# HONEST LANGUAGE SEMANTICS OF THE NUCLEAR DEBATE

by

**Hannes Alfven**

Booklet 10

**WAGING PEACE SERIES**

**Nuclear Age Peace Foundation**

## WAGING PEACE SERIES

As far as is known, the term "Waging Peace" originated with Warren Wells, late husband of Ethel Wells of Santa Barbara, in a letter to President Eisenhower. It was a long-standing practice of Mr. Wells to keep in close touch with key national figures and give them his views on peace issues as well as other vital matters. This series is dedicated both as a memorial to him and in gratitude to Mrs. Wells for her continued efforts in this cause.

Just as peace is more than the absence of war, waging peace is more than supporting arms reductions. In addition, it embraces positive steps toward genuine harmony. In this series the Foundation will distribute short booklets stressing ideas for attaining peace. Some publications will be scholarly, others more popular in style—most will combine elements of both. Concepts expressed will include views of many authorities, and will not necessarily be those of the Foundation.

Suggestions for topics and your reactions to this issue are welcome. Quantity lots are available at minimal charge from the Nuclear Age Peace Foundation.

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## INTRODUCTION

Language plays an extremely important, but often unrecognized, role in determining what we think, believe and do. It is the screen through which our perceptions and understanding of the world are filtered, and communicated to others. Yet, despite its importance, it seems natural for us to take language for granted. We are so immersed in its use that we generally go about our lives without stopping to examine the critical role it plays in determining our viewpoints.

Language unobtrusively envelops our beliefs and behavior just as air surrounds us in a way so natural that we seldom stop to recognize its presence. When the quality of our air deteriorates sufficiently, however, we can generally recognize that our health and even survival are threatened, and therefore that steps must be taken to restore and maintain air quality. When our language deteriorates, the warning signs of danger are less clear.

In this issue of **Waging Peace** Nobel Laureate Hannes Alfven of Sweden explains how our language has created blindspots in our thinking that keep us from recognizing both the perils we face and the moral implications of the nuclear arms race. The bottom line for Professor Alfven is that a badly polluted language may ultimately be even more dangerous to our health and survival than is badly polluted air.

Unlike many environmental hazards, one of the great dangers of radiation is that it cannot be directly perceived by our senses. We must rely upon instruments more sensitive than our own sense organs to detect dangerous levels of radiation in our environment. Instruments will not help us, however, in detecting dangers in our language. We must rely upon our intellects, and the task is doubly hard because we must use language itself to evaluate the dangers.

If we are to "change our thinking" as Einstein warned we must, we need to clarify our understanding of the perils and opportunities of the nuclear age. An excellent starting point is the careful examination of the camouflaged assumptions in our terminology which guide our thinking. In a world filled with nuclear weapons, we cannot afford to conceal, even inadvertently, offense within defense, insecurity within security, nor war within peace. Clarifying our language may be the starting point for reassessing and reorienting the thinking which has fueled the nuclear arms race.

We hope that your thinking is stimulated by this issue of **Waging Peace**. Please let us know if you would like friends or associates to receive copies.

David Krieger
President
Nuclear Age Peace Foundation

## HONEST LANGUAGE
### Semantics of the Nuclear Debate

When Confucius was asked what the first thing was he would do if he became Emperor of China, he answered: "The most important thing would be 'the rectification of words.'"

In modern language this means that semantics is very important: we must use the correct words for everything we speak about.

This principle is applicable to the nuclear debate. Those who strive to stop the nuclear arms race risk losing every debate as long as they accept the euphemisms used by the leaders of the arms race in place of more appropriate terms. We shall try here to find translations for the terminology which the powerful scientific, industrial, military and political leaders of the nuclear arms race have succeeded in getting so generally accepted that what they really do is **camouflaged**. This is a difficult task, but it is of great importance.

## ANNIHILATORS AND OMNICIDE

### Nuclear Arms or Annihilators?

An important euphemism is "nuclear arms." It gives the impression that these arms are similar to old-fashioned arms. In the back of their minds, people may associate nuclear arms with brave knights fighting in shining armor. But the criminal pressing the button which will annihilate millions if not billions of civilians, including women and children—or rather, torture them all to death—is doing nothing heroic. Annihilators would be a more precise term for such arms.

