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W. S. Parsons
U.S. Navy

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CAPABILITIES OF THE ATOMIC BOMB, INCLUDING NAVAL THINKING ON ITS EMPLOYMENT

Extracts from a Lecture by
Rear Admiral W. S. Parsons, U.S.N.
at the Naval War College
February 16, 1950

My lecture is supposed to be about naval thinking on the employment of the atomic bomb. I find difficulty in separating naval thinking from military thinking and national thinking in this case. I don't think that you can draw any sharp or beneficial distinction between them. They necessarily interact on each other and are included under this heading of national thinking.

It is necessary even to go into what we mean by thinking itself. I have been impressed by the type of thinking which has gone on since 1945. I've followed it rather carefully, and I have been affected by it. I think the term "visceral thinking" applies to quite a lot that has been done since 1945. There are inarticulate visceral thinkers, who take a set of facts and draw some most remarkable conclusions from them. The inarticulate visceral thinkers are of the type who do not pay much attention to newspapers and radio programs. They are almost impervious to what we call propaganda. They are also inarticulate because they don't read much and certainly wouldn't think of writing very much. Those people take a set of bare facts such as these: "We had to land in Normandy; we had done a lot of bombing; in spite of that we had to march through on the ground. But when we dropped two atomic bombs on Japan they surrendered." That's all they think

Admiral Parsons is presently on duty with the Weapons System Evaluation Group, Office of the Secretary of Defense. He has been associated with the atomic bomb project since 1943 and was bomb commander at the Hiroshima bombing.

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of, and then don't analyze it at all. That, I think, is behind a great deal of the terrific worry and pressure which has prodded and harassed the Atomic Energy Commission and has maintained the atomic energy program. That is plain reflex-deduction from a set of facts without any critical appraisal of those facts, what went behind them, or anything else. Their conclusions are drawn: "A surrender of Japan occurred after two atomic bombs were dropped. A surrender did not occur in Europe because atomic bombs were not used."

The articulate thinkers, including some atomic scientists for the first several years during the pre-Blackett era of articulate thinkers, created the concept of the "absolute weapon." They were using "visceral thinking" but they were rationalizing and dressing it up in very impressive language. That concept of the "absolute weapon" was still obtaining in full force when I spoke here in September, 1948. I found it necessary to go into it, to go into its expression, its impact on concepts which were being reported as war plans, and I had to work it over rather thoroughly. Then within three weeks, Dr. Blackett's book came out. The British edition that came out first, was called "Military and Political Consequences of Atomic Energy." The American edition was titled "Fear, War and the Bomb." The book is a most remarkable analysis. I would say it is by far the best presentation in English, of the Russian point of view. It really sharpened the issues in this case and it was a terrific shock to many of our highest-powered scientists who had been associated with radar, atomic-energy development, proximity fuse development, and had seen their work bear fruit in important military consequences during the war. Dr. Blackett had received the American Medal for Merit for his very fine work in anti-submarine operations analysis during the war. He was given similar decorations in England, I believe. As his book was pub-

lished he also received the Nobel Prize for his work, beginning in the early twenties, in nuclear physics. Doctor Blackett had been an officer in the Royal Navy during World War I. He had then gone into physics. He had about the best mental equipment for operations analysis and scientific military appraisal of any scientist of his time. That was quite a shock, as I say, to our scientists who had thought that their analyses of military consequences and military tactics should be absolutely sound because they had used scientific methods in producing them. This was a demonstration, by one of the best equipped, best thinkers among physicists and scientists in general, that you could take a set of facts, that you could handle them in apparently scientific fashion and you could prove practically anything that your apparent religion and philosophy demanded to be proved, and do it, not in Russia, but right in England, using the accepted terminologies and accepted operations research methods.

It was a terrible blow to our Operations Analysts and other scientists in the United States to have one of their most eminent members write this book. That was independent of the impact of the book itself. I have just given the impact on the scientists. The book probably had a beneficial effect in many ways, because it sharpened the issues and caused people to re-examine the facts to see how Blackett could be combatted. That was the beginning of a new era in the articulate arguments on atomic energy and its military consequences.

That illustrates to me a very necessary thing in working over facts, particularly intelligence observations and in thinking of what Russia, for instance, can do under certain conditions. To go back to Ptolemy and Copernicus, you can say that imagining the sun and the stars as revolving around the earth because it "looked that way" was an example of "visceral thinking" which was dignified by some of the best so-called scientists for hundreds of years. The

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accurate, correct interpretation had to be fought over for just that length of time before people would actually look at this set of facts and derive the correct conclusion from them.

