AN ANALYSIS OF PROPAGANDA IN THE YELLOW RAIN CONTROVERSY

THESIS

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The use of arguments containing increasingly technical materials has grown significantly in the recent years. Specifically, arguments that are used to justify military expenditures or to allege violations of international agreements are becoming more sophisticated. This study examines the dissemination and use of technical argument in claims made by the United States government that the Soviet Union violated chemical and biological treaties in Southeast Asia and Afghanistan.

This study employs the Jowett-O'Donnell method for analyzing propaganda to determine the extent and effectiveness of the government's claims. The study concludes that propaganda was used extensively by the government in order to justify new weapons programs and that the propaganda campaign was effective because of the technological orientation of its claims.
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CHAPTER 1

INTRODUCTION TO THE PROBLEM

Beginning in the summer of 1975, Hmong refugees fleeing Laos for Thailand started to carry terrifying stories. They spoke of aircraft attacking their villages with rockets that exploded overhead to release clouds of vapor, usually described as yellow or white, but sometimes red or green. Having little grasp of modern technology, or even a written language, they christened the gruesome new weapon yellow rain (Bartley and Kucewicz 807). At first, these reports did not draw international attention. However, as they persisted they began to draw the attention of a few journalists. Eventually, these reports were appearing in numerous books and newspapers. Whether or not the refugees' reports of yellow rain are verified by scientific data is a source of considerable controversy.

The world in which we live is becoming increasingly complex. Since the discovery of the microscope in the eighteenth century, scientific knowledge has expanded in exponential proportions. As knowledge expands in a multitude of directions, it becomes difficult for specialists, let alone common people, to understand this new
and varied information. While mankind's growing knowledge of the universe carries with it the promise of a sustainable and prosperous future, the complexity of this knowledge enhances the ease with which it can be used to manipulate and shape the perceptions and cognition of others. Indeed, mankind's incapacity to cope with these new mountains of knowledge can be a powerful instrument for a skilled propagandist.

Since the Soviet invasion of Afghanistan in 1979, reports of yellow rain or chemical weapons use by the Soviets have been rampant. In a speech before the United Nations General Assembly, Ronald Reagan made the charge, "The Soviet Union and their allies are violating the Geneva Protocol of 1925" (Gervasi 237). The Geneva Protocol bans the use of chemical and biological weapons in the time of war. If reports from the United States State Department are to be believed, powerful biological warfare agents made with fungal toxins were being used in Indo-China and Central Asia. According to the State Department, government forces in Laos, Kampuchea and Afghanistan used weapons made with fungal toxins (mycotoxins) to kill dissident tribesmen and enemy soldiers. Their weapons were being supplied by the Soviet Union and have killed thousands of people (Murphy 49).
Reports of Soviet chemical weapons use appeared in US newspapers almost immediately after the invasion of Afghanistan (Roberts 504). This prompted an investigation by Professor Julian Perry Robinson of Sussex University. Robinson found that the authoritative reports winding through the world media about Soviet use of a chemical agent known as Soman are in fact based on the testimony of a single defecting Afghan army officer, who himself heard them second hand. Robinson also wondered exactly how Afghans, unacquainted with chemical weapons, had managed to identify Soman specifically, when a highly skilled chemist would have needed a well-equipped laboratory and a sample of the agent concerned to identify Soman (Gervasi 237). Given the paucity of the evidence, it is not clear why the State Department referred to a plurality and persistence of reports when it issued its first statement of the subject (Roberts 504-5). By November 1981, Richard Burt, director of the State Department’s Bureau of Political-Military Affairs, conceded: "We do not, as yet, have physical evidence of chemical warfare in Afghanistan" (Gervasi 237).

In March 1982, Deputy Secretary of State Walter Stoessel declared that 3042 deaths could be attributed to 47 separate incidents of chemical attacks in Afghanistan, presumably by Soviet forces, between the summer of 1979 and the summer of 1981. This was the same period for which Burt
had lacked evidence (Gervasi 237). Later that month, Secretary of State Alexander Haig issued a major report that contained the same list of deaths. The report claimed "that Soviet forces have used a variety of chemical agents including nerve gases in Afghanistan" (Gervasi 238).

Haig's report, however, was based on the same evidence Burt claimed did not exist previously. This confusion led Gwynn Roberts to conclude that "the Afghan stories bear the hallmarks of a campaign of misinformation possibly initiated by ill-informed rebels, but then seized on and embroidered by US intelligence for use as black propaganda against the Soviets" (504).

State Department claims of scientific substantiation lead to an exciting debate among the United States government and the scientific community. The Reagan Administration continued to charge the Soviets with Chemical Weapons treaty violations and supported its case with controversial scientific evidence. When a nation is charged with chemical weapons use, a varied and complex web of information accumulates that takes a variety of specialists to compile and interpret. Biologists, chemists, medical doctors, professional interviewers, political analysts, communication analysts, arms control negotiators, and others are needed merely to explain the evidence. A poorly synthesized conclusion can lead to international
misunderstanding and potential conflict. A misreading of information can lead to ill defined military postures and wasteful procurements. It must be kept in mind that this complex web of information can be manipulated by a skilled propagandist to sway public and international opinions to support particular agendas and goals. The Reagan Administration's charges of Soviet use of chemical weapons in Laos, Kampuchea, and Afghanistan appear to be a deliberate attempt to form, control, and alter the attitudes of other groups by the use of the instruments of communication, with the intention that the reaction of those so influenced will be that desired by the US government.

The controversy surrounding yellow rain involves whether the evidence supports Soviet complicity in the use of these weapons. Some argue that once the Reagan Administration went public with its charges, it was politically difficult for the government to acknowledge the possibility of alternative explanations for the refugee reports and the scientific evidence; and therefore, the Administration began to produce "scientific" explanations. Others argue that the Soviets did indeed use such weapons and ceased their use when publicity reached a particular peak. It is the purpose of this study to analyze the use of propaganda in the yellow rain affair.
Statement of the Problem

Researchers are often unable to state their findings in such a way that the potential users of the research understand its meaning (Kaufmann 563). This problem is compounded in the area of international political communication because nation states, in attempting to further their interests, use increasingly scientific information to communicate for political purposes across national boundaries.

The study of communication is complex even when it is confined to the domestic scene. An analysis of international political communication is even more difficult because the actor is a complicated propaganda apparatus in one culture, the audience is an amorphous audience in another culture, and the purposes and circumstances are confounded with all the complexities of international relations. In 1952, the problem appeared so ominous that W. P. Davison and A. L. George suggested that the communication field was not yet qualified to undertake a systematic study of international communication (502).

Although there are numerous books and articles relating to the yellow rain controversy, no systematic attempt has been made to scrutinize certain aspects of the communication process or to analyze the propaganda messages involved in the controversy. By using the Jowett-O'Donnell
method of analyzing propaganda, this study will systematically analyze the yellow rain controversy by answering the following questions.

1. To what extent, and with what effect, was propaganda employed in the yellow rain controversy?
2. To what extent is the Jowett-O'Donnell ten-step method useful in analyzing propaganda in the yellow rain controversy?

By answering these questions, this study will illuminate certain aspects of the international political communication process and will discover problems, if any, that exist with the communication methods of relevant international communicators. This study will also briefly critique the Jowett-O'Donnell methodology and propose alterations, if necessary, in the systematic process of analyzing propaganda.

**Significance of the Study**

A propaganda analysis of the yellow rain controversy is needed for several reasons. First, the analysis of propaganda is a necessary defense against mass-manipulators. For a citizen who wishes to be informed, and to make intellectual decisions as a participant in the political process, propaganda analysis is imperative. This study will provide such an analysis, and as such will provide
information on the issue of yellow rain and an insight into how communication is used to shape beliefs and attitudes. The study will also present the scientific arguments in such a manner that a concerned citizen can understand the information, and, as a consequence, make informed decisions.

Second, the study will provide some focus for the yellow rain debate. Currently, discussions in the political and social science communities focus on the evidence supporting or denying Chemical and Biological Weapons (CBW) use. The researchers report the information through their prescribed paradigm in accordance with whatever ideological bent they attest. By focusing on the communication aspect of the controversy, this study can prove useful in recognizing certain media techniques and messages as propaganda. This may have the effect of playing a debunking role and illuminate particular problems, processes, and effects of political communication. If these techniques are illuminated, the issues can be addressed by academicians and relevant political actors in a more coherent and rational manner.

Third, the study will evaluate the Jowett-O'Donnell methodology for analyzing propaganda. Communication methodologies should be utilized and evaluated if the area is to be dynamic. Abstract theoretical constructs need to be implemented in order to have pragmatic worth.
Implementation and evaluation of a particular methodology may breed further debate and discussion, and new ideas and paradigms may be generated. Thus, the study will have served its purpose merely by applying and evaluating the methodology.

Scope of the Study

For the purpose of manageability, this study is concerned only with the United States' charges of Soviet use and/or complicity in use of chemical and biological weapons in Afghanistan, Laos, and Kampuchea that allegedly occurred between 1975 and 1983. Even though there are other charges of Soviet violations of binding CBW conventions, such as in Yemen and Sverdlosk, this study will be confined to the nations and years listed above because the relevant literature and scientific data create this particular grouping. The issues involved in Sverdlosk and Yemen are mentioned to clarify certain issues and motivations, but they are not the focus of the study. Conjunctively, US use of chemical herbicides (such as Agent Orange) in Vietnam is mentioned for clarification for clarification and explanation, but no attempt is made to analyze the propaganda messages related to this event. In order to clarify the historical context of the propaganda this study will mention numerous international questions, such as the
INF treaty and Enhanced Radiation Warheads; however the focus of the study will not specifically examine the propaganda relating to these areas. Additionally, no direct attempt is made to determine whether or not propaganda is moral or immoral: This decision should be left to each individual analyzing the situation and behaviors within his/her personal code of conduct. An analysis of propaganda necessitates the involvement of numerous disciplines. Consequently, many ideas discussed in the study will apply to other disciplines, however the study is designed to be an analysis of propaganda as it relates to international political communication.

Review of Literature

To date, no systematic propaganda analysis has been conducted on the issue of yellow rain. The literature that is available falls into two categories. The first deals with the theoretical formations of propaganda analysis. The second category contains evidence that relates specifically to the historical context, media, and messages that will be analyzed in this study. What a review of literature reveals is that those works that discuss both propaganda and yellow rain in combination lack objectivity and are propagandistic in nature. These works will be discussed further in later portions of the text.
Books

There are many books written on propaganda theory and practice. However, as mentioned above, no work combines the relevant issues of this study. The books reviewed are either quintessential works on propaganda or books containing chapters specifically devoted to the yellow rain controversy.

From a social science perspective, one of the landmark works in the field of propaganda is Jacques Ellul's book, Propaganda. Ellul thoroughly reviews the work of American authors and concludes that propaganda is more effective than previously thought. Ellul's book also constitutes an extensive critique of the social and psychological processes of propaganda. The Fine Art of Propaganda by A. M. and E. B. Lee, provides a dated but insightful examination of the historical evolution of propaganda studies.

From a communication perspective, Propaganda and Persuasion by Garth Jowett and Victoria O'Donnell provides an excellent framework for analyzing propaganda. Unlike Ellul's work, this book painstakingly supports arguments with social and psychological research. Although not as thorough as Ellul's work, the Jowett and O'Donnell text provides a history of, as well as a methodology for, the analysis of propaganda.
Several books discuss the history of chemical weapons use and address the yellow rain controversy specifically. Sterling Seagrave's *Yellow rain: A Journey through the Terror of Chemical Warfare* not only contains a history of chemical warfare, but includes extensive refugee reports and interviews with the Hmong. Seagrave is critical of both Soviet and US policy concerning CBW research and procurement. *No Fire, No Thunder*, by Sean Murphy, Alastair Hay, and Steven Rose, includes a good critique of the yellow rain debate and a quality chapter on the structure and organization of the military industrial complex, but appears biased because it contains virtually no criticism of Soviet actions. *Chemical Warfare* by Edward Spiers discusses the issues of disarmament and deterrence of CWs within a broad historical and strategic context, with the chapter on "Gas and Third World Conflicts" being especially enlightening because it details many motivations for CBW use.

Mark Storella's *Poisoning Arms Control: The Soviet Union and Chemical/Biological Weapons* is the only book that discusses yellow rain propaganda in any detail, and as such is extremely helpful in locating counterpropaganda. Storella's rather one sided report transposes Murphy's work and extensively criticizes the Soviet Union's actions in relation to CBW treaty violations. Tom Gervasi's *The Myth*
of Soviet Military Supremacy discusses this myth as a model for social and political action and details various implementations of the myth by the Pentagon.

**Anthologies**

Anthologies are important to this review because they attempt to bridge the gap between conventional communication studies and the study of propaganda in an international context. *The Handbook of Communication*, edited by Ithiel de Sola Pool, provides valuable background information and discusses the study of propaganda from a communication perspective by including articles that integrate international communication research with perspectives on international politics. *International Propaganda/Communication*, edited by Christopher Sterling, contains numerous cold war articles from *Public Opinion Quarterly* concerning the use of communication methodologies for the analysis of cold war propaganda and examines the problems inherent in international political communication studies by providing an extensive critique of domestic communication methodologies when applied to international contexts.

**Government Documents**

Government documents provide many of the primary sources that will be useful in answering the question.
Early documents, published during the Carter administration, are reluctant to charge the Soviets with treaty noncompliance, where documents published during the Reagan Administration appear to be operating under the assumption that the Soviets have already been tried and convicted of treaty violations. Official positions and accusations are found in the Haig Report and the Shultz Report; while articles in the Department of State Bulletin clarify the technical findings and elucidate the charges found in these reports. A more extensive critique contrasting the attitudes of the two administrations will be contained in later chapters.

Journal Articles

Foreign policy journals are important to his review because many of the relevant actors in the yellow rain controversy published their positions and established the essence of the controversy in these articles.

Wall Street Journal editors Robert Bartley and William Kucewicz published the first major academic article on yellow rain in Foreign Affairs. "Yellow Rain and the Future of Arms Control Agreements," is a well documented, comprehensive overview of the Reagan Administration's position, and provides insight into the foreign policy implications of the Administration's charges against the
Soviet Union. Elisha Harris' article, "Sverdlosk and Yellow Rain," directly rebuts Bartley and Kucewicz's arguments by critically examining the evidence in both the Sverdlosk incident (Sverdlosk is a city in the USSR where an unusual outbreak of anthrax was allegedly linked to Soviet violations of agreements that prohibited biological warfare research) and the yellow rain controversy; and concludes that the Reagan Administration's charges will have a detrimental effect on future arms control agreements. In a poorly footnoted article that fails to address several substantial arguments; J. P. Robinson, Jeanne Guillemin, and Matthew Meselson, the most outspoken critics of the Administration's charges, clarify many of the scientific arguments and trace the history and development of the scientific arguments in the Fall 1987 issue of *Foreign Policy*.

**Scientific Journals**

Much of the debate surrounding the yellow rain controversy is contained in scientific journals. The sheer number of articles is too numerous to review extensively. Additionally, much of the primary evidence relevant to this study is included in these journals. This review will highlight representative articles from particular publications in order to make the review manageable.
Lois Ember, a reporter for Chemical and Engineering News, provides informed and timely articles concerning the yellow rain debate by covering virtually all of the major scientific conferences where the scientific evidence was debated. The Scientific American published numerous articles on the subject: T.D. Seeley, J.W. Nowicke, M. Meselson, J. Guillemin, and P. Akaratankul, in an article titled imaginatively "Yellow Rain," manifested the scientific controversy by arguing that the yellow substance alleged to be an agent of chemical war is indistinguishable from the feces of honeybees. The scientific controversy is debated extensively in the "Letters" sections of Nature, Science, and Scientific American. Government scientists Chester Mirocha, Sharon Watson, and J. Rosen support the Reagan administration's position; while a group headed by Harvard biochemist Matthew Meselson refute the Administration's conclusions and confront the scientific findings of those supporting the Administration's position.

Newspapers and the Popular Press

The charges of chemical warfare use in Southeast Asia and Afghanistan have been vigorously repeated in publications ranging from Reader's Digest to The Wall Street Journal. The Reader's Digest articles include Jane Hamilton-Merritt's, "Tragic Legacy from Laos," that is
comprised primarily of refugee testimony. *The Wall Street Journal* ran a number of editorials and special reports, ranging from 1979 to as recently as 1987, which severely criticize the scientific establishment in articles such as, "Who Speaks for Science?," and "The Bee Feces Theory Undone." An editorial in *The Wall Street Journal* titled "Yellow Rain Revisionism" claims that their enthusiastic reporting of the violations catalyzed the cessation of CW use in Southeast Asia and Afghanistan.

*The New York Times* publishes reports and editorials on both sides of the issue. Phillip Boffey's articles, such as "Are the Russians Using Yellow rain in Southeast Asia? Experts debate the Data," provide an objective analysis of the scientific issues. Leslie Gelb's reporting of the incident at Sverdlosk details numerous claims of Soviet noncompliance with CBW conventions and treaties.

Because most of the claims of CW use occurred in Southeast Asia, *Asiaweek* and *Far East Economic Review* contain important and timely articles on the subject. However, a more objective international perspective is gained from *The Times* and the *Swiss Review of World Affairs*.

**Methodology**

An agreed upon definition of "propaganda" is extremely elusive in the academic sector (Kecskemeti 844-670). In
order to simplify the process and to avoid tangential argumentation and analysis, this study will utilize Jowett and O'Donnell's definition of propaganda. Their definition focuses on the communication process and on the purpose of the process. They define propaganda as:

The deliberate and systematic attempt to shape perceptions, manipulate cognition, and direct behavior to achieve a response that furthers the desired intent of the propagandist. (Jowett and O'Donnell 16)

This study will use this definition because it will integrate more completely with the desired intent of Jowett and O'Donnell's method for analyzing propaganda.

Being familiar with the relevant texts and the context is essential in interpreting any particular selection of propagandistic discourse. Consequently, step one involves gathering different texts and historical materials and becoming familiar with texts and contexts involved in the yellow rain controversy. In order to attain a better understanding of the context in which the propaganda is presented, information must be gathered contemporaneous with the event by reviewing a broad sample of speeches, counter-speeches, audience reactions, government documents, scientific journals, and supplement the primary material with relevant scholarship in the area of study.
Specifically, histories, theories, and previous works of criticisms are consulted.

The next step involves dividing the literature into relevant categories for discussion. These include:
Examples of the history and use of propaganda; the history of chemical weapons use and treaties governing their use; and the ten areas involved in the Jowett-O'Donnell methodology. These areas are:

1. The ideology and purpose of the propaganda campaign;
2. The context in which the propaganda occurs;
3. Identification of the propagandist;
4. The structure of the propaganda organization;
5. The target audience;
6. Media utilization techniques;
7. Special techniques used to maximize effect;
8. Audience reaction to various techniques;
9. Counterpropaganda; and
10. Effects and evaluation.

In order to answer the question, this study will follow the ten-step plan of propaganda analysis contained in Propaganda and Persuasion (153-170). This process will be developed more completely in the text. In order to answer the question pertaining to the efficacy of the Jowett-
O'Donnell model, the model will be implemented and the observed benefits and weaknesses will be critiqued.

Plan of Reporting

Chapter II will discuss examples of the history and use of propaganda. Chapter III will examine the rhetorical effect of claims of chemical weapons use by discussing the history of their use and the conventions that control their use. Chapter IV will apply the Jowett-O'Donnell method of analyzing propaganda to the yellow rain controversy. Chapter V will conclude with a discussion of the methodology and make recommendations consistent with the results.
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CHAPTER II

EXAMPLES OF THE HISTORY AND USE OF PROPAGANDA

The primitive delivered up his human sacrifice to appease his gods of wrath whether the gods were there to receive it or not. However the gods may have felt about it, the victim was dead. (Vance 553)

The purpose of this chapter is to place propaganda in its appropriate historical setting. The literature on propaganda and public opinion is too voluminous to include in a study of this size. Public opinion and propaganda is the subject of a vast number of volumes written in this area. It is not the purpose of this chapter to comment on each volume, but rather to trace the representative attitudes and historical examples in order to illustrate the major trends in this field. While many entities engage in propaganda, including private individuals, governments, and non-governmental organizations, the focus of this study is on governmental propaganda.
Perspectives on Propaganda

Although this study operationalizes the definition of "propaganda," it is useful to understand some basic background on the subject. Propaganda as a term is extremely commonplace. The term is far easier to use than to define. Academic literature abounds with debates concerning the proper parameters for the term’s use (Kecskemeti 844). There exist almost as many definitions as there are authors that write on the subject. The lack of adherence to any one definition has lead to much confusion (Baird 3). Experts from various fields (ranging from lexicography, law, sociology, psychology, rhetoric, journalism, etc.) have attempted to define propaganda. L. John Martin examined twenty-six different definitions and found that all agreed that propaganda was the art of influencing, manipulating, controlling, promoting, changing, inducing, or securing the acceptance of opinions, attitudes, action, or behavior (10). However, the writers disagreed on the internal meanings of the words used to define propaganda (Martin 10). This lead Martin to conclude that, "the definitions appear to be in agreement about one thing only: that propaganda attempts to influence the thinking of people" (199).

In a broad sense then, propaganda is as old as mankind. The word itself was first used to describe the mission work
of the Catholic Church, and it acquired its modern connotation almost 150 years ago when, in 1839, the Anti-Corn League created the first propaganda machinery that is characteristic of today (Lambert 8-9).

Etymologically, the word propaganda derived from the Latin verb "propagare" which had reference to the specific act of fastening down slips or roots of plants in such a way as to cause them to multiply and spread; in short, it referred to the work of forcing growth among plants or vegetables (Choukas 19). This definition is very distant from the many unpleasant connotations that the word now carries.

However, propaganda, as an action, in and of itself is amoral. Whether propaganda is good or bad depends upon an individual evaluation of the merits of a particular cause. The word propaganda received its sinister connotation of "special pleading of an untrue nature from a disguised source" after World War I and through the 1920s when writers and scholars exposed the lies that the propaganda machines of both sides disseminated throughout the war (Irion 9; Doob, Public Opinion and Propaganda 242). Michael Choukas argues that there is no real difference between the propaganda techniques employed in a totalitarian state and those employed in a democracy because they both reflect the same principles and are aimed at the same objective (146).
If this is true, then opposing claims of information versus propaganda become tenuous. Distinctions between information and propaganda are so ambiguous that what the enemy says is nothing but propaganda, but what our side says is nothing but information (Ellul 127). Consequently, even truthful information may be labeled as propaganda when it is disseminated to promote the interests of a particular group.

