CHEMICAL WEAPONS AND SOLDIERS' RIGHTS

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The United States has had an ambivalent attitude toward chemical weapons* in the years since World War I. On the one hand, the country led the international negotiations that produced the 1925 Geneva Protocol forbidding the use in war of both chemical and biological weapons. On the other hand, Senator William E. Borah, chairman of the Senate Foreign Relations Committee, was forced on December 13, 1926 to withdraw the Protocol back to the committee to avoid its outright defeat on the floor of the Senate.[1] The U.S. refrained from using its stocks of chemical weapons in World War II, yet it was not until January 22, 1975 that President Gerald Ford finally signed the ratification papers for the Geneva Protocol.[2]

The ambivalence Americans -- including the American armed forces -- have shown in regard to chemical weapons reflects the complicated nature of the weapons themselves. To a large extent, rejection of CW has been visceral, emotional rather than closely reasoned. The emotional nature of the reaction is so striking that it prompted Michael Mandelbaum to postulate a kind of human genetic aversion to toxic substances in his discussion of chemical weapons.[3] It is extremely difficult to define in cold, logical terms just why chemical weapons ought to be treated any differently from other weapons of war. There are many rational reasons for treating chemical weapons as just one more item in the conventional arsenal. After all, high explosive weapons blow

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*Both chemical weapons and chemical warfare are known by the acronym CW.

people apart. Is dismemberment better than asphyxiation? Yet, for many, the visceral reaction remains. As Meg Greenfield wrote in an editorial appearing in the Washington Post in January 1989, "Our impulse to outlaw chemical weapons is irrational, illogical -- and absolutely right."[4]

It seems too soon and too simple to abandon the field of rational argument, however. Since World War I, chemical weapons have been treated as a distinct category. They represent the most important of the weapons whose use is forbidden under international law. Equally importantly, their use has mostly been avoided even among states possessing large arsenals and even when they could use CW with impunity against an unprotected foe or civilians. At the same time, chemical weapons have significant moral problems. For reasons to be outlined below, they violate several of soldiers rights, notably, the right not to be tortured, and the right to respect as a human being with human dignity. Moreover, the most effective -- and hence very tempting -- potential use of CW is not against soldiers at all, but against unprotected civilians. The intentional direction of any weapon against civilians is, of course, condemned by the Western "Just War" tradition. The nature of chemical weapons as area weapons, plus the expected configuration of most modern wars near civilian centers means it would be very hard to use them discriminately.

Since CW has been used so little and since there are significant moral problems with it, removing the taboo against chemical weapons means adding an evil to modern warfare. To do that, at minimum,

an overwhelming reason is needed to overwhelm the prima facie case for respecting soldier's rights, much less the rights of civilians. The burden of proof is with those who would change current conditions. Certainly the argument that chemical weapons are more humane than conventional high explosive weapons because they are not as lethal does not constitute sufficient reason to overturn historical precedent.

I. UNCONVENTIONAL WEAPONS

In spite of the fact that lethal chemical weapons have been available for nearly seventy-five years, one of their most striking features is how little they have actually been used in war since World War I.[5] In a period that has seen three major wars and scores of smaller conflicts, the universally accepted list of first uses of lethal chemical agents is limited to six. These are Spain against Morocco in 1925, the Soviet Union against China in 1934, Italy in Ethiopia in 1935-1936, Japan against China from 1937-1945, Egypt against Yemen in 1963-1967 and Iran against Iraq from 1984 to 1988.[6] Although there have been a number of allegations of use, this list constitutes all of the universally accepted examples of first use: a half-dozen instances in almost seventy years. Nor has CW been the main weapon in those wars in which it has been utilized. Even in World War I, so far the most extensive case of chemical warfare, CW consumed only 4.5 percent of all artillery shells.[7]

Exercising such restraint with a potentially effective weapon of

war is unusual, to say the least.

Clearly, a perception that severe logistical headaches accompany whatever tactical value chemical weapons possess, together with a desire to avoid the effects of a bilateral chemical war have been responsible for a substantial portion of the nonuse.[8] However, it is equally clear that tactical and strategic concerns do not fully explain lack of use. In World War II, for example, only Japan used chemical weapons and only in China.[9] For the other parties, less tangible factors played an important role in discouraging CW, factors including strong public opinion and attitudes within governments and the military against chemical weapons, and the constraining influence of the Geneva Protocol.[10]

International law is unusually clear on the subject of first use of lethal chemical agents. Unlike nuclear weapons and all but a handful of other weapons, first use in war is flatly forbidden.

The most important legal constraint is, of course, the Geneva Protocol of 1926 forbidding the use in war of chemical and biological weapons. It is true that many of the parties have reserved the right to retaliate, converting the treaty, in effect, to a no-first-use pact. It also binds the parties only among themselves. Since, however, more than 120 of the 150 or so states in the world are now parties, this is not a very severe limitation.[11] The Geneva Protocol is one of the oldest purely arms control pacts still in effect, and, arguably, one of the most successful.

The Protocol is not the only legal limit on CW, however. Many

independent international jurists would argue that the Hague Convention of 1907's rules against poison or poisoned weapons includes airborne chemical weapons as well as the more traditional uses of toxic agents in wells or smeared on projectiles and cutting weapons.[12]

Chemical warfare is also forbidden by customary international law. It is fairly clear that even in 1925 some of the parties to the Geneva Protocol believed they were merely codifying what was already customary law. A number of serious jurists have argued that the Protocol in fact did so.[13] However, any serious doubt on whether the Protocol's ban on first use reflects customary law today has to be rejected. The evidence of current practices not only includes the tradition of nonuse briefly described earlier, the number of ratifications to the protocol, but also a series of unanimous or nearly unanimous United Nations resolutions in the 1960s affirming the principles of the Protocol as binding on all.[14]

Thus, with chemical weapons, there currently exists a situation in which legal practice and international conventions set CW aside as not belonging to the normal run of tools of war. Moreover, the tradition against use has been combined with a practice of nonuse. This pattern means that a leader wishing to make chemical weapons a part of the standard arsenal of war is instituting a significant change in the status quo. For people who care about the ethical conduct of war it is necessary to ask whether such a change has negative moral implications, i.e. whether there is anything wrong with doing so.