### Nuclear War or Omnicide?

The American philosopher John Somerville has coined the

term "omnicide" (suicide-genocide-omnicide) as an adequate description of what the full use of annihilators would result in. This term omnicide is even more appropriate now, when it appears likely that a full-scale nuclear attack would result in a nuclear winter.

## SCIENCE AND NUCLEAR WAR

### Progress of Science

The nuclear threat of annihilation is a product of the so-called "progress of science."

We should note that "science" has several meanings. It meant initially "natural philosophy" (reine Wissenschaft), the unbiased investigation of nature. But nowadays it is more frequently used for the application of science for technical purposes, with the result that large branches of science have turned into a threat to us all. It is inappropriate to use the term "progress" for an activity which is as opposed to life as anything could be.

### Discovery of Fission

Years ago some scientists discovered nuclear fission and later others enthusiastically worked at making nuclear fission increasingly more terrifying. At present more than half the scientists in the world are paid directly or indirectly by the military or political establishments. On the other hand, there are a great number of scientists who, since the Manhattan Project, have protested as strongly as possible against the development of annihilators.

### Finding the Truth

Are scientists qualified to take part in the nuclear debate? By profession, scientists explore the world around us, the microcosm of atoms, the macrocosm of galaxies, and the biosphere with all its infinite complications. A particularly interesting part of the biosphere is human society, which is studied by such disciplines as sociology, psychology, criminology and political science. In each of these fields, scientists of different specializations try to find the truth in



an unbiased way. One of the most important puzzles is why man, who normally lives in peace with others, sometimes kills another individual—homicide—and why he sometimes kills thousands or millions of other individuals—war or genocide. At present, a general madness appears to be sweeping the world, and humanity is girding its loins for omnicide, the killing of all of us.

### Telling the Truth

What role can scientists play? It is our profession to clarify the truth to ourselves and to our colleagues. It is also our duty to tell everyone the truth and nothing but the truth: to educate people about the real state of the world.

It has been thought that this should be done by whispering advice into the ears of the world's political leaders. Decades of sad experience in the nuclear debate have taught us that this does not work. Politicians are under pressure from many groups more powerful than scientists and, according to the rules of the political game, they listen—they must—to those who can exert the most pressure. Of course they would be concerned if their actions led to world destruction, but clearly they are more concerned about winning the next election or, in dictatorial states, about retaining their power.

### Grassroots Movements

Hence, the only effective remedy for the nuclear threat would be that popular movements become strong enough to exert decisive pressure on the politicians. As I see it, this is the only way to save our culture, our society, and the scientific and technical knowledge on which our civilization is based. I find it very satisfying to see such grassroots movements now developing.

### Scientists and the Arms Race

Is the situation really so dangerous? Yes! It is not necessary for me to repeat all the arguments—they are well known—but I believe that the more you study the present situation, the more terrifying it looks. There are an increasing number of scientists warning against the present

buildup of nuclear arms. Still, it is surprising that more scientists do not speak out. Why do they not? One reason is that most scientists are specialists. To them the most important thing is their latest discovery or latest technical innovation. Whether this is to the benefit or the detriment of humankind is often of secondary interest. They are happy to pass that responsibility to the businessmen, the military men and the politicians, who pay their research grants and salaries. Since destructive results are usually rewarded more generously than others, scientists are often under pressure to accelerate the **race to oblivion.**

### Nuclear Intelligence and Humane Intelligence

But there is a second, deeper reason that scientists do not protest more strongly. Scientists are often—but not always—very "intelligent" people. However, in this context there seem to be two different types of intelligence. One kind is what we may call "nuclear intelligence." The people who possess this count their achievements by how many people their devices can kill: how large a figure they can enter in the **megadeath** column.* Their aim is to make this figure as large as possible for the "enemy" and as small as possible for their own masters. What **megadeath** means in human terms is something they either do not understand or refuse to think about. In particular, they never mention that killing people by nuclear means is not comparable to killing the same number of people by conventional weapons, because radioactive death is not a "heroic" death in the old sense; very often it is a slow torturing to death, as we know very well from Hiroshima.