I will now mention another recent shock. We operated under a semi-dictatorship in World War Two. We had absolute priority of effort, and we got results like the Manhattan District, production of aircraft and production of fleets. We then demobilized and concentrated on automobiles, television and like things. But we forgot that Russia had not demobilized and was still operating under a dictatorship more rigid and perhaps as dynamic as the one that we had operated under in World War Two. We did not take account of certain little red flags that were flying. I'm leading up to this shock that we experienced when the announcement came out on the 23rd of September about a Russian atomic explosion. We were quite shocked. But if we had thought of certain things which had occurred, such as the obvious flying around of wing jet fighters and many copies of our B-29, when we knew how hard it had been for us to put anything like that number into the air, we would have been less shocked. Those red flags indicated that regardless of how inefficiently rail transportation and various other routine operations were carried out in Russia, when they assigned top priority to a job, it really rolled. That made it not too much of a shock to some of us who had been observing those red flags flying. But indicates the kind of trap into which we can fall when we sit in one type of organization, one type of climate, one type of pressure and try to estimate what someone else is going to do, living under a completely different system with different motivations.

That leads me into one or two final points. I was very much impressed with the talk General Marshall gave this week at the National War College. I'll mention just one of his points.

He was commenting on the old Army War College, but I think his remarks applied to war colleges in general. He said that it is very necessary to be as concrete as possible in plans and to get away as far as we can from purely abstract statements. He warned that the difficulties we had had with Army War College Command and Staff schools and staff people, were their tendency to deal in the abstract rather than the concrete. He gave an illustration occurring at an early peak of activity, say in 1939, '40 and '41, when he, as Chief of Staff, and as Deputy Chief of Staff before that, was facing concrete problems not very far away from the Army War College. They were taking it very easy with their two-week maneuver, or whatever it was called. He said that he would like to expose them to some of the real facts of life, and the way it would occur would be this: They would be given two-thirds of the necessary information for working out a problem on Saturday noon; they would work over the week-end at highest pressure on those two-thirds of the problem; on Monday, they would be given the missing third which showed that they would have to throw all their work over the week-end into the waste-basket; on Tuesday the rules would be changed, and on Thursday the whole solution would be thrown out.

Citing the need for realism and concreteness does not imply ability to predict events. Dr. Isaiah Bowman, retiring president of Johns Hopkins made a pertinent comment when we asked him how he had made such very good predictions of events to come. In the last fifteen years, he has been credited with having hit the nail on the head with many of them. In denying this ability he said, "I don't think that it is possible for anyone to predict in detail what will happen. The actual event depends too much on pure accident and the personalities of people involved."

The problem of predicting military and political trends may be compared with weather prediction. You take the distribution of energy throughout the atmosphere; barometric pressure, temperature, etc. If it is evenly distributed and the atmosphere is fairly placid, not much is going to happen, and you are not too interested in that particular situation. But as you get pressure gradients, which means momentum of the air masses the dynamic trends appear. It is certainly possible to make general predictions, but not detailed predictions as to what will happen in any given locality. Similarly, it has been possible to detect human and power pressure gradients and to imagine them as they appear on a weather chart. Then the general predictions can be made. The general precautions can be taken, but in detail you can't do it. If we look back over the week before Pearl Harbor we can, I believe, see that in almost any way that the game might have been played, it should not have turned out the way it did. But it is impossible to make a detailed prediction of that type without tactical intelligence which itself would change events.

Finally I would say that while the splitting of the atom has been credited with causing all of our headaches, I don't agree. We are turning the pages of history. We cannot turn them back and we cannot seal the next chapter. The facts of physics, the subtle threats of chemical warfare, of bacteriological warfare, and of radiological warfare without bombs, may be ominous. They are all from inanimate matter. A threat of atomic bomb is, as I said first, very non-subtle and very violent. Therefore, since it is spectacular, it is very convenient to lay the sins of mankind upon the uncontrolled atom. Some people seem to hate to turn the next page of history. They are afraid to see what they will read in that next page. I don't think that is sound. I think that the soundest way to express it is that it is not the atom which is out of control or may get out of control, it is the human. However, we can read the

lessons of history, and get some reassurance from them with respect to the probability of the human getting permanently or too tragically out of control.