II. IMMUNITY AND SOLDIERS' RIGHTS

Because enemy troops engaged in war constitute an active danger to the order and safety of another national community and its citizens, it is usually considered permissible for the other state to exert force, up to and including lethal force, to stop them from being a danger. Soldiers have a special right to exert force, both as the agents of the state and as individuals in particular personal danger. The danger soldiers engaged in war represent, whether or not they have individually chosen in any meaningful sense to fight, is what distinguishes combatants from noncombatants and explains why soldiers on both sides lose the immunity from deadly force owned by so-called innocents. Moreover, as Michael Walzer argues, the dangerousness to their enemy of even soldiers engaged in a just cause is one of the aspects of their condition that allows the armed forces of a nation engaged in an unjust war to escape overall moral culpability, provided they themselves fight within the confines of jus in bello rules.[15]

This right of self defense, both as individuals and as agents of the state, stems from the same root that grants an individual in imminent danger the right to exert force, sometimes including deadly force, in domestic society. Sometimes the only way to stop a person is to kill her.

However, there is no reason to believe that the right to try to stop another in self defense authorizes every action that might have the permissible effect, even when the target is a combatant

or person otherwise liable to being prevented from carrying out his action. In domestic society, I am not supposed to maim or kill someone who merely threatens me. In classic "Just War" doctrine, the justice in war or jus in bello requirement that a response be proportionate to the action which prompts it is an example of a rule putting limits on what states and their agents may do to other belligerents.[16]

Nor, in my own self defense at home, may I as an individual violate even a criminal's other rights. (Note: the argument is not that soldiers are criminals. They merely represent an analogous danger to an opposing state.) A Guardian Angel in the New York subways is not supposed to torture a mugger. Similarly, because they have lost their immunity to deadly force, it does not mean that persons fighting in their nation's service lose all their other rights. The combatant only loses the right not to be killed or otherwise forcibly prevented from endangering others because this particular right is in direct contradiction to the rights of others. A criminal or a soldier's other rights do not affect -- and are thus not affected by -- their dangerousness to others. Thus, criminals do not lose their rights to food and water and soldiers should not, for example, lose their right to be treated as human beings with human dignity, nor their right not to be tortured, physically or emotionally, even in the process of stopping them as combatants in a war.

Moreover, in their interaction with the coercing state and its agents, both the criminal and the soldier have special rights.

A person accused of a crime has a right to a fair trial, and, if killed, to a merciful death. By analogy, even from the state they are opposing, soldiers ought to have a right, if they die, to an honorable death. That is, the process of stopping should be as clean as possible (commensurate with the technology available), and should not by its very nature or because it raises undue horror or disgust, rob him of human dignity. Certainly their own state owes them everything it can do to try to promote this.

That we have some recognition of these rights can be seen in the existence of the notions of military ethics and honor. The often derided[17] concept of military honor -- still set out in the U.S. Army's motto, for example -- is not usually set out as a response to soldier's rights. Moreover, honor is often honored in the breach, particularly since it may conflict with the soldier's duty to try to win a war. Nevertheless, it is clear in historic terms that, at least in the West, professional soldiers as a group have had a professional ethic, an ethic that has traditionally included a preference for straightforward fighting, a condemnation of treachery, and a distaste for weapons whose main point is the terror or horror they instill, even in the cause of victory. The distaste and in its stronger form, horror, can be overcome by the exigencies of the moment, particularly if the enemy has breached the ethic first. The ethic is, nevertheless, an empirical reality. However, this somewhat incoherent sense of fairness has a deeper and more profound root.

Several authors have argued that the professional military's

dislike of chemical weapons as violations of their code was one of the most important elements explaining why they were not used more in World War I or why, with fairly minor exceptions, they were not used in World War II.[18]

A. Effects on Soldiers

1. CW AS TORTURE

Up until the advent of modern weapons, the coercing state could only torture someone if it had physical control over her. For the military, torture was only possible if the soldier had "given up," hence, as Walzer argues plausibly, regaining civilian immunities, at least temporarily. Modern warfare, however, holds the possibility of torture without physical control, torture over long distances. Modern warfare has at its disposal weapons whose main purpose is not interdicting the enemy physically but causing significant physical distress or extreme, negative emotional reactions over long periods of time. Even conventional high explosive weapons, which can do the stopping long distance, do at least have as their main point stopping a combatant physically.

Using chemical weapons constitutes torture because they work, not so much by physically interdicting the adversary, as by causing physical and psychological suffering. Chemical weapons carry with them significant and often sustained physical discomfort, the threat of an unpleasant death, and a substantial dose of fear and horror.

a. Chemical Weapons and Physical Suffering

In the case of the chemical weapons, how much suffering is inflicted incidental to the effect of removing the soldier from effective participation in battle depends on the type of chemical used. All three of the main lethal chemicals used in the Great War -- which are still in the arsenals of a number of nations suspected of possessing chemical weapons -- involve an unusually unpleasant death. Phosgene and chlorine are known as choking agents. A victim who dies essentially drowns, suffocates from fluid induced into the lungs.[19] In addition, even at sublethal levels, phosgene causes "coughing, retching, frothing at the mouth, cyanosis, and asphyxia and pneumonia"[20]

Chlorine is very uncomfortable to inhale, in addition to causing the respiratory symptoms. The Rev. O. S. Walkins described for a religious journal the condition of the unprotected French soldiers exposed for the first time to chemical weapons at Ypres:

> "Then there staggered into our midst French soldiers, blinded and coughing, chests heaving, faces an ugly purple color, lips speechless with agony, and, behind them, in the gas-choked trenches, we learned that they had left hundreds of dead and dying comrades.[21]