Propaganda currently pervades all aspects of public life, and is not limited in scope to any particular field. Although the most common usage deals with international politics, not all propaganda is political (Mitchell 22). Political propaganda is practiced by parties and pressure groups attempting to persuade the public to support a particular cause. Religious propaganda is performed by missionaries, and economic propaganda is performed by advertising agencies and corporations outside the political realm. Propaganda's ubiquitousness renders penetration into the essence of propaganda itself: Organizations must have participation and action if they are to function, because institutions alone mean nothing by themselves. In order for the societal mechanisms to function, certain attitudes, beliefs, and conforming behaviors must be induced. Jacques Ellul elucidates this concept with the following analogy:
If the Common Market is wanted, a unit must be set up to psychologically prepare the people for the Common Market. . . . NATO also needs propaganda for its members. Gasperi's proposal of 1956 to create a Deform that would correspond to the Cominform is extremely significant. Present political warfare is very inadequate; from the economic point of view one may well say that the recession was much more a psychological than a technical or economic development. In order to assure that reforms will have vigor and effectiveness, one must first convince the people that no recession has occurred and that they have nothing to fear. (119)

Napoleon further extended the argument further when he said: "Power is based on opinion. What is a government not supported by opinion? Nothing" (Ellul 123). English legal scholar A. C. Dicey offered a very illuminating analogy which argued that slavery rested upon the opinion of slaves themselves:

The blacks obeyed the slave-owner from the opinion, whether well or ill founded, that in the long run they would in a contest with their masters have the worst of the fight; and even more from the habit of submission which, though
enforced by the occasional punishment of rebels, was founded on a number of complicated sentiments, such, for example, as admiration for superior ability and courage, as gratitude for kindness, which cannot by any fair analysis be reduced to a mere form of fear, but constitute a kind of prevalent moral atmosphere. The whites, in short, ruled in virtue of opinion, entertained by their slaves no less than by themselves, that the slave owner possessed qualities which gave them the might, and even the right, to be masters. (2-3)

This discussion on public opinion not only explains one of the primary motives for propaganda, decreasing the cost of power, but also leads to an explanation of why propaganda may be effective. The messages that our brains take in from our infancy builds a collection of stereotypes through our experiences and exposures to various media. Every society seeks to instill acceptance of particular values and assumptions in its children as they grow up. These assumptions build on each other as we interpret our experience (Balfour 419). Regardless of the sharpness of an individuals mind, the news that is read becomes an individuals opinion because an opinion is a summary of one's information (Irion 12). Earl L. Vance stated that:
The pertinent question then becomes no longer, What do you think? but, What do you read and, To whom do you listen? Here is where action is born. So far as action is concerned, what the world actually is like becomes merely irrelevant. The important consideration is what we have been lead to think it is like. For we do not react to world as it is but to the world as it has been convincingly reported to be. (63)

This takes on more significance when one understands that the educated person in the United States obtains current information from many of the same sources as the barely literate (Irion 13). Additionally, the process of interpretation is clouded by particular desires and values that often cause us to ignore the presuppositions that move us toward one interpretation over another (Balfour 421). As such, even the strongest powers of reasoning can be clouded by emotions, and the aphorism that "we reason in general not to find the facts but to prove our theories at the expense of them," becomes all the more daunting (Balfour 421).

Propaganda can operate by arousing an emotional atmosphere and investing sanctioned interpretations with such authority that only an meaningless segment of the public will contemplate any alternative. In this described atmosphere, groundless statements are more likely to pass by
unchallenged, particularly if they are made by people who have established respect or are in a good position to disseminate their message. Because individuals in mass society lack the time, resources, or training to check the validity of statements made on a day-to-day basis, we are inclined to accept them at their face value unless we dislike their authors or their implications (Balfour 422-23). Frederick Irion observed this of the connection between people in mass society and public opinion:

As long as public opinion remains stable and does not collide too sharply with fact, it seems as admirably suited to directing the behavior of human beings as is instinct for directing that of animals. (19)

Consequently, if an organization or group can mold public opinion, then public opinion will tend to perpetuate itself as a living propaganda organism. If this analysis is true, then propaganda and public opinion serve the same sociological and psychological functions. Ellul argues that propaganda plays precisely the same role that Leonard Doob assigns to public opinion (to reduce frustration, anxiety, etc.), and propaganda directly creates public opinion by creating conformity and externalizing opinions (203).
The Early History of Propaganda

Regardless of whether an individual believes these sociological explanations concerning propaganda, the act of propaganda is probably as old as humanity. Joshua convinced the Gibeonites that Jehovah had promised their land to the Israelites so any conflict would be useless (Martin 5). Heroditus wrote that Themistocles attempted to undermine the morale of Ionian sailors by carving messages on rocks (Thompson 29).

The Greek historian Polybius gave a classic example of how propaganda can be used as a tool to mobilize forces for war by integrating knowledge with an audience's beliefs. Polybius wrote:

Scipio Africanus was planning a surprise attack upon the seaport town of New Carthage. His force was smaller than that of the enemy and he found that the morale of his soldiers was none too good. He made an accurate study of the tides and discovered at exactly what time they would be lowest. By fording this stretch of water the Romans would be able to attack the town at a vulnerable point, it being protected on all sides by impregnable walls. Scipio told his men that he had just talked with Neptune and that the old sea-god had assured the Romans of his cooperation.
At the proper moment Scipio ordered his men to march into the water and to their surprise they found it shallow and their enthusiasm knew no bounds. With indomitable courage and vigor they forded the inlet and attacked New Carthage, winning an overwhelming and unexpected victory.

(Choukas 51)

Propaganda was clearly in existence in early civilizations. Egyptian Pharaohs would describe military defeats as victories, victories in make believe battles were claimed to increase the perceived power of the victor. Literacy acted as a means for controlling information and the masses because writing was regarded as magical; in addition, the materials that were set before boys learning to write consisted of passages that supported the supreme power of the sovereign. The priests joined in this official propaganda by conducting an interview between a dead ancestor who was believed to be a god and a living king; the dead ancestor praised the king and urged his subjects to be faithful in order to escape from great evils (Turner 44). These events reveal how reinforcing beliefs and opinions and playing into popular myths can bolster the position of those in power and create a situation where the cost of dominance is minimized.
Plato's writings constitute some very effective textbooks on public opinion and propaganda. Plato wrote of art, music, poetry, the theatre, and how to censor all of them. Plato's Republic details how to keep people loyal to the state by controlling information. Plato invented the concept of the big lie, and endorsed the use of falsehood by those who ruled if it benefitted society. Plato has Socrates and Glaukon speak of a need for a royal lie in order to deceive the rulers and the rest of the populace so that the dominance of a philosopher-king could be established. Plato's words contain macabre visions of the future as he has Glaukon speak to Socrates:

Citizens, we shall say to them in our tale, you are brothers, yet God has framed you differently. . . . And God Proclaims a first principle to the rulers, and above all else, that there is nothing which they should guard, or of which they are to be such good guardians, as of the purity of the race. . . . Such is the tale; is there any possibility of making our citizens believe in it? [Socrates replied] Not in this present generation . . . there is no way of accomplishing this: but their sons may be made to believe in the tale, and their son's sons, and posterity after them. (Choukas 48)
Plato's argument was very popular with twentieth century totalitarians. The phrase "purity of race" was used to support their propaganda for racial purification.

The Beginning of Modern Propaganda

In the middle ages people were persuaded to join the crusades and fight in distant lands by atrocity stories that told of how the Saracens mistreated the Christians (Mitchell 7). Increased literacy created the market for new forms of propaganda in the fifteenth century when Chinese armies included special brigades of kite flyers who released leaflets over the head of the enemy. The leaflets contained proclamations offering bribes for desertion (Wu Sun, in Mitchell 31). British Navy Admiral Thomas Cochrane also employed kites in the same way during the Napoleonic Wars (Mitchell 31).

Modern propaganda analysis commences in the modern world around 1500. The writings of Niccolò Machiavelli (1469-1527) expose the propagandist (although not called such) and offer a view of the propagandist's technique that kindles awareness even today. The Prince contains descriptions of unscrupulous political chicanery practiced at the time (41). His writings spread the knowledge not only to the rulers, but make the people out of the organization of government aware of these practices.
William Shakespeare's writings are replete with understandings of political warfare and the impact of public opinion. Hamlet's statement, "One may smile and smile, and be a villain" (Shakespeare 1145) can be viewed as a fundamental contribution to the study of propaganda. Shakespeare's plays and sonnets appear to reiterate the theme that "what the individual or public may think of a person, even what the individual may think of himself, may be wrong" (Irion 20). David M. White's studies of Shakespeare's writings reveal that, "Shakespeare, long before any other writer in England . . . understood the implications of psychological warfare" (68). White reports many excellent accounts of propaganda and its use in Shakespeare's world. He maintains that the work of Mark Antony in the Roman forum can serve as a touchstone for propaganda technique. Another example is found in Henry V when the king literally talked the town of Harfleur into surrender by alternate threats and promises of protection if surrender took place without violence (White 68). White ultimately concludes that Shakespeare had a penetrating knowledge of the problems, techniques, and effects of propaganda and its application (68).

Although the elements of propaganda date form the ancient times, it is generally acknowledged that the first propaganda organization was established by the Papacy in the
sixteenth century as a result of the forces of Protestantism and the counter-reformation (Lambert 7). Pope Gregory XIII (1572-85) established a commission of Cardinals to spread Catholicism and to regulate ecclesiastical affairs in heretic, schismatic, or heathen lands (Lambert 7). Shortly after the outbreak of the Thirty Years War, Pope Gregory XV made the commission permanent in 1622 as the Sacra Congregatio de Propaganda Fide. Each newly appointed Cardinal was assessed a ring tax to finance the organization which was charged with the management of foreign missions (Lambert 7). From this point in history forward, propaganda and external affairs have been inextricably linked. Shortly after the Congregatio began performing its assigned duties, the word propaganda came to be applied to any organization established for the purpose of spreading a doctrine; religious or political (Taylor 20).

A more contemporary view of propaganda began to appear in the writings of Jonathan Swift (1667-1745). Swift's essay, "The Art of Political Lying," published in the Examiner in November of 1710, exposed the effectiveness of a controlled and timely lie, as well as the effectiveness of a well-developed propaganda attack. Swift exposed some basic tenants of black propaganda:

Few lies carry the inventors mark, and the most prostitute enemy to truth may spread a thousand
without being known for the author. . . .
Falsehood flies, and truth comes limping after it, so that when men come to be undeceived, it is too late; the jest is over, and the tale has had its effect. . . .(Swift, in Choukas 55)
Swift articulates the impact of what a successful propaganda can accomplish:

It can conquer kingdoms without fighting, and sometimes with the loss of battle. It gives and resumes employments; can sink a mountain to a molehill, and raise a molehill to a mountain; has presided for many years at committees of elections; can wash a blackmore white; make a saint an atheist, and a patriot a 'profligate; can furnish foreign ministers with intelligence, and raise or let fall the credit of the nation.
(Swift, in Choukas 55)

The religious wars of the seventeenth century caused the printing press to be added to the propagandist's arsenal. Pamphlets and broadsheets (large sheets of paper similar to posters) were circulated. Protestants vigorously attacked the Catholic Jesuits with printed leaflets, while the Catholics smeared the Protestants, Muslims, Turks, Pagans, and Jews. Of course, the propaganda on each side claimed divine support for their cause (Mitchell 7).
During the Puritan Rebellion, propaganda by newsletter became such an integral accessory to the conflict that it was deemed almost as important as military achievement. Richard S. Lambert noted that Cromwell’s army was as much concerned with the spread of religious and political doctrines as with victory in the field (8).

During the eighteenth century, both the American War of Independence and the French Revolution were wars of ideas in which the checking and disseminating of ideas were issues of equal importance to the actual battles. These revolutions may not have occurred when they did without people like Samuel Adams and Thomas Paine in the Colonies, and the French philosophers in Europe. They served to ripen the people for revolution through their propaganda (Choukas 59). The Colonists carried out a spirited program of agitation propaganda to fulfill three functions: (1) to mobilize people around their cause, (2) to win the sympathy and military support of France, and (3) to ultimately achieve independence from England. Samuel Adams was a relentless verbal agitator whose writing and speaking helped to create the foundation for a split between the Colonies and England. His speeches and actions could motivate crowds to acts of violence. Thomas Paine’s pamphlet *Common Sense* called for an immediate declaration of independence as a moral obligation to the world (Mitchell 7). Paine's
proposal to plant pro-American articles in the British press so that British resolve to continue the war would be undermined is a classic example of black propaganda (Thompson 29). Black propaganda occurs when the propagandist organization attempts to conceal the source of information in order to spread lies, fabricators, and deceptions (Jowett and O'Donnell 18).

The Colonists used all propaganda weapons at their disposal. They used leaflets to urge Hessian mercenaries and British soldiers to desert. At Bunker Hill, the Yankees threw rocks at the Redcoats which contained the following message:

**Prospect Hill**

I. Seven dollars a month  
II. Fresh provisions and in plenty  
III. Health  
IV. Freedom, ease, affluence and a good farm  

**Bunker Hill**

I. Three pence a day  
II. Rotten salt pork  
III. The Scurvy  
IV. Slavery, beggary and want (Mitchell 31-2)

After the signing of the Declaration of Independence, perhaps the most famous series of propaganda articles in American history were gathered into The Federalist Papers.
These essays by Alexander Hamilton, James Madison, and John Jay, were published in New York newspapers in 1787 and 1788, as part of the effort to secure the ratification of the Constitution by the state of New York.

Another form of unique propaganda grew out of the two revolutions. The Revolutionary song was a direct outgrowth of the French Revolution. France's national anthem, the "Marseillaise" was specifically written as propaganda for lifting the morale of demoralized French soldiers. One French general is reported as having said, "give me a thousand men and the 'Marseillaise' and I will guarantee victory" (Mitchell 8).

Prior to the American Civil War, literature began to emerge as a powerful form of propaganda. Harriet Beecher Stowe's work, *Uncle Tom's Cabin*, helped to consolidate political activists against slavery in the United States. Her book focused public attention and discussion on the issue and aided the Federal Government in garnishing the necessary backing of public opinion to wage war against the South (Mitchell 111).

The Civil War saw the advent of great propaganda machines for both the Union and the Confederacy. These machines formed the foundation for many modern propaganda organizations. Much of the propaganda that was generated out of these organizations was directed at a third party,
Great Britain. The Confederacy was struggling for diplomatic recognition and military help from England, while the Union opposed such action (Irion 412). The effectiveness of each side's propaganda on British foreign policy is still open to speculation; but the effort is similar to many situations in the modern world when a country or group attempts to foster the support of an individual country's help, or to sway world opinion to generate acceptance or rejection of a particular idea or action.

After the Civil War and prior to World War I, few occasions called for intense propaganda on a national scale (Lambert 9). However, improved literacy meant that public opinion would become increasingly important for political life (Sanders and Taylor 2-3). In Britain, however, diplomacy was still the business of kings, nobles, and aristocrats. Attempts to influence public opinion would have insulted the British sense of etiquette and discretion; so the Foreign Office abstained from creating machinery that would encourage increased participation in the exclusive realm of international politics (Sanders and Taylor 4). The British were cognizant of anti-British propaganda circulating throughout the world, but they did not advocate a campaign to retaliate against such propaganda.
because it would offend their traditional sensibilities (Sanders and Taylor 10).

The British began to slip into the propaganda arena when Colonial Secretary Joseph Chamberlain persuaded Lord Salisbury to use the press to support Britain's policy during the Fashoda crisis of 1898. Following this incident, Colonial Undersecretary Sanderson continued to have limited dealings with the press and even asked The Times to moderate its anti-German or anti-Russian attitude to facilitate the ease with which diplomacy could transpire (Sanders and Taylor 5). However, no meaningful efforts were generated to cultivate strong relations with the press.

Germany displayed a more progressive attitude concerning public opinion. Even before Germany became a unified country in 1871, German culture was propagated abroad through schools and various institutes. In 1896, the German Foreign office created an arts and science section which integrated these programs into an official extension of the government. These were probably the first examples of modern cultural exchange programs from which entities such as The Voice of America were born. Bismark felt that press relations were important enough to warrant a special press agent, Moritz Busch, whose function it was to influence newspapers to project an image abroad of public agreement with governmental policies (Sanders and Taylor 4).
Propaganda in World War I

As well as opening up new frontiers in modern warfare with the employment of airplanes, tanks, and automatic weaponry; World War I witnessed the warring states employ the psychological weapon of propaganda with such tenacity and scope that previous efforts to use propaganda provide little room for comparison. The sheer magnitude of the struggle demanded exhaustive mobilization of national resources in order for nations to compete even at an extremely restricted level. This demand created the climate for governmental propaganda to move out of its nascent state and develop in many new directions and combinations.

At home, propaganda was used to justify the need for continued sacrifice and struggle while blurring the economic motivations for the war. In enemy countries, propaganda was used to persuade soldiers that the sacrifices they were being asked to make were unjust and immoral which could disrupt morale among the troops or incite mutiny or surrender (Taylor 21). As the specter of a protracted conflict loomed more ominous, the need to increase mobilization at home and to sway public opinion in neutral countries produced the conditions where propaganda emerged as the primary instrument to control public opinion and quickly became an essential weapon in a nation's arsenal (Sanders and Taylor 2).
Although skeptical of the benefits of propaganda in peacetime, the British had no qualms attached to the use of propaganda during the war and quickly created the standard by which other propaganda machines are measured today. Britain, in essence, built the prototypes of the modern propaganda machines in the Crewe and Wellington House. Prior to his election as Prime Minister, Lloyd George recruited newspaper personnel for Britain's official propaganda machinery. As Prime Minister, he shattered the traditional relationship between the press and government by ruthlessly wielding the press as an implement of combat to secure victory in the war (Sanders and Taylor 11-12).

The principle method employed by the Crewe House was the dropping of leaflets that contained a slanted version of the news or information relating to Allied strength and German weakness. In order to promulgate its message more efficiently, the Crewe House carefully studied the German psyche and printed a trench newspaper in a style that resembled a German publication. Richard S. Lambert called it "a propaganda pill to make it more attractive" (28). Crewe House operations included several black campaigns such as the sending to neutral newspapers in Switzerland and Scandinavia the "London Letters," which were supposedly written with a pro-German accent, but in actuality they
contained pro-Allied propaganda. The German papers were duped and printed these letters as genuine (Lambert 29).

However, the lurid reputation British propaganda earned during World War I was achieved primarily by Wellington House. Wellington House attempted to sustain moral condemnation of the enemy by circulating "proven" atrocity stories (Sanders and Taylor 142). Various crimes were attributed to the German army, ranging from the massacre of innocents to the rape of nuns and virgins (Lambert 24).

In order to achieve credibility, Wellington House would attribute authorship of various pamphlets to respected figures such as Lord Bryce and Henri Davignon, the Belgian Foreign Minister. One pamphlet attributed to Davignon, *Belgium and Germany: Texts and Documents* (London 1915), detailed atrocities complete with illustrations and photographs of the Aerschot 'massacres' and the destruction of sundry national monuments such as the library at Louvain and the Halles of Ypres. In order to present this collection of supposedly information in a manner that would enhance credibility, the tone of the pamphlet was cautious and academic (Sanders and Taylor 142).

The pamphlet *The Germans in Belgium* detailed the case of a sixteen-year-old girl who had been bayonetted for attempting to resist rape. In order to facilitate the impression of objectivity, it was also states that the
offending German soldiers had been punished by the proper military authorities. Wellington House considered it a necessity to insure a measure of credibility for the incredible (Sanders and Taylor 142-43). Wellington House understood that propaganda campaigns, while they involve the presentation of facts, also present materials that may or may not be congruous with the attitudes of any given individual. Even the most brilliant advertising or promotion campaign will not be effective unless it is substantiated by verification, at least to some extent. This verification can be achieved by reinforcing existing beliefs and attitudes, and by playing into societal myths. Consequently, the propagandist’s theory must bear some relation to experience or else the message would fall upon deaf ears. Another Wellington House story that illustrates this concept involves the execution of the nurse Edith Cavell. Although her execution may have been a legitimate act of war, it was a catastrophic error for the Germans. Wellington House fostered world indignation by presenting nurse Cavell as an angel of mercy, while setting her execution against the moral aspect of Germany’s invasion of Belgium. By adhering to military justice rigidly, the Germans merely fed the stereotype of their brutality and ruthlessly, inhuman, Prussian militarism (Sanders and Taylor
Furthermore, the Germans victimized themselves when they attempted to justify their acts in Belgium by describing atrocious acts committed by Belgian civilians. These counter-charges were dismissed outright and offered "proof" of German guilt; because if the atrocities had not occurred, then why should they attempt to justify German actions? (Sanders and Taylor 144).

Many of these stories have been traced to their source and found to be based on deliberate invention, gross exaggeration, or misrepresentation and mistranslation (Lambert 24). However, to be effective, propaganda only needs to be believed true for a short period of time. The story of the "cadaver factory" (where the Germans were said to have boiled down the bodies of their dead in order to extract the human fat for war purposes) was not exposed as a complete fabrication until 1925 (Lambert 24). By the time of this discovery the war had concluded and the story accomplished its purpose.

One other atrocity story is of interest because it is amazingly similar to the recent Sverdlosk incident (described in Chapter I). The pamphlet Microbe Culture in Bukarest (London 1917), accused the Germans of conducting bacteriological warfare in Rumania by purporting that anthrax had been smuggled into Bukarest by the Germans for
the purpose of destroying Rumanian livestock (Sanders and Taylor 146).

World War I also marked the first large scale effort of the United States to mobilize public thought. President Woodrow Wilson created the Committee on Public Information (CPI) with journalist George Creel as the head (Taylor 26). Creel's mission was to make the geographically remote struggle in Europe relevant to the majority of American people. Playing on emotions and idealism, the CPI was successful in getting the American people to believe nearly anything it wanted (Irion 452).

The CPI played off ethnocentrism, the desire to believe nothing but good about one's own country and a ready inclination to think the worst about others, to create the image that the American cause was a crusade blessed by God. In order to fulfill this ethnocentric desire, all that was needed was a channel for this identification of self and state as divinely guided into the desired activities (Irion 422). The CPI, aided by the courts, used censorship to aid in creating this one minded population; for example, Eugene V. Debs was incarcerated for treasonous statements. It was relatively easy to choke the channels of communication because of the geographic location of the United States, by flooding the lines with government sponsored and government approved materials. War correspondents were subject to
strict censorship, which resulted in the public receiving the type of information concerning the war that the armed services deemed proper (Irion 420).

The Department of Military Censorship aided in the program to control information. Their zeal is illustrated by the fact that about seventy books were banned from every army camp where American soldiers were posted. One of the books banned was *Two Thousand Questions and Answers About the War* which had a preface by chairman of CPI, and board member, George Creel, which stated that "The 2000 questions and answers, in my opinion, constitute a vital part of the national defense" (Irion 421).

The CPI promulgated American culture by flooding the world market with motion pictures. Included with these pictures was a fixed percentage of educational footage. Creel stated that "what we wanted to get into foreign countries were pictures that presented the wholesome life of America, giving fair ideas of our people and our institutions. What we wanted to keep out of world circulation were the 'thrillers,' that gave entirely false impressions of American life and morals" (Irion 417). This role of American motion pictures continued between the wars and became the primary tool of international propaganda for endorsing the American way of life. By the end of World War
1, the US owned over half of the world's movie houses (Taylor 33).

Choking the channels of communication, censorship, and motion pictures apparently were an effective combination for the CPI. Frederick Irion argued that:

Creel as head of the CPI, more than any other one man aside from the President, helped to produce the 1917 temper in which the tossing about of symbols became a substitute for an intellectual transaction, and in which people thought together and thought in stereotypes. (Irion 419)

However, the CPI was never really popular and was wiped out by an act of Congress in June, 1919 (Mitchell 9). At the end of World War I, Britain also dismantled its propaganda machinery and regarded propaganda as "politically dangerous, financially unjustifiable and morally unacceptable" (Taylor 24).

Propaganda Between the Wars and The Growth of Social Research

World War I served to increase the level of interest and participation in the affairs of the state where public opinion could no longer be ignored in the formulation of governmental policies. During the 1920s, propaganda was being converted into an instrument of peacetime ideological
penetration by aggressive nationalistic regimes in the Soviet Union, Italy, Japan, and later Nazi Germany (Taylor 24). Technological developments in the field of mass communication served as an additional reason why propaganda became a regular feature of international relations between the wars. During this time, Lenin and Trotsky originated the idea of broadcasting to foreign peoples over the heads of their governments (Martin 7).

