determine the validity of another perspective.

CHAPTER SIX: NUCLEAR POSTURING AS RITUAL

Critical Theory and the Project of Anti-Mystification

I. Introduction: Polysemic Implications of Nuclear Symbolism

Held aloft in an obscurant shroud of ritual behavior, the symbols of nuclear power suggest the appearance of an episteme characterized by ontological changes to the category of the individual, states bearing the recently adopted role of shaman, and an attempt at reconciling newly irrupted contradictions of state responsibility. Nuclear posturing presents not only the programmatic display of deterrent intentions as described by the tenets of rationalist theories, but a vast network of mutually constitutive cultural phenomenon. The state, the individual, and the structure that defines their relationship have all been reconfigured through this behavior.

So what? Or, perhaps with a bit more precision, what has been accomplished by rotating the theoretical globe momentarily away from the rationalist perspective toward something critical? What has been achieved, and what value has been produced by the forwarding of this theory? How has the analysis of power benefited from a decidedly anthropological approach?

As stated very early on in this project, the intention was not to reject the rationalist perspectives, but to expose certain inadequacies within them as they pertain to the phenomena of nuclear posturing. The unaided eye can never view more than half of a globe. And though powerful theories such as those authored by Morgenthau and Waltz can account for much of the

intentional aspects of posturing, there remained a vast network of latent interaction. It was the object of this work to travel a few degrees and present an as yet unexposed hemisphere.

And it is exposure that is hopefully the modest value produced by this work. Mystification is a process that functions, in part, by succeeding in the normalizing of a phenomenon. Sally Moore (1977: 153) defines the relationship between mystification and ritual practice as a means to render something "unquestionable". Indeed, mystification and ritual are mutually constitutive. As a repetitive practice, ritual engenders a sense of normalcy surrounding some feature of cultural existence. Once sufficiently formalized in the body of ritual, this feature, as Moore suggests, is no longer subject to question, and the ritual itself begins to assume an unquestionable status. Rituals create mystification, and are likewise reified by the sense of mystification surrounding them.

Roland Barthes, in his brief treatise of the relationship between society and myth, concurred with Moore that the essence of mystification was not to be found in silence, but in the twilight between presence and absence; in obscuration. Arguing that "myth is a system of communication" (Barthes 1957: 109), it becomes evident that something mystified is not the same as something silent or something secret. Communication is rendered meaningless by contradiction when it fails to be expressive (communicate). Instead, Barthes argues, the function of myth "is to distort, not to make disappear" (Barthes 1957: 121). Efforts to normalize the mythical object, as with Moore, are essential to the process of mystification. For Barthes, myth is experienced as "innocent speech" that transforms ideological text into "naturalized", "depoliticized speech" (Barthes 1957: 131 and 143).

Max Horkheimer propagates the concept of mystification as developed by Karl Marx. In criticizing Hegel for positing the state with "pure spirit", Marx argued that mystification began with "masking over contradiction" (Axelos 1976: 95). For Max Horkheimer, mystification occurred in the spaces between the social construction of reality and the reflexive notions of the world and humanity. As he argues:

> *"There is a gulf between the ideas by which men judge themselves and the world on the one hand, and the social reality which they reproduce through their actions on the other hand. Because of this circumstance, all their conceptions and judgments are two-sided and falsified" (Horkheimer 1968: 268).*

In this manner, Barthes, through the observations of Levi-Strauss is in accordance with Marx and Horkheimer. Myth is depoliticized speech. It is the purpose of myth to reconcile contradictions in ideology. Mystification is the process of reconciling contradiction. Mystification normalizes or, one could say, depoliticizes.

II. Critical Theory and the Connection Between Mystification and Nuclear Posturing

Horkheimer expounded perhaps the must fundamental tenet of Critical Theory when he "concluded that only the development of theory itself could be the scene of liberation" thereby associating philosophical endeavors with normative concerns[41]. Assuming the challenge levied against philosophy by Marx, who argued that "philosophers have only interpreted the world in various ways" (Marx 1845: 574) Horkheimer and his colleagues sought to restore (or perhaps,

---

[41] "Max Horkheimer". http://www.marxists.org/glossary/people/h/o.htm#horkheimer-max

from their perspective, establish for the first time) a sense of continuous social relevance and responsibility:

> *"The real social function of philosophy lies in its criticism of what is prevalent"* *(Horkheimer 1968: 264).*

Therein lies the "so what". Nuclear posturing constitutes more than deterrence between states, and in multiply meaningful ways. Incorporated into the different practices are the various effects normalized by the formality intrinsic within the process of ritualization.