The issue of the painfulness of mustard gas is more complicated, since it how much pain is produced depends on the part of the body affected and the exposure. In addition to the possibility of lethal respiratory symptoms resembling those of phosgene,[22] it can cause severe eye irritation, temporary (if treated) blindness, and, large painful blisters on every part of the body exposed, internal or external. Since mustard gas can penetrate clothing, parts of

the body not normally exposed to air -- buttocks, genitals, armpits and ears -- were often affected. If broken, the blisters often become infected, adding more danger and pain to the process.[23]

Nerve agents injure and kill by blocking the transmission of impulses through the nervous system. The immediate cause of death is usually asphyxiation through paralysis of the lungs or heart failure. Unlike the blistering or choking agents, the surfaces through which the chemical is absorbed do not become painful through irritation. The lack of initial pain does not mean sublethal (and prelethal) exposure to nerve gas does not suffering significant harm, however. Eye muscles contract, making vision difficult. Skeletal and involuntary muscles are affected, causing weakness, fibrillation, and (if treated) temporary paralysis. Convulsions and the deprivation of brain and other organs of oxygen may cause permanent damage, in addition to the immediate effects.[24] Among the other symptoms are "miosis, headache, chest tightness, cramps, vomiting, involuntary defecation, [and] dizziness."[25] Nerve agents may not cause much actual pain, but one can hardly say their use does not involve significant discomfort.

However horrible, is the discomfort of a death or injury from CW "worse" than that from traditional high explosive weapons, weapons most people acknowledge are acceptable to use in war? In physical terms, it is almost impossible to say because they represent different kinds of suffering. How can one compare slow choking to death or paralysis of the heart muscles to the pain of having a foreign object disrupt or even tear off part of the body?

Certainly, chlorine and mustard gas also include pain in the sense of a sharp stabbing excitement of the nerves, in addition to the respiratory symptoms. One may legitimately conclude overall, that the physical suffering is at least comparable to high explosives. One must say that the pain and discomfort involved are significant.

In addition to actual injury, there is another kind of physical suffering that goes with both the traditional chemical weapons and the newer nerve agents, assuming one is fortunate enough to be provided with protective equipment.

It is an unusual feature of chemical weapons that they do not have to injure their victims to seriously erode their capabilities. Today's protective clothing and even the respirators are hot, bulky, and extremely uncomfortable. Wearing them, vision and sight are limited. No smoking, no eating or drinking, no taking care of bodily functions, not even normal breathing is possible.

The U.S. and the NATO allies make an effort to maximize the wearability of their defensive clothing. They use mainly cloth or paper materials combined with a layer of activated charcoal. This combination keeps out moisture and vapors, but allows some air both in and out to slow down the build up of heat. The most usual Soviets and Warsaw Pact chemical gear is even harder to wear for any period of time: a rubberized coverall. Heat build-up is so rapid in these suits that soldiers in semi-tropical climates cannot wear them for more than thirty minutes or so at a time without a second layer that must be kept permanently wet.[26]

It is not surprising then that even in the absence of any

chemical injury, wearing the defensive clothing and equipment degrades a soldier's ability to perform. For U.S. troops the drop has been estimated at least thirty percent.[27] This effect gets substantially worse with time as heat and discomfort build up. Indeed, the effect is so marked that the main mission planned for U.S. retaliatory stockpiles reportedly is to force the aggressors into their nuclear, biological and chemical (NBC) suits.[28] In a sense, everyone in the area is at least a light casualty every time chemical weapons are used or suspected, since they force everyone into the disabling and uncomfortable protective equipment.

Initiating a lethal CW attack, even with the expectation that the other side will more or less successfully defend against its lethal effects has much the same moral and psychological structure as a hanging a prisoner over a vat of acid by a rope in order to make him give up military information. As long as he hangs on to the rope, physically nothing very terrible happens to him. However, he may not be able to hang on as long as you are willing to torment him, no matter what your expectation. Equally importantly, whether or not he eventually ends up in the vat, you have not only intentionally subjected him to a substantial degree of actual physical discomfort but also to severe and prolonged <u>psychological</u> stress by means of a plausible threat of a horrible death.

<u>b. Chemical Weapons and Mental Suffering</u>

Torture does not merely consist of the physical discomfort involved. Cancer may produce severe pain, but is not torture.

What converts discomfort or even pain into torture is a two-fold mental element: the knowledge that the suffering involved is deliberately produced and is intended to continue until the victim gives in and, perhaps more equally importantly, the sense of terror and horror produced in the victim. Chemical weapons involve these elements. For example, Hugh Stringer, author of Deterring Chemical Warfare, writes lists the weapons' "psychological impact or shock effect" as the first of the significant advantages of chemical weapons over alternatives.[29]

The most often overlooked form of violence and harm is emotional or psychological. In an important new book on morality and war, Robert L. Holmes draws attention to the fact that long-term and debilitating damage can be inflicted that leaves the body intact. Although this damage is not as obvious as physical injury, it is no less real. Such harms have not been a traditional focus of attention. Nevertheless, philosophers from Plato and Augustine to Kant and Marx agree that the mental harm a person endures may actually have more serious consequences.[30]

As Holmes points out, psychological violence is related to the concept of violation. "In each case something having value, integrity, dignity, sacredness, or generally some claim to respect is treated in a manner contemptuous of this claim."[31] The most insidious result of psychological violence is to diminish its victims as persons. Both Plato and Marx warn that one of the best ways of doing this is to take actions that place person's rationality under attack. Without rationality, human beings are

reduced to the level of animals.[32]

With chemical weapons there seems to be an added element over more conventional weapons, an element that converts mere suffering into torture. This is an extra dose of strong negative emotion, terror or horror. Even L.F. Haber, who is on the whole fairly supportive of the acceptability of chemical weapons as tools of war acknowledges, "It could be that the sensation of choking and slow suffocation releases fears which are stronger than the anticipation of pain from bullets or shell splinters."[33]