Radio emerged as an effective instrument of peacetime propaganda because it relied upon the spoken word and had the advantages of being somewhat direct and personal while possessing the capability to immediately reach large numbers of people regardless of demographic, cultural, and literacy factors (Taylor 30-1). By the mid 1920s, international radio propaganda became commonplace. Because international conferences and diplomatic protests were ineffective at controlling the spread of propaganda, many nations felt compelled to engage in the same tactics or else their opponent's propaganda would be taken as truth (Martin 8). Germany and France both used propaganda over the Ruhr, Russia and Rumania engaged in radio warfare over Bessarabia. In Latin America radio was brought in to help in the quarrel over boundaries (Martin 8). Even the British were forced to initiate propaganda broadcasts when the Italians escalated anti-British radio propaganda during the
Abyssinian crisis of 1938. The Italians broadcast carefully structured programs that met local broadcasting requirements and were presented by Arab employees with a command of the local dialects (Taylor 31-32).

By 1938 the airwaves were dominated by governments. Of the thirty European national broadcasting systems in 1938, only three were privately owned and operated. Radio propaganda became a regular feature of international relations and an indispensable instrument of foreign policy (Taylor 30).

While Europe was involved in radio wars, the New Deal created the motivation for propagandizing the United States. The country was flooded with printed materials to explain new programs and to offer information on a multitude of subjects. Feature articles were prepared by the government for nearly any publication with complete illustrative materials included. The New Deal attacked the depression in a direct fashion by engendering faith in governmental policies. Franklin Roosevelt's voice dominated the American airwaves as the New Deal publicized every phase of its program with care (Irion 426-52).

Post World War I provided fertile ground for social science research. In 1922, Walter Lippmann published his classic study of stereotypes and argued that most people tend to think in stereotypes. Lippmann suggested that
because we are subjected to a constant barrage of communication stimuli, it is difficult for people constantly to demand that each message be empirically verifiable. It is much easier to accept labels, judgments, and other symbolic phenomena uncritically and to draw inferences and conclusions on the basis of abstractions, rather than on that of concrete evidence (119-20). Lippmann continued, that since people bring to the communicative experience a set of established patterns of thinking, it is often not difficult to perpetuate stereotyping as the essence of truth (125). Leonard Doob supported Lippmann's position and argued that:

[T]he mature adult may be unable to eliminate the prejudices he has acquired in his youth, even though he is intellectually convinced that those prejudices are unsound or unworthy. He continues to feel uncomfortable in the presence of Negroes, Japanese, Irish, or Portuguese in spite of his own best efforts to treat every person as a human being. (Public Opinion and Propaganda 419)

Lippmann proceeded to argue that, in the present state of education, a public opinion is primarily a moralized and codified version of our preconceptions, since "the pattern of stereotypes at the center of our codes largely determines what group of facts we shall see and in what light we shall
see them" (125). Consequently, the means of mass communication rely on stereotypes at the expense of accuracy because people lack the intellectual equipment and desire to interpret for themselves what is happening (Irion 33). Modern research supports Lippmann's argument and experiments show that people evaluate information according to their prior attitudes (Martin 18). It is easily recognized how propagandists can use stereotyping to create positive or negative images, its uncomplicated and abbreviated method minimizes the need for empirical analysis (Steinberg 36-37) and serves the reinforcing need function of communication. It is unfortunate that this results in the stigmatization of entire groups and these perceptions are not analyzed and are accepted uncritically. The opportunities for manipulated propaganda need not be stressed.

Nazi Propaganda

The inter-war years also saw the rise of totalitarian governments whose influence on propaganda has never been matched. Literally volumes have been written about the propaganda philosophies and operations of Adolf Hitler and Joseph Goebbels. Hitler and Goebbels were two of the most gifted propagandists in the history of the modern world. They were masters of mass rhetoric and believed that if they
could convince a crowd then the impossible did not exist (Baird 12). Both Hitler and Goebbels believed that propaganda should be directed at the uneducated masses using the lower intellectual level of speech, and it should always appeal to emotions and not to reason (Baird 17-18). Hitler declared that "The great masses' receptive ability is only very limited, their understanding is small, but their forgetfulness is great" (234). Instead of relying on studies of academicians, Goebbels received the pulse of the people by talking to his mother (Doob, "Goebbels' Principles of Propaganda" 452).

Hitler focused on the irrational through myths and symbols. The Jewish enemy was clearly defined as the group that the collective fears of a nation could be focused (Baird 3). Hitler's exploration of anti-Semitism conformed to Lippmann's theories on stereotypes; few of Hitler's themes were new, and the Jew had been a victim of stereotypes long before the Nazis made use of the prejudice. Julius Streicher's newspaper Der Stumer spread the tales of Jewish ritual murders which reinforced stereotypes and myths within the German tradition (Baird 6). Nazi propaganda and ideology revolved around several myths ranging from the Aryan man's racial struggle against the Jewish conspiracy to the Pagan myth of the warriors death (Baird 4-5). Through their use of provocative symbols and dramatic rhetorical
performances, the Nazis were able to forge a mind-set of National Socialist thought (Baird 17).

Hitler made use of the "big lie" and regarded a big lie as more readily believed than a small lie. Hitler built his state upon the structure of lies endlessly repeated (Irion 34). The Aryan theory will not stand up to critical examination, but it emerged and gained acceptance through legitimizing the fears and desires of the receivers (Balfour 423). It is difficult to disprove a big lie when much interpretation is left to individual beliefs and much reasoning is based on faith.

Goebbels looked at propaganda as an art form where each play was part of a grand symphony (Baird 17). Goebbels cleverly exploited special occasions by synchronizing timing and emotion to achieve maximum effect. On Christmas eve of 1933, the Propaganda Ministry gathered together the families of many of the Communists incarcerated in Dachau. Candy, toys, and clothing were passed out to the wives and children, while an SA band (the Brownshirts) provided appropriately sentimental Christmas carols as background music. At the proper, pre-determined moment, SS vans unloaded a large group of prisoners, who were delivered to their families as free men as a Christmas gift from Hitler (Baird 17).
Goebbels' chief function was to elevate Hitler to a degree where his statements would be immune from challenge and look upon him as a deliverer. Goebbels attempted to fulfill this goal by implementing elaborate party rituals which promised food and entertainment at recurring times of the year, which the public came to anticipate and expect (Baird 16). Nazi rallies were awesome spectacles. British Ambassador Sir Nevile Henderson described Hitler's entrance at one of these rallies:

His arrival was theatrically notified by the sudden turning into the air of the 300 or more searchlights with which the stadium was surrounded. The blue tinged light from these met thousands of feet up in the sky at the top to make a kind of square roof, to which a chance could gave added realism. The effect, which was both solemn and beautiful, was like being inside a cathedral of ice. (Taylor 17)

During the war, Goebbels was careful not to use lies that could be easily discovered. Goebbels described lies as being in the long run the "stupidest and least effective form of publicity". Although many scholars argue that German propaganda was guilty of many deliberate lies, Goebbels was astute enough to realize the damage to credibility that a proven lie could do (Balfour 428). In
fact, Goebbels often exposed the propaganda of his adversaries. In 1942, Goebbels charged that the British were committing General Rommel to objectives that he did not have in order to declare he was failing to accomplish his goals (Doob, "Goebbels' Principles of Propaganda" 514).

Goebbels carefully suppressed material deemed undesirable for German consumption, but employed the same information as foreign propaganda if it suited his purposes. Atrocity stories concerning Soviet cannibalism were circulated in foreign countries, but were banned in Germany so the relatives of those fighting the Russians would not be frightened. At times though, undesirable material escaped censorship domestically to enhance credibility abroad (Doob, "Goebbels' Principles of Propaganda" 516).

The Nazi propaganda machine engaged in various forms of external propaganda. By providing the names of war prisoners on the radio, Goebbels could draw listeners to his programming. Goebbels' favorite form of propaganda was news that was slanted but held the appearance of objectivity (Doob, "Goebbels's Principles of Propaganda" 513). However, the Nazi's external propaganda based in ideology was rarely effective because it did not correspond with the values and practices of those outside Germany (Balfour 435-36). During the war it was reported that the Nazis administered a rumor factory in the United States because America's wartime
rumors appeared to reflect the current line of Axis propaganda; however, this claim has not been proven (Choukas 81-82).

Goebbels' most effective internal propaganda machine may have been the motion picture industry. Goebbels attempted to keep the pictures rolling even during intensive campaigns. Machinery was established to exempt several actors and technicians from military service and special measures were taken to reopen motion picture theatres as quickly as possible after heavy raids. Some commentators suggest that the entertainment films successfully prolonged the war by diverting the attention of the German people and strengthened their resolve to fight. As late as March 1945, the German cinema audiences kept filling the theatres (Balfour 113).

In the case of Italy, Mussolini's power was based more on appearance than reality. Phillip Taylor described Italian military planning as "more akin to Lewis Carroll than to Clauswitz" (18). Mussolini was convinced that military objectives could be obtained by the skillful deployment of journalists (John Wittam, in Taylor 18). Mussolini erected imitation cardboard trees along processional routes to impress Hitler when he came to visit Rome in May 1938 (Taylor 18). This event was satirized in Charlie Chaplin's 1940 masterpiece film, The Great Dictator.
Japanese propaganda took on more revealing forms. In order to entice American soldiers to their propaganda they printed pornographic drawings on one side of leaflets and placed their propaganda on the other side (Doob, Propaganda and Public Opinion 324). Maintaining this theme, Tokyo Rose attracted an audience by combining double and not so subtle entendres involving sex with a respectable facsimile of American entertainment (Doob, Public Opinion and Propaganda 325).

World War II Allied Propaganda

Allied propaganda did not receive as much scrutiny as Nazi propaganda, but it did take on various interesting forms and dimensions. One particularly clever scheme revolved around the punctuality of Nazi celebrations that glorified the Third Reich. January 30, 1943, marked the date of Hitler's coming to power and Franklin Roosevelt's birthday. It was widely known that the Nazis would broadcast to the world at 11:00 a.m. Berlin time. Only a few moments before Reichsmarschall Goering was to speak, British Mosquito bombers entered Berlin. A few seconds after Goering started speaking, explosions were heard in the background and Radio Berlin was knocked off of the air; this did much to dispel the myth of an invincible Germany (Mitchell 10).
The Allies also integrated satire, sex, and humor into their propaganda attempts. In addition to films like *The Great Dictator*, Allied motion picture studios parodied totalitarian eccentricities and propaganda with newsreels like British Movietone's *Germany Calling* (1940) which used trick photography on scenes from Riefenstahl's propaganda masterpiece *Triumph of the Will* and set the footage to the music of the "Lambeth Walk" (Taylor 18-19). After Radio Luxembourg fell into allied hands, operators broadcast "Letters Which You Do Not Receive," a program that treated German audiences with excerpts of love letters taken from the corpses of German soldiers; for added effect, they were read by a lush, erotic, female voice that disclosed the parties involved. The program was discontinued as a matter of good taste (Doob, *Public Opinion and Propaganda* 326).

However, not all Allied propaganda was based on humor. Many Allied operations illustrate a concept known as tactical propaganda. Tactical requirements may compel the propagandist to tell the pure truth so that a big lie may be accepted later. Propaganda that is straightforward is extremely effective and dangerous because it creates a more believable illusion that can gain the attention of a greater number of people. This concept is exemplified by the story of a disguised American radio station that was operating in the advance of our troops in Germany. For several days
nothing but the most accurate and truthful information was reported so an air of credibility could be established. But when the American forces deployed for an attack, the information that was transmitted concerning the position of American forces was completely false, and the deception that was achieved compensated for having to supply the enemy with truthful information until then (Choukas 84-85).

During World War II, the official US propaganda machine was the Office of War Information (OWI). Under the direction of journalist Elmer Davis, the OWI became the first major US venture into international propaganda, and its effectiveness taught the American military and political leaders the importance of psychological warfare (Martin 2-3). Under the OWI, the Voice of America (VOA) was established as a part of an elaborate information network that instituted information offices in every country; collectively these agencies were known as the United States Information Service (USIS, and after 1953 the USIA) (Martin 2-3). However, the main thrust of propaganda or information diffusion was domestic and sought essentially during the war in the words of the OWI, to "achieve enthusiasm for the war effort" (Short 4).

The OWI's principle method of operation consisted of oversupplying media for communications with materials; as such, the media would be faced with the problem of weeding
out materials and would not become intent in hunting up news themselves. The OWI further controlled the information by supplying instructions on how to bring order out of the enormous amounts of information supplied by government and indicating how it should be used (Irion 430).

Every conceivable field of activity in the United States was supplied by the OWI with information about what to believe and how such information was to be applied. OWI left no one with any doubts as to the patriotic attitude to take on all issues (Irion 433). The program was so tightly structured that all questions were answered in advance so a person could know how to apply a patriotic attitude. The intent was to reduce individual thinking to a minimum (Irion 433). Frederick Irion details the plan for controlling information:

The relatively simple plan that was adopted involved letting only the very top personnel have a detailed, factual account of the war situation and letting all lesser officials and the public have what appeared to be an almost complete presentation. . . . Under this plan, the pursuit of information, at whatever governmental or private level, ran into a blank wall of ignorance. . . . With all below the top level supplied with a more or less uniform
interpretation of events and situations, any unauthorized search for information found such an overwhelming confirmation of what was generally given to the public and to lesser "insiders" that it was compelled to accept the official picture as true. (Irion 434)

This program had the added benefit of appearing as if the lesser insider was being provided with great amounts of information that appeared important and secret, but was in fact merely too dry for mass consumption (Irion 434).

The OWI adopted the general plan that the masses were to be dealt with through slogans and stereotypes, with facts used as adornment. The OWI's Information Guide consisted mainly of timely slogans and stereotypes of the war (Irion 438). The employees of the OWI were themselves propagandized by the information published at higher levels. Except for a few top policy-making officials, public information employees had to do little thinking about what was patriotic and desirable; all that had to be done was to pick the proper orders of regulations, interpret them correctly, and follow them in a logical manner (Irion 452). The Information Guide program was a part of the process of teaching people what to think without them having to think (Irion 439).
The OWI was successful in some of its external programs and helped to shorten the war against the Japanese by informing the people that their cause was hopeless. The Japanese government intended to discuss surrender without notifying the Japanese armies or people. Through radio broadcasts and mammoth leaflet drops, the OWI alerted the Japanese people to the proposed surrender. After the war, officials of the Japanese government admitted that once the people were aware of the peace offer, they had no choice but to surrender on the terms of the US. One American official noted that this "one operation alone probably repaid the entire cost of OWI through the war" (Mitchell 10).

Propaganda Institutionalized

After World War II, propaganda became an inherent part of the international political system where certain information services became permanent fixtures in the "machinery of government under modern conditions" (Martin 35). In the US, the development of the country into a perpetual defense state increased the power of both the military and civilian bureaucracies (Monsen and Cannon 258). After World War II, the apparently unending string of international military crises served, and still serves, to perpetuate the power of the military. President Eisenhower, himself a very successful army general, revealed the fears
which he held of growing American military power as he delivered his final address to the nation on January 17, 1960:

The U.S. has been compelled to create a permanent armament industry of vast proportion and to maintain a defense establishment employing 3.5 million persons and spending huge sums. This conjunction of an immense military establishment and a large industry is new in the American experience. The total influence--economic, political, and even spiritual--is felt in every city, every state house, every office of the federal government. We must recognize the imperative need for this development. Yet we must not fail to comprehend its grave implications.

(Monsen and Cannon 262-63)

The military bureaucracy currently uses many organizations to promote its interests. In some six hundred communities, advisory committees have been established to promote the military view and to advise the military of unfavorable reactions. The news pertaining to the military that appears on the air and in print almost always has been screened, summarized, and analyzed before its release (Monsen and Cannon 278). The military also develops liaisons with important national and business organizations.
and arranges conferences and field trips for leaders of key interest groups with the expenses being paid by the taxpayer. Couple this with the information network that the government controls and a picture of how many important decisions are made becomes a bit more apparent.

Other governmental propaganda organizations conduct psychological warfare against Soviet satellite states. Radio Free Europe's former director, Robert Lang declared in 1949:

Radio Free Europe does not speak as an instrument of and for the people of the United States -- it is not the Voice of America, but that of Free Hungary, of Free Czechoslovakia, of Free Poland, Free Bulgaria, Rumania and Albania. (Martin 32)

Lang's statement was believed at one time. Radio Free Europe and Radio Liberty were originally created as ostensibly private organizations and founded by private American citizens, yet in reality they were funded and supervised by the Central Intelligence Agency (CIA), and staffed by exiles from Eastern Europe and the Soviet Union (Thompson 32). Although these operations have been exposed, it is impossible to tell how many covert communication operations are in existence. Overt propaganda is still receiving funding in the United States; in 1987 there were major funding increases for international broadcasting, not
only for the Voice of America, but for Radio Liberty, Radio Free Europe, and Radio Marti, while more funds were put into television, as USIA expanded the use of this medium (Thompson 5).

These broadcasting organizations further illustrate the distinction between black, white, and gray propaganda. If an entity identifies itself accurately as the one communicating it is white propaganda; the Voice of America is clearly a white propaganda agency. Gray propaganda is propaganda that does not identify itself period; Radio Free Europe and Radio Liberty were basically gray media. At one time they did not (they do now) acknowledge that they were basically supported by the United States government. And then there is black propaganda which has been discussed previously. Black propaganda is when an organization tries to simulate that it is another entity. When World War II ended, the Central Intelligence Agency assumed certain gray and black functions; for instance, it covertly subsidized newspapers and organizations overseas (Thompson 46).

Almost all states conduct certain amounts of propaganda. This is often done through obvious channels such as newsletters, embassies and consulates, and books that are specially written and published for circulation. Documentary films, photographs, newspapers, and periodicals of the state are also used, while libraries and reference
rooms are often maintained in foreign countries. News agencies, whether government or privately owned or semiofficial are an effective means of propaganda and are often exploited for this purpose. Colleges and universities may carry on official and unofficial propaganda for their country (Martin 21-22). Businessmen that invest overseas find it profitable to follow up their investments with propaganda campaigns designed to praise their own countries (Martin 22). Jacques Ellul notes:

The most benevolent State will inform the people of what it does. For the government to explain how it acts, and what the problems are, make sense; but when dispensing such information, the government cannot remain coldly objective; it must plead its case, inevitably, if only to counteract opposing propaganda, particularly when the government is obliged to defend its own actions or the life of a nation against private enterprise. (126-27)

As a final note, Marshall McLuhan tells us that the medium is the message. An individual in our society must realize how the medium can color the message as well. During peace demonstrations in the 1970s, television camera operators walked down the line of marchers, photographing only the long-haired, the hippie-dressed, the unkempt,
avoiding the earnest, the neat, the middle-aged (Mitchell 104). Although this effort may not be intentional deception, this happens when trying to catch the dramatic, spectacular, and unusual. One can only wonder as they watch spectacles such as the conventions of both parties.

This chapter discussed the craft of propaganda. In order to provide a coherent framework for understanding the rhetorical impact of claims of chemical weapons use it is necessary to understand some of the history surrounding their use. Chapter III will trace a history of chemical warfare and will discuss the rhetorical impact of claims of chemical weapons use which are a powerful tool in the hands of a skilled propagandist.
CHAPTER II BIBLIOGRAPHY


By most standards, chemical warfare is viewed as abhorrent and is generally met with international opprobrium. It is not clear why one form of killing is customarily accepted and another disdained. Ruth Benedict illustrates the paradox which highlights the confusion:

The idea of an Eskimo village going out against another Eskimo village in battle array or a tribe against tribe, or even of another village being fair game in ambush warfare, is alien to them. All killing comes under one head, and is not separated as ours is, into categories, the one meritorious, the other a capital offence. (27-29)

The purpose of this chapter is to provide a groundwork for understanding the motivations for, and the rhetorical impact of, chemical and biological weapons use. The process is to provide a history of CBW utilization to explain the motivations and effects of their use, to explicate the paradox as illustrated by Benedict, which will hopefully provide insight into why claims of their use carry such rhetorical force and demand opprobrium in the international political arena.
CBW Use Prior to World War I

The use of poisons and gases in warfare is very old while many of the ancient motivations for their use remain applicable today. In prehistoric times, green wood was burned and the smoke blown into the caves and nests of animals and men in order to drive them from their hiding (Wachtel 20). The ancient wars of India (circa 2000 B.C.) were fought with smoke screens, incendiary devices, and toxic chemicals that caused "slumber and yawning" (Hersh 3). The recorded history of the Assyrians, the Sung Dynasty of China, and the Greeks expose that resins, pitch, and mineral products such as sulphur and arsenic were added to the smoke to increase toxicity (Wachtel 20).

In 600 B.C., the distinguished Athenian legislator Solon ordered the roots of helleborus thrown into the Pleisthenes, a small river from which the enemy drew their water supply; when the enemy took their water, the poison from the roots produced disease and weakened the enemy physically to the point where the people of Kirrha were simple targets for the Athenians. It should be noted that the poisoning of a water supply by organic matter is scientifically equivalent to the use of chemical poisons. Thucydides tells of the Spartans' use of gas and arsenic smoke in the battles of Plataeae and Belgium during the Peloponnesian war (Wachtel 16-20). The Spartans placed wood
with pitch and sulphur under the city walls and set fire to it. Thucydides wrote that "the consequence was a fire greater than any one had ever yet seen produced by human agency" (Hersh 4). However, a rainstorm erupted and subdued the fire. In 187 B.C., Polybius reported that the people of Ambrajia drove the Romans from their mines by blowing smoke into them.

In 200 B.C., Carthage won a victory by the covert implementation of poison. In order to create the impression that it was afraid of the enemy, the army of Carthage retreated and left behind wine poisoned with the toxic, narcotic, root mandragora. The enemy seized the camp, drank the wine, fell under the narcotic effect of the drug, and died at the hands of the returning soldiers of Carthage (Wachtel 14-15). From this one can see where the US Army Chemical Corps and the CIA concocted "Operation Blue Skies," which was a scheme to spray the psychochemical BZ, a hallucinogenic drug similar to LSD, on large portions of Vietnam. The use of BZ was eliminated after a few trials revealed that the Vietcong did not become passive when sprayed, but allowed them to perform astonishing feats of mayhem (Seagrave 87).

Chemical weapons have long created fear and confusion. By planting venomous snakes in earthen vessels and throwing them onto the decks of enemy ships, Hannibal created enough
confusion to defeat King Eumenes of Pergamon. The Roman historian Aelian justified the use of poisons for defense in was by pointing to the fact that nature's animals and insects were armed with poisons (Wachtel 15).

During the Crusades there were several reported incidents of water poisoning and chemical weapons use. Kaiser Frederick Barbarossa conquered the Italian village of Tortona by tossing decaying animal carcasses and corpses in the water supply. An alchemist saved the Christian Belgrade from the attacking Turks by preparing a poisonous mixture that the Christians dipped with rags and burned to create a toxic vapor (Wachtel 16).

Modern germ warfare probably began during the French and Indian War with Sir Jeffrey Amherst's gift to some Indian Chiefs of blankets infested with smallpox. An epidemic ensued and songs were created that hailed Sir Jeffrey as a hero: "As a soldier royal and true to the Frenchmen and Indians he didn't do a thing" (McCarthy 4).