The value of philosophical endeavors may be found in their capacity to subject self-evident, normalized aspects of culture to critical inquiry. When utilized, it is this form of critical perception that extracts the normalized and subjects it to examination. In this instance nuclear posturing, often given as displays of power in an anarchic international system, is scrutinized as behavior with substance beyond interstate maneuvering and effects that reach significantly further than deterring aggression.

Methodology

The means of examining the practices associated with the posturing of nuclear weapons can be correctly identified and critiqued as essentially subjective. Asserting the varied behaviors of nuclear posturing as a form of ritual, and describing its equally varied effects in ontological terms falls within the boundaries of hermeneutics. Though there are various conceptualizations for ritual it remains a construct, and one that evades a sufficiently adequate test. Attempts at empirical verification, therefore, must be established from the historical record. In this regard the genealogical method in the form which Hegel authored in "Phenomenology of Spirit" (1807),

109

Nietzsche refined in "Genealogy of Morals" (1910), and Foucault utilized through various works would appear to be most appropriate. By identifying the pertinent time periods characterized by fundamentally distinctive epistemic themes, or epistemes, the genealogical method allows the researcher to conduct historical comparisons and account for the difference between the periods.

In order to undertake an appropriate genealogy that balanced the brevity of Nietzsche with the philosophical rigor of Foucault, the case studied was of particular importance. In this instance, the United States was most appropriate because as the first state to develop nuclear weapons it possesses the longest and most pertinent historical records. Moreover, the United States throughout the Cold War exhibited a variety and plentitude of behavior that could be categorized as posturing.

Since one of the primary theoretical assertions presented here has been that nuclear posturing presents a form of science that bears a great resemblance to magic, it was also necessary to provide the characteristics indicative of the pre-Manhattan Project episteme, and compare them with those of the post-Manhattan Project episteme. As such, the nascent period of American science beginning in the early nineteenth century, through its ascension period of just prior to the Second World War was compared with the scientific militarism of the Cold War era.

Though the effects on the individual and even ideology could be demonstrated with only the historical content of the Cold War, establishing the effects of nuclear posturing on the state required demonstrating the historic transformation of science itself.

Nuclear Posturing as Ritual Practice

The practice of nuclear posturing cannot be adequately explained by the exchange of power among states. Though it is not necessarily rejected that they may value power alone as their sole "currency" (Morgenthau 1948: 5) the intentions of various states in seeking power does not dictate or limit the effects of their behavior. Instead of being a mode of communication provided exclusively for specific international actors, posturing with nuclear weapons has become a node of discourse for a domestic audience as well. Repetitive in nature, though varied in its format, posturing invokes the symbols of a power of a generally incomprehensible nature. Through this medium, segments of the world are divided between sacred and profane for the observer.

Totem and Ontology: The Heuristic Function of Nuclear Posturing

During the Cold War, nuclear posturing became a potent policy tool, providing a means to bring consistency between domestic and foreign agendas. As the United States attempted to project a committed, resolute, and forceful appearance to its Soviet adversaries domestic civil defense policy became an integral component to the doctrine of massive retaliation. In order to convince the Soviets that an attack on the United States would result in an immediate and total response of all available nuclear armaments, official civil defense efforts were largely relegated to a largely public advisory capacity, while the actual safeguards were left to private initiative. Any effort to supply the public with shelters was considered to be perceived as weakness by the Soviets. Posturing became the intermediary between the domestic and foreign policies frequently reminding the public that they were the object of nuclear threats. Consequently, the individual in the United States was altered on an ontological level, identifying themselves as fundamentally

111

different from individuals in non-nuclear states. The symbols of nuclear discourse became incorporated into their cultural reflexivity, and posturing through its policy objectives became an important factor in the individual totem.

The State as Shaman

Somewhat disinterested in science until the Civil War, the government of the United States began a relationship during the beginning of the twentieth century that steadily increased in propinquity. Science, for its part was accustomed to its own institutional designs and coveted accessibility and openness. Compelled by the need for funding, and then ominous world events, many of its most prominent members sought allegiance with the government. Their ambition, however, to be treated as partners was never realized, and the science they fostered was subsumed within state hierarchy. The state had assimilated science in an unprecedented fashion, a science largely regarded as akin to magic. Again the ritual practice of posturing with nuclear arms normalized the unprecedented. Through the formality and repetitiousness of its gestures, texts, tests, and treaties the state presented itself in its new role as shaman. Only in the service of society as protector and healer, would this shaman bear its supernatural power. However, its obligation to offer protection would immediately face conflict with its very means of doing so.