Most supporters of CW, past and present, reject the moral significance of this subjective element. A number conclude that the source of the terror is simple unfamiliarity. This was the line Congressional opponents of the 1925 Geneva Protocol took in 1926. As Senator Bingham told the Senate:

> I myself recollect that when I was ordered to go to the front for a short time to inspect certain aviation units that was the one thing I dreaded the most. I was afraid of gas; it was something I did not understand and could not see. I know that a great many of the soldiers of the war felt just as I did....We could understand very well how bullets worked and how bayonets worked and how high explosives worked and we were willing to take the risks which they involved, but we did not understand gas which could not be seen and about which extraordinary stories were told. So many of us were very much afraid of it.[34]

The implication was that as soldiers got more used to chemical weapons they would accept them, just as they now accepted the high explosive weapons. In a well-known defense of CW, written under the pseudonym of Callinicus in the 1920s, British Chemist J.B.S. Haldane illustrates this attitude. He is contemptuous of moralists' failure to accept the new weapons:

> Mustard gas kills one man for every forty it puts out of action; shells kill one for every three; but their god who compromised with high explosives has not yet found time to adapt himself to chemical warfare.[35]

Simple lack of familiarity does not seem to be an adequate explanation of the subjective element of chemical warfare. After all, by the end of the Great War chemical weapons had been used for three and a half years. It is clear that many soldiers who were exposed to CW did come to the point where they regarded poison gas as an unpleasant but not uniquely terrorizing element of the war. Many more, however, never got used to the new weapons; and, indeed, the repeated exposure only made the fear worse.[36]

Fear of chemical weapons was so great in World War I that it sometimes produced a psychosomatic episode called "gas fright" in which groups of soldiers would show all the symptoms of gas poisoning, even though they had not actually been gassed. Especially after the point where protection from lethal exposure was possible except for those caught by surprise, one of the main points of gas as a weapon was the extreme fear, the discomfort, and the highly demoralizing sense of isolation produced when soldiers had to spend long periods cut off from the world in their gas masks. Gas merely as an instrument of terror harmed morale and contributed to battle fatigue even when it did not produce any physical injury.[37] For a person whom poison gas made a casualty, the long preliminary terror must have contributed to a special sense of torture.

Nor in the years since World War I has CW come to seem merely a

weapons "like any other." As noted earlier, CW seems to have retained an aura as a "dirty weapon" in an era that has seen acceptance of a multitude of new weapons and modes of warfare. The tank and ballistic missile as well as submarine warfare and area bombing are no older than chemical weapons.

It is very difficult to put one's finger on just what was and is so horrifying about chemical weapons. Certainly part of the psychological reaction is terror, i.e. anxiety about the physical consequences of being gassed. It seems plausible, however, that in addition what may be at work is a strong negative emotional reaction to the dehumanization chemical weapons involve and to the perceived perversity of CW. To the extent these emotional reactions can be plausibly linked to the use of chemical weapons they are part of a charge of emotional torture. In addition, they are violations of the rights of soldiers to an honorable death and to be treated as human beings. As such they would represent moral reasons, independent of the suffering CW may cause either in prospect or for wounded soldiers, for condemning the use of CW.

2. DEHUMANIZATION AND A DISHONORABLE DEATH

The arguments that CW is rejected merely because it is unfamiliar suffers from another important flaw. There is one way in which chemical agents are very familiar from civilian life. Pests are poisoned and killed using chemical sprays and "bombs." Thus, one of the sources of our ethical distaste for chemical warfare may be what it does to the dignity, the humanity, of the victim. The

victim becomes one of a category or class containing rats or perhaps cockroaches. Thus, chemical weapons are literally dehumanizing. As General von Deimling, Commanding General of a German Corps at Ypres, commented: "I must confess that the commission for poisoning the enemy just as one poisons rats struck me as it must any straightforward soldier; it was repulsive to me."[38] Moreover, the psychological torment involved with CW has another moral implication directly linked to the issue of dehumanization. Prolonged horror and fear robs human beings of their rationality, surely one of the critical aspects of being human.

Even if they do not cause wounds or death, the protective stance a soldier is forced to adopt because of them is dehumanizing in a different sense. To be protected, a soldier must be covered from head to foot with no crack showing. He is unrecognizable as a human being and, with a mask on, in fact looks more like an insect or a space monster. Inhuman to others, he is cut off from every human contact and pleasure. The soldier is isolated and subject to an undignified and dehumanizing experience.

Chemical weapons also belittle or destroy human dignity. One of the reasons chemical weapons cause terror and horror is because they emphasize powerlessness in the face of high technology. Certainly the gas masks of World War I and the much more cumbersome and debilitating chemical and biological protective suits needed today can protect soldiers from the worst effects of exposure to malevolent technology.[39] However, not only does the physical nature

of the protective gear make it increasingly difficult and unpleasant to work, the soldier is completely dependent on it. It has to work perfectly the first time and every time.[40] Unprotected, a soldier cannot run from or successfully hide from chemical (or biological) weapons. The gas masks and protective equipment themselves emphasize and magnify the reality of human vulnerability in the face of modern war. That in itself makes a person feel small, and emphasizes the other awfulness of the battle field. Fear of gas itself is only part of the horror.

The sense that chemical weapons are particularly perverse is also a source of outrage and of the sense that a death by gas is not honorable. The perversity is of three main kinds.

