



DISCUSSANT RESPONSE

by

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to Marcelo Alonso's

NUCLEAR PROLIFERATION: PAST, PRESENT AND FUTURE

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COMMENTS ON PAPER BY DR. ALONSO
"Nuclear Proliferation: Past, Present and Future"
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First, I would like to underline that I found Dr. Alonso's paper very informative and--what is much more rare in this specific field--very realistic. I would like, however, to insist on a few aspects that are, in my opinion, worthy of some development.

Dr. Alonso mentions that nuclear nonproliferation efforts are, like all disarmament efforts, essentially of political nature, and that they are effective only to the extent that countries really renounce nuclear weapons and are prepared to severely sanction those who do not. These two assertions seem to me quite essential. But can we say that the attitude of most countries, including the most vocal advocates of nonproliferation, conform to these principles, or rather that they applied the nonproliferation principles as long as other considerations important to them--let's call them general policy--did not contradict those principles.

PAST EXPERIENCE

It must be recognized that the countries which had the industrial and economic capability, and the political will,

developed to the mid-1960s their nuclear capabilities without any severe sanction from the others, even if new additions to the nuclear club were not necessarily welcomed by the existing members.

To put it clearly, up until the mid-1960s horizontal proliferation was tolerated, and--probably not by pure coincidence--was limited to the five permanent members of the UN Security Council. In this way, also, those five countries extended the politico-military dominance of the victors of the Second World War for some decades to come. This was formalized in the discriminatory character of the Nuclear Nonproliferation Treaty (NPT) (see below).

As regarding vertical proliferation, it is well known that up until recent developments--the disappearance of East-West confrontation--nuclear disarmament was not seriously implemented either by the USA and the USSR, or by the other three NWS.

The only serious opportunity of preventing nuclear proliferation was missed in 1945 because the Soviet Union would not admit a dominant position in the field by the USA, and the USA, as far as one can tell, was not prepared to abandon its dominance by destroying its own nuclear weapons capability and accepting a truly effective international inspection regime to monitor the absence of nuclear weapons and nuclear weapons industries.

One can, of course, ask whether, in the general confrontational political climate of the mid-1940s, it was

even possible to organize an effective international regime to control the absence of nuclear weapons and the capability to build them.

All these early developments clearly point to the pre-eminence of general politics over the specific objective of nonproliferation of nuclear weapons: weapons which, up to now, have been treated, in fact, more or less in the same way as other lethal weapons (biological, chemical...) as a factor in the power play, and this in spite of the apparent pre-eminence given to the nuclear nonproliferation effort which, up to now, seems rather futile and addressing only peripheral issues.

Indeed, what really happened with the advent of the Nuclear Nonproliferation Treaty (NPT) in 1970? First, even if we forget the previous horizontal proliferation, what are the sanctions against the new de facto weapons states that are not signatories of the NPT but which are at least, as Dr. Alonso mentioned, India, Pakistan and Israel? It is well known that the former USSR maintained privileged relations with India, China with Pakistan, and the USA (and formerly France) with Israel. Not only were no sanctions applied for these countries' nuclear weapons efforts, but in some cases the NWS themselves helped these new weapons states to obtain their bombs--as Dr. Alonso indicates explicitly for some and implicitly for others.

Another clear example of the pre-eminence of general politics over nuclear nonproliferation is given by the US policy towards Pakistan during the war in Afghanistan.

Second, if we consider the signatories of the NPT, there are still some difficult points which make the treaty inefficient. In theory, there can be only two kinds of countries adhering to the NPT: the haves and the have-nots. In fact, there are certainly major differences in treatment between countries considered by the NWS as serious and responsible, and the others. No-one is seriously trying to limit the potential capability of making nuclear weapons, and even the possession of nuclear-grade fissile materials, of countries like Germany, Japan and Canada, and even to some extent others like Sweden, Switzerland, Italy, Belgium, or the Netherlands.

On the other hand, this capability and this possession are denied to other non-nuclear weapons states (NNWS), notably those considered as serious candidates for weapons development.

It is well known that the NPT is a discriminatory instrument, since from the beginning it established the two categories of weapons states and non-weapons states. However, the additional discrimination between non-weapons states signatories of the NPT poses at least two serious questions: First, will the "responsible" NNWS always accept voluntarily, as they do now, not having nuclear weapons? And

will they remain "responsible" permanently? And second, does this clearly hypocritical attitude not weaken the NPT itself, which is already rather weak but could lose the little moral and ethical value that it yet may have in the eyes of potential proliferators because of its unfair application by the dominant forces behind the treaty?

Finally, and perhaps most importantly, the major weakness of the NPT was clearly demonstrated by the example of Iraq.

This example shows that even a suspect country that had signed the NPT was able to develop a broad infrastructure for production of nuclear weapons right under the nose of IAEA inspectors (ironically, we can note that the chairman of the 1980 NPT review conference was an Iraqi). Indeed, only a voluntary action by Saddam Hussein--invasion of Kuwait--prevented Iraq from becoming a nuclear weapons state, which probably would have happened by now.

This is a clear illustration of the weakness of the inspection system as well as the sanction system, or lack of it--weaknesses which some of us pointed out many years ago.