Ideological Contradictions

The discourse associated so intimately with nuclear posturing evokes powerful images of devastation that is often global in scope. Though their use has been highly limited, following the logical progression of a nuclear conflict would naturally appear to lead to the end of civilization. The state finds its legitimacy in mythical terms as it assumes rights of its constituents in

112

exchange for extricating them from the state of nature. Yet, in its modern capacity as the bearer of nuclear arms, it may just as readily deposit those same constituents into a condition that may nearly resemble "a condition of Warre of every one against every one" (Hobbes 1651: 72). The ritual practice of nuclear posture carries with it the mythical content attempting to reconcile this contradiction.

III. Concluding Remarks: On Future Inquiry

While it is argued here that the ritual holds as valid for all nuclear or quasi-nuclear states, the effects delineated to this point pertain specifically and entirely to the United States during the era of the Cold War. Although it will be ventured that the presence of nuclear science creates an epistemic transition or breach wherever it appears, the fundamental characteristics of the pre-nuclear episteme and the post-nuclear episteme may be different among other entities. Clearly Pakistan, for example, did not undergo the identical historicity of the United States or the Soviet Union/Russia, or Great Britain. Therefore, it may also follow that ritual nuclear posturing for different states or even non-state actors may create radically different effects for their constituents. It is, however, probable that so long as the posturing is public in orientation the effects will continue to affect the ontological composition of the individual, the posturing entity, and the relational structure between the two in some fashion. Other cases should be explored in the future as their unique historical contents may provide for varying ontological and cultural effects. Should non-state actors acquire such weapons, for instance, it may result in a unique transformation for the identity of their constituent units.

Ritual is an attempt to reify the formalization of some aspect or condition of society. Formalization, through its repetitiousness, normalizes and removes phenomena from the category of the questionable. In particular, the ritual of nuclear posturing addresses the facet of nuclear discourse pertaining directly to possession. Regardless of the neutrality of the gesture, posturing always visits upon its observers the notions of which actors are in possession. Revisiting the gesture of treaties, for example, demonstrates that is not only between different entities, such as the state and the individual, that possession is restricted, but among similar entities as well. Again, certain states which do possess nuclear weapons attempt to assert their influence upon which states should possess them. In general, no one questions the wisdom of which kinds of entities should be allowed to acquire and utilize such weapons. Individuals, for instance, clearly fall outside the category of acceptability in regards to accumulating their own stockpile of thermonuclear warheads. Even the issue of proliferation of such power among states is more often posed in the context of prevention rather than propriety. Horizontal proliferation is treated as a far greater problem than the potentially greater destructive force that is indivisible from vertical proliferation. In short, the formality ascribed to the ritual of nuclear posturing has been largely successful in presenting proliferation among "the other" as dangerous, while possession for the hegemon remains both safe and appropriate.

This work has been an attempt to disassemble the formalities of a particular ritual and present its network as socially constructed behavior. It has been an effort to identify practices and ideas that are somehow self-evident or "unquestionable", and demand that even if they remain intact, it is the objective here to ensure that they are subjected to an appropriate regimen of inquiry that is the obligation of political philosophy. If nothing else, giving consideration to

nuclear posturing as a form of ritual behavior draws this facet forth from the obscurity of the latent, and into the gaze of the observer.

LIST OF REFERENCES

"Analysis: Release of a Former Israeli Nuclear Technician Who Has Been In an Israeli Prison for 18 Years". NPR.org. 2004. National Public Radio. March 4, 2004. http://www.npr.org

"Analysis: Libya To Disband Its Development of Weapons of Mass Destruction". NPR.org. 2003. National Public Radio. December 20, 2003. http://www.npr.org

Axelos, Kostas. Alienation, Praxis, and Techne in the Thought of Karl Marx. Trans. Ronald Bruzina. Austin: University of Texas Press, 1976.

Badash, Lawrence. Scientists and the Development of Nuclear Weapons: From Fission to the Limited Test Band Treaty, 1939-1963. Atlantic Heights, New Jersey: Humanities Press, 1995.

Basgen, Brian and Andy Blunden. "Max Horkheimer". Marxists.org. 2004. Encyclopedia of Marxism. January 25, 2005. http://www.marxists.org/glossary/people/h/o.htm#horkheimer-max

Barthes, Roland. Mythologies. Trans. Annette Lavers. New York: Hill and Wang, 1957.

---. The Eiffel Tower and Other Mythologies. Trans. Richard Howard. Berkeley, California: University of California Press, 1979.

Boas, Franz. "Seeking Contact with Spirits Is Not Necessarily Shamanism". 1910. Shamans Through Time. Ed. Jeremy Narby and Francis Huxley. New York: Jeremy P. Tarcher/Putnam, 2001.