First, one does not die quickly or cleanly with many of the chemical weapons. With the choking and blistering agents one dies slowly, with terror, and exhibiting the disgust-inspiring symptoms described earlier. As I have noted before, a victim of phosgene or chlorine ends up black in the face, spitting blood, choking to death. An unprotected victim of mustard gas will suffer huge blisters on every inch of the body the droplets manage to penetrate. Even nerve gases, which at least are faster, reduce their casualties to futile gasping and involuntary defecation. Conventional weapons may not be more pleasant as sources of wounds and death, but they are often perceived as producing cleaner kinds of injury. This point speaks directly to the soldierly right to an honorable death. Wilfred Owen, a British soldier and poet of World War I, described in graphic detail the death of a gas victim

in one of his most famous poems. He warned that if we too could see such a death,

> My friend, you would not tell with such high zest
> To children ardent for some desperate glory,
> The old Lie: Dulce et Decorum est
> Pro patria mori.[41]

Second, to many, these weapons seem like perversions of science, a field we distrust a little because it is so strange but which is supposed to produce good things for humanity. CW itself is indisputably the product of modern industry and technology. One reason chemical weapons provoke such strong reactions, albeit outrage or horror rather than fear per se, may be that they, in many ways, are the converse of modern medicine, "medicine" turned on its head to poison instead of heal. Even today, chemical weapons retain an aura of perverse scientific sophistication, especially in the Third World where they are sometimes called "the poor man's atom bomb."

Finally, chemical weapons are perverse in a more profound sense. An almost invisible substance breathed in or soaked in through the very air turns the body's own mechanism back against itself, forces the body to betray itself. With the choking and blistering agents, persons "drown" on dry land in fluids produced by their own lungs. With the nerve agents one's own brain cannot tell the heart to beat or the lungs to breathe. What deeper betrayal is there?

B. Effects on Civilians

The second category of moral problem with CW is less

controversial than the first. Western moral tradition from "Just War" doctrine, to most accounts of conventional morality, to international lawwould flatly condemn a practice whose sole purpose was to influence the course of a war by killing and terrifying as many civilians as possible.

Yet the temptation to use CW against civilians is a very strong one. They make nearly ideal targets. First and foremost, civilians are far less likely than military forces to be provided with even rudimentary protective gear. They are also unlikely to have any training in how to deal with the danger. This, plus medical personnel who lack knowledge and medications to treat even old-fashioned CW agents, makes civilians a particularly tempting target for a chemical attack.

Other factors increase the vulnerability of civilians still further. Children and infants are biologically more susceptible to injury and death from chemical agents of all kinds than are adults. Moreover, although tightly closed houses and other buildings provide considerable protection from chemical attack, once an agent has penetrated a building it will persist there far longer than out in the open where wind, heat, and rain can dissipate it. Streets and alleyways are similarly better protected from the elements and thus prone to lingering pockets of lethal danger.

Civilians may also be in great danger from certain anti-military activities that are aimed at soldiers. Although fast-acting, quickly dissipating agents are available, unrestricted CW use in

a battle on a Central Front in Europe, or on any fast-moving battle line from which civilians have not been evacuated is almost certain to lead to very large-scale civilian casualties. Whatever the intention, the battle will be taking place where people are. Contemporary capabilities to lob munitions far behind a battle line via ballistic missiles, high altitude-bombers, and other "high tech" delivery vehicles mean that chemical weapons could be delivered to bases and command posts located near, and perhaps even in, cities and towns. In such cases, depending on where the military site was located, large numbers of noncombatant casualties could be expected. Thus, using CW in likely scenarios carries a very strong probability of violating the "Just War" requirement of discrimination between combatants and noncombatants.

If the arguments offered above make moral sense, chemical weapons, at least in their current forms, do have significant ethical problems. They seem to violate rights and immunities soldiers do not give up in the process of becoming combatants: the right not to be tortured, as well as right to be treated as a human being and the right to an honorable death. CW offers all too tempting opportunities to massacre and terrorize civilian populations, and it is difficult to imagine likely wartime scenarios in which the "Just War" principle of discrimination between combatant and noncombatant could be respected. Thus, adding CW to the conventional arsenal would be adding a new evil to contemporary warfare. To take such a step, if it is morally permissible at all, ought to require a positive moral argument as

to why the rights of soldiers and civilians should be set aside. With chemical weapons, such an argument has been offered in the form of an argument from humanity.

III. HUMANE WEAPONS?

It is sometimes argued that a reason for using chemical weapons is that they are actually more humane to use than more conventional high explosive weapons -- and hence morally preferable to them. If CW were more humane, this would be an important ethical argument in favor of setting aside any other qualms about its permissibility.

What the defenders of chemical weapons have historically meant by their claim is that, to a far greater extent than high explosive weapons, CW injures rather than kills those exposed to its effects. At the same time, they argue, the casualties are still effectively removed from participation on the battlefield. This argument was highly influential, for example, in the 1926 Senate debate that kept the United States from ratifying the 1925 Geneva Protocol banning the use in war of chemical and biological weapons. As Senator Wadsworth put it:

> compared with other weapons used in warfare, gas is the least cruel, not only in its effect at the time of its use but in its after effects. If we are to base our action upon relative cruelty of weapons, we would better go to the high-explosive shell and attempt to draw a convention which would prevent nations using it, for if we compare the effects of high explosives, bullets, and shrapnel on the one side with the effects of gas upon the other we can not help reaching the conclusion that gas, while an extraordinarily effective weapon from the military standpoint, is the least cruel of the lot.[42]

Wadsworth and the other opponents based this surprising claim on statistics of casualties of the American expeditionary force in World War I. In an elaborate series of charts with figures not disputed by supporters of the treaty, Senator Reed, for example, pointed out that only 200 American soldiers, less than one percent of all those who were killed outright in the field, died from exposure to gas. Of those who were wounded and hospitalized, approximately thirty percent, or 70,552 men, were gas casualties. A total of 1,421 more soldiers, about two percent of those who were classed as gas casualties, subsequently died in the hospital; this compares with approximately twenty-four percent of the other casualties.[43] From these analyses, opponents of the protocol concluded that CW, far from being a weapon of unusual cruelty, killed and permanently maimed fewer of the soldiers who were exposed, while effectively taking a substantial proportion temporarily out of commission. As Senator McLean, who seemed to be a more or less neutral observer in the debate, put it: ""Mr. President, if it is more merciful and more effective, why should we bar it?"[44]

At first look, this argument seems supportable by extension of traditional doctrines of ethical conduct in war, what Michael Walzer in his now classic book Just and Unjust Wars calls the war convention. After all, as Walzer points out, a reasonable reading of the war convention is that whether or not their war is just, opposing soldiers may and perhaps should be stopped from endangering one's own citizens and the internal order of one's

state.[45] However, even soldiers of an unjust cause, while liable to attack because of the imminent danger they represent, are not culpable for the war itself, provided they themselves fight within the confines of jus in bello rules.[46] It should follow from this moral innocence that if the soldiers can be stopped and the enemy state defeated by wounding rather than killing the soldiers, then the soldiers' dangerousness can be defused without subjecting them to unnecessary violence. A weapon that can stop with less killing ought to be morally preferable to a more lethal weapon.