The other kind of intelligence we may call a "humane intelligence". Those who possess it cannot avoid seeing the meaning of megadeath in human terms. Their intelligence is combined with empathy in such a way that they are compelled to identify themselves with those who would be killed. In their imagination they themselves constitute one

*One megadeath means the death of one million people.



millionth of what the people with nuclear intelligence call a megadeath.

What I am referring to is best explained by a reference to the International Physicians for the Prevention of Nuclear War (IPPNW) or the Physicians for Social Responsibility who, inspired by Helen Caldicott and many others, have started a movement for saving mankind from **The Final Epidemic.** This movement is now the spearhead of a rapidly increasing popular movement. The Union of Concerned Scientists is another example of a group of scientists with humane intelligence.

There are a large number of other anti-nuclear movements. The most efficient one may be Greenpeace. It was attacked by the French Government during a fact-finding expedition to the region in Polynesia where the French were killing the population by their nuclear arms tests. This caused a worldwide reaction with the result that the Greenpeace membership increased dramatically.

### Intelligence Test

How do you separate those who possess nuclear intelligence from those with humane intelligence? You need only listen to what they say for a few minutes. You can judge them by what they advocate: more nuclear arms—or less.

## POLITICAL SLOGANS AND REALITY

### The Real Frontiers

Both superpowers contain fanatics who claim that for moral reasons the other superpower must be destroyed, because it represents all the evil in the world. This is, of course, a naive and highly distorted view. With the threat of annihilation as humanity's most pressing problem, the real boundary lies between those who advocate and produce more annihilators and those who wish to limit, reduce and eventually eliminate them.

So the real frontier in the world is not the frontier

between "capitalists" and "communists." It is between the people with nuclear intelligence and those with humane intelligence.

### Hardware and Slogans

The threat of omnicide derives from two factors, the annihilators themselves, including missiles and airplanes for their delivery, and the political slogans which justify them.

The construction of annihilators and delivery systems is extremely complicated and it is claimed, with reasonable justification, that only experts are competent to discuss these problems. However, this does not hold true for the second factor, the political slogans which are necessary in order to persuade the people of the world to accept the annihilators. These slogans are not at all sophisticated. They are primitive; indeed, stone age man also thought he could negotiate only from a position of physical strength.

Anyone who can read and think is competent to discuss and analyze the problems. In fact, the "experts" are perhaps rather less competent than ordinary people to discuss them because of their professional bias. And many experts possess more nuclear than humane intelligence. Decisive in these discussions is that **honest language** be used.

### Does Reagan Want to Kill Gorbachev or Sakharov?

Let us analyze some of the words of the nuclear debate: Reagan says that the "Russians" and the "Communists" are the permanent enemies of the United States and of the whole "free world," and they represent all the evil of our time. Hence it is necessary to spend billions and trillions of dollars for the "defense" against them, which means more sophisticated nuclear annihilators which are aimed at destroying the Soviet Union, indeed, at producing thousands of Hiroshimas and thousands of Chernobyls there. But less than half of the population of the Soviet Union is ethnically "Russian" and less than 10% of the people in the USSR belong to the Communist Party! If Reagan presses the button he will kill more non-Russians than Russians, and by



far more non-communists than communists. Does it make sense to kill them?

Furthermore, there are a large number of dissidents—the most famous one is Sakharov—whom Reagan rightly considers to be heroes. Does he really want to kill them?

Reagan says that he must have the **first strike option,** that is, the option of suddenly producing thousands of Hiroshimas and thousands of Chernobyls in order to "punish the Russians" if they take any political or military action which he considers to be a threat to the United States or any of its allies. It is perhaps reasonable that he would want to threaten Gorbachev and the Politbureau, who probably would be responsible for the action. But they would most likely be sitting in the safest silo in the USSR, just as Reagan and his colleagues would be sitting in the safest silo in the United States if he were "heroic" enough to press the button. So he would "punish" the Soviet leaders only indirectly, by killing a huge number of innocent people in the USSR. It is not very likely that Sakharov and other dissidents would survive the Hiroshimas and Chernobyls which Reagan's pushing the button would produce.

Furthermore, what is meant by the "free world"? Does not this part of the globe include quite a few of the world's most reprehensible dictators?