Bonham, G. Matthew, Victor M. Sergeev, and Pavel B. Parshin. "The Limited Test-Ban Agreement: Emergence of New Knowledge Structures in International Negotiation." International Studies Quarterly. Vol. 41:2. pp. 215-240.

Brown, Neville. Nuclear War: The Impending Strategic Deadlock. New York: Frederick A. Praeger Publishers, 1965.

Bundy, McGeorge and James G. Blight. "Documentation: White House Tapes and Minutes of the Cuban Missile Crisis". International Security. Vol. 10:1. Summer, 1985. pp. 164-203.

Burchill, Scott. "Realism and Neorealism". Theories of International Relations. Ed. Scott Burchill. New York: Palgrave, 1996.

Burns, E.L.M. Megamurder. Toronto: Clarke, Irwin & Company, 1966.

Buzzard, Sir Anthony W. "Massive Retaliation and Graduated Deterrence". <u>World Politics.</u> Vol. 8: 2. January, 1956. pp. 228-237.

Calder, Nigel. <u>Nuclear Nightmares: An Investigation Into Possible Wars.</u> New York: The Viking Press, 1979.

Caldicott, Helen. <u>Missile Envy: The Arms Race and Nuclear War.</u> New York: Bantam Books, 1986.

Chari, P.R. "An Indian Reaction to U.S. Nonproliferation Policy". <u>International Security.</u> Vol. 3:2. Autumn, 1978. pp. 57-61.

Chubin, Daryl E. "Open Science and Closed Science: Tradeoffs in a Democracy". <u>Science, Technology, and Human Values.</u> Vol 10:2. Spring, 1985. pp. 73-81.

Clayton, Bruce. <u>Life After Doomsday: A Survivalist Guide to Nuclear War and Other Major Disasters.</u> Boulder, Colorado: Paladin Press, 1980.

Cohen, Abner. "Political Anthropology: The Analysis of the Symbolism of Power Relations". <u>Man.</u> Vol. 4:2. June, 1969. pp. 215-235.

Craig, Campbell. <u>Destroying the Village: Eisenhower and Thermonuclear War.</u> New York: Columbia University Press, 1998.

Daniels, George H. "The Process of Professionalization in American Science: The Emergent Period, 1820-1860". <u>Science in America Since 1820.</u> Ed. Nathan Reingold. New York: Science History Publications, 1976.

Davis, Jacquelyn K., "Theater-Nuclear Force Modernization and NATO's Flexible Response Strategy". <u>Annals of the American Academy of Political and Social Science.</u> Vol. 457. pp. 78-87.

Diderot Denis. "Shamans Are Imposters Who Claim They Consult the Devil-And Who Are Sometimes Close to the Mark". 1765. <u>Shamans Through Time.</u> Ed. Jeremy Narby and Francis Huxley. New York: Jeremy P. Tarcher/Putnam, 2001.

"Does Nuclear Status Boost India's Clout?". <u>BBC.com.</u> 2003. British Broadcasting Corporation. May 12, 2003. http://www.news.bbc.co.uk/1/hi/world/south_asia/3016775.stm

"'Don't Interfere' Yeltsin Warns Clinton". <u>BBC.com.</u> 1999. British Broadcasting Corporation. December 9, 2000. http://news.bbc.co.uk/1/hi/world/europe/556532.stm

Doty, William G. <u>Mythography: The Study of Myths and Rituals.</u> Tuscaloosa, Alabama: The University of Alabama Press, 2000.

Dupree, A. Hunter. <u>Science in the Federal Government: A History of Policies and Activities.</u>
      Baltimore: The John Hopkins University Press, 1986.

Durkheim, Emile. <u>The Elementary Forms of Religious Life.</u> 1912. Trans. Karen E. Fields. New
      York: The Free Press, 1995.

Eisenhower, Dwight D. <u>Waging Peace, 1956-1961.</u> Garden City, New York: Double-Day, 1965.

Eliade, Mircea. <u>Myth and Reality.</u> New York: Harper and Row Publishers, 1963.

---. <u>Shamanism: Archaic Techniques of Ecstasy.</u> Princeton, New Jersey: Princeton University
      Press, 1964.

Fearon, James. "Rationalist Explanations for War". <u>International Organization.</u>, Vol. 49:3,
      summer, 1995, pp. 379-414.

Finnis John, Joseph M. Boyle Jr. and Germain Grisez. <u>Nuclear Deterrence, Morality, and
      Realism</u>. Oxford: Clarendon Press, 1987.

Foucault, Michel. <u>Madness and Civilization.</u> Trans. Richard Howard. New York: Vintage Books,
      1965.