However, the Senator's argument that chemical weapons are preferable to conventional high explosive weapons fails on other grounds. The factual premise on which their ethical argument is based is faulty because it employs an incomplete picture of CW's potential. Chemical weapons are not <u>by nature</u> less lethal and hence more humane than conventional weapons. The relatively low fatality rate of chemical weapons in World War I, for example, was largely a side effect of effective defensive actions, on the one hand, and lack of an effective strategy, low supplies, and systematic under-reporting on the other.

The technology itself was and is capable of producing a much higher death rate. The most effective use of chemical weapons has always been against the unprotected, especially if surprise is a factor. For example, casualty rates for the year 1915 -- when neither side had good protection -- are notoriously faulty, but all sources agree that death rates were far higher than for the rest of the war. Although the British claim of 15,000 Allied wounded

and 5,000 dead from chemical weapons for the entire weeks-long battle of Second Ypres in April and May 1915 is probably not credible, the reality must have been devastating.[47] The effect of CW on the first French-Algerian troops exposed to gas at the second battle of Ypres on 22 April 1915 was so terrifying that they retreated in panic. They left a four and a half mile gap in the Allied lines that only surprisingly rapid regrouping and the German lack of preparation for their own success did not turn into a major German victory.[48]

In World War I, gas continued to be an especially serious problem for the poorly equipped Russians. Although the Russian statistics are extremely soft, the death rate among their gas casualties has been reported at more than eleven percent, even with such protective gear as they were able to manage. This death rate was more than five times that of the Americans. It occurred in spite of the escalation of gas warfare in the latter part of the war when the Russian were no longer belligerents and the fact that cold weather blunted the worst effects of gas warfare against them.[49]

Thus, even the relatively simple chemical weapons of the World War I era can be very lethal against an unprotected or poorly protected foe. A mark of their effectiveness in such a situation is the fact that since World War I all of the handful of universally accepted first uses of chemical weapons have involved nations at least initially without CW defenses.

The same conclusion holds for the far more lethal and far more penetrating modern nerve agents. Used in quantity by a highly

trained adversary, nerve agents have the potential to be extremely deadly. For example, Sarin is a persistent nerve gas developed in the 1930s. Under favorable weather conditions, the Stockholm International Peace Research Institute (SIPRI) has estimated that 4000 kilograms sprayed from aircraft could have a very serious effect on a large force as much as five kilometers downwind. Without good protective gear or in the event of major problems in using it, the proportion of soldiers suffering severe injury or death could be eighty percent and virtually all of the others would suffer some injury.[50]

Thus, the claim that CW is morally preferable because it is less lethal ignores a major caveat. CW is highly lethal against the unprotected or the poorly protected.

A. Does Defensive Equipment Make a Difference?

Supporters of chemical weapons may concede the obvious point that defenses make a big difference in how deadly the lethal agents are. They sometimes argue, however, that using chemical weapons against an adversary with defensive equipment is humane because the equipment essentially converts lethal CW into a mere harassment.

However, the existence of defensive equipment does not save CW morally for two reasons. Most importantly, protection does not convert lethal CW into a mere harassment. With Sarin, for example, under the same conditions discussed earlier, even if the troops were able to put on respirators as soon as the first symptoms appeared, twenty to thirty percent are still likely to be killed

or to suffer severe injuries.[51] Nor would having protection available necessarily be sufficient for a volatile chemical like hydrogen cyanide, especially in a rocket attack. If the concentration were high enough, the agent could begin to work in as little as thirty seconds, causing high fatalities. Nevertheless, ten minutes later, advancing forces would not even need respirators since it dissipates very quickly.[52]

Even with World War I technology, the low death rate once defenses were devised is only partly a result of the existence of the protective gear. Because of shortages in the gases and in the shells to deliver them, logistical problems with utilizing them, and failure by the regular army to "assimilate" chemical weapons fully into warfare, they were not used as aggressively --and hence lethally -- as they could have been. As noted earlier, only 4.5 percent of all artillery shells expended in the Great War were used for gas. It is thus not wholly coincidental that 4.5 percent of total German fatalities, and 4.2 percent of British and French fatalities came from CW.[53]

Furthermore, the statistics that express the allegedly humane ratio of injury to death given protective equipment have structural problems that systematically misrepresent the proportion of fatal casualties. It was, for example, extremely difficult to tell whether someone who had suffered a lethal attack by a high explosive weapon had also suffered from a lethal gas attack. On the other hand, someone who was merely injured by CW, either alone or in combination with another nonlethal injury, was much more

likely to be reported. Equally importantly, shell shock and even malingering easily mascaraded as the early stages of gas exposure, especially in the latter stages of the war.

Thus, the argument that chemical weapons are morally preferable to conventional weapons because they injure more often than they kill misses the real point. The argument ignores the nature and potential of the weapons as lethal agents. A moderate death rate is not something inherent in the weapon, even the comparatively simple chemical weapons of almost seven decades ago. The contingent fact that this nature was not completely fulfilled in World War I[54], for example, does not make the weapons more humane.

B. Intent to Kill

The second reason protective gear does not save CW morally has to do with the concept of intention. A person is morally responsible for (at least) the intended effects of her actions. We intend (at least) the foreseen or foreseeable results of our actions that contribute to the ends of a given project. When a general orders the use of CW in the hope of winning a battle, the deaths that occur are in no meaningful sense a mere side effect. Whether they are low or high, they contribute directly to his desired end, winning. Thus, he should not get moral credit if, through the actions of the defenders, the lethality rate turns out to be low.