### Does Gorbachev Want to Destroy the Country of Marx?

There are many other simple questions about the slogans which every thinking man or woman can, and must, ask. Many of these questions should be addressed to Gorbachev, but because of the asymmetry between the United States and the Soviet Union, they are not the same questions we need to address to Reagan. We have good reason to ask Gorbachev why he deploys so many SS-20 missiles in Eastern Europe directed against Central and Western Europe. Does he do that with the consent of the East Europeans? Has he told his people that this will kill more workers than capitalists? Does he really want to produce

thousands of Hiroshimas and Chernobyls in Central and Western Europe? Is it possible that he does not appreciate the culture he and his country have inherited from Europe? Does he really want to destroy the country of Karl Marx—annihilate it forever?

### Western Europe and Culture

We should also ask M. Mitterand and Mrs. Thatcher whether they know that, if they fire their nuclear annihilators, they will torture millions of innocent people to death and devastate large regions, perhaps forever. Do they realize that nothing similar has been done since the times of Gengis Khan and Tamerlane? Has Mrs. Thatcher compared Tamerlane's roads—marked by pyramids of human skulls—with the misery her Tridents will produce, and realized that such a comparison will make Tamerlane look mild and moderate? Has M. Mitterand compared "la culture Francaise" with the culture of Gengis Khan? Does he understand that the "superiorite de l'esprit" may refer to nuclear intelligence but not to humane intelligence?

Already the killing of Polynesians through the nuclear weapons tests in the Pacific suggests that we now should speak of France as a country which earlier was called "civilized."

### Funds for Mass Killing of Civilian Population

The annihilators are utterly aggressive. Their use will result in mass killing of innocent civilians (either by direct strike or by a following **nuclear winter**). Is it reasonable to call such an activity "defensive"? Only by a misuse of words can citizens be motivated to finance annihilators from the **Department of Defense.** The development and construction of them should be financed—if at all!—from Funds for the Mass Killing of the Civilian Population. In order to demonstrate that this has very little to do with defense, a new department should be organized: **Department for the Mass Killing of Civilian Population** or for **Mass Production of Hiroshimas and Chernobyls**. We should look forward to the debates in Congress and in various Parliaments on how



many billions of taxpayers' money should be allocated for this. We should try to find out when the Politbureaus of the Soviet Union and China introduce this honest terminology in their secret discussions about annihilators.

### Star Wars

We cannot completely exclude the possibility that a partial defense against missiles (by laser beams, etc.) can be constructed in the future, and this is the basis for what is called SDI, which stands for **Strategic Defense Initiative,** usually nicknamed **Star Wars.** This project has been severely criticized by practically all who have studied it without being corrupted by the billions of dollars which are spent on buying scientists to work on the project. The debate has clarified the real character of the project. It aims at developing a new, utterly destructive technology. How can this be referred to as "defense"? By the same misuse of words which we have discussed. It is claimed that in principle an utterly destructive technology can be used even to destroy the destructive missiles before they reach their targets. This is possible if only one or a few missiles are launched, but it is unrealistic if thousands of them are launched simultaneously. The concept of a **strategic defense** is used only to **camouflage** the real character of the project which is to develop a superdestructive technology. What should we call the project if we want to use correct and honest terminology? We could very well call it SDI, but this abbreviation should rather stand for **Super Destructive Initiative**.

## REALISTIC POLICY

### What Policies are "Realistic"?

The enormous escalation of the arms race is now producing a healthy reaction all around the world. With the physicians in the front, rapidly growing groups of scientists are joining the opposition against the **race to oblivion.** However, the main burden of opposition is not carried by scientists but by several other professional groups and by people who are so far from science that they are completely

free from **nuclear intelligence.** The peace movement has already grown strong enough to produce some political results. It is high time to discuss what the strategic aims should be.

Many people believe that it is necessary to be what they call "realistic". This means that they want to accept the power structure of the world as it is today. In spite of all the rosy talk about democracy, the real power is possessed by leading politicians, the military establishments, the economic oligarchies, and the large bureaucratic organizations. If we analyze these complicated networks we find that the poisonous spider in their centers is often a scientist with nuclear intelligence, sometimes a real destructive genius.