---. <u>Archaeology of Knowledge and the Discourse on Lanugage.</u> Trans. A.M. Sheridan Smith.
      New York: Pantheon Books, 1972.

---. <u>Discipline and Punish</u>. Trans. Alan Sheridan. New York: Vintage Books, 1977.

"France Continues Nuclear Testing Despite Condemnation". <u>NPR.org.</u> 1995. National Public
      Radio. December 28, 1995.
      http://www.npr.org

Frank, Pat. <u>How To Survive the H-Bomb and Why.</u> Philadelphia: J.B. Lippincott Company,
      1962.

Freedman, Lawrence. "The First Two Generation of Nuclear Strategists". <u>Makers of Modern
      Strategy.</u> Ed. Peter Paret. Princeton, New Jersey: Princeton University Press, 1986, 735-
      778.

Fryklund, Richard. <u>100 Million Lives: Maximum Survival in a Nuclear War.</u> New York: The
      Macmillan Company, 1962.

Gallup, George. "Fear of World War At 10-Year High" <u>Washingtonpost.com</u>. 1961. The
      Washington Post. October 8, 1961.

Geller, Daniel S. "Nuclear Weapons, Deterrence, and Crisis Escalation". The Journal of Conflict Resolution. Vol. 34: 2. June, 1990. pp. 291-310.

Gerstell, Richard. How To Survive An Atomic Bomb. Washington, D.C.: Combat Forces Press, 1950.

Gitlin, Todd. The Sixties: Years of Hope, Days of Rage. New York: Bantam, 1987.

"Global Politics". 1998. NPR.org. National Public Radio. May 31, 1998. http://www.npr.org

Gusterson, Hugh. "Nuclear Weapons Testing". Naked Science. Ed. Laura Nader. New York: Routledge, 1996.

---. People of the Bomb: Portraits of America's Nuclear Complex. Minneapolis: University of Minnesota Press, 2004.

Harris, Ron. "Flock Goes On Alert for Nuclear War; Families Invade Valley To Be Near Bomb Shelters". Washingtonpost.com. 1990. The Washington Post. March 17, 1990. http://www.washingtonpost.com

Hegel, G.W.F. Phenomenology of Spirit. 1807. Trans. A.V. Miller. Ed. J.N. Findlay. Oxford: Oxford University Press, 1977.

Herken, Gregg. The Winning Weapon: The Atomic Bomb in the Cold War, 1945-1950. New York: Knopf, 1980.

Hildenbrand, Gunter. "A German Reaction U.S. Nonproliferation Policy". International Security. Vol. 3:2. Autumn, 1978. pp. 51-56.

Hilgartner, Stephen, Richard C. Bell and Rory O'Connor. Nukespeak: Nuclear Language, Visions, and Mindset. San Francisco, California: Sierra Club Books, 1982.

Hobbes, Thomas. Leviathan. 1651. Ed. Richard E. Flathman and David Johnston. New York: W.W. Norton & Company, 1997

Horkheimer, Max. Critical Theory: Selected Essays. Trans. Matthew J. O'Connell et al. New York: Herder and Herder, 1968.

"ICBM Intercontinental Ballistic Missiles – Russian/Soviet Nuclear Forces". FAS.org. Federation of American Scientists. January 5, 2005. http://www.fas.org/nuke/guide/russia/icbm/index.html.

"ICBM Intercontinental Ballistic Missiles – United States Nuclear Forces". FAS.org. Federation of American Scientists. January 5, 2005. http://www.fas.org/nuke/guide/usa/icbm/index.html

Imai, Ryukicki. "A Japanese Reaction to U.S. Nonproliferation Policy". International Security. Vol. 3:2. Autumn, 1978. pp. 62-66.

"India-Pakistan Military Balance". BBC.com. 2003. British Broadcasting Corporation. May 9, 2003. http://news.bbc.co.uk/2/hi/south_asia/1735912.stm

Johnston, Robert. "Soviet/Russian and PR China Missile Designations: Introduction". Johnstonsarchive.net. Johnston's Archive. November 30, 2003. http://www.johnstonsarchive.net/nuclear/sovietmissiledes-i.html

Kahn, Herman. On Thermonuclear War. Princeton, NJ: Princeton University Press, 1960.

Katz, Arthur M. Life After Nuclear War: The Economic and Social Impacts of Nuclear Attacks on the United States. Cambridge, Massachusetts: Ballinger Publishing Company, 1982.

Kertzer, David I. Ritual, Politics, and Power. Yale: Yale University Press, 1988.

Kevles, Daniel. "George Ellery Hale, the First World War, and the Advancement of Science in America". Science in America Since 1820. Ed. Nathan Reingold. New York: Science History Publications, 1976.