The revulsion to chemical weapons began in about 1845 when the French government recalled General Pilissier after he suffocated an entire tribe of Kabyls in Ouled Ria with smoke from green wood. In 1855 the British War Department began experimenting with chemical artillery shells containing cacodyl and cacodyl oxide combined with self-flammable liquid (Wachtel 21). In the same year, the
British Admiral Lord Dundonald proposed using sulphur against the Russians in the Crimean War. After considerable study, the English government concluded that the effects of chemical use would be so horrible that no honorable combatant would use it (Hersh 4).

American experience with chemical weapons started during the Civil War when a letter dated April 5, 1862, was sent to US Secretary of War Edwin M. Stanton by New York inventor John W. Doughty who proposed the manufacture of an artillery shell filled with liquid chlorine gas (Hersh 4; McCarthy 5). General Sherman’s march to the sea caused General Johnston of the Confederacy to retreat from Vicksburg. On retreat, he ordered that the rotting carcasses of pigs and sheep be dumped in the lakes and ponds to poison the water supply (McCarthy 4). American military literature considered this method of poisoning water supplies permissible in wartime (Wachtel 17).

Near the end of the nineteenth century, the British began experimenting with chemicals once again while they were engaged in the Boer War. British troops launched artillery shells filled with picric acid so that when the shells landed they would release an explosive gas called lyddite. The Boers protested, but the British discontinued use for efficacy reasons before the protests were widely circulated (Hersh 4).
As the twilight of the nineteenth century approached, the pace of scientific and industrial development increased, and along with it, a greatly increased destructive potential for chemical and biological weapons. The concern among nations relating to the destructive potential of these weapons reached such a pitch that the Hague Peace Conferences of 1899 and 1907 banned the use of poison and poison bullets (McCarthy 4). The 1891 Hague Gas Declaration reflected the fears of the major nations as they approved a resolution outlawing "the use of projectiles the sole object of which is the diffusion of asphyxiating or deleterious gases" (Hersh 5). American military leaders resisted restraints on chemical warfare and persuaded the US delegation to be one of the few powers that refused to sign the ban (McCarthy 4-5). The treaty proved to be ineffective as World War I developed, and historians suggest that much of the treaty's ineffectiveness could be attributed to the narrow scope; "projectiles" did not include smoke pots, large canisters, and other deployment devices used to spread gases in World War I (Hersh 5).

The Use of CBWs in World War I

Looking in the Random House Dictionary of the English Language under "Haber, Fritz," I find the following modest notation: "1868-1934, German Chemist: Nobel Prize 1918"
A rather humble notation for an individual that had a profound impact on the course of modern warfare. As head of Berlin's Kaiser Wilhelm Institute of Physical Chemistry and Electrochemistry, Haber won the Nobel Prize for discovering a process to commercially produce ammonia. Motivated by the interests to save his homeland and to decrease the material costs of the war in German lives and resources, he also brought to the world modern chemical warfare. In appreciation of his patriotism he was granted the highest honor of one government and was victimized the next for being a Jew (Seagrave 38-40). Haber developed the process and directed the German infantry in building the mechanisms to unleash the gas that would begin modern chemical warfare.

The Allies on the Western front should have been alerted that something was about to happen. There were several reports by trench soldiers that strange new noises were being heard. Official communiques coming from the German Foreign Office accused the French, British, and Russians of using poison gas: Of course, this was merely propaganda to prepare the path for what was about to take place. French intelligence officers interrogated a German prisoner and discovered information pertaining to the impending gas attack; but they decided that the information was an attempt to plant false information. The German
prisoner described the activities in detail which brought him the ignominy of his fellow countrymen and was labeled "The Traitor of Ypres" (Seagrave 41).

In 1915, few believed that any country would dare use poison gas because they believed it outlawed by the Hague Convention of 1899 (Seagrave 50). However, on the evening of April 22, 1915, at the Belgian village of Vijfluege near Ypres, the German army blew 5700 cylinders of chlorine gas against the Allied front (Wachtel 21). The panic that ensued made Hannibal's trick of throwing snakes onto the decks of ships pale in comparison to when the first cloud of gas was released. Some accounts list the resulting death count at around 5000 (McCarthy 5).

The first gas attack was the most effective of the war resulting from the fact that the Allied army found itself totally unprotected for such an attack (Wachtel 21). Even today, the effectiveness of chemical and biological weapons remains most profitable against unprotected soldiers and civilians (Spiers 87). The Germans did not exploit their advantage and fortunately used gas on a scale adequate to alert the Allies to the reality of the chemical threat, but inadequate to insure success (Brown 4).

General reaction to the Ypres gassing was typified by General Black Jack Pershing's response to the attack: "the impression was that the Germans had now thrown every
consideration of humanity to the winds" (165). A sense of outrage accompanied Pershing's sentiments: Sir John French castigated the Germans for playing "a very dirty low down game in shooting that damnable gas" (Spiers 7).

The gas attacks were contrary to the generally recognized customs of war, but the Germans did not actually break the letter of international law. The Hague Declaration merely prohibited the "use of projectiles" the sole object of which was the diffusion of asphyxiating gases, not the emission of cloud gas (Spiers 17). The actual wording of the declaration was not contravened. A very insightful German eyewitness to the gas attack encapsulated the situation quite concisely: "I am not pleased with the idea of poisoning men. Of course, the entire world will rage about it at first and then imitate us" (McCarthy 5).

The situations that the Germans were dealing with as they were contemplating the use of chemical weapons, resemble many motivations that may cause a modern actor to employ such weapons today. The economic cost of the war was taking its toll on Germany. The Germans were frustrated in battle and suffered profound losses in men, machinery, and production capacity. The decision to initiate gas warfare enabled Germany to gain maximum utility of one of its most significant advantages it held over the Allied powers; a highly developed chemical industry (Brown 6). Modern
decisions to use CWs have been rooted in much the same analysis. More technologically advanced states use their superior technological capacity in conflicts where traditional warfare becomes too costly and frustrating. The intent is to lower the economic cost of the war.

The period from April 1915 to July 1917 witnessed the gradual expansion of the use of gas. However, once protective equipment became standard issue, the situation stabilized. Yet, there was a qualitative arms race that ensued which focused on finding new and more lethal chemicals (Brown 10). Mustard gas was developed which contaminated both clothes and weapons while penetrating gas masks (Brown 12). The employment of mustard gas created profound increases in the number of casualties attributable to chemical warfare. All told, the widespread use of gas caused about 1.3 million casualties and 100,000 deaths between 1915 and 1918. The widespread use of CWs engendered almost universal abhorrence for gas warfare (McCarthy 5).

Propaganda surrounding CW use served to mobilize hatred against the enemy. Harold Lasswell notes that an effective technique for mobilizing hatred is to "represent the opposing nation as a menacing, murderous, aggressor . . . as satanic; it violates all the moral standards (mores) of the group (195). Laswell describes the other objectives as (1) to preserve the friendship of allies, (2) to preserve the
friendship, and, if possible, to procure the cooperation of neutral, (3) demoralize the enemy (195).

The Allies seized the CWs issue and made it a central feature of their hate propaganda (Peterson 63). The British used it for the dual purposes of mobilizing support of the home population and securing the support of the still neutral United States. The use of CWs by the Germans meshed well with the stereotype of them created by Wellington House propagandists of Teutonic brutality and ruthlessly, inhuman, Prussian militarism (Sanders and Taylor 145). The propagandists began to produce apocalyptic visions of the end of the world, horrifying descriptions of the lingering death associated with gas poisoning, and vivid descriptions of the actual attacks (Seagrave 68). The overall focus of the propaganda was on the inhumane aspect of the use of CWs (Brown 15). Allied propagandists were alleged to have employed a propaganda device known as magnification of effect, whereby they artificially inflated the number of casualties (Brown 14). At this point one may think of the Vietnam War when the United States was supposedly killing 10,000 Vietcong a week. A researcher by the name of Hanslian suggested that the Allies quintupled actual casualty figures for propaganda effect (Brown 14). But given the effect that this would have had on undermining the
morale and gas discipline of the soldiers, Hanslian's assertion seems unlikely (Seagrave 68).

The propaganda did have its desired effect, but it may have been too effective because gas atrocity stories did not coordinate with the Allies' use of gas. Although the Allies argued that their use of CWs necessitated retaliation, the inhumanity of gas warfare was removed from the propaganda in order to escape a "moral boomerang effect" (Brown 15). In mid-1917 a news blackout on CW use was imposed by the French and British to avoid an "unreasonable dread of gases on the part of the American Nation and its soldiers" (Crowell 410). The final shift in Allied propaganda came in 1918 when there was free reporting of news on the employment of gas. Free reporting emphasized the superior performance of American industry in supplying the American Expeditionary Forces in France (Peterson 63). A typical sample:

There are among us chemists who can meet them upon their own ground and go them one better in devilish inventiveness if it is so desired. . . . Before the great war is over it is not unlikely that every fiendish, death-dealing gas known to science will be used on the battlefield as an implementation of destruction. But American savants declare they can meet each new horror with
a powerful remedy. Germany cannot devise that which American ingenuity cannot overcome. (628)

Gas propaganda had little effect on American public opinion, however; American civilians were not directly threatened by the threatened by the weapons and could not relate the threat with their experience (Seagrave 68). To the American public, gas was only one of many horrors that the war spawned. American attention focused on other matters, such as the sinking of the Lusitania, which occurred only a few weeks after the gas attack at Ypres. The first gas attack at Ypres claimed no American lives; one hundred twenty four American civilians were killed on the Lusitania (Seagrave 68). As a mobilizing agent, gas could not compete with the Lusitania.

After the war, the gassed veterans returned home to the US with serious debilitating diseases. The public outrage that ensued sparked a drive to eliminate the use of poison gas (McCarthy 5). In the years immediately following World War I, the United States took the lead in international efforts to control chemical and biological warfare. Subsequent to congressional and public demands, Secretary of State Charles Evans Hughes led a US delegation to the Washington Arms Conference where the Treaty on the Use of Submarines and Noxious Gases in Warfare (The Treaty of Washington or the Washington Treaty) was drafted. This
treaty was adopted by the conference and was signed February 6, 1922, but France objected to the wording of another section and the treaty never went into effect (Moore 432-33).

Three years later, the US Delegation to the Geneva Conference for the Supervision of the International Trade in Arms and Ammunition and in Implements of War (The Geneva Conference) initiated a proposal which led to the adoption of the Geneva Protocol of 1925, which followed the language of The Treaty of Washington. The protocol was passed out of the Senate Foreign Relations Committee by a vote of 8-1, but it never came to a vote after it was reported out of committee due to vigorous lobbying against it on behalf of the chemical industry, the Army Chemical Corps, and other groups (Moore 434). The United States finally signed in 1975.

The Use of Chemical and Biological Weapons in World War II

World War II revealed a surprising aversion to the use of CBWs, particularly in Europe. Some commentators such as Peter Hall suggest that Hitler's personal experiences with gas campaigns in World War I prevented him from employing them although they had been manufactured (43). Stockpiles of new forms of extremely lethal nerve gases were discovered
when Germany surrendered, yet there was no documentation of their use in the battlefield (Moore 437). Of course, chemical agents were used to commit genocide in the concentration camps.

Despite recommendations that the US use gas in the Pacific Theatre to flush out entrenched Japanese soldiers, its use was refrained from despite the fact that it would have been an ideal weapon to force Japanese soldiers out of island jungles and caves. Admiral Nimitz rejected the War Department's suggestion that he use poison gas during the invasion of Iwo Jima; Nimitz did not want the US to be the first country to violate the Geneva Protocol of 1925 (Moore 436). Nimitz must have been speaking quite generally because the US was not a party to the protocol at that time.

However, the US policy concerning CBW employment was declared emphatically by Franklin Roosevelt before US involvement in the war:

> It has been and is the policy of this Government to do everything in its power to outlaw the use of chemicals in warfare. Such use is inhuman and contrary to what modern civilization should stand for. (Brophy and Fisher 22)

In 1943, Franklin Roosevelt pledged the US to a no first use policy of poisonous or noxious gases, stating the "use of
such weapons has been outlawed by the general opinion of civilized mankind" (Moore 436).

Japanese actions in the Pacific Theatre were not expansive in regards to CBW use, and very little attention has been paid to them until recently. In 1955, the Tokyo magazine *Bungei Shungu* published an eyewitness account of Japanese germ warfare test. The writer, Hirosh Akiyama, reported that a germ warfare center disguised as a Red Cross station experimented on live human guinea pigs (Hersh 15). The US government did not comment on the report, but officials described *Bungei Shungu* as having a good reputation with no pro-Communist connections (Hersh 15). The matter disappeared from the public forum until recently declassified documents established that in 1947 the US agreed to protect Japanese biological experimenters from war crimes prosecution and keep their activities secret in exchange for their technological data (Cassell 270). The former editor of *China Weekly Review*, John W. Powell, reported that the American government's cover-up was motivated by a desire to gain exclusive possession of Japanese expertise in germ warfare. Japan killed at least 3000 people at its main biological warfare station (Powell 44). Among the human guinea pigs were a number of American prisoners-of-war (POW). From Powell's documentation, it is apparent that Washington was aware of the use of American
POWs when it granted the experimenters immunity. The prisoners were used to study the immunity of "Anglo-Saxons" to infectious diseases. Cecil F. Hubbert of the State, War, Navy, Coordinating Committee recommended the cover-up in a July 15, 1947 memo (Powell 44).

Japanese Army surgeon, Ishii Shiro, commanded the large installation, that was located in China, which contained: sophisticated germ and insect breeding facilities, a prison for experimentees, testing grounds, and its own airfield and crematorium (Powell 45). The Japanese destroyed the facilities and killed the experimentees on evacuation as Soviet tanks were approaching in August 1945. Ishii offered his knowledge and research on biological weapons in exchange for a guarantee of immunity for himself and his workers.

Dr. Edwin Hill, then head of Basic Sciences at the Army's Fort Detrick, looked at a sample of the data and profoundly observed that such information could not be obtained in US labs because of scruples attached to human experimentation. Hill pleaded that:

[Individuals who voluntarily contributed this information . . . be spared embarrassment . . . and that every effort be taken to prevent this information from falling into other hands. (Powell 47)
The State Department and the Army supported Hill's recommendations because a war crimes trial would reveal the data to all nations. The consensus emerged that the value of the Japanese BW data outweighed the value of war crimes prosecution. This position was taken despite the fact that German scientists were being prosecuted by the US at Nuremberg for experimenting on humans (Powell 48). And of course it would have been a terrible occurrence to have embarrassed those that experimented on 3000 humans.

At a December 1949 Soviet trial at Khabarovsk, evidence was produced that supported Nationalist Chinese claims that the Japanese had used biological weapons in battle. At the time, the US was pressing the USSR to return Japanese prisoners held in labor camps. When news of these charges reached Tokyo, General Douglas MacArthur's diplomatic chief, William J. Sebald, dismissed the charges as propaganda and declared that the trial was a smoke screen to obscure the Japanese prisoner issue (Powell 49). The documents released under the Freedom of Information Act also revealed that the Chinese claim was true, and the use of biological weapons in war did occur (Roling 53).

Bert V. A. Roling, one of the judges in the International Military Tribunal for the Far East, claimed:

The immunity granted to the Japanese war criminals covered not only deadly research on living
persons, but also the use of biological weapons against the Chinese. And all this so the United States could obtain exclusive access to information, gained at the cost of thousands of human lives. (53)

In April 1982, the Japanese acknowledged these activities, yet the US Army continues to deny that US prisoners were subject to the tests and that it granted immunity for prosecution ("Japan's Biological Weapons: 1930-1945"-an update 62).

Chemical and Biological Weapons
Use in the Korean Conflict

In 1952, the North Koreans and the People's Republic of China (PRC) repeatedly alleged that the US was engaged in germ warfare. The charges were based on testimony supposedly volunteered by thirty captured US Air Force officers. The United States denied the charges and accused the Communists of brainwashing the pilots (Hersh 18). Because there was no impartial body in existence to investigate the charges, the North Koreans and PRC created their own international investigative commission (Cassell 270). The commission released a 650 page report which concluded that the reports were true. The report was generally dismissed by the world community as propaganda and
convincing few outside communist countries. A recently declassified 1952 State Department Report concluded that the communist charges resulted in no great realignment of sympathies in the world (Department of State Intelligence Report no. 5997.1, in Cassell 270).

The US responded to the charges by requesting the International Committee of the Red Cross (ICRC) to investigate the accusations. However, the investigation was blocked by North Korean and PRC refusal to cooperate with the ICRC (Moore 437). A few months later, the US sponsored a resolution in the UN Security Council requesting the ICRC investigate the Chinese allegations, but it was vetoed by the USSR. In April 1953, a General Assembly Resolution proposing a five-state commission to investigate the charges was also blocked by North Korea's and the PRC's refusal to grant access to their territories (Hersh 19).

The events surrounding the reporting of this incident illustrate how the U. S. government used the court system to intimidate the independent press from publishing views inimical to its interests. In 1958, the U. S. pressed sedition charges against three Americans accused of publishing "false charges" of germ warfare. One of the accused was John W. Powell, the journalist who broke the Japanese-US cover-up in the Bulletin of Atomic Scientists (this cover-up is discussed fully in the previous section).
Paul Cassell of Stanford University claims that there is mounting evidence that the PRC allegations were true (270). Cassell cites as evidence the striking similarities between the technologies turned over to the US by the Japanese biological scientists and the accusations of the Chinese (270). Examples of classified weaponry in the American arsenal appear in the Chinese reports: Exotic weaponry such as anthrax infected turkey feathers and Fort Detrick produced cereal rust and fowl pathogens appear in the reports (Cassell 271). However, the propaganda surrounding nearly every event in the controversy obscures the substance of the charges and makes it impossible to evaluate the validity of the reports.

Gas in the Third World

Worldwide condemnation concerning CBWs led to the convening of the Geneva Conference in 1925; which outlawed all use of asphyxiating, poisonous, or other gases (Hersh 6). Although the US was in the forefront of the movement, the Senate, succumbing to lobby pressure, refused to ratify it until 1975 (Hersh 7). Since the Geneva Protocol of 1925 was drafted, it was openly violated only once when Italy used mustard gas against unprepared Ethiopians in the Abyssinian campaign of 1936 (Hersh 7). It is in this type of conflict, a major power versus an unprepared third world
population, that the use of CBWs retains greatest utility. Third world countries possess little protective gear and are inclined to hide in jungles and rough terrain. Just as green smoke was used in ancient times to flush out animals from caves, CBWs find utility in those conflicts where the economics of engaging in jungle and rough terrain warfare are prohibitively expensive and time consuming.

Since World War II, there have been numerous reports, with varying degrees of accuracy, about the employment of CWs in small colonial conflicts. There have been reports that Ethiopian troops may have used poison booby traps in their war against Eritrean rebels ("Poison Pangs" 22). Other reports alleged that the Vietnamese used chemicals and other poisons to block the Chinese invasion of Vietnam in 1979 (Seagrave 218). There were also several reports that the Egyptians used mustard gas in the Yemen civil war between 1963-1967 (Cassell 265). In each of these cases, the Soviet Union was alleged to have supplied these weapons, but other reports suggest that the nations could have easily produced such weapons themselves (Kalven 15, 18). Each of these examples were, and still are, highly controversial as the reports are still persistently disputed and denied. The search for evidence in battle zones proved difficult. However, it would be folly to ignore such charges and they should raise questions about the utility of
CBWs, the efficacy of arms control treaties, and the intentions and capabilities of the powers involved (Spiers 105).

During the Cuban Missile Crisis, the US came to the brink of using biological warfare against Cuba. One plan involved infecting the Cuban people with an incapacitating biological agent. An informant revealed that the agents were actually placed aboard airplanes, but were recalled by President Kennedy (McCarthy 66). Cuba charged the US with using germ warfare against its island in 1964. US officials denied the charges, claiming them as "absurd and preposterous" (Hersh 21). Some officials expressed the view that the Cuban charges were made to counter anti-Castro propaganda coming from Cuban exiles in the US. Oscar Alcalde Ledon, the former director of the Cuban Academy of Science, who escaped Cuba with four other refugees on a boat in 1963, said that Cuban officials had informed him that they often make charges against the US because "it was now very easy for the Cuban government to introduce foot and mouth disease in the United States" (Hersh 21).

Unlike the previously mentioned campaigns where CBW charges were controversial and not resolved, the use of American riot control agents and herbicides in Vietnam has been openly admitted and extensively examined. It is appropriate to examine this controversy to understand some
of the concepts underlying CBW use. The amount of space relegated to examining this incident should not be interpreted as pointing a more accusing finger toward the US than at other countries. Because the charges in Vietnam were extensively studied and confirmed, they provide an adequate background for understanding particular principles.

The motivation for US use was a response to the tactics of the Vietcong. The Vietcong infested the jungles, swamps, and rain forests of South Vietnam. They would creep from the foliage to ambush US convoys and troops and then return to the foliage before a counter-attack could be launched. To address this problem, in 1962, US researchers at Fort Detrick experimented with agricultural herbicides to defoliate the jungles, they christened their new program Operation Ranch Hand, which had as its unofficial slogan "only we can prevent forests" (Seagrave 98). High level Pentagon officials conceded that three factors led to the decision to use defoliants in Vietnam:

1. The need to conduct defoliant experiments in heavy jungle areas.
2. The needs of the operational military personnel, who viewed defoliation as a means of avoiding or ending ambushes and perhaps starving out the Vietcong.
3. The Chemical Corps promoters who "were always overselling everything." (Hersh 149)

Seymour Hersh explained that:

Oversell apparently is a constant problem with the CBW generals, who are avid boosters of their arsenal. One former Defense official told me he always had problems with the generals when he served in the Pentagon. He explained why: "The Chemical Corps is a cult. Those generals all have Billy Mitchell complexes to infinity. Ideas that the White House or McNamara emphasized when they boosted CBW spending would end up getting perverted by the generals." Billy Mitchell was the Army officer whose campaign for the airplane led to his court-martial in the 1920’s. (149)

In August 1962, Operation Ranch Hand commenced its color coded missions (agents orange, white, purple, and blue were used) and proceeded to baptize the Vietnamese countryside with these chemical herbicides. During the initial stages very little press coverage was paid to the occurrence (Seagrave 99).

Pressure started to originate from South Vietnamese President Ngo Dinh Diem to expand the operation to exterminate crops that fed the Vietcong (Seagrave 99). Initially, the US resisted, but after continued pressure,
chemical agents were supplied to South Vietnamese forces where "no provision was made for special authorization to use them . . . and it was assumed that South Vietnamese commanders would use them as they saw fit" (New York Times 7).

As the costs of the war became more taxing, pressure mounted to put other chemicals to use. The National Review advocated a position that appears to be surprisingly similar to the industrial capacity rationale for German CBW use in World War I:

A single helicopter equipped with a gas dispenser could flush out an entire band of guerrillas in a few minutes of work. Gas is also effective on rough terrain where guerrillas hide in caves and tall grass and where counter-guerrillas cannot go except at high cost in human life. A nation that has no qualms about training counter-guerrillas in the art of knifing guerrillas in night-time operations should have no objection to gas warfare, especially with gases that are nonlethal. Unless the United States is prepared to make use of its industrial and technical know-how, as in the case of chemical warfare, it will continue to fight at a disadvantage. (in Seagrave 100)
The term "nonlethal" is a misnomer. It only means that they do not kill when applied in very small doses in open areas (Seagrave 100). Of course, the potency of such chemicals is greatly magnified when applied in confined areas such as caves and underbrush. Defense Department figures indicate that by July 1969 the United States had sprayed approximately 5,070,800 acres in South Vietnam with herbicides; a figure comparable to more than ten percent of the land area of the country (Moore 442). Sterling Seagrave ridicules the National Review's position with the following epithet:

If you are going to kill somebody, what difference does the choice of weapon make? To be sure, if all that sets the United States apart from its enemies is its industrial and technical know-how, then it definitely should have no compunction against making full use of these strengths. By the same reasoning, Hitler should have authorized the use of tabun [a nerve gas] at Stalingrad and Normandy. And Dr. Goebbels should have been elected pope. (Seagrave 100, brackets mine)

The National Review's position won out. By November 1965, the United States relied heavily on the riot control agents CB (ortho-chlorobenzldenemalonoitrile) and CS (w-chlorocetophenone) in Vietnam (Moore 440). Soldiers began
to spraying CS into caves and bunkers to flush people into defoliated areas where they could be killed with conventional weapons. The option was to suffocate or die from M-1 fire (Seagrave 104).