Certainly every action within the actor's control is directed to

producing death. As weapons, chlorine, phosgene, mustard gas, and today's nerve agents are designed to be as deadly and as penetrating as possible. By delivering the chemical weapon, the side using the lethal agents is doing everything it can do to kill. Only the actions controlled by the intended victim can prevent the normal train of events from occurring: exposure to a toxic agent followed by death. We do not consider a bad shot or the perpetrator of a burglary foiled by the householder more moral than a successful one for failing. Neither a criminal nor his gun will receive greater moral approval if he shoots at the police expecting them to be wearing bullet-proof vests.

A simple illustration of the fact that merely inconveniencing the enemy was and is not all that is intended by the users of lethal chemical weapons can be found by considering the nature of the agent employed. If "all" that is intended by one who uses chemical weapons is to force the enemy into the protective gear, why not remove any possibility of "accidentally" killing the victim by delivering an equally penetrating, nasty, but nonlethal agent? It would seem that if soldiers really do not intend to kill their opponents with phosgene, mustard gas, or modern nerve agents, they are at minimum guilty of an odd kind of reckless endangerment.

Thus, although killing the opposing soldiers is not in itself culpable, the fact that fewer may in historical fact be killed does not accrue to the credit of the planners or the weapons. Once again, the argument that chemical weapons are more humane than high explosive weapons fails.

IV. CONCLUSION

Chemical warfare is not more humane than conventional war using high explosive weapons. This conclusion leaves intact a moral situation in which a potential user is proposing to employ a weapon that violates the rights of soldiers and offers a strong likelihood of violating the jus in bello rule requiring discrimination between combatants and noncombatants in fighting wars. Whether the tactical and strategic characteristics of chemical weapons are sufficiently attractive to lead large numbers of political leaders to reject wholesale both tradition and moral argument is a matter of violent controversy. Severe logistical disadvantages and political considerations battle the possible advantages of technological prestige, morale destruction and the image of quick death for unprotected enemies. However, these are prudential arguments for CW rather than moral arguments. They may eventually carry the day and change tradition and practice.

But today, a leader who uses lethal chemical weapons should know that he or she is adding an evil to the already existing horrors of war.

NOTES:

[1]U.S. Congress, Congressional Record, 69th Congress, 2d Sess., 1926, LXVIII, Part 1 (Washington, DC: Government Printing Office, 1927), p. 368.

[2]New York Times, January 23, 1975, p. 2.

[3]Mandelbaum, Michael, "Nuclear Weapons and Chemical and Biological Weapons," in The Nuclear Revolution: International Politics Before and After Hiroshima (Cambridge: Cambridge University Press, 1981), p. 38.

[4]Meg Greenfield, "Leave the Taboo Alone," Washington Post, January 3, 1989.

[5]Fotion N. and G. Elfstrom, Military Ethics: Guidelines for Peace and War (Boston, London and Henley: Routledge & Keegan Paul, 1986), p. 168.

[6]Stockholm International Peace Research Institute, World Armaments and Disarmament, SIPRI Yearbook 1982 (London, Taylor and Francis, 1982), p. 336, cited in Elisa Harris, "Chemical Weapons Proliferation in the Developing World," Royal United Services Institute and Brassey's Defence Yearbook 1989 (London: Brassey's Defence Publishers, 1989), p. 69.

[7]Edward M. Spiers, Chemical Warfare (Chicago: University of Chicago Press, 1986), p. 31.

[8]See, for example Brad Roberts, "Chemical and Biological Weapons: New Technologies and the Prospects for Negotiations," final draft chapter from Strategy, Arms Control, and Technological Change (forthcoming 1989), p. 5.

[9]Stockholm International Peace Research Institute, The Problem of Chemical and Biological Warfare, vol. 4, CB Disarmament Negotiations, 1920-1970 (Stockholm: Almqvist and Wiksell, New York: Humanities Press, 1971), p. 21.

[10]ibid.

[11]Geissler, Ehrhaard ed., Biological and Toxin Weapons Today, (Oxford, England: Oxford University Press, 1986), p. 16 lists 108 parties as of December 31, 1985; Roberts, "Chemical and Biological Weapons," p. 18 cites 115 parties; Matthew Bunn, "Paris Conference Condemns Chemical Weapons Use, Arms Control Today vol. 19, No. 1 (Jan./Feb. 1989), p. 27 notes that more ten states signed the Protocol at the Paris conference.

[12]Sidney Axinn, A Moral Military (Philadelphia: Temple University Press, 1989), p. 74.

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[13]I. Brownlie, "Legal Aspects," CBW: Chemical and Biological Warfare, ed. Steven Rose (Boston, Beacon Press, 1968), p. 144.

[14]Stockholm International Peace Research Institute, The Problem of Chemical and Biological Warfare, vol. 3, CBW and the Law of War (Stockholm: Almqvist and Wiksell, New York: Humanities Press, 1973), p. 16.

[15]Michael Walzer, Just and Unjust Wars: A Moral Argument with Historical Illustrations (New York: Basic Books, 1977), p. 39-40.

[16] See, for example, National Conference of Catholic Bishops, The Challenge of Peace: God's Promise and Our Response, A Pastoral Letter on War and Peace (Washington D.C.: United States Catholic Conference, 1983), p. 34; and Committee of Inquiry on the Nuclear Issue, Commission on Peace, Episcopal Diocese of Washington, The Nuclear Dilemma: A Search for Christian Understanding, p. 70.

[17]See, for example L. F. Haber, The Poisonous Cloud: Chemical Warfare in the First World War (Oxford, England: Clarendon Press, 1986), p. 290; J. B. S. Haldane, Callinicus: A Defence of Chemical Warfare, with a new introduction to the Garland Library edition by Semour 1. Chapin (1924: Today and Tomorrow Series; reprinted: New York and London: Garland Publishing, Inc., 1972), p. 2-3.