Kugler, Jacek. "Terror Without Deterrence: Reassessing the Role of Nuclear Weapons." The Journal of Conflict Resolution. Vol. 28: 3. September, 1984. pp. 470-506.

Lamy, Philip. Millennium Rage: Survivalists, White Supremacists, and the Doomsday Prophecy. New York: Plenum Press, 1996.

Lapp, Ralph E. The New Priesthood: The Scientific Elite and the Uses of Power. New York: Harper & Row Publishers, 1965.

Lee, Henry N. "Scientific Method and Knowledge". Philosophy of Science. Vol. 10:2. April, 1943. pp. 67-74

Lee, Stan and Jack Kirby. "The Incredible Hulk". Marvel Comics. [New York] May 1, 1962

Levi-Strauss, Claude. The Savage Mind. Chicago: The University of Chicago Press, 1962.

---. Totemism. Boston, Massachusetts: Beacon Press, 1962.

---. Structural Anthropology. New York: Basic Books, Inc., 1963.

---. The Raw and the Cooked. Trans. Doreen Weightman and John Weightman. Chicago: The University of Chicago Press, 1969.

---Myth and Meaning: Cracking the Code of Culture. New York: Shocken Books, 1978.

Locke, John. <u>Two Treatises of Government.</u> 1690. Ed. Peter Laslett. Cambridge: Cambridge University Press, 1988.

Lowi, Theodore J. and Benjamin Ginsburg. <u>Poliscide.</u> New York: Macmillan Publishing, Co., 1976.

Malinovsky, Rodian Ya. "Address to the XXIII Congress CPSU". <u>The Nuclear Revolution in Soviet Military Affairs.</u> Ed. William R. Kintner and Harriet Fast Scott. Norman: University of Oklahoma Press, 1968.

Malinowski, Bronislaw. <u>Magic, Science and Religion and Other Essays.</u> Westport, Connecticut: Greenwod Press, 1984.

Marx, Karl. <u>The German Ideology Including Theses on Feurerbach and Introduction to the Critique of Political Economy.</u> 1845. New York: Prometheus Books, 1998.

---. "From Theories of Surplus Value". 1906. <u>Karl Marx: A Reader.</u> Ed. Jon Elster. Cambridge: Cambridge University Press, 1986. pp. 313-333

McEnaney, Laura. <u>Civil Defense Begins At Home: Militarization Meets Everyday Life In the Fifties.</u> Princeton, New Jersey: Princeton University Press, 2000.

McGrath, Patrick J. <u>Scientists, Business, and the State, 1890-1960.</u> Chapel Hill, North Carolina: The University of North Carolina Press, 2002.

McIntosh, Ian. <u>Classical Sociological Theory: A Reader.</u> Edinburgh: Edinburgh University Press, 1997.

Merton, Robert K. <u>On Social Structure and Science.</u> Chicago, Illinois: University of Chicago Press, 1996.

Meserve, Jeanne. "Duct Tape Sales Rise Amid Terror Fears". <u>CNN.com</u>. 2003. Cable News Network. February 11, 2003. http://www.cnn.com/2003/US/02/11/emergency.supplies/index.html.

Moore, Sally Falk. "Political Meetings and the Simulation of Unanimity: Kilimanjaro 1973". <u>Secular Ritual.</u> Ed. Sally Falk Moore and Barbara G. Myerhoff. Amsterdam, Netherlands: Van Gorcum & Company, 1977.

Morgenthau, Hans J. <u>Politics Among Nations</u>. Boston, Massachusetts: McGraw-Hill, 1948.

Narby, Jeremy and Francis Huxley. <u>Shamans Through Time.</u> New York: Jeremy P. Tarcher/Putnam, 2001.

Nietzsche, Friedrich. <u>Beyond Good & Evil.</u> 1886. Trans. Walter Kaufmann. New York: Vintage
      Books, 1966.

---.<u>The Genealogy of Morals.</u> 1913. New York: Dover Publications. 2003.

<u>Night of the Living Dead.</u> Screenplay by George Romero and John Russo. Dir. George Romero.
      Perf. Duane Jones, Judith O'Dea, Karl Hardman, and Marilyn Eastman. Image Ten
      Production, 1968.

"No Freedom For Nuclear Scientist". <u>BBC.com.</u> 2004. British Broadcasting Corporation.
      November 10, 2004. http://news.bbc.co.uk/1/hi/world/south_asia/3999429.stm

Nolan, Janne. <u>An Elusive Consensus.</u> Washington, D.C.: Brookings Institution Press, 1999.