The missions were carried out in strictest secrecy, but Associated Press reporter Horst Faas heard of plans to use some riot control agents in combat missions near Saigon and reported that the United States was experimenting with gas warfare (Hersh 168). Faas' report set off world wide protest. A Frankfurt paper published a cartoon illustrating the Statue of Liberty with a gas mask; a Japanese paper carried a drawing of Hitler's ghost floating over Vietnam with a bag of chemicals in his hand; and the New York Times published a stinging editorial noting that "in Vietnam, gas was supplied by white men against Asians. This is something that no Asian, Communist or not, will forget. No other country has employed such a weapon in recent warfare" (Hersh 170).

In 1965, the Soviet Union went to the UN and accused the US of violating "the accepted rules of international law and humanity" (Moore 444). The degree to which international law is effective is solely based on the degree to which an infraction causes international furor. If a treaty is broken and no outcry occurs then that treaty has no strength (Seagrave 101). Public outcry is the primary
sanction underlying all arms control agreements. Thus, punishing violations of the Geneva Protocol and the Biological Weapons Convention require the generation of international pressure. Public protests and UN votes of condemnation pressured the US to phase out its use of herbicides in Vietnam by the early 1970s (Cassell 267). President Nixon also submitted the 1925 Geneva Protocol to the Senate for ratification where it finally passed in 1975 (Moore 419). And in 1970, Nixon was motivated by a nerve gas testing failure in Utah to declare that the US would find a way to rid itself of leaky stocks of war poisons (Seagrave 111). The US took some spurious actions toward this goal, and the majority of these leaky stocks still remain.

After the spraying, much of Indochina was reduced to wasteland that will require at least 100 years to recover its plant life. The shellfish that were once the staple of the poorer people’s diet no longer exist in those waters, and dioxin poisoned all animal life that survived the herbicides. Dioxin is a by-product of agent orange that is fifty times deadlier than other war gases. One kilogram of dioxin will kill one billion guinea pigs, it is considered the most lethal synthetic chemical ever produced. The Defense Department was aware that dioxin was a by-product of
agent orange before it approved its use in Vietnam (Seagrave 105).

The important lessons from the Vietnam experience are: (1) international law requires international outcry for effectiveness; (2) military establishments will use chemical weapons to decrease the immediate costs and frustrations of war; and (3) there is a general international consensus against the use of chemical weapons.

The Rhetorical Impact of CBW Claims

Sterling Seagrave contends that "rarely is political rhetoric more brutally effective than when it is used in arguments involving chemical warfare" (123). Although some groups such as Benedict's Eskimos do not recognize a difference between war and murder, or one form of killing as different from another form of killing, the revulsion to chemical and biological weapons has become a recognized principle in international law (Moore 419). Although bombs and bullets kill and injure their victims, the charge of chemical and biological weapons use carries with it a call for "moral condemnation far in excess of that which would be called for in response to more conventional warfare" (Cassell 260).

The reasoning behind the widespread revulsion to CBW use is rarely articulated. Usually normative statements
suffice as proof of their depravity. Some commentators such as Frederick Brown argue that the propaganda during and following World War I exaggerated the realities of CBWs which resulted in a unreal aversion to the weapons (41). Non-military opponents of CBWs focused on the fact that chemicals were inhumane because gas casualties suffered lingering death and the survivors returned home with shattered health (Seagrave 69). However, after World War I, Colonel H. L. Gilcrest, chief of the Medical Division of the Chemical War Service, argued that CWs were more humane than conventional weapons. Gilcrest conducted a comprehensive evaluation and found that CWs produced lower rations of fatalities to casualties and of permanently disabled people to total casualties (Cassell 261). However, Gilcrest's figures excluded Russia where the greatest incidence of gas casualties occurred (Seagrave 69). The implications that this exclusion would have need not be discussed. Additionally, Gilcrest's job was dependent on a strong Chemical Corps thereby biasing the study. Whatever validity Gilcrest's argument once had, more lethal nerve gases developed since his study would seem to obviate his argument.

Another reason for the revulsion to CBWs rests with the notion that CBWs are uniquely anti-civilian weaponry. Prepared military forces generally have equipment to protect
themselves from these weapons causing the effects to fall almost exclusively on unprotected civilians (Cassell 261).

General Peyton March notes that:

> War is cruel at best, but the use of an instrument of death, which, once launched, cannot be controlled, and which may decimate noncombatants—women and children—reduces civilization too savagery. (333)

Biological weapons, more so than any other weapons, are designed for the purpose of annihilating civilian populations impacting most dramatically on the very young and the very old (Cassell 261).

Gas too is an indiscriminate killer, once released it does not stop killing. It can move from a battlefield into a town with only a gust of wind to change its target. It is interesting to note that CW’s indiscriminate quality was used as an argument against CWs by senior military officers for different reasons. The officers felt that gas removed a front line in a war which made everyone equally vulnerable to attack, even men on horseback. The senior officers were skeptical of promoting a weapon that failed to discriminate according to rank (Seagrave 69).

CBWs also carry effects that make battlefield management increasingly complex. Protective equipment divorces soldiers from their external environment which
creates difficulties in transmitting orders and in maintaining morale when soldiers are deprived of their food and various vices (Brown 36). Additionally, psychoneurosis or "gas fright" can occur: Military reports indicate that soldiers hearing a report that gas was used in an area acquired all of the symptoms of gas poisoning even though they had not been exposed (Brown 36). When chemicals do not produce real casualties, they support apprehension and panic, and hasten the onset of battle fatigue and complicate the problem of straggling (Brown 37).

In addition to the problems related to suffering, anti-civilian, and psychological damage, revulsion to CBWs appears to be based in part on long term global consequences. Many fear that the research and development of these highly sophisticated technological weapons will create invisible weapons able to kill in mysterious ways with unpredictable consequences (Cassel 261). For example, Lyndon LaRouche and the Fusion organization claim that AIDS (Acquired Immune Deficiency Syndrome) started by Soviet application of biological warfare on unsuspecting citizens (1). Others fear that a race to develop new and more sophisticated chemical and biological weapons will produce undesirability consequences such as race selective weapons (Cassell 261). This fear has some basis in fact, the Japanese experimenters in World War II collected prisoners
of different races to study the effects of varying agents on those prisoners (Powell 47). Many also fear the grave environmental consequences of CBWs, some argue that not only the application, but the mere research of these weapons may produce consequences that could have dramatic and irreversible effects on the balance of nature and global health (Cassell 262).

Finally, arms control regimes have already been established to govern CBWs. Discouraging the use of these weapons has an added benefit of preventing the breakdown of one of the few effective arms control regimes in existence. Despite occasional use, the Geneva Protocol has generally been recognized as bridling the use and development of CBWs (McCarthy 3). Other arms control initiatives are unique in the CBW arena, the 1972 Biological Weapons Convention is the only international agreement reached since the end of World War II that calls for the destruction of an entire class of weaponry (Cassell 262). As such, allegations of CBW use alone present problems and threaten to undermine the arms control regime. This point is easily understood when looking at the problem from the perspective of nation states, nations do not wish to be at a disadvantage and will not abide by arms control agreements if they do not believe other nations are also abiding by them. It is for this reason that the present study takes on added
importance. If the Soviets are accused of violating these arms control agreements, then the accusation alone presents questions concerning the viability of arms control agreements. Nations, not wishing to be fooled by other nations' actions, may embark on new and dangerous arms development and may be less constrained to use these weapons in the future if they fear possible military reprisal. This concept will be discussed more in depth as by applying the Jowett-O'Donnell method of propaganda analysis to the yellow rain controversy.
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CHAPTER IV

THE ANALYSIS OF PROPAGANDA USE

Diplomats here tell a joke that goes like this: What’s the best way to keep an international secret? Answer: Have the United States and the United Nations investigate it. The cautious UN won’t find the answer and no one will believe the US. (Gigot 1)

By using the Jowett-O'Donnell method of analyzing propaganda, this study will systematically analyze the yellow rain controversy and will reveal some of the reasons why Gigot’s joke strikes a harmonious chord with members of the international community. In Chapter I, the following questions were put forth:

1. To what extent, and with what effect, was propaganda employed in the yellow rain controversy?
2. To what extent is the Jowett-O'Donnell ten-step method useful in analyzing propaganda in the yellow rain controversy?

This chapter will deal exclusively with the first question. An evaluation of the model will take place in the following chapter.
Jowett and O'Donnell offer a ten step method for analyzing propaganda. The specific steps are outlined in Chapter I and will be discussed more in length as each step is approached. Jowett and O'Donnell maintain that their ten stages take into account the following questions:

To what ends, in the context of the times, does a propaganda agent, working through an organization, reach an audience through the media while using special symbols to get a desired reaction? Further, if there is opposition to propaganda, what form does it take? Finally, how successful is the propaganda in achieving its purpose?

The following is an implementation of Jowett and O'Donnell's methodology to US claims of Soviet complicity in chemical weapons use in Southeast Asia and Afghanistan during the yellow rain controversy. The purpose is to answer the questions set forth in Chapter I. For the sake of clarity, each of Jowett and O'Donnell's steps are dealt with independently. By doing so, each component part can be analyzed with greater ease and can be seen as independent working parts in a system. As each step is applied there will be a brief explanation discussing the mechanics and purpose of each. Following the explanation of the step appropriate examples and explanation will be provided. Within each step there will be fragments of my own analysis,
but many comment will be delayed since the methodology contains a step for analysis and evaluation.

Ideology and Purpose of the Propaganda Campaign

The first step is to locate the ideology and purpose of the propaganda campaign. According to Kecskemeti, the ideology of propaganda provides "the audience with a comprehensive framework for dealing with social and political reality" (849-50). To locate the ideology, a set of beliefs, values, behaviors, and attitudes as well as perceptual and cognitive norms that dictate what is desirable will be examined (Jowett and O'Donnell 154). The purpose of propaganda may be to influence people to adopt particular attitudes that are the desired intent of the propagandist or to engage in certain patterns of behavior, such as voting. Propaganda also seeks to legitimize the organization or institution it represents and thereby legitimizing its activities.

In searching for the ideology and purpose of the propaganda campaign, it was apparent that one of the persistent objectives of Ronald Reagan's presidential rhetoric has been to rally the nation around his image of the Soviet threat (Ivie 39). Reagan's tactics for achieving peace and controlling the arms race include denigrating the
Soviet Union. In March 1983, he characterized the Soviets as an "evil empire" and the focus of evil in the modern world (Ambrose 332). Reagan characterized the Soviets as a barbarous enemy who has been single-mindedly pouring every resource into "the making of instruments of destruction" while the intended victim has been naively disarming in pursuit of an elusive detente (Reagan 4).

To Reagan, America's proper response is to prepare itself to deal with the threat from a position of strength. Reagan rejected Carter's policy of offering the Soviets restraint and even accommodation because Carter's policy had not worked. Reagan claimed that the Soviets took advantage of Carter, and as such, reverted to Nixon's policy of buildup; the Cold War tactic of never bargaining with the Russians except from a position of superiority. In his first three years in office, Reagan increased defense spending in real terms by 40 percent (Ambrose 333). As Reagan argued, the Soviets "respect only strength and resolve in their dealings with other nations" (Ivie 41). According to Reagan, because the Russian mind understands and responds only to tactless force, the United States must rebuild its conventional and nuclear capabilities. Reagan argued that an effective chemical warfare treaty cannot be negotiated from a position of weakness and that current NATO
stocks of chemical weapons are inadequate to deter a chemical attack by Warsaw Pact countries (Murphy 83).

Reagan appeared convinced of his rhetoric of rearmament. Reagan's vision of the inexorable advance of Russian barbarism so dominated his understanding of world affairs, including the need for large increases in military spending, that it competed with his primary domestic goal of revitalizing the American economy. This perception made it difficult for him to endorse tactics aimed at pacifying world opinion because of his intuitive distrust of negotiating with those duplicitous cheaters in the Kremlin (Simes 22). Elisia Harris argued that the charges of yellow rain warfare in Southeast Asia and Afghanistan have been central to the Reagan Administration's arms control noncompliance case against the Soviet Union (92). The claims are used not only to justify increased chemical and biological warfare expenditures on the part of the United States, but also to weaken support for existing agreements in this area and perhaps future agreements as well. Some claim that these allegations of Soviet chemical and biological arms control violations are part of a much larger effort by some in the Reagan Administration to undermine the entire arms control regime (Harris 92-93). Consequently, the legitimacy of the military industrial complex is bolstered by creating a Soviet threat. The people are to
believe the threat and gently acquiesce to a massive military buildup.

Context in Which the Propaganda Occurs

Jowett and O'Donnell contend that "successful propaganda relates to the prevailing mood of the times; therefore, it is essential to understand the climate of the times" (155). Consequently, it is the analyst's responsibility to be aware of the events and the interpretation of the events that the propagandists have fashioned. When discussing this portion of the model, Jowett and O'Donnell suggest that it is important to understand the historical background, the deeply held beliefs and values of a society, and the myths and sources of myths that are related to the present propaganda (156). A myth can be loosely defined as a predisposition to act, or a model for social action (Jowett and O'Donnell 156).

The history of chemical warfare and the abhorrence that claims of its use evoke were discussed in great detail in Chapter III. A condensed history is provided for easy reference. The ancient Greeks had chemical fire (Hall 42). The Germans first deployed chlorine in a large-scale attack against the Russian and Western Allies in 1915. Ever since, chemical warfare has been a highly emotive topic—and a highly effective topic in the hands of a skilled
propagandist. The British exploited the German use and engendered national and international sentiment against the Germans and manipulated neutral opinion against the Kaiser who *The Times* branded "William the Poisoner" (Roberts 504).

Some US generals wanted to use nerve gas at Iwo Jima, but humane considerations blocked the request. The Japanese experimented extensively with germ weapons during World War II (Powell 37). There were charges that the US used germs in North Korea, but they have not been proven (Hall 43). The US used herbicides and riot control agents extensively during the Vietnamese conflict (McCarthy 5). Iraq has been condemned internationally for using chemical weapons in the current gulf war and as a tool of genocide against the Kurds.

Since 1925, the Geneva Protocol has served as the international standard to bar chemical warfare. The United States waited fifty years and finally endorsed it in 1975 (Hall 43). The Biological and Toxin Weapons Convention of 1972, banned the development, production, possession, and transfer of biological and toxin weapons. As such, this agreement remained the first and only true disarmament measure of the postwar period (Harris 43). The reason why yellow rain became a part of the verification debate is because neither the Geneva Protocol nor the Biological Weapons Convention contains any provisions for verification.
This is important in light of Reagan's belief that Soviet noncompliance is due to inadequate verification provisions. Soviet claims that verification is not necessary is the focal point of contention in US/Soviet arms control dialogue.

Despite Soviet involvement in Afghanistan and Indo-China, an agreement on nuclear arms was an overriding goal. President Reagan was under pressure from the nuclear freeze movement, from senators opposing his nominee as the head of the arms control agency, and from European allies to be more, not less, accommodating to the Soviets in the strategic and intermediate missile talks (Bartley and Kucewicz 816). The verification issue served as a temporary block on arms control.

Reagan's attempt to revitalize the Chemical Defense Corps was at issue. It was reported that the Chemical Corps hoped to see $1,300 million invested in the procurement of binary munitions (Roberts 506). However, the Pentagon had difficulty in obtaining the funds because of testing accidents that killed 6000 sheep in Utah and nearly wiped out a city. This caused President Nixon to close nerve gas plants in 1969. Additional trouble caused by West Germany and NATO refusal to stockpile more nerve gas in Europe complicated the binary program (Hall 44). During the yellow rain controversy, the Binary Procurement proposals came up
for a vote several times. A vote in the US House of Representatives to block funds for the production of binary nerve gas weapons in 1982 did not alter the government's stance. On July 22, the House of Representatives voted 251 to 159 to approve an amendment to the Defense Authorization Bill withdrawing the $54 million earmarked for the production of binary chemical weapons in fiscal year 1983. Two weeks previously the Senate had approved this funding by 49 votes to 45. The Congress vote effectively blocked funds for the production of binary nerve gas weapons, but left, virtually untouched, funds for research and development in this area (Murphy 83). Peter Hall noted that:

The Pentagon is in the midst of a $1.5 billion overhaul of its chemical warfare capability. Congress is under strong pressure to end an eleven-year moratorium and begin production of a new type of nerve gas bomb. And the US and Britain are doing their best to convince NATO that far more nerve gas must be stockpiled to meet what they portray as a Soviet threat. (42)

President Reagan was clearly determined to have this money for binaries which he saw as an integral part of the government's defense policy (Murphy 83). When the Reagan administration took over for the Carter Administration there was no doubt that the Reagan Administration was committed to
renovating American defenses and pursuing an aggressive foreign policy. Sterling Seagrave described the attitude shared among the defense establishment as Reagan proposed the development of binaries:

The word **binary** hit town like **disco**, and stayed. No longer was America going to use **nerve gas**, it was going to use **binaries**. Binaries were **safe**. Binaries were beautiful. Bumper stickers said so.

(232--emphasis in original)

It appeared to make little difference that binaries would be entirely useless if there were no countries in Europe that would accept forward deployment. The fact that their lands would become a forward deployment zone for weapons that could cause up to 12 million casualties, especially when the collateral damage would effect their civilian populations and not the US’s, did not comfort the Europeans in the least.

From this it is clear why an argument supporting binaries as a firebreak for nuclear weapons would not gain wide acceptance in Europe; the Europeans would prefer to have a low nuclear threshold for deterrence reasons instead of having an intermediary weapon that could devastate their population.

There is a myth that is integral to the entire process of arms procurement and arms control. That is the myth of Soviet military supremacy which builds the basis for the
entire military industrial complex. The basic idea is this: Terror creates the conditions for emergency which rally political support and enforce political consensus. If we can be persuaded that the enemy exists, then we will unite against it. If we can be persuaded that the enemy poses an immediate threat, then the continuing use of our resources to meet that threat seems urgently needed (Gervasi 38). The military establishment, in turn, legitimizes this growth by supporting the same view of the threat, because prosperity consolidates military power and expands its influence throughout society. In step with these expediencies, the government magnifies the threat to rally support for continued growth in military spending and a continued acceleration of the arms race. Because of this, the military-industrial establishment has become the most powerful institution in our society (Gervasi 38). Tom Gervasi argues that:

It is important that we understand this process, and recognize that it is nothing more than a simple set of human venalities, which most of us have long accepted, that has produced such extraordinary inhumanity and terror. For it has sustained the growth of a vast infrastructure of weapons research and design laboratories, test ranges, training schools, production plants,
procurement agencies, subcontractors, think tanks, strategic planners, consultants, lobbyists, sales and distribution networks, political action committees, and investment banking groups, all of whose work long ago surpassed the bounds of rational need, and today threatens their own survival as surely as it threatens everyone else's. (47)

Consequently, attempts at arms control are only apparently made in good faith and excuses have to be made to not restrict arms procurement. Reagan's noncompliance case against the Soviets is an example of this. President Reagan claims on-site inspection is necessary to ensure verification of compliance with arms control treaties. But space telemetry allows us to see at anytime, day or night, better than we could if we were standing on the premises (Gervasi 254). The yellow rain charges have enormous political and military implications because they raise doubts about the Soviet Union's good faith in professing willingness to negotiate other arms control agreements. We can see then, that the charges on yellow rain are not confined just to chemical weapons, but they affect the entire process of arms control: A process that the military industrial complex must impede in order to perpetuate itself. Reagan's bargaining from strength argument was
further diluted by the fact that in spite of US allegations about its use of chemicals in Indo-China and Afghanistan, the USSR appeared willing to negotiate a chemical warfare convention before the US acquired binary weapons. However, a very persuasive argument has been posited that the Soviets have been offering to negotiate a ban on chemical weapons so the US would continue to refrain from modernizing its CBW capability, resulting in the Soviets maintaining an advantage. However, all the evidence would suggest that by building these weapons the US would be fuelling a chemical arms race (Murphy 84). In the absence of any real reason to possess chemical weapons, the rationale US employs is equivalent to the standard arms race mentality of "they've got 'em and we need 'em." The resulting arms race would tend to be particularly dangerous because third world countries possess the capability to produce chemical weapons; consequently, lack of restraint on the part of the superpowers creates a climate that could provoke horizontal CBW proliferation resulting in a much more dangerous world situation.

Identification of the Propagandist

The next step is to identify the source of propaganda. The source may be an institution or an organization (Jowett and O'Donnell 156). By examining the ideology, purpose, and
context of the message the propagandist may be identified. The important question to ask is, "Who or what has the most to gain from this?" Although the source may be concealed in black or gray propaganda, an analyst may need to look at a broader picture to determine if there exists a greater purpose than is apparent from a cursory examination (Jowett and O'Donnell 157).

If the above analysis is correct, the Military Industrial Complex (MIC) is the propagandist. Ronald Reagan, Alexander Haig (the former President of United Technologies), and various State Department officials are the spokespersons. Sean Murphy describes the dynamics and motivations for the procurement of chemical weapons:

In the US at least, Reagan's pressure to vote for the binary nerve gas programme is coming from a powerful Chemical Corps lobby. The US Chemical Corps has felt itself the poor relation in all the Star Wars wizardry of recent years ... behind the US Chemical Corps, and hungry for orders, stands the giant US chemical industry looking for a way out of the recession. (5)

The Structure of the Propaganda Organization

To identify the structure of the propaganda organization, the analyst should search for a strong,
centralized and decision making authority that produces a consistent message throughout its structure. As such, the apparent leader may not be the actual leader and particular leadership styles may need to be analyzed. The structure also includes the specific goals and objectives of the propaganda organization as well as the means of selecting the media by which the message is distributed (Jowett and O'Donnell 157). Other questions pertaining to group membership need to be addressed by describing apparent symbols and rituals of membership (Jowett and O'Donnell 158).

The MIC spreads to universities and pollutes academic research (Gervasi 40). President Eisenhower's warning concerning the military industrial complex and governmental connections is discussed in the previous chapter. The apparent leaders that promote the ideology are Reagan, George Shultz, and Alexander Haig. The MIC is strong and powerful because it controls and disperses wealth. The MIC currently controls a budget that averages $300 billion a year. "There is no similar concentration of wealth anywhere else in the economy," notes economist John Kenneth Galbraith (Gervasi 38).

The goals of the MIC are obvious; (1) to promote wealth and (2) to perpetuate itself and keep from being uncovered. If it were clear that we are already prepared to
meet the military threat any adversary can pose, then public support for the continuing growth of our defense establishment would collapse. This lead Gervasi to conclude that "for administrations chiefly guided by expediency . . . the only solution has been to tell larger lies, and tell them more frequently" (41-42). The MIC's objective then is to get public opinion to accept the myth of the Soviet threat to prove that America needs to achieve superiority, no matter how much this threatens the security of other nations and peoples (Gervasi 48).