It is said that we have to respect these establishments and understand that nothing can be achieved which is contrary to their interests. What we can do is to try to persuade them to modify their actions, slow down the rate of increase in armaments or modify a formulation in an international treaty. It is further said that if those who have power are naive or mad enough to believe that escalating the nuclear arms race is a **realistic** policy, we all have to try to accept this in order to please them.

This method has been tried now for decades, and for decades the result has been small steps forward at the same time that big steps have been taken towards catastrophe. The arms race is escalating, the nuclear situation gets increasingly unstable, and the threat of omnicide more horrifying.

### Hazards of Pacifism

It is essential that the anti-nuclear movement fights the production and deployment of annihilators but, under present conditions, not all arms. It appears at present unrealistic to be a pacifist in the sense of believing that it is possible to get rid of all arms now. Before it is possible to achieve a completely disarmed world, it is necessary to find a way of making such a world stable against aggressors. The victims of aggression cannot be saved by disarmament. Furthermore, in many cases the only hope of getting rid of ruthless dictators is by armed rebellion.

So we must state clearly that our fight against nuclear annihilators and the threat they pose to us all must take precedence over opposition to conventional arms, although we must oppose the production and use of biological, chemical, and similar weapons as well.

### The End of the Deterrence Epoch

That there has been no nuclear war since Hiroshima-Nagasaki is credited to the balance of terror between the "superterrorists," the United States and the Soviet Union. However, it is evident that the deterrence epoch is approaching its end. Modern annihilators are increasingly constructed for first strike attacks.

### Crimes Against Humanity

Against this background, it becomes increasingly evident that a strategy that says it is necessary to negotiate from a position of strength is **either bluff or suicide** (indeed omnicide), as has been stated by competent strategists. This also holds true for all kinds of threats, from any side, to use annihilators for political purposes. All these actions must be considered as crimes against humanity, indeed, crimes committed against ourselves.

The manufacturing of nuclear annihilators is a similar crime against humanity since once manufactured they will sooner or later be deployed. So is any research into increasing the efficiency of annihilators because it is hard, if not impossible, to prevent any new inventions of this kind from sooner or later being manufactured and deployed.

But logic takes us further. Mining uranium, constructing the reactors in which plutonium is produced, and developing easier methods of separating the uranium isotopes are obviously similar activities. If they are not stopped, commercial pressure, which exploits power-greedy poli-

ticians, will spread nuclear material and nuclear technology to an increasing number of states. We have already witnessed the beginning of this process, the acceleration of which will follow automatically. There was a hope that the International Atomic Energy Agency (IAEA) might be able to halt this spread. The way this organization has been run and is run, however, it definitely destabilizes the nuclear situation by spreading nuclear technology and building up nuclear lobbies everywhere. It is probably necessary that there be an international organization like IAEA which controls the spread of nuclear technology. What is wrong with the IAEA is that it is run by the nuclear industry, by people with nuclear intelligence. These must be fired and replaced by people who care for the future of mankind. A drastically new attitude is required. If the present leaders were replaced by people selected at the advice of Greenpeace, the IAEA could become a useful organization, serving peace.

**Life Versus Nuclear Technology**

An analysis of this kind shows that there is no possibility of accepting any nuclear activity at all.* The belief that we can accept some kind of nuclear activity and avoid the inherent risk of omnicide is mistaken. The mere existence of fissionable material coupled with the techniques which enable the manufacturing of nuclear annihilators being in the hands of ruthless political and commercial interests, constitutes a threat to us all.

Until someone demonstrates that it is possible to accept some nuclear technology and remain safe, there is only one conclusion: the sole means of avoiding the increasing threat of nuclear omnicide is to consider **all nuclear activity as a crime against humanity**.

Planet Earth cannot accommodate both life and nuclear

*Exceptions are very small-scale use for medical purposes and as tracers, the purely scientific investigation of the structure of nuclei, etc.



technology. One of the two—life or nuclear technology—has to be buried forever. We have to choose.