"North Korea Makes Nuclear Offer". <u>BBC.com.</u> 2004. British Broadcasting Corporation.
      February 26, 2004. http://news.bbc.co.uk/1/hi/world/asia-pacific/3488738.stm

Pach, Jr. Chester and Elmo Richardson. <u>The Presidency of Dwight D. Eisenhower.</u> Lawrence,
      Kansas: University Press of Kansas: 1991.

"Pakistan" <u>CIA-The World Factbook.</u> 2003. Central Intelligence Agency. December 18, 2003.
      http://www.cia.gov/cia/publications/factbook/geos/pk.html

Palmer, Donald D. <u>Structuralism and Poststructuralism for Beginners</u>. New York: Writers and
      Readers Publishing, Inc., 1997.

Peeters, Paul. <u>Massive Retaliation: The Policy and Its Critics.</u> Chicago, Illinois: Henry Regnery
      Company, 1959.

Poulantzas, Nicos. <u>State, Power, Socialism</u>. London: Verso Classics, 1978

Power, Paul F. "The Mixed State of Non-Proliferation: The NPT Review Conference and
      Beyond". <u>International Affairs.</u> Vol. 62:3. Summer, 1986. pp. 477-491.

Price, Richard and Nina Tannenwald. "Norms and Deterrence: The Nuclear and Chemical
      Weapons Taboos". <u>The Culture of National Security: Norms and Identity in World
      Politics.</u> Ed. Peter J. Katzenstein. New York: Columbia University Press, 1996.

"Profile: Billy Graham". <u>PBS.org.</u> 1998. Public Broadcasting System. November 6, 1998.
      http://www.pbs.org/wnet/religionandethics/week210/profile.html

"Profile: Nuclear Posture Review". <u>NPR.org.</u> 2002. National Public Radio. March 11, 2002.
      http://www.npr.org

Rawls, John. <u>Political Liberalism.</u> New York: Columbia University Press, 1993.

Reid, T.R. "Montanans Feel 'Invaded' By Survivalist Church; Tensions Rise Over Guru Ma". Washingtonpost.com. 1990. The Washington Post. April 22, 1990. http://www.washingtonpost.com

Reingold, Nathan. "Science in the Civil War: The Permanent Commission of the Navy Department". Science in America Since 1820. Ed. Nathan Reingold. New York: Science History Publications, 1976.

Ricoeur, Paul. The Symbolism of Evil. Boston, Massachusetts: Beacon Press, 1967.

---. Hermeneutics and the Human Sciences. Ed. John B. Thompson. Cambridge: Cambridge University Press, 1981.

Robbins, Jim. "A Question of Good Neighbors An Eccentric And Wealthy Religious Sect Is Busy Constructing A Holy Community At the Edge of Yellowstone National Park. It Is Not Going Over Well With Many In This Land of Cowboys and Cattle". Boston.com. 1987. The Boston Globe. August 9, 1987. http://www.boston.com

Rose, Kenneth D. One Nation Underground: The Fallout Shelter in American Culture. New York: New York University Press, 2001.

Rousseau, Jean Jacques. Rousseau's Political Writings. Ed. Alan Ritter and Julia Conaway Bondanella. Trans. Julia Conaway Bondanella. New York: W.W. Norton & Company, 1988.

Russett, Bruce, Christopher Layne, David Spiro, and Michael Doyle. "The Democratic Peace". International Security, Vol. 19:4. Spring 1995, pp. 164-184.

"Russia Lowers Nuclear Threshold". BBC.com. 2000. British Broadcasting Corporation. January 14, 2000. http://news.bbc.co.uk/1/hi/world/europe/604449.stm

Sagan, Scott. "Why Do States Build Nuclear Weapons: Three Models in Search of a Bomb". International Security. Vol. 21:3, Winter, 1996-1997, pp 54-86

De Saussere, Ferdinand. Course in General Linguistics. 1911. Ed. Charles Bally, Albert Sechehaye, and Albert Riedlinger. Trans. Wade Baskin. New York: McGraw-Hill, 1959

"Science in the United States From 1789 to 1865". The History of Science in the United States: An Encyclopedia. Ed. Marc Rothenberg. New York: Garland Publishing Inc., 2001.

Shute, Nevil. On the Beach. New York: William Morrow and Company, Inc., 1957.

Singer, Isaac Bashevis. The Golem. New York: Farrar, Staus, Giroux, 1982.

Speth, J. Gustave, Arthur R. Tamplin, and Thomas B. Cochran. "Plutonium Recycle: The Fateful Step." <u>Bulletin of Atomic Scientists.</u> Vol. 30, No. 9, November 1974.