The MIC takes a shotgun approach to the media. It essentially controls many academic journals, newspapers, and other forms of media. Although no direct link has been shown as to control of television, these industries and the government undoubtedly spend a great sum of money advertising. The structure of the military public opinion apparatus is discussed in Chapter II. In addition, television is readily available to it because the president can call a news conference at any time. The President's 1983 State of the Union Address included accusations of the Soviet use of yellow rain (Reagan 7). Furthermore, the presidential administration often leaks information to the media (Storella 39). Congressional committees regularly hold hearings and the transcripts of these are distributed to libraries throughout the world. The purported leaders
make speeches throughout the world; to the United Nations, individual nations, and in the US. The MIC is so large and diversified that the information is not always coordinated, as evidenced by the Stoessel-Burt affair which was discussed in Chapter 1.

The government has a pervasive effect on the national media. Former State Department spokesperson Hodding Carter III said that most of the time the media simply prints what the government puts out (Breecher 9). There are some startling statistics that indicate the government's power in setting the news agenda: The federal government spends nearly two times as much money to disseminate information as the press spends in gathering it, and the government spends more money on its public affairs operations than the news gathering organizations spend on reporting it (Breecher 9). Hodding Carter III contended that "the apparatus of propaganda in the free country is overwhelmingly larger than that of news gathering" (Breecher 9). The situation that Carter described is reminiscent of the OWI's attempt to choke channels of communication with an over abundance of information. It is possible that the propaganda structure did not disappear and was not dismantled at the conclusion of World War II, and the basic mechanisms for information control remained in place.
Gordon Adams described the organization of the MIC as the Iron Triangle of the Pentagon, the defense industry, and the armed services and military appropriations committees in Congress. Adams claimed that: "This small incestuous, mutually supportive group decides what weapons will be made, before they are even on the drawing boards in research and development labs. The Iron Triangle sets the priorities that are ultimately reflected in the defense budget" (441). Carol Cohn argued that learning "technostrategic" language is a part of entering the "secret kingdom," and that "learning the language gives a sense of control, a feeling of mastery over technology that is finally not controllable but powerful beyond comprehension" (21).

Within the organization, rewards and punishments revolve around capital. There is no capital risk for members of the MIC. Every penny of investment is provided by the taxpayer. Cost overruns are routinely charged and are routinely reimbursed (Gervasi 39). Richard Kaufman argued that resisting the military planners over the years has been compounded

... by the fact that most of the military experts in the physical and social sciences have been rounded up, corralled and broken by the military establishment, either directly by employing them in the Pentagon or defense industry
or indirectly by awarding contracts to universities and think tanks. (199)

The MIC has tight controls on information and preserves its monopoly through secrecy (Adams 442). This is especially true of the Reagan Administration which has embarked on an unprecedented effort to push information control to its logical extreme. Gervasi argued that: "Not only has it told whatever lies were needed to gain support for its policies, it has also taken every available step to ensure that the press and public draw the desired conclusions from these lies" (45). The Reagan Administration persuaded America that the Soviets hold the lead in military power simply by stating that is does and by selecting information that best represents its conclusions and by omitting information that contradicts those conclusions (Gervasi 54). John Marks, a former member of the CIA and co-author of The CIA and the Cult of Intelligence, argued that information is selectively released and distorted at times for a specific purpose (Roberts 506).

There was some problem in convincing the big chemical companies to get involved in nerve gas production, however. Most big chemical companies were not interested in making nerve gas. "You have to be a masochist to get involved in that business," says the lobbyist for one major company
The lack of enthusiasm has not been an insuperable problem for the military. Five small companies expressed a strong interest in the Defense Department's inquiries concerning the production of new binary chemical weapons (Smith 112).

Target Audience

Identification of the target audience is the next step involved in the analysis. A target audience may be a mass audience, but this is not necessarily so. There may be a number of propaganda messages that are targeted at various and particular audiences. The variations in audience selection should not be overlooked by the analyst (Jowett and O'Donnell 160).

At this point it should be apparent that much of the Reagan Administration's message was aimed at the American public at large in order to increase terror so that the public would capitulate to an arms build-up. In addition, the message of Soviet non-compliance with arms treaties and the ominous Soviet threat was directed at Congress so that they would approve the money for Reagan's defense program. The message was also directed at our Allies so that the US would be allowed to place intermediate-range nuclear weapons, and enhanced radiation weapons (the neutron bomb) on their soil. Additionally, for the binary program to make
any sense, the US needed European cooperation for forward deployment of these weapons. Even today there is no base for forward deployment, yet the Reagan Administration stridently pursued the binary program. In isolating an even larger audience, James Shestack, US Representative to the United Nations, said that "We intend to keep full glare of world opinion directed on this issue" (35).

Media Utilization Techniques

The purpose of this step is to focus on how the media are used. In this section the analysis will focus on the control of information flow, the visual images that are presented through pictures, symbols, graphics, colors, filmed and televised representations, books, pamphlets, and newspapers. Also, verbal innovations are examined for information, slogans, and emotional arousal techniques (Jowett and O'Donnell 161). The consummate impression left with the audience and the consistency between the visual and verbal messages with the ideology will be examined.

The Reagan Administration used a variety of media to disseminate its message. One key element that dominated the information flow was the timing of information releases. Robert Bartley, editor of The Wall Street Journal, and William Kucewicz, an editorial writer for the Journal argued that Secretary Haig's September 13, 1981, speech had
inserted the remarks about yellow rain at the last minute, under pressure of a leak to *Time* magazine on the mycotoxin findings and the forthcoming publication of Sterling Seagrave's book, *Yellow Rain*, and this lead to the sloppiness of the claims (813). However, there is considerable reason to reject this argument and to believe that the timing was indeed planned. First, Haig's announcement was aimed over the heads of some 30-80,000 West Berliners demonstrating against US policy and his visit to Germany. Haig claimed that the US had "obtained good evidence" that three potent mycotoxins, as opposed to traditional lethal agents had been used (Murphy 49-50). Second, this was the first major pronouncement on the subject, and public opposition to the US nuclear defense program was increasing daily in Europe. Several European governments were beginning to have doubts about cruise missiles being deployed in NATO countries; consequently, the US needed something to strengthen the resolve of the Allies. The accusation that the Soviet's not only had interest in, but were actually using chemical and biological warfare was ideally suited to bolster morale and reassure doubters (Murphy 49). And in a September 3, briefing memorandum, Richard Burt, then director of the State Department's Bureau of Politico-Military Affairs, cautioned Haig to withhold the trichothecene report for the time being, "in order not to
preempt our strategy for securing the maximum impact on the issue" (Robinson et al., "The Story Collapses" 109). Haig's message had the desired effect. The terrifying account of the effects of mycotoxin weapons on villagers were given extensive coverage by press, radio and television, and it has remained a subject that was "calculated to outrage" (Murphy 50). John Marks noted that:

The stories that talk of the incredible Russian chemical or biological threat never happen in a vacuum. They usually indicate that the US Chemical Corps is coming looking for bigger appropriations. All this intelligence is part of a political context here in Washington. (Roberts 506)

Representative Les Aspin made a similar point in a statement in the Congressional Record (E3302). Press accounts quoted unidentified US officials as saying the decision to go public was "Part of an anti-Soviet campaign" and that the timing was "no accident" (Harris 93). The fact that the issue arose within a few months of the Soviet invasion of Afghanistan and in the midst of the first Review Conference for the Biological Weapons Convention may well have created the impression that the US was not interested in resolving the issue, only in embarrassing the Soviets (Harris 93). Timing was used to maximize persuasive value
in other areas as well: Congressional hearings on yellow rain were scheduled on the same day of the confirmation vote for Reagan's controversial nomination for the director of the Arms Control and Disarmament Agency, Kenneth Adelman; Secretary of State Haig released a statement concerning yellow rain just in time to support the Pol Pot/Khieu Shamphan regime in its fight to retain the Kampuchean seat in the UN (Cassell 272); the Senate Arms Services Committee heard yellow rain testimony on the same day the Reagan administration argued its case for resumed nerve gas production; and the day after the State Department claimed to have "conclusive evidence" that trichothecenes were being used, the Senate voted to authorize $54 million to resume chemical production for the first time in thirteen years, however, two months later the House killed the appropriation (Denison 18).

The Reagan Administration used a variety of forums to distribute its message. Speeches were made and documents were distributed at home and abroad. The issue began to pervade academic journals such as Foreign Affairs and World Affairs. The Wall Street Journal ran a series of articles on the subject of yellow rain. In combination with the yellow rain claims, the CIA started releasing documents to Congress that warned of an increasing Soviet chemical weapons program (Roberts 506). The Army also began to
release reports that its current stocks of chemical weapons were old and inadequate (Gervasi 240). It appeared that the Administration was perpetuating the myth of Soviet military superiority by exaggerating the threat they were meant to counter. In fact, current GAO studies indicate that current unitary CBW munitions are in good shape (ACIS 250). There are also reports that the Soviet's production of chemical weapons ceased over ten years ago (Roberts 506).

Conjunctively, the messages were consistent with the Reagan Administration's ideology that the Soviet's are cheats, and that the US should be careful about entering into arms agreements with them. Bartley and Kucewicz argued that "the discovery of yellow rain means Western armed forces need to get deeply serious about defending themselves against chemical and biological weapons" (817). Bartley and Kucewicz mirrored Reagan's image of the Soviets and pressed the verification position on arms control:

The warning of the yellow rain episode is that the Soviets have the will and the cynicism to engage in determined and calculated programs of cheating on arms agreements. We must now be sure that our verification efforts take this fully into account, and it strains the imagination to come up with provisions that satisfy that need and still might be negotiable with the Soviets. (823)
Armed with such an apparent and heinous disregard for international law, the charge of chemical warfare became the center of the Administration's non-compliance case against the USSR (Harris 41).

At the United Nations, President Reagan directly accused the Soviets and its allies of violating the Geneva Protocol and the Biological Weapons Convention. Reagan said the evidence was "conclusive," adding, "evidence of non-compliance with existing arms control agreements underscores the need to approach negotiations of any new kind with care" (Bartley and Kucewicz 816). The charges caused defense planners to give prudent attention to a chemical threat because "by now," according to Bartley and Kucewicz, "it is abundantly clear that the Soviets are not going to be fastidious about the Geneva Protocol" (817).

There is also the possibility of unsavory media utilization as well. On April 7, 1982, Covert Action published a press release claiming that a former CIA employee had been contracted to assassinate two US servicemen who had planted false evidence of the use of yellow rain (Murphy 58). The story was given to the Boston Globe and the Washington Post, yet none of this information was made public (Murphy 59). The reason for this suppression is not clear. However, a couple of explanations are worth pursuing. First, the Globe and Post's editors may
not have believed that there was sufficient evidence to substantiate such claims and that publication was worthy of less reputable newspapers. Another reason may be that the newspapers did not want to embarrass the Administration and risk journalistic integrity by printing seemingly outlandish claims. Of course, an administration that sold arms to the Ayatollah of Iran while ascribing to a declaratory policy in favor of Iraq held the potential for such an action.

Special Techniques to Maximize Effects

A great amount of time could be spent identifying a comprehensive list of propaganda techniques. Inclusion of this list is unnecessary for the present evaluation. Jowett and O'Donnell refrain from attaching a list of propaganda techniques, but choose to highlight some important concepts associated with propaganda. Many of these techniques were highlighted in Chapter II when specific examples were discussed. Some obvious techniques to look for are those links to values, beliefs, attitudes, and past behavior patterns of the target audience (Jowett and O’Donnell 163). Instead of embarking on a thorough discussion of several techniques, they will be discussed in the context of the analysis.

The Reagan Administration utilized a variety of techniques to disseminate its message. There will be two
parts to this section to facilitate understanding of the arguments. The first part will discuss techniques that apply broadly to the campaign and the second part will discuss techniques that apply to the scientific debate.

Broad Based Techniques

Reports coming out of the State Department were filled with language that satanized the USSR. George Shultz effectively referred to past experiences "that we witnessed in World War I" (44). This use of language conjured up images of "William the Poisoner." Reports from the State Department included "sinister" images and charged that chemical weapons were being used on "unsophisticated and defenseless people in campaigns of mounting extermination" (Murphy 52; Harris 41). The language perpetuated the ideology that the Soviets are uncivilized savages, liars, and cheats. Shultz noted that the Soviets "continue to deny the truth about their illegal activities" and that "the world cannot be silent in the face of human suffering and cynical disregard for international law and agreements" (44). Shultz deified the US by declaring that "the United States . . . is seeking an outright ban on the development, production and stockpiling of chemical weapons" (44). Shultz's offer was safe rhetoric for no Soviet regime would
have allowed the spartan intrusion of continuous on-site verification that the Reagan Administration proffered.

The US maintained a policy of face to face communication with other countries during the entire affair. The official State Department position was to approach "our allies and key nonaligned governments to reiterate our concern over these reports" (Shestack 39). The State Department briefed other governments on the yellow rain issue and established a network to share information on the attacks (Burt 52).

To members of Congress, the Pentagon dealt out interesting and effective punishments to some of those opposed to the Binary Chemical Weapons Program. Colorado Representative Pat Schroeder pressed the Army to remove leaking nerve gas bombs from their storage sites next to Denver's Stapleton Airport. Schroeder dropped her fight against the new binaries when the Pentagon announced that the leaking bombs would stay in Denver until they could be replaced by better ones (Hall 44).

The Administration utilized repetition as a method of disseminating its message. The opening paragraphs of this study described the manner in which the State Department repeated charges that were based on unsubstantiated evidence. Following Haig's Berlin speech, the US repeatedly charged the USSR with violating the 1972 Biological and
Toxin Weapons Convention and the Geneva Protocol of 1925; these charges continue to be leveled to this day (see Statements by Ambassador Donald Lowitz, Head of the Delegation of the USA to the Second Review Conference of the Parties to the Biological and Toxin Weapons Convention, Geneva, September 9, 1986 and September 16, 1986).

There is ample evidence to support the claim that the Reagan Administration has been involved in disinformation campaigns before, during, and after the yellow rain affair. According to a General Accounting Office (GAO) report, an arm of the State Department secretly paid for ghost written articles to appear in major newspapers (Garneau 9). The GAO charged that the Office of Public Diplomacy for Latin American and the Caribbean engaged in prohibited covert propaganda activities when it ran a secret propaganda operation promoting the contras in Nicaragua (Garneau 9). The GAO report said that an op-ed piece in the Wall Street Journal, March 11, 1985, was written by a paid consultant who collaborated with the State Department. While this event does not prove that the Wall Street Journal and the Reagan Administration were integrally connected, it does offer some circumstantial basis for the argument that the State Department and the Wall Street Journal were in collusion to disseminate the message that the Soviets were responsible for chemical weapons use in Southeast Asia and
Afghanistan. From 1979 to 1987, the *Wall Street Journal* published over 100 articles on the subject of yellow rain, all except responding letters were supportive of the government's stand on the issue. While this does not prove corruption, the *Wall Street Journal* was the only major defender of the Administration's position after the scientific evidence could not be substantiated. Several scientific journals (*Nature*, *Chemical and Engineering News*, *Science*, and *Scientific American*) used their editorial page to criticize the scientific methods employed by the Reagan Administration during the yellow rain affair. It should be noted that the only scientific journal to support the administration's position was *Research and Development*, a journal published by Dunn and Bradstreet, the publisher of the *Wall Street Journal*.

**The Scientific Debate**

Even after the initial reports were discovered to be unsubstantiated, the Administration persisted with its allegations and continued to search for new evidence to substantiate its charges. Specifically, the US charged that between 1976 and 1983, Lao and Vietnamese forces, with the assistance of the Soviet Union, employed lethal mycotoxins and other chemical warfare agents against the Hmong people of Laos. The US further charged that the Vietnamese also
used such agents between 1978 and 1983 against Cambodian forces resisting the Vietnamese occupation of their country. Finally, the US charged that from the time of its 1979 invasion of Afghanistan until the end of 1982, the Soviet Union specifically used mycotoxins and various other lethal and nonlethal agents against Afghan resistance forces. These conclusions were based upon reports from refugees, defectors, and various individuals who conducted investigations in the areas concerned, scientific evidence from the environment and from alleged victims, and from other evidence from documentary as well as intelligence sources (Harris 58-59).

The first evidence was based upon the reports of refugees. This remains the most convincing part of the Administration's case for CBW treaty noncompliance. However, the stories may be little more than atrocity propaganda. Although the scientific evidence failed to substantiate the Administration's claims, Stuart J. D. Schwartzstein observed:

There is no scarcity of accounts of brutality, of destruction on a large scale, of massacres of noncombatants (women, children and old men), of destruction of food crops, torture, rape, pillage—in short, the savaging of a country and a people. (267)
The Haig and Shultz reports were filled with a multitude of atrocity stories. It appears that some congressmen fell victim to the plethora of reports. While examining Mennonite Councilman Fred Swartzendruber, Representative Steven Solarz referred to "thousands of" documented "refugee reports" (United States Cong. Committee on Foreign Affairs, *Foreign Policy* 109). Unfortunately for Mr. Solarz, both the Haig and Shultz report document only 226 such cases.

Replete in the government documents were stories associating the yellow rain affair to the Jewish Holocaust. One section in the House Hearings contained a specific portion entitled "Holocaust as an Analogy to Yellow Rain" (United States Cong. Committee on Foreign Affairs, *Foreign Policy* 116-17). A sample of the questioning of Mr. Swartzendruber exemplifies the heinous connections that were being made between yellow rain and other historic atrocities:

Mr. Solarz: Are you aware of the fact, Mr. Swartzendruber, that there were people in Nazi Germany who testified in 1945 that they knew nothing about the massacre of 6 million Jews?

Mr. Swartzendruber: I am aware of that.

Mr. Solarz: Are you aware of the fact that there were people who were in Cambodia between 1975 and
1979 and who denied that the Khmer Rouge were responsible for the deaths of hundreds of thousands of their own people?

Mr. Swartzendruber: Yes, yes.

Mr. Solarz: Are you aware of the fact that people went to Uganda when Idi Amin was in power and came back and reported everything was fine there?

Mr. Swartzendruber: I am not particularly familiar with that case.

Mr. Solarz: Did you ever read Solzhenitsyn's "Gulag Archipelago," both volumes? Do you recall the story he told of the camp that was transformed into a kind of Potemkin village concentration camps [sic] and visitors were told by all the inmates that this was, in effect, a health resort and they were quite happy, so the visitors left thinking everything was fine when in fact, the place was a pretty dreadful establishment?

In other words, what I am trying to get at is the mere fact that you were in Laos while all of this was alleged to have gone on, and the fact that you personally claim not to have seen any evidence of it you would agree, I am sure, this is not dispositive of the issue? I mean, if you
can't prove a negative, I am sure you would agree neither can we automatically accept your observations exactly. (United States Cong. Committee on Foreign Affairs, Foreign Policy 108)

The attitude of the entire administration appears form Solarz's questioning, that is that the Soviets are presumed guilty, which in effect would tend to bias concerns for appropriate study and disposition of the findings.

In conjunction with the emotional accounts of the bloodied survivors, the State Department's scientists amplified the effects of CBW use. Dr. Chester Mirocha, the chief government analyst, claimed that: "Chemical and/or biological warfare has been waged in Laos, Kampuchea, and Afghanistan resulting in the death of 75-100,000 human beings" ( Ember, "Yellow Rain" 20). There were various figures of this type floating about in the government documents, however, there was never any evidence provided concerning the method used to produce these figures. These statements were particularly reckless when the government's claims were in detailed dispute.

The Haig report stressed that "in all three countries instances were identified in which eyewitness accounts could be correlated with information from other sources" (Spiers 116-17). Western journalists interviewed hundreds of Afghan refugees and found no reliable evidence of CBW use by the
Russians (Fishlock, "Skepticism" 4). Despite having a penchant for exaggeration and a willingness to tell a questioner what he/she wants to hear, and despite a motive to condemn the Russians, the Mujahidin said nothing substantial concerning gas warfare (Fishlock, "No Complaints" 6).

The accounts of sickness and death cannot be discarded out of hand, but must be examined with an understanding of the cultural and social structure of those telling the stories. Solarz's claim of thousands of reports is not supported by the evidence. Nearly all yellow rain reports come not from the isolated Ban Nam Yao refugee camp in Thailand, but from Ban Vinai. This is important because Ban Vinai was established as a special camp for the remnants of Vang Pao's guerrilla army, the old CIA-backed secret army in Laos (Pringle 69). Many of the other reports come from members of Pol Pot's crumbled military dictatorship (Spiers 115). Consequently, the more military oriented stories came from former allies, not from the Hmong farmers ( Ember, "Yellow Rain" 29).

Apart from the obvious motives for lying harbored by some refugees, there are other reasons to be skeptical of the refugee's stories. Anthropologists scrutinized the interview process employed with the Hmong and determined that the medical teams investigating the matter transgressed
the basic rules of reliable sociological analysis (Ember, "Yellow Rain" 29). Australian sociologist Grant Evans re-interviewed some of the Hmong refugees and criticized investigators for asking leading questions. Evans suggested that rumors of yellow rain served to explain the deaths and bond the Hmong together and buttress the Hmong ex-CIA leadership (Spiers 115). There appear to be other reasons for questioning the reliability of these reports. The interviews were collected in full belief that CBW violations had occurred. Most of the interviews were done in camps with refugees who had been selected in advance for the reason that they had been victims or witnesses of chemical attacks (Seeley et al., "Yellow Rain" 130). There were no cross checks of randomly selected refugees from the same village to verify the reports (Ember, "Yellow Rain" 29). No controls were instigated to verify that the refugees did not try to accommodate their responses to the categories and expectations of the western investigators (Seeley et al., "Yellow Rain" 130). Still, there are other reasons to suspect the Hmong reports; according to one press account, Hmong refugees reported the use of a 300 mm rifle of giant magnets that snatched weapons from rebel hands. Similarly, Afghan refugees described a Soviet "method of bouncing vacuums across the landscape--invisible bubbles of nothing whose airlessness snuffed out remote communities each time
they touched the ground" (Harris 80). Most damaging is a November 1981 Army analysis, which, according to the Washington Post, stated that "Hemorrhaging, often cited as the telling symptom of yellow rain poisoning, was not common among refugee reports" (Harris 81). With full knowledge of these problems, the Haig and Shultz reports were compiled and the accounts were taken at face value (Robinson et al., "The Story Collapses" 113).

In 1983, a joint Defense-State CBW investigation team discovered serious problems in reliability of the previous interviews. Flaws were discovered in the previous interviews such as an inability to distinguish between first hand observations and hearsay (Robinson et al., "The Story Collapses" 113). One such witness is Ger Pao whose story varies substantially over time. He would tell of rockets killing 239 people in a summer 1978 attack and then describe the same attack in other interviews as a spray that killed thirteen people. Sometimes Pao would come to an interview with his son, his only surviving relative, sometimes the relative would be his daughter (Ember, "Yellow Rain" 29). Ger Pao is only one example of many refugees that changed his/her story.

The interviewing process can be discredited further because the vulnerability of the people being interviewed was never discussed. The fact that they were refugees that
did not want to spend their life in a camp in Thailand could have biased their testimony. A Hmong with a yellow rain story found entry into Thailand eased, and once emigrated to the US, the feeling was that a the CW story would preserve his/her status as political refugee under the Geneva Convention (Ember, "Yellow Rain" 32).

