

THE STAR WARS DILEMMA
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Many of the ongoing debates in the press and on television concerning the feasibility or desirability of the Strategic Defense Initiative (SDI), popularly called "Star Wars," have bothered me because they usually refer to the Star Wars concept itself. I don't believe that one can discuss the relative merits or demerits of Star Wars out of context. That's why in the brief time allotted tonight I'm going to try to cover a lot of philosophical ground.¹ You need to know where I stand and in what I believe in order to put my remarks about Star Wars into perspective. You have to understand my own beliefs about defense in general, because without that understanding you might be tempted to make the argument that there is no reason to do anything toward national defense.

There are three topics that I am going to discuss tonight. The first deals with the Just War theory. I will discuss the kinds of dilemmas that St. Augustine faced when he developed the theory in the 5th Century. The second topic will be the development of post-World War II history. Specifically I will address how the presence of nuclear weapons and the theory of nuclear weapon employment have influenced both the military conflicts and the political thought of the United States, Soviet Union and European nations. It is this historical evolution that has really brought about the Star Wars program and the associated debates. It is important that you understand the facts behind these debates, for us to have a meeting of minds tonight.

The third thing that I want to talk about is the SDI program itself and why I think that President Reagan has very high personal hopes for its success. As part of this topic I will include the dilemmas associated with the Star Wars debate. I will then leave you with some questions to consider regarding SDI and national security.

¹The Newman Forum Lecture Series offers the opportunity for discussion of moral and philosophical aspects of current social issues in the context of Catholic theology. Guest speakers are drawn from many sectors of society to provide viewpoints related to their particular area of expertise. Dr. George Donohue has been a program manager at the Defense Advanced Research Projects Agency and is currently head of the Technology Applications Program at The RAND Corporation.

Let me now begin by discussing the dilemmas having to do with the Just War theory which was initially developed by St. Augustine. He wrote *City of God* in about the year 410 AD, right after Rome had been sacked by the Visigoths. At that time, the western Roman Empire was a Christian empire and the Barbarians had been chipping away at it for some time. The situation was bleak. Augustine faced a problem as a theorist, as a theologian, and as a Christian. What do you do when people come who want to fight, want to burn the books and attack all of the things that you hold very dear and important to civilization and knowledge? How do you, as a Christian, respond to that threat?

Augustine sought guidance from the New Testament which differed from the Old Testament and its "eye for an eye" militaristic slant. The New Testament says that Christ brought a new philosophy that implied one should turn the other cheek, that one shouldn't take an "eye for an eye." You should love your fellow man, you should have charity; you should set a good example. Augustine had this dilemma: How do you reconcile the potential loss of civilization with the need to fight to save it? The Christians were not able to sit down with the Barbarians and reason with them very well. Augustine tried to reconcile this situation with the new gospel. He developed the theory that the state really has a different problem than the individual. The individual can make the choice to be a pacifist or not. It is up to you, your personal moral conscience, to decide that a person is threatening you and to choose that your response will be to turn the other cheek. This is a clear personal, moral and probably laudable choice.

The state has a slightly different problem. If the state assumed the same attitude, this decision could cause a very large number of people to suffer. Since the state is responsible for the welfare of its people, this does not appear to be a prudent thing for the state to do. Therefore, the state, under certain and very specific circumstances, has a moral obligation to defend the individuals in the society that it has been set up to support. Now you must remember that Augustine was afraid of the potential loss of western civilization. This is similar to the concerns voiced by many people in today's nuclear debate; they claim that we face an equivalent kind of loss. Today it would be the loss of

civilization in the northern hemisphere if we really had a massive global nuclear exchange. I will point out as an aside, that there would probably not be much of an effect on the southern hemisphere, just as the Barbarian invasion only destroyed the Western Roman empire for about a thousand years. The Eastern empire survived so some continuity with the ancient civilization was maintained. Much was lost, however, which has never been recovered. Destruction of civilization on this scale was devastating then; it would be devastating today as well.

Augustine said there were seven criteria that he felt must be met before conflict would fit into the moral framework of the Just War theory. Some of them seem fairly mundane: (1) war must be declared by a competent authority, (2) war must be fought for a just cause, and (3) the conflict must be conducted with the right intention or (4) must be fought as a last resort. These four criteria are not too controversial, but the next three have some problems in today's context. The fifth is that there must be some probability of success. Some people are concerned that with nuclear weapons there is no probability of success. At this point one starts to have trouble in today's world with the applicability of the Just War theory. The sixth is that the resulting damage of the war must be less than the potential evil that would occur if one did not fight the war. I think that most people would acknowledge that World War II was an example of a Just War. There were some real evils that people fought against in that war. Most people would agree that living under Hitler's sort of regime would not be good. Here we see a lot of difference of opinion about life under oppressive wartime conditions, specifically, whether or not life would be worth living. There are very impassioned arguments on this topic which are outside the scope of tonight's discussion. Finally, the seventh criterion is that "discriminate and proportional means" must be used in a conflict. Clearly this is an area where nuclear weapons, which are generally considered to be indiscriminate and not a proportional means for fighting a war, would not qualify.

These last three points pose the real problem. I personally believe in the Just War theory and I think these seven points are good criteria. In fact, if you read carefully the *American Catholic Bishops' Letter on Nuclear War* issued in 1983, you'll see that the bishops

acknowledge that the Just War theory applies today as well as it has for the last 1500 years. Their problem is reconciling the use of nuclear weapons with the tenets of that theory. So it's not the Just War theory per se today that is the problem. According to the theory, a country may maintain a defense because it has a moral obligation to defend its citizens. But it is