**Conclusion: The Only Realistic Policy**

It is not "realistic" policy to limit our actions for saving ourselves from omnicide to those which are acceptable to the political, military, commercial and scientific establishments of today. We have all seen clearly enough that their actions lead to an escalating risk of omnicide. A policy which has such consequences cannot be called "realistic". If we believe that man has a brain to be used for saving the human race from extinction, we cannot allow the present establishments to eliminate the use of the human brain in promoting their short-sighted interests.

The only possible definition of a realistic policy is one which aims at rescuing us from the nuclear threat. Hence, the only realistic policy is to stop all nuclear activity as soon as possible.

Why do we not do so? The Physicians for Social Responsibility have shown that there is no cure for the consequences of a nuclear war. Those physicians who are psychiatrists have diagnosed the present state as a severe psychic disease of mankind. Humanity is threatened by a general madness of destruction, a most serious illness. It is contagious. If one leading politician has been infected, his counterparts in other countries run a risk of also being infected. It is a fatal disease, but unfortunately not fatal only to those who have been infected. It also threatens those who are not. The disease should be called the Super Destructive Illness, or shortened to SDI. For everyone who wants to survive, who wants to save our children and grandchildren, who wants to preserve our culture and everything that man has achieved, the highest priority must be to cure mankind of SDI—the Super Destructive Illness.

## THE AUTHOR

Hannes Alfven, 78, has had an extremely distinguished career as a physicist. His awards include the Nobel Prize for Physics, the Gold Medal of the Royal Astronomical Society, the Lomonosov Medal and the Franklin Medal. His published works include **On the Origin of the Solar System**; **Cosmical Electrodynamics**; **Atom, Man and the Universe**; and **Living on the Third Planet**. Dr. Alfven is professor of plasma physics at the Royal Institute of Technology in Stockholm. He is also a professor at the University of California at Diego.

Essential parts of this paper were published in **Development Dialogue** (1984:1-2), a publication of the Dag Hammarskjold Foundation, Ovre Slottsgatan Uppsala, Sweden. It has also been presented as the Keynote Speech of The First International Conference on Conflict Resolution and Peace Studies held in 1986, the United Nations International Year of Peace, at the University of the South Pacific, Suva, Fiji.

# NUCLEAR AGE PEACE FOUNDATION

**Making the Nuclear Age an Age of Peace—How Can We Do It?**

All of us are aware of the perils and problems of this Age—the threat of nuclear annihilation, the ruinous national debt, and the environmental contamination. We are called upon to make a fundamental turn—a turn toward peace. In this time of enormous danger, more and more people are seeking ways to understand what needs to be done—and how to do it.

**The Nuclear Age Peace Foundation—What Does It Offer?**

The Nuclear Age Peace Foundation is a nonpartisan educational organization which supports innovative thinking geared for action to meet the unique problems of this Age. It is dedicated to reversing the nuclear arms race and to finding non-violent solutions to complex global problems.

**What Are the Foundation's Main Activities?**

It plays a leadership role in analyzing and publicizing the dangers of accidental nuclear war, and its prevention. It publishes the quarterly **International Accidental Nuclear War Prevention Newsletter.**

It publishes 4 to 6 **Waging Peace** booklets each year—offering positive steps toward achieving peace. These are distributed to members and opinion leaders throughout the country.

It administers **annual essay contests** for students on peace-related themes, awards $3,000 in prizes, and publishes the winning essays.

It presents an annual **Distinguished Statesman Award** for courageous leadership in the cause of peace. Recipients thus far include Senator Claiborne Pell, Admiral Gene LaRocque, and Rodrigo Carazo, former president of Costa Rica.

It distributes the **Parents and Grandparents** (and other friends of children) **Call to Reverse the Nuclear Arms Race.**

It sponsors **symposia, conferences and educational programs** on issues related to peace in the nuclear age.

**Who Directs the Foundation?**

Its directors include leaders with wide experience in law, business, education, psychology and journalism. Its distinguished Advisory Council and Consultants Group include Nobel Laureates, scientists, physicians, religious and business leaders.

**How Can You Take Part in Its Work?**

We seek your active involvement, your ideas and your financial support. Tax deductible donations to the Foundation come from people in all walks of life—people who want to seize the constructive opportunities of the Nuclear Age by ending the threat of annihilation and moving toward a secure future for our children and grandchildren.

**NUCLEAR AGE PEACE FOUNDATION**
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