The political refugee issue clearly affected the collection of yellow rain samples. Although the most common samples produced were yellow spots on leaves, the refugees handed in all types of things that had little to do with chemical warfare. One collector turned in a mass of purple cobwebs (Pringle 69). Peter Pringle noted that "samples of yellow rain became a kind of refugee currency, to be offered to camp authorities in the hope of a better life somewhere down the road" (69).

Haig's speech in Berlin referred to conclusive evidence that was found in a leaf stem sample from Kampuchea (Fact Sheet). In spite of the evidence, many scientists remained skeptical about the State Departments claim. J. P. Perry Robinson told the ABC News: "It's ludicrous in fact to base charges of quite such moment on one sample. No analytical chemist worth his salt would go along with that" (Bartley and Kucewicz 814). Daniel Cullen, a plant pathologist at the University of Wisconsin noted:
The use of chemical weapons is a despicable act and clearly warrants concern. However, my responsibilities as a scientist compel me to point out that the physical evidence for the use of trichothecone toxins is incomplete. Further, the overall feasibility of mycotoxins as weapons and the reliability of reported symptoms are questionable. As a result, State Department allegations concerning the nature of "yellow rain" are premature and perhaps incorrect. (United States Cong. Committee on Foreign Affairs, Foreign Policy 59)

Despite such warnings, the State Department pressed ahead with its allegations claiming conclusive scientific support for its case.

Two major publications on the mycotoxin weapons were issued by the State Department in March and November 1982. The 32-page report, also known as the Haig report, issued in March was apparently a summary of a much longer 500-page special document completed on December 22, 1981. This report was sent to all US government agencies and to the White House to be reviewed before being released. Any information which might have allowed others to guess where the US government had obtained the information was deleted.
and the report slimmed down to its final 32-page version (Murphy 51).

The March 1982, document referred to 261 separate attacks in Laos in which 6504 deaths are alleged to have occurred. The numbers of incidents and deaths were very specific. However, by not quoting the names of its sources, the US cast doubts on its own report because it was impossible to verify. The scientific community remained skeptical of the claims following the release of this report ("Mycotoxins" 379). The report issued by the US State Department in November 1982, the Shultz report, again alleged use of mycotoxins and released the results of analysis of blood and urine samples obtained from victims (Shultz 44). Mycotoxins were confirmed in these by various reports. Consequently, the State Department believed it now had the smoking gun to support its case (Burt 52).

However, the smoking gun in this instance was little more than a flash in the pan. In March 1983, new evidence was released from Australia that the yellow rain could be of natural origin. The Australian report added that mycotoxin levels were so low that they could have no military value (Pringle 1).

The US officials also suggested that the Russians were using pollen deliberately as a vehicle for transmitting mycotoxins. According to Gary Crocker of the State
Department, the pollen was commercially produced and the Smithsonian Institute confirmed this (Budiansky 200). Dr. Joan Norwicke of the Smithsonian Institute denied this. According to her report in *Nature*, Norwicke was consulted by scientists from the US Army, but she did no analysis for them. Three people from the Army attended a one day crash-course in pollen analysis and phoned her for advice. Norwicke said that it is difficult if not impossible to distinguish commercial from natural pollen (Murphy 53).

There is also the possibility that bees could have been responsible for the transmission of mycotoxin contaminated pollen. Every environmental sample of yellowish material from Southeast Asia examined for pollen has been found to contain bee excrement, including the yellow rain samples obtained by the US, the UN, Thailand, Canada, Australia, Sweden, and Britain. All this suggests, Harvard biochemist Matthew Meselson and his colleagues claim, that the material known as yellow rain is actually Southeast Asian honey bee feces (Harris 76-7). Southeast Asian bee expert Pongthep Akaratankul, a bee expert from Yale Thomas Seeley, and Matthew Meselson actually experienced a bee cleansing flight:

As we observed the second tree through binoculars from a clearing about 150 meters away, we saw a lightening in the color of several nests.
Hundreds of thousands of bees were suddenly leaving their nests. Moments later drops of bee feces began falling on and around the three members of our party. About a dozen spots fell on each of us. We could neither see nor hear the bees flying high above us. . . . Our observation showed that showers of honeybee feces do indeed occur in the Tropics of Southeast Asia; moreover, the showers and spots closely resembled the showers and spots said to be caused by yellow rain. (Seeley et al., "Yellow Rain" 137)

The group took samples of the feces to a few of the Hmong who identified the bee feces as the alleged agent of chemical warfare.

The US has consistently claimed that the presence of mycotoxins on these environmental samples cannot be explained by natural phenomenon (Harris 63). However, many species of Fusarium, including those which produce yellow rain mycotoxins, do occur naturally throughout Indo-China. Bruce Jarvis, a chemist at the University of Maryland, found a Brazilian shrub which contained toxin that reached 200 to 300 parts per million, far higher than those found in the State Department's samples; contradicting the Department's claims that even lower levels of concentration do not occur naturally. Meselson was also puzzled because the reported
toxin concentrations were too low to cause death (Gervasi 239).

The only positive physical evidence the US obtained from Afghanistan was a gas mask acquired in Kabul in 1981. A second mask and a vegetation sample initially reported as testing positive for mycotoxins were later omitted from governmental reports. However, others scientists have not been able to find these toxins on material reputed to be contaminated by yellow rain. The UN experts examined several samples, but no chemical weapons agents were detected on any of them (Murphy 57).

A final question concerns whether mycotoxins would be militarily useful if used in the situations as claimed. Dr. Sharon Watson of the US Army Surgeon General office claimed that experiments indicated that only 35mg of some of these toxins were sufficient to kill a 70kg man. Her figures have not been made public, therefore it is impossible to assess her evidence (Murphy 59). Daniel Cullen questioned Watson's claims and accused the State Department of misleading presentations. He argued that the 35mg dosage was extrapolated from laboratory animal test conducted under optimal conditions, that traditional nerve agents would have the same lethal effect at less than one-thirtieth the concentration, and that based upon the analysis made public, the amount necessary to kill a human should have been in
excess of one pound. Cullen concluded, "if misrepresentations of this magnitude continue along with the allegations based on inconclusive evidence, skepticism will remain" (United States Cong. Committee on Foreign Affairs, Foreign Policy 60). Indeed, even if the Soviets are a cruel and brutal empire, they are concerned with winning, the use of T-2 mycotoxins would not be feasible if Cullen's estimations are correct. Professor Meselson claims these toxins are not particularly toxic and that given the concentration of mycotoxins, if you wanted to kill a man it would be more effective "to drop bricks on his head" (Murphy 60).

It is clear that the Reagan Administration attempted to maintain source credibility through information control. The State Department consistently refused to disclose full details of when and how samples were collected and of how and by whom the samples were chosen (Spiers 114). Instead, US analysts merely insisted that appropriate controls had been applied (Spiers 115). The laboratory findings of Dr. Chester Mirocha of the US Army were the earliest ones done for trichothecenes, and they included the analysis on which Secretary Haig based his charge. Joseph Rosen of Rutgers University analyzed one sample for ABC News and he reported the sample was positive. Since 1982 more than 80 environmental samples from alleged attack sites have been
analyzed by the Army's own laboratory, and not a single one of them has been found to contain toxins. When the yellow material that Mirocha analyzed was made available to other governmental researchers the Army found no trace of T-2 (Seeley et al., "Yellow Rain" 131).

The government's case consisted of a consistent use of untenable assertions, tendentious logic, gross misrepresentations, flawed methodologies, and multiple inconsistencies. Yet, reminiscent of Caesars' claiming victories for battles never fought, the government claimed success for its endeavor arguing that the Soviets had been shamed by the publicity into ending violations of international law. In February 1984, the government reported to the UN that the use of T-2 mycotoxins had eased, and that although there continued to be violations, the attacks had diminished in Afghanistan and the lethality of the attacks in Laos and Kampuchea had decreased (Pringle 79).

A few interesting devices are worth noting. Secretary Shultz clearly over-claimed his evidence charging that his December 1982 report "represents only a relatively small amount of the total accumulated evidence" (45). Given the case that the State Department presented, Shultz's statement boarders on the absurd.

The Shultz report asserted that:
based on a massive amount of information. . . .

The conclusion is inescapable that the toxins and other chemical warfare agents were developed in the Soviet Union, provided to the Lao and Vietnamese either directly through transfer of know-how, and weaponized with Soviet assistance.

(Shultz 44)

The standard State Department line says there is "no evidence to support any alternative hypothesis that the Vietnamese produce and employ toxin weapons completely on their own" (Denison 18). Many experts question these assertions; the prevailing mood appears to be that such toxins are a "poor man's nuclear weapon," easy to produce in primitive conditions (Kalven, "The Public Evidence" 18). J. P. Perry Robinson noted that the only advantage that trichothecene mycotoxins have over less exotic agents is that they would be easy to produce without a developed chemical industry (Kalven, "The Public Evidence" 18). James Bamburg of Colorado State University reported that "you can do it in your basement or a converted dog kennel" (Denison 18).

Some of the administration's attempts at source credibility could be categorized as black propaganda. Sharon Watson was obviously a spokesperson for the government's position, therefore her remarks originate from
a white source. Chester Mirocha and Joseph Rosen are university affiliated chemists, but they were on the payroll of the government so their statements are primarily gray propaganda. However, State Department officials, and discussion in the Senate and House Hearings, belabored the fact that Sterling Seagrave, the author of Yellow Rain, had no governmental connections and had yet to make any royalties from his book (Senate Hearings, Yellow Rain 81).

However, at the end of 1980, while Seagrave was still researching his book, the CIA arranged for him to have a meeting with military toxicologist Sharon Watson. Because the government did not think it had the necessary data to support Watson's theory that the Soviet's recognized the potential of T-2 mycotoxins, Watson told Seagrave about her trichothecene theory. Seagrave was allowed to include the theory in his book on the condition that she not be identified as the source (Pringle 70). Seagrave now admits:

I've often pretended that I was the one to make the first [mycotoxin] connection, but that's only because I wasn't in a position to point the finger at Sharon... I was more than happy to take the credit. (Pringle 70)

In an interesting note, some American and Thai officials suspected that the pollen had been dropped on Thai villages as a part of disinformation campaign attempting to
discredit the US charges of chemical warfare (Shultz 53). However, this charge did not appear in any subsequent documents, but it could have served as a safety valve for the Administration had the situation evolved where it may have found it necessary to extricate itself.

Finally, the State Department blamed the American press for criticizing government reports. Richard Burt specifically indicted the *New York Times* and *The Wall Street Journal* (Storella 38-39). This appears to be scapegoating by appealing to the often heard claim that the media is to blame for blowing the situation out of proportion. Unfortunately, for Burt, *The Wall Street Journal* and the *New York Times* were two of the most ardent supporters of the government's position. However, the *New York Times*’s position mellowed on the subject and it adopted an anti-administration view when the scientific evidence began to evolve. *The Wall Street Journal* maintained its anti-Soviet zeal and alone ran over 50 articles supporting the government’s claims in the first 18 months following the Haig speech (Bartley and Kuczewicz 814).

For those that receive their information from the popular press and do not read the newspapers, they would undoubtedly receive the impression that the Russians had indeed used CBWs in Southeast Asia because the critical examination of the evidence rests primarily in scientific
journals. The Wall Street Journal continues to zealously support the Administration's yellow rain position even today. Some of the methods employed in a few of its more recent retorts to the scientific inquiry of yellow rain are not becoming to an institution interested in objective journalism. In one editorial entitled "Yellow Rain Confirmed," William Kucewicz claimed that then "soon to be released Canadian government studies" constituted conclusive proof that yellow rain was a man-made weapon and that this evidence vindicated US charges that the Soviet Union and its allies used deadly toxins in Southeast Asia. Kucewicz also claimed that "still-unpublished" results from British, French, and Japanese laboratories vindicated the US position ("Yellow Rain Confirmed" 18). Unfortunately for Kucewicz and those interested in truthful reporting, French and Japanese reports still remain "yet to be released."

Grouping these countries together as supporters of the US position was an obvious attempt to bolster his assertions with evidence. Kucewicz's statements regarding the data originating form Britain and Canada received a healthy rebuttal. Allan Gotlieb, the Ambassador of Canada, responded to Kucewicz:

The article "Yellow Rain Confirmed" (editorial page March 31) states that a report recently published by Canada's Defense research
Establishment "concludes that there was in fact a chemical weapon attack . . ." and "rules out the possibility these particular mycotoxins were naturally occurring . . ." The report does not reach these conclusion. (31--ellipses in original)

Ambassador Gotlieb continued by saying the report did not represent a policy judgement on the issue of alleged chemical or biological weapons use (31). The Canadians did find trichothecenes in 5 of 270 blood samples in Thailand, but there was no relationship between the presence of chemicals and whether a person had been in battle zones (Bazell 10). More recently, in April 1987, the British government reported the natural occurrence of trichothecenes in samples of food crops from Thailand (Robinson et al., "The Story Collapses" 112). These results tend to suggest that contamination occurs naturally, perhaps as a result of eating moldy food.

Other Wall Street Journal articles degenerated into ad-hominem attacks on Matthew Meselson by insinuating that because he was one of the "intellectual fathers" of the Biological and Toxin Weapons Convention of 1972 he had to come up with an explanation why the Soviets "wouldn't violate his treaty" (Kucewicz, "No Sting" 34). This challenge to Meselson's academic integrity was mirrored in an editorial on the same page entitled "Yellow Rain
Revisionism." Both editorials impugned his integrity and were void of academic analysis. For those relying on the Wall Street Journal, their impression would probably be determined by the Journal's crusade. This illustrates the danger that Earl Vance echoed some forty years ago when he warned that most people get their information from the same source, and public opinion is formed by this very flaw.

Audience Reaction to Various Techniques

The most important thing that will be looked for in this section is the behavior and attitude of the target audience through its response to propaganda.

After the US doggedly pursued the issue and accused the Soviet Union, the topic became highly politicized. Neither Allies nor the non-aligned wished to become involved in a propaganda war between the superpowers. In this way the US reports may have hurt as much as helped its cause. Because the US reports blamed the Soviets, the issue acquired political connotations that cast doubts on the US motives and made it difficult for US Allies to side with the US publicly. A Canadian diplomat said that the issue had become "a political hot potato" (Spiers 118).

UN members and US Allies were disinclined to interpret Soviet violations as conclusive. The Allies did not press the yellow rain issue and no denunciation was forthcoming.
from the UN. The only UN response concerned establishing an investigatory body to study the allegations (Storella 39). The task of collecting, analyzing, and presenting convincing evidence proved extremely difficult. On account of this difficulty and other problems with the evidence, the international response to the American response remained tepid. Only Canada published an account of its findings, and it was not supportive of the US position. A committee of Asian Lawyers was the only group to report that "such weapons have been used against people in Kampuchea and Laos" (Spiers 117).

A Gallup Poll in September of 1982 found that 49 percent of the public felt violations of chemical treaties should not interfere with nuclear arms talks, while 36 percent of the public felt violators were reason to suspend the talks. The Gallup analysis remarked that polls have consistently shown a strong preference for talks with the Soviets, and "that less than half would favor continuing talks is indicative of a strong reaction to the yellow rain charges" ("Public Perceptions" 1). However, when asked: "If the charges about yellow rain are true, how do you think the United States can best deter the Soviet Union from using chemical and biological weapons?" Forty-two percent answered, "by persuading them diplomatically to destroy these weapons." Aware that sanctions will be politically
impossible until public support for them has grown, the Reagan Administration has been reduced to trying to lead public opinion on the CBW issue through statements instead of actions (Storella 39).

The reaction of Congress to various techniques was mixed. However, there is good evidence that Reagan's chemical warfare charge was accepted. In addition to statements of those by Solarz ("their have been thousands of such reports), a number of resolutions have been introduced condemning these activities (see H. Con. Res. 262 of February 2, 1982; S. Res. 31 of January 31, 1983; S. Res 201 of August 4, 1983; and H. Con Res. 283 of April 3, 1984). Elisia Harris noted that: "As a result of these and other efforts, the accepted wisdom among Washington officialdom is that the Soviet Union has been involved in illegal chemical warfare in these distant lands" (42). In September 1983 the US House of Representatives ended a fifteen year moratorium on the production of nerve gas when it authorized the $187.5 billion defense bill for 1984. This about-face was a result of a number of factors, not the least being the destruction of the KAL flight 007 by a Soviet air-defense fighter plane (Murphy 6). However, production of binary weapons was delayed for four years until binary production finally resumed in December of 1987.
Media reaction to the government’s allegations was varied. Reporters were offered an opportunity to question government experts on September 14, 1981, but the names and positions of the experts were withheld. The press reacted to these revelations with skepticism. Bob Simon, CBS State Department correspondent, reported after the briefing:

'It's viewed here as far from coincidental that this information is being released with such fanfare at a time when the Reagan Administration is anxious to muster support domestically and in Europe for what it perceives as an increasing Soviet threat. . . . It just seemed to me like a story that was being planted, and being planted in a rather sloppy way. (Bartley and Kucewicz 812)

Don Oberdorfer of The Washington Post said:

In the course of the questioning it came out that they were hanging this thing on one leaf and stem that had been procured from Cambodia, which struck a lot of people as not very strong evidence for a charge made by the Secretary of State in a full dress State Department briefing. (Bartley and Kucewicz 812)

In November 1982, Secretary of State George Shultz sent yet another report to Congress and this time displayed physical evidence, a gas mask contaminated with mycotoxins.
The press seemed to appreciate the physical evidence enough to register a reaction of acceptance. Various newspapers were willing to condemn the Soviets: "The administration has proven out the Soviet pattern by a standard that reasonable people would accept," The Washington Post stated on December 1, 1982; "There now appears to be sufficient evidence for the world to reach a verdict of guilty," noted The St. Louis Post-Dispatch on December 3, 1982; and The Boston Globe declared on December 3, 1982, that, The Soviets appear to be on the road to convicting themselves of egregious violations of civilized norms, both the 1925 Geneva Protocol and the 1972 Biological and Toxin Weapons Convention. (Bartley and Kucewicz 817)

The scientific community observed the government's allegations with ever increasing concern, as the Administration's charges provided those that opposed arms-control with good reasons not to enter into such agreements with the Soviets. It was actually the force with which such claims were made that prompted the scientific community to scrutinize the findings. The scientists understood that such claims could not be made with such force in the absence of applied scientific safeguards and procedures. It was this recognition that drew their attention to the affair in the first place (Robinson et al., "The Story Collapses" 117).
Counterpropaganda

In some circumstances, counterpropaganda may become as important as the distinctive propaganda that is the focus of the analysis. In these circumstances this propaganda should be analyzed through the same ten stages of analysis that the present study is implementing (Jowett and O'Donnell 169). However, when it is not as active, the analysis should take the direction of attempting to determine whether counterpropaganda did exist and to what extent it effected the main line of propaganda being analyzed.

In this case the Soviet's counterpropaganda was not extremely active. However, Soviet reaction to the US charges is equally vulnerable to criticism. The Soviet Union opposed the creation of the UN experts group and went out of its way to impede the investigation (Harris 87). However, the USSR did not go to any effort to scientifically deny the US claims. Matthew Meselson of Harvard and his colleagues handled most of the scientific debate.

Mark Storella claims the Soviet Union mounted a propaganda campaign to minimize the damages arising from US charges (35). Some evidence of this propaganda does exist. The Soviet Union consistently maintained that it was abiding by the terms of the Biological Weapons Convention and that the US "charges" are part of an anti-Soviet campaign designed to hinder arms control and justify the Pentagon's
own biological warfare programs (Murphy 49). The USSR also charged that the US allegations are part of an effort to divert attention from US war crimes in Southeast Asia during the Vietnam War. The Soviet line can be summed up by the Soviet UN Ambassador O. Troyanovsky in an open letter to the Secretary General of the United Nations:

The political motives underlying the propaganda action taken yet again by the United States are quite obvious. As before, the aim is to divert attention from the very real chemical warfare which the United States conducted over a period of many years against the peoples of the Indo-China with serious consequences still being felt today. (A/38/86)

A Soviet report to the UN concluded with a discussion of how US deforestation activities during the Vietnam War were potentially responsible for the Mycotoxin problem in Laos and Cambodia. In brief, a bizarre hypothesis was outlined that after US sterilization of forests with Napalm and herbicides, the US seeded the area with a weed known as elephant grass. This allegedly created the conditions that allowed for a natural outbreak of fungi capable of producing mycotoxins (Harris 87). The elephant grass theory does not appear in any subsequent Soviet UN mission statements on yellow rain (Harris 69). The elephant grass report was
rejected by the UN investigative group (Harris 87). In addition, Cuban leaders alleged US use of dengue fever biological agents against their island (Schapp 28). Vietnam contributed a 32-page indictment of the United States entitled A Memorandum... on the US Criminal Use of Toxic Chemical Weapons in Vietnam, Laos and Kampuchea (A/37/377).

Tass, the Soviet news agency, also accused the Americans of supplying chemical grenades to Afghan rebels and declared that the US puppet government in El Salvador was dropping chemical weapons, made in America, on civilians. Kabul television displayed chemical bombs marked C-S-517 inscribed with "Made in the USA" while charging the Americans poisoned schoolgirls in Kabul with gas made in America (Binyon 6).

The Soviets did emphasize the danger that American militarism presents to the world. At a press conference held in March 1982, Soviet academician A. V. Fokin said:

In the frenzied atmosphere of militarism currently prevailing in Washington, the United States is challenging all mankind, attempting to make chemical warfare respectable again and introducing the most sophisticated chemical warfare agents into the military machine. . . . The plans to prepare the United States for chemical warfare are
being justified by hackneyed slanderous fabrications about a Soviet threat and by references to the alleged use of chemical weapons by the Soviet Union. (in Storella 36)

Instead of cooperating with UN efforts to resolve the mysterious reports of illness and death, Moscow simply threw the chemical warfare charges back at the US. The Soviets' ludicrous elephant grass theory, as well as its unwillingness to cooperate with the investigations launched by the UN and others, only increased suspicions about possible Soviet involvement in prohibited activities (Harris 95).

It must be recognized that both the US and USSR can point to each other's military threats and advances as proof that military expansion is needed. In this way, the arms race creates its own false logic in order to perpetuate itself and the military industrial complexes of both countries are allowed to survive and elicit a great amount of control over affairs in the world.

Effects and Evaluation

The final step in the Jowett and O'Donnell model is to determine whether the purpose of the propagandist has or has not been fulfilled, and to evaluate not only the achievement of goals but also the means through which the goals were
adopted (169). They suggest that the analyst look at the following questions:

How did the selection of media and various message techniques seem to affect the outcome? Would a different set of choices have altered the outcome? How did the propagandist manipulate the context and the environment? Would the outcome have been inevitable had there been no propaganda? If the public-at-large changed directions, what seems to account for the swing? (Jowett and O'Donnell 169-70).

Assuming that the purpose of the propaganda was to reinforce the myth of Soviet threat, the yellow rain allegations appear to have been only marginally successful at an international level. However, the yellow rain issue has been central to the Reagan Administration's noncompliance case for the past five years. The yellow rain allegations confirmed the inadequacy of the Geneva Protocol and the Biological Weapons Convention (Spiers 118). The chemical warfare allegations have been used to justify breaking Nixon's 1969 moratorium on the production of new chemical weapons. They provided the stimulus for increased biological warfare research by the US (Harris 42). In addition, they have weakened confidence in, and support for, existing chemical and biological arms control agreements as
well as future agreements in this and other areas (Bartley and Kucewicz 825).

Initially it was thought that the stories would cause Moscow deep embarrassment, particularly in its relations to developing countries. But it appears that the Soviet Union evaded the international communities' attempt to investigate reports of chemical weapons use without suffering much damage to its foreign policy (Storella 37).