Starr, Barbara. "Bunker Busters May Grow To 30,000 Pounds". <u>CNN.com.</u> 2004. Cable News Network. July 21, 2004. http://www.cnn.com/2004/US/07/20/big.bomb/index.html

"Submarine Launched Ballistic Missiles United States Nuclear Forces Guide". <u>FAS.org</u>. Federation of American Scientists. January 5, 2005. http://www.fas.org/nuke/guide/usa/slbm/index.html

"Survivalist Church Agrees to End Arms Stockpile". <u>Boston.com</u>. 1994. The Boston Globe. June 4, 1994. http://www.boston.com

Szilard, Leo. "Chicago Scientists' Petition to the President, July 17, 1945". <u>The American Atom: A Documentary History of Nuclear Policies from the Discovery of Fission to the Present, 1939-1984.</u> Ed. Robert C. Williams and Philip L. Cantelon. Philadelphia, Pennsylvania: University of Pennsylvania Press, 1984.

Tertrais, Bruno. <u>Nuclear Policies in Europe</u>. London: Oxford University Press, 1999.

<u>The Day After.</u> Screenplay by Edward Hume. Dir. Nicholas Meyer. Perf. Jason Robards, JoBeth Williams, Steve Guttenberg, and John Lithgow. Metro Goldwyn Mayer, 1983.

<u>The Torah: The Five Books of Moses.</u> Philadelphia: The Jewish Publication Society, 1992.

"Timeline: North Korea Crisis". <u>BBC.com.</u> 2004. British Broadcasting Corporation. February 25, 2004. http://news.bbc.co.uk/1/hi/world/asia-pacific/2604437.stm

Tobey, Ronald C. <u>The American Ideology of National Science, 1919-1930.</u> Pittsburgh, PA: University of Pittsburgh Press, 1971.

Tsebelis, George. <u>Nested Games: Rational Choice in Comparative Politics.</u> Berkeley: University of California Press, 1990.

Turner, Victor. <u>Dramas, Fields, and Metaphors: Symbolic Action in Human Society.</u> Ithaca, New York: Cornell University Press, 1977.

United States. Congress of the United States. Office of Technology Assessment. <u>The Effects of Nuclear War.</u> Rowman & Allanheld, 1980.

United States. Department of Homeland Security. Federal Emergency Management Administration. <u>Aboveground Home Shelter.</u> June 1980.

United States. Department of Defense. <u>Nuclear Posture Review.</u> 2002 http://www.defenselink.mil/news/Jan2002/020109-D-6570C-001.pdf

"US Tests Massive Bomb". <u>BBC.com.</u> 2003. British Broadcasting Corporation. March 12, 2003. http://news.bbc.co.uk/1/hi/world/americas/2842619.stm

Van Creveld, Martin. <u>The Sword and the Olive.</u> New York: Public Affairs, 1998.

Van Gennep, Arnold. "Shamanism Is a Dangerously Vague Word". 1903. <u>Shamans Through Time.</u> Ed. Jeremy Narby and Francis Huxley. New York: Jeremy P. Tarcher/Putnam, 2001.

Von Clausewitz, Carl. <u>On War</u>. 1832. Ed. Michael Howard and Peter Paret. Trans. Michael Howard and Peter Paret. Princeton, New Jersey: Princeton University Press, 1976.

Waltz, Kenneth N. <u>Man, The State, and War</u>. New York: Columbia University Press, 1954.

Weinberg, Alvin M. "Social Institutions and Nuclear Energy". <u>Science.</u> Vol. 177, No. 4043. July 7, 1972

Wells, Jr., Samuel F. "The Origins of Massive Retaliation". <u>Political Science Quarterly.</u> Vol. 96:1. Spring, 1981. pp. 31-52.

Wendt, Alexander. "The Agent Structure Problem in International Relations". <u>International Organization.</u> Vol. 41:3. Summer, 1987. pp. 335-370.

White, Hayden. "Michel Foucault". <u>Structuralism and Since: From Levi-Strauss to Derrida.</u> Ed. John Sturrock. Oxford: Oxford University Press, 1979.

Yepishev, A.A. "Address to the XXIII Congress CPSU". <u>The Nuclear Revolution in Soviet Military Affairs.</u> Ed. William R. Kintner and Harriet Fast Scott. Norman: University of Oklahoma Press, 1968.

Zagare, Frank C. "NATO, Rational Escalation, and Flexible Response". <u>Journal of Peace Research.</u> Vol. 29:4. November, 1992. pp. 435-454.

Zochert, Donald. "Science and the Common Man in Ante-Bellum America". <u>Science in America Since 1820.</u> Ed. Nathan Reingold. New York: Science History Publications, 1976.