The positive aspect of the Iraqi experience is the apparent very high cost of their program. Indeed, due to restrictions in international commerce and their will to hide the program from international scrutiny, the Iraqis spent much more money than is needed for an efficient, minimal weapons development program. Therefore, it can be expected that there are not many countries that can afford this kind

of expenditure and that can carry out such a program without being noticed.

Unfortunately, the role of the IAEA and its inspectors seems completely inefficient in this case, and the only difficulty that the Iraqis had to face were the restrictions on commerce in nuclear-weapons-related materials, technology and equipment applied by exporting countries--separately from the IAEA and the NPT.

Even if I can generally agree with Dr. Alonso that the connection between peaceful nuclear power and nuclear weapons is a myth put forward by opponents to nuclear power--as demonstrated by all past developments of nuclear weapons, which involved no real power plant because this would be unnecessary and inefficient--I must say nevertheless that the transfer of technology, and transfer of knowhow, do in one way or another link peaceful nuclear development and potential weapons development. I therefore believe particular attention should be paid to this issue, especially in the field of the nuclear fuel cycle, where reprocessing and uranium enrichment facilities should be under strict international supervision or belong to the nuclear weapons states.

PRESENT

The most worrisome problem today is certainly that of the so-called "instant proliferation" following the

transformation of the Soviet Union into a collection of independent states (CIS). Here, I am more pessimistic than Dr. Alonso. The sense of responsibility of the former USSR's engineers and scientists is no doubt as great as that of their western colleagues, as mentioned by Drs. Alonso and Kapitza. Unfortunately, human beings do not act only according to their principles, but also are influenced by external conditions. Some of the former Soviet scientists and engineers who may no longer have any objective or task to accomplish and who, contrary to their Western counterparts, may have difficulties in ensuring a decent living for their families, may represent a relatively easier target for headhunters acting for various countries looking to develop their nuclear technology and knowhow.

Of even more immediate concern may be the attitude of some who are in the position to control weapons-grade nuclear materials, or even nuclear warheads, and who may be subject to a difficult environment similar to that mentioned above. In addition, powerful and extremely feared Soviet organizations, such as the KGB and military security, have certainly lost much of their deterrent power and thus will be less efficient in opposing any attempt to divert nuclear materials or weapons.

On a more general and psychological plane, the motivations of people in the former Soviet Union are undergoing an extremely sudden and difficult transition.

They have lost the Communist ideal, and it has been replaced only by the free market ideology and therefore amassing money seems the important goal. Moreover, other spiritual values, like religion, that could provide an alternative idealism were weakened during the past 75 years under Communist dogma.

In some cases, new nationalism and religious fundamentalism may also play a destabilizing role in favoring exports of nuclear materials, weapons or technology by some groups to their "friends."

In addition, the problem of disposal of weapons-grade materials coming from the dismantling of nuclear weapons adds to the severity of the above-mentioned concerns.

This specific issue of nuclear warhead dismantlement has attracted attention, and solutions have been proposed. The most rational appears to be dilution of the high-enriched uranium to provide fuel for power reactors and construction of fast neutron reactors to burn the plutonium. As suggested by Prof. von Hippel, this could be complemented by temporary storage of recovered fissile materials in international facilities until their further use as reactor fuel.

It seems that this general problem of instant proliferation from the existing stockpiles of nuclear grade materials, nuclear weapons, or nuclear-grade materials coming from dismantlement of nuclear warheads is a major issue, to be tackled on the highest priority by all parties concerned.

THE FUTURE

The future of the nonproliferation regime depends, as was pointed out by Dr. Alonso, on the will of the concerned countries. It seems that the majority of countries accept today the idea and, if I may say so, the ideal of nuclear nonproliferation. Thus the regime of international nonproliferation should be directed towards the few countries which do not accept that ideal for specific reasons such as the dominance of the existing nuclear weapons states or regional conflicts (India, Pakistan, and to some extent Israel). The motivation of those countries must be understood and proponents of nonproliferation must act to dispel their concerns, which in some cases are legitimate, by ensuring:

- that nuclear weapons will not be used by one country or a group of countries as a way to dominate the others,
- that their peaceful existence will be guaranteed by the international community, not only against nuclear attacks but also against some other major threat coming from a more powerful neighbor.

That is to say that the nuclear nonproliferation regime cannot be separated from a general effort of establishing a peaceful climate worldwide.

The NPT seems to be, as outlined above, weak and inadequate. However, we may wish, for pragmatic reasons to

maintain the NPT as at least a step in the right direction, as suggested by Dr. Alonso. In any case, with or without the NPT, we should address some major questions:

- First, a more aggressive destruction of existing warheads and weapons capabilities, as the NPT provides for and as has been begun as a consequence of the end of the Cold War;

- Second, the issue of realistic and efficient control, which cannot be based on goodwill of the controlled country and must address much more widely exports of technology and knowhow transfers, abnormal financial expenditures of a given country, and to use the rather broad-based intelligence knowledge that exists in different national governments but up to now, not in an international organization such as the IAEA;

- Third, the issue of sanctions, which up to now are very unclear and--even in the case of blatant violation such as Iraq's--are still not well-defined;

- Finally, we must achieve more consistency between formal positions and reality by addressing the case of NPT non-signatories, notably those which are de facto nuclear weapons states, and the question of the difference between "reliable" states which have potential for becoming NWS, and the others.