It appears that the charges against the USSR and its allies would be much more persuasive if interviews with refugees and defectors had been handled more carefully, if other labs had been allowed to scrutinize the evidence that the US claimed proved their position, and if the United States had collected adequate control samples from the regions concerned (Harris 85-6).

The yellow rain controversy certainly has done damage to the arms control process. However, other factors, such as the KAL incident, combine with the yellow rain accusations to reinforce the image of Soviet savagery.

There are indications that the Administration itself is stepping back from its earlier confidence in its case. In a September 1986, article in Arms Control Today, ACDA Acting Assistant Director for Multilateral Affairs John H. King acknowledged that:
Although the evidence thus far has been compelling, further studies should be conducted and data collection refined to eliminate any doubts as to the conclusiveness of the evidence.

(Harris 91-92)

The government now refers to the riddles yet to be solved as "knowledge gaps" in their investigations, but still maintain that the fungal poisons that Mirocha found came from chemical warfare agents (Pringle 81).

There is little doubt that the Reagan Administration scored a domestic propaganda success that furthered its strategy of military build-up. Haig's speech centered attention on Soviet violations and newspaper headlines and articles meshed well with Reagan's rhetoric of rearmament. Substantial criticism of the government's case was focused in the scientific community where few believe the Administration's allegations; however, the lay person would not generally find contact with the scientific information refuting the administrations case.

Several factors demonstrate the reasons why domestic yellow rain propaganda was effective. The Administration utilized the myth of Soviet supremacy and brutality to reinforce its case. The American population was primed to accept such messages through the repetition of "evil empire" rhetoric. Past experiences with ignoring atrocities in Nazi
Germany, Uganda, and Kampuchea created ample ammunition for accepting a case built on incomplete information. The combination of myth making and atrocity propaganda parsed well to convince an audience of the validity of a case built on refugee testimony. The audience was receptive to the message, and it was being repeated on television specials and the newspapers, giving the American public no reason to question the evidence, particularly when it agreed with previous beliefs and attitudes.

The technical complexity of the case aided the government's cause and allowed much of its case to go unchallenged by many in the fourth estate and the community at large. The Administration appeared sure of its allegations and stated the accusations with such intense forthrightness that there appeared to be little reason to scrutinize the scientific, jargon laden debates occurring in the scientific journals. The government intentionally misused facts and complicated the debate in an effort to raise the controversy above the level that would be interesting in a daily broadcast and to the general citizenry. Facts would be accepted at the level where understanding could occur. Definitive statements by the government were significantly easier to digest than scientific explanations that were clad in traditional scientific caution. However, it was the lack of this
caution that drew attention to the situation so elite scientists in this country mobilized to investigate the issue thoroughly.

Soviet actions probably enhanced the credibility of the State Department's case as much as any of the scientific evidence assembled. The ridiculous "elephant grass" theory was so absurd that it cast suspicion on the Soviets. The situation conjures images of the Kaiser's Germany responding to British atrocity stories; if truly not guilty, then why answer the allegations with such preposterous arguments? This type of response only serves to assign additional credence to the propagandist's allegations. Soviet paranoia concerning in-state security prompted a refusal to cooperate with the UN, this action cast additional suspicion on the Soviets. The Reagan Administration knew that the Soviets would not allow inspection, thus they were assured of a reaction that would help create the ambience necessary for a propaganda coup. Laos, Kampuchea, and Afghanistan's non-cooperation magnified the effect of Soviet evasiveness. Had the Soviets handled the situation masterfully, they may have been able to win a large propaganda victory with non-aligned states by illustrating US ineptitude in the controversy.

America's allies were keenly aware that the US did not possess the evidence to substantiate its case (Pringle 80). The allies continue to deny forward deployment of binary
munitions and remain anxious to have existing unitary stocks removed. The US's propaganda victories at the domestic level are potentially overshadowed by the embarrassment experienced at the international level. When treaty violations are alleged in the future, it may be easy for the international community to attach a "cry wolf" prejudice to US claims. The detrimental effect that this situation would have on future arms control initiatives and violations is obvious. Of course, future violations would serve as propaganda ammunition for military rearmament.

Some critics have called the yellow rain affair, the 1980s "Gulf of Tonkin" incident. This is an allusion to an event that was reported to have occurred which probably did not but served as a catalyst to escalate US involvement in the Vietnam War (Ember, "Yellow Rain" 34). In this instance, the yellow rain affair served as a justification for discrediting arms control initiatives and obligations while justifying an ever dangerous chemical arms race.
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CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

In Chapter I, it was determined that the following questions would be answered by the present study.

1. To what extent, and with what effect, was propaganda employed in the yellow rain controversy?
2. To what extent is the Jowett-O'Donnell ten-step method useful in analyzing propaganda in the yellow rain controversy?

Although much of the evaluation of question one is contained in the last section of Chapter IV, will be discussed in brief form in this chapter. A discussion of question two will follow, and the chapter concludes sections on implications and recommendations for future research.

Discussion of Question One

The first question that the present study attempts to answer is, "To what extent, and with what effect, was propaganda employed in the yellow rain controversy?"

Concerning the extent, it appears that the Administration...
embarked on a calculated propaganda campaign regardless of the initial motivations for entering into the controversy. This study details several methods and techniques employed by the Administration in its quest to shape perceptions, manipulate cognition, and direct behavior including black propaganda techniques illustrated by the CIA surreptitiously providing Sterling Seagrave the information to make claims concerning T-2 mycotoxins that were professed as his own investigations. A variety of other techniques are detailed in the Chapter IV and illustrate that propaganda was indeed pervasive in the controversy.

The effect of the propaganda is more difficult to determine. If the purpose of the campaign is identified correctly in the preceding pages, then the yellow rain issue was used to obtain support for the binary munitions program. The program finally received authorization, and the weapons started coming off the production line in December 1987. However, it is impossible to ascertain whether the votes were garnered by propaganda or other mechanisms. In the absence of an empirical model for analyzing the effects, the best that the analyst can do is to describe particular outcomes and search for related events. The propaganda certainly reinforced the ideology of the Defense Department and added fuel to Reagan's rhetoric of rearmament. The President, his Cabinet, and members of Congress used the
yellow rain allegations as a central piece in their rhetoric concerning how the Russians are not to be trusted to uphold treaty obligations and how more stringent verification measures are needed in future agreements. It is detailed earlier how the verification argument distorts and hampers arms control initiatives. Matthew Meselson acidly pointed out the contradictions in Reagan's position when he argued, "You can't have high standards for verification and low standards in making accusations" (Ember, "Yellow Rain" 34). Analysis of ulterior motives is important when they affect the commitment that an administration has to arms control. The Administration has not proven that toxin warfare has taken place in Southeast Asia and Afghanistan. The allegations continue and threaten the proliferation of CBWs as countries do not want to find themselves at a disadvantage by abiding by arms control agreements that others are not and by being without weapons that their enemies possess.

Defining the motives for the Administration's actions is not a simple task. The analyst can easily get trapped in a web of cold war logic and rearmament mentality where reality and myth become fused, and images are interpreted as hastily as stereotypes can be formed. From this point of view, it is easy to envision a circumstance where governmental actors devised a controlled propaganda campaign
and created the story of yellow rain. However, it is more likely that the governmental actors acted without scientific verification of the charges which were perceived to be verified in their own minds by an inculcated anti-Soviet zeal and ideological mistrust of the Soviets. In the case of yellow rain, the circumstantial evidence was ample to reinforce perceptions of Soviet complicity and the choice was made to forego sound scientific principles of investigation. When the scientific evidence did not support the Administration’s position, the various inculcated governmental actors believed in their intelligence sources which supplied information that resonated with their beliefs and predispositions. The Administration continued with the claims, hoping to muddle the issue enough to avoid international embarrassment and possibly score a propaganda victory. In this case, the conclusion that the Soviets were involved reinforced decision-makers’ predispositions, but Soviet involvement was still merely a hypothesis and remains unsupported by scientific data. The entire affair exposed that the intelligence community failed to comply with established procedures for verifying laboratory and field information and chose to interpret information through ideological blinders with disregard for scientific verification. The Administration either intentionally ignored or circumvented existing institutional arrangements
for obtaining high level advice: The president's scientific advisor, the Department of Defense Science Board, and the National Academy of Sciences were never asked to evaluate the yellow rain evidence before the policy was set (Robinson et al., "The Story Collapses" 117). Instead, the Reagan Administration selected a dangerous course that maximized public impact, perpetuated its ideology, corroborated its paranoia, and justified its rhetoric of rearmament. Without checking the claims of witnesses or obtaining independent assessment of toxin analysis and without ascertaining the composition of its yellow rain samples, the Reagan Administration dramatically announced its findings through Secretary Haig's speech and locked itself into an untenable position. When it realized that the evidence failed to support its position, the Administration must have perceived that the only path available was to continue with the allegations and perpetuate its ideology and promote its goals through the propaganda apparatus. The logical solution to the problem was to claim a propaganda victory when the "evidence" indicated that T-2 mycotoxins were not appearing any longer. The Administration could and did claim that the attention focused on the yellow rain issue created the impetus for Soviet cessation of the use of toxins. Of course, this claim is an unfalsifiable hypothesis which serves to claim victory from a situation
where the facts are not substantiated. Unfortunately, science does not work the way the Administration planned. If the mycotoxins existed naturally before the alleged attacks, they would exist after the alleged attacks, and in places that attacks did not occur; it is this fact that the Canadian studies corroborated.

The political authority with which the Haig and Shultz reports were presented made the charges appear that they were based on conclusive evidence. The level at which the charges were made, which included presidential declaration in a State of the Union address, prohibited any reasonable avenue of retreat once the evidence was found to be faulty. Now it appears that the Administration is content to proceed with its binary munitions program and gracefully allow the public to forget the yellow rain charges by admitting "knowledge gaps" in the investigations.

Discussion of Question Two

The second question that this study attempts to answer pertains to the utility of the Jowett-O'Donnell method for analyzing propaganda. The Jowett-O'Donnell model of analyzing propaganda served as a useful tool that effectively facilitated the examination of propaganda surrounding the yellow rain controversy. Of particular assistance is the section that calls for an analysis of the
propaganda organization. Emerging from the process were insights into how and where propaganda occurred. The propaganda organization in this study pervaded modern culture and its alleged dominance of the media initiated thoughtful concern by the author. Peering into the propaganda apparatus illuminated areas and offered direction for locating many items that would not initially appear as propaganda. The study of the propagandist's ideology meshed well with the above pursuit and was helpful in that it offered a paradigm through which messages could be interpreted. In other words, the pursuit of the ideology created a framework for looking at the messages and allowed the analyst a different perceptual framework when interpreting messages. The study of the ideology created a feeling of looking into the psyche of the collective propaganda organism. A caveat should be noted, however, because it is easy to get drawn into different ideologies, and the accompanying rhetoric may become quite convincing. One must be careful for two other reasons as well: first, much of the information describing ideologies and purposes are actually counterpropaganda; and second, a misinterpretation of ideologies and purposes will skew the entire study.

The analyst must check information from a variety of sources to substantiate and verify the ideology of the
propaganda organization. If the propaganda at issue has particularly damning repercussions, it would be to the benefit of the counterpropagandist to create a detrimental image of the propagandist and to distance itself from any blame that would ensue. The analyst must be aware of black propaganda as well, a propaganda organization will be driven many times by the same motives as the counterpropagandist in the need to avoid responsibility for the dissemination of certain messages.

Additionally, failure to identify the ideology and purpose of the campaign will create a false basis for interpreting the effects of the propaganda. Naturally, the effects are measured against the ideology and purpose of the campaign. However, the analyst should be aware that this model (and possibly any model) runs the danger of creating imaginary points of study. The analyst could inadvertently or deliberately identify false ideologies and purposes and evaluate propaganda that is illusory or manufactured by the analyst. The model, in effect, may become a model for manufacturing propaganda. According to Jowett and O'Donnell, propaganda must entail a "deliberate and systematic attempt," therefore, it would be very easy to create a propaganda campaign by misanalyzing the purpose and ideology of the campaign and ascribing certain messages to certain ideologies that may in actuality be no more than
apparitions. Deliberate and systematic attempts may be perceived because an ideology has been accepted as that of the propagandist, and the ideology serves as a focus for identifying propaganda messages. One's own paranoia or ideology may describe the ideology and purpose of a campaign as that of the KGB, when in actuality the KGB may have no involvement at all. All sorts of messages would then be perceived as emanating from the KGB, but in reality they may have no cohesion or even a part in a dispute. This is why it is important that the analyst recognize his/her own personal ideologies and attempt to remain distant from them when analyzing propaganda. Our own ideologies, and those stereotypes ingrained in us from birth, may actually perceive propaganda and create ideologies and organizations to match, justify, and rationalize discordant messages.

To illustrate further, take the following example: Suppose that the purpose of a propaganda campaign is identified as discrediting the US among non-aligned nations. Also suppose that the propaganda organization is identified as having placed individuals at high levels of government and in the scientific community in Britain and Canada. A message is released by both the British and Canadian foreign ministries that contradicts the yellow rain allegations made by the US. Under this situation the messages could be defined and evaluated as propaganda if the puzzle pieces fit
into the ideology, purpose, and structure of the defined propaganda apparatus. The apparatus may not exist at all, and may merely be a machination of another propaganda organization or an individual writer rationalizing paranoias. The fictitious arrangement justifies and rationalizes messages that are contrary to individually held ideologies and may exist to remove cognitive dissonance. The mind can create some wonderfully imaginative situations and the propaganda analyst needs to be aware of how ideologies, and looking through an ideology, can be devastating to a study.

The most troubling part of the model is the part that asks for audience reaction to various techniques. Evaluation within this section is almost an impossible task with all except the most basic and open white propaganda. Propaganda is generally such a complex web of intricacies, that identifying specific responses to specific techniques is nearly impossible. As such, the analyst runs the risk of employing hasty generalizations and grasping for superficial and tangential relationships. The analyst may reach out for loose correlations between propaganda and effect, when in reality there is no model to empirically measure such effects. The analysis is compounded if a variety of techniques are employed because no relationship could possibly be ascertained; the message would be merely another
piece in a web of complexities. It may be impossible to create models that test these relationships, especially when they occur as often intentionally disguised messages and when the propaganda process is a systematic and deliberate attempt where a specific technique is only a fraction of an integrated program that is attempting to shape perceptions, manipulate cognition, and direct behavior. This part of the model may be useful in examining simple and open campaigns, but it is not particularly helpful if the campaign contains the slightest complexity.

The model suffers problems in another way. The methodology appears to be designed more for description than for analysis. Although there is a section for effects and evaluation, the analyst is not instructed in what to do with the other various and component parts. As the analyst prepares each step and finds examples that support the objectives described as pertaining to the step involved, the critical and evaluation function of the step often remains elusive. Under the present model each step appears to be more suited for identification that for analysis. In order to make the function and purpose of the model more lucid, the authors may wish to expound upon each step and discuss how each component part can integrate with the other parts. If this is done, then a system for analysis may emerge.
Overall, the process of analyzing propaganda has its greatest value in teaching us something about ourselves, the individual analyst. With introspection, the process holds the possibility of illuminating what types of appeals an individual is particularly vulnerable to. Despite the knowledge that propaganda was occurring, and unsubstantiated allegations were being bantered about, and scientific principles were being violated at every single stage of the controversy, particular appeals still had an impact; such as the emotionally charged statements and stories of the Hmong refugees. Emotion is a powerful persuader, and in the future, this analyst will be aware of particular frailties and predispositions, and the evidence behind the emotions will be viewed with greater circumspection.

Implications

Whether Soviet complicity accompanied alleged CBW use in Southeast Asia and Afghanistan is an interesting question. This study contends that the scientific evidence does not exist to support the Reagan Administration’s claim that the Soviets were involved in chemical/biological weapons use in Southeast Asia and/or Afghanistan. However, the question will never have a definitive answer because of the amount of propaganda surrounding these charges. Hopefully, the present study has illuminated some of the
issues. The scientific community in the US and our Allies fail to support the Administration's charges, and the evidence on the subject fails to support reasonably the Administration's charges. Although it is difficult to completely reject the presumably eyewitness accounts of the Hmong refugees, the extent to which reasonable sociological standards were misapplied in the interviewing process casts serious doubt on their stories, yet the rhetorical impression of their accounts lingers with the reader for quite some time.

The Administration has succeeded in embarrassing itself with international actors and the scientific community with its handling of the entire affair. Established procedures need to be instituted for submitting scientific evidence before charges are made. The Administration may have gotten away with its charges if the scientific community had not perceived the Administration encroaching on its domain, and if it had not noticed that its discipline was being tampered with and abused for the purpose of perpetuating politicized myth. Some of the media were content to follow the Administration's agenda until the scientific community encroached on their turf and coopted their traditional position as the alleged "debunking device" of the American system. If not for the scientific community, led by Matthew Meselson, the media would have been satiated by reporting
only what was provided by the State Department. Relying on the government to set the agenda and to be the repository of scientific truth is much too dangerous in a world of ever increasing scientific complexity. Scientific claims need to be systematically verified, and the evidence needs to be available for independent assessment. If the public fails to demand open assessment of scientific evidence, then it will fall victim to an ever increasing technocracy. The public will see its ability to participate in the decision making process quickly eroded as it becomes subject to the assertions of the technically literate as technology expands and permeates throughout the entire web of existence. With a polity that is not scientifically adept, it will become increasingly convenient, for those wishing to influence public opinion, to create scientific explanations and shape perceptions to coincide with those explanations. The scientific explanations will carry more power if they parse with myths that run through our social order. The yellow rain affair illustrates the way in which claims of "scientific" allegations can be meshed with existing myth to shape perceptions. It is a real danger for which the public must demand institutionalized safeguards. The American people were lucky that individuals with scientific expertise, like Matthew Meselson, were interested in the allegations that the State Department made. There may not
be an interest in the scientific community the next time, and the motivation for action may not be as strong as it was in this case where one of the treaty's originators had the scientific interest and expertise to debunk the Administration's case.

Government institutions to review the evidence would fail because inherent in the governmental review would be the possibility of tainting and institutional chicanery. One solution may be to provide the scientific evidence for open investigation by an independent review organization. Although governmental agencies, such as the Army, began to confirm that the State Department did not have the evidence necessary to substantiate its case, this was only after scientists like Meselson were stumbling through the government's assertions. Indeed, the diversity of claims within the government may indicate that information is not as tightly controlled and as open to manipulation as we may think, but this diversity began to appear only after the evidence was suspect, and this division could serve as a rhetorical device for obscuring the need for outside investigations. Of course, I am aware that independent investigators will be tainted by their associations with the government, and that an "independent investigatory body" could easily be used as a rhetorical device to dupe the public into thinking that since it has an agency it is
protected from scientific distortions. However, at the very least, information controls need to be loosened to allow investigation of claims that in are dispute.

The current state of affairs is the worst of all worlds for the public. The absence of reliable information in the yellow rain affair created a powerful polarization of opinion concerning the facts in the case. An intense polarized controversy, in the absence of reliable data, further obscures the truth beneath a barrage of ideological complexities. The government found itself complicated in a web of scientific complexities from which it has yet to extricate itself.

Governmental claims that it cannot release all the evidence upon which it bases its conclusions because of its highly sensitive nature tends to promote distrust and conjure suspicions that the classification system is being used as a rhetorical device. Intelligence hoaxes have been perpetrated on the American public all too often to accept such classified evidence on faith in our government analysts. Of course, administrations always couch rhetoric in terms that will present them in a favorable light. But in this situation the Administration went beyond normally accepted limits of exaggeration in order to discredit the Soviets. The yellow rain affair magnifies the distrust, and if accepted by the people, the standard for what is
acceptable in verifying such claims will be lowered because the government analysts were proven to be employing shoddy scientific procedures and refutable conclusions. J. P. Perry Robinson explains how the current process of polarizing controversies effects the rhetoric in such controversies:

Even if the [arms control] regime is not in fact being flouted, a lot of people think that it is, including people in government who are likely to influence national policies on CBW use and CBW arms control. And if the reports are true, the rhetoric that has now become attached to them will make it more difficult for the international community to develop impartial investigatory machinery whereby the truth can be established, which is an essential prerequisite for salvaging whatever may be left of the arms-control regime. (The Changing Status 16)

A government official says that:

The intelligence community made its mind up on information not publicly available. The gestalt of what I'm saying is that you would make a mistake [if you think] the subject can be addressed in the public domain. (Ember, "Yellow Rain" 34)
This attitude grants the government carte blanche to disseminate any information it sees fit and withhold any information that may do damage to its case. It is this very mind-set that promotes mistrust and polarizes public opinion. If the evidence is not discussed in the public domain, then where?

This analysis also illuminated the problems involved in the current procedures for establishing violations of CBW treaties. The current inadequacies are reflected in the framework that required the US to undertake an adversarial investigation to produce detailed reports charging the Soviet Union and its allies with using chemical and biological weapons. The adversarial relationship is inadequate because the nature of the relationship between the US and the USSR impedes the credibility of the allegations. Ignore for a moment the fact that the overwhelming majority of scientists from nineteen countries at a disarmament conference did not find the US charges persuasive, and imagine that the US had the best and most convincing evidence possible. Even in this situation, the adversarial relationship would not have placed the US in a position to persuasively present its charges to other countries because of the taint implied by the US pressing charges against an adversary. In all likelihood, in situations such as these, the investigating country will
also be a political adversary, and the investigation will be dismissed as propaganda with any evidence presented by the investigating country carrying a taint. I think the same analogy can be applied to answer the position that the parties will serve a debunking role. Additionally, congressmen have constituencies that depend on government military spending. Claims of Soviet impropriety would not stand much of a chance with this type of institutional incentive barring honest evaluation.

Concerning investigations conducted by the UN, the problem is one of on-site access. It is extremely difficult to verify allegations of chemical and biological warfare without on-site access. The UN group involved in the yellow rain controversy observed: "To investigate an allegation of chemical attack, the ideal approach for experts would be to conduct on-site examination of the attack as soon as possible" (A/36/613). The current delay in fact finding missions is dangerous because it may cause nations to become impatient with the international fact finding process and retaliate with chemical and biological warfare creating a particularly pernicious escalation scenario. Since the UN General Assembly lacks the authority to impose on-site inspection this will be a continuing problem for UN investigators. Creation of a permanent international investigatory organization may help in establishing treaty
violations. Since the only enforcement international law has is its ability to impose worldwide opprobrium, the international community should invoke international pressure on countries that deny permission for on-site investigation and should grant heavy presumption to those making claims.

Recommendations for Further Research

In order to calm the currents that may lead to CBW proliferation, the US needs to admit that its scientific allegations lacked the evidence necessary to prove its case if it is serious about arms control. Although the INF agreement has been signed, this agreement concerns very few weapons and could be considered a rhetorical response to the peace movements in Europe and the public that was demanding arms control. This possible effect of the INF agreement is fertile ground for both a rhetorical and propaganda analysis, and could be studied with comparisons and evaluations being made concurrent with the present study.

Grant Evans suggests that if the same standard of evidence demanded of Vietnam veterans seeking compensation for alleged dioxin poisoning from agent orange had been demanded of US officials alleging yellow rain use in Southeast Asia, "then the allegations would have never [gotten] off the ground" (Ember, "Yellow Rain" 34). The agent orange controversy should be studied and compared to
the present study to contrast propaganda mechanisms and to compare standards of evidence required in both investigations. It may be interesting to study the different standards employed by the government when they are the accused instead of the accuser.


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