[18]See, for example, Frederick J. Brown, Chemical Warfare: A Study in Restraints (Princeton, N.J.: Princeton University Press, 1968), p. 40-42, 475; Spiers, Chemical Warfare, p. 83, 87. Haldane, Callinicus, p. 27-28.

[19]T.J. Gander, Nuclear, Biological & Chemical Warfare (London: Ian Allan, Ltd., 1987), p.70.

[20]Robinson, J. Perry, "Chemical Weapons," in CBW: Chemical and Biological Warfare, ed. Steven Rose with the assistance of David Pavett, (Boston: Beacon Press, 1968), p. 32.

[21]Walkins, O.S., Methodist Recorder (London), quoted by A.A. Fries and C.J. West, Chemical Warfare, (New York: McGraw-Hill, 1921), p. 11-12, quoted by Brown, Chemical Warfare, p. 14.

[22]Robinson, "Chemical Weapons," p. 33.

[23]Haber, Poisonous Cloud, p. 255.

[24]United Nations, Department of Political and Security Council Affairs, Report of the Secretary General: Chemical and Bacteriological (Biological) Weapons and the Effects of their Possible Use (New York: United Nations, 1969), p. 29.

[25]Hugh Stringer, Deterring Chemical Warfare: U.S. Policy

Options for the 1990s (Washington: Pergamon-Brassey's International Defense Publishers, 1986), p. 6.

[26]T. J. Gander, Nuclear, Biological & Chemical Warfare (London: Ian Allan, Ltd., 1987), pp. 77, 81.

[27] R. L. Wagner and T. S. Gold,"Why We Can't Avoid Developing Chemical Weapons," Defense 82 (July 1982) p. 4.

[28]Roberts, "Chemical and Biological Weapons," p. 6.

[29]Stringer, Deterring Chemical Warfare, p. 6; Fotion and Elfstrom also note the emotional aspect of CW exposure in their discussion of the subject (Fotion and Elfstrom, Military Ethics, pp. 168-169).

[30]Robert L. Holmes, On War and Morality, Studies in Moral, Political, and Legal Philosophy, ed. Marshall Cohen (Princeton: Princeton University Press, 1989), p. 43-44.

[31]ibid., p. 44.

[32]ibid.

[33]Haber, Poisonous Cloud, p. 237.

[34]Congressional Record, Dec. 9, 1926, p. 153.

[35]Haldane, Callinicus, p. 33.

[36]Haber, Poisonous Cloud, p. 230-237, provides a brief but interesting account of the reactions of British poets and writers to gas warfare.

[37]Brown, Chemical Warfare, p. 36.

[38]P. Von Deimling, Reminiscences (Paris: Montaigne, 1931) in Hanslian,Rudolph, The German Gas Attack at Ypres, trans. U.S. Army (Berlin: Verlag Gasschutz und Lufschutz G.m.b.h., 1934), p. 9, quoted in Brown, Chemical Warfare, p. 40.

[39]Gander, Nuclear, Biological, and Chemical Warfare, p. 76-91; Spiers, Chemical Warfare, p. 9.

[40]Brown, Chemical Warfare, p. 36 describes this effect of chemical warfare on morale.

[41]Wilfred Owen, "Dulce et Decorum Est," The War Poets, ed. Robert Giddings (London: The Paul Press, Bloombury Publishers, 1988), p. 119.

[42]Congressional Record, December 9, 1926, p. 144.

[43]Congressional Record, December 9, 1926, p. 149. In a thoroughly researched recent study of the use of chemical weapons in World War I, L.F. Haber concludes the post-war American casualty reports of approximately 73,000 injured and wounded found in A.M. Prentiss, Chemicals in War, [New York and London, 1937], p. 653-654 to be accurate. The Americans had only one year to keep track of and they tried harder than any of the other belligerents to keep accurate records of CW casualties. Other estimates of American gas casualties are in the range of 70,500 (Gilchrist, H.L. A Comparative Study of World War Casualties from Gas and other Weapons, (Washington DC, 1931), p. 17-18) to 75,767 (General W.L. Sibert, testimony before House of Representatives Committee on Military Affairs, 1919, U.S. National Archives, RG287, Box Y5890, Ar5, Part 10, p. 537, 543]) (Haber, The Poisonous Cloud: Chemical Warfare in the First World War, p. 243.)

[44]Congressional Record, December 9, 1926, p. 147.

[45]Walzer, Just and Unjust Wars, chapters 2 and 3, especially pp. 39-40. John Finnis, Joseph Boyle, and Germain Grisez, Nuclear Deterrence, Morality and Realism (Oxford, England: Clarendon Press, 1987), p. 86 make the same point.

[46]Walzer, Just and Unjust Wars, especially chapters 2 and 3; Finnis, Boyle, and Grisez, Nuclear Deterrence, Morality and Realism, p. 86.

[47]Haber, Poisonous Cloud, p. 39.

[48]Spiers, Chemical Warfare, p. 16-17; Haber Poisonous Cloud, p. 32-35; Gander, T.J. Nuclear, Biological & Chemical Warfare, p. 13-16; Brown, Chemical Warfare, p. 11-12.

[49]Spiers, Chemical Warfare, p. 26, 32. These figures should be accepted only as indications: Haber concludes the Russian statistics are so unreliable in quality that he eliminates them from his calculations. (Haber, Poisonous Cloud, p. 243.)

[50]Stockholm International Peace Research Institute, The Problem of Chemical and Biological Warfare, vol. 2, CB Weapons Today (Stockholm: Almqvist and Wiksell, New York: Humanities Press, 1973), p. 140.

[51]ibid., p. 140.

[52]Manfred R. Ham, "Deterrence, Chemical Warfare, and Arms Control," Orbis vol. 29, no. 1 (spring 1985), p. 140.

[53]Spiers, Chemical Warfare, p. 31.

[54]Spiers, Chemical Warfare, p. 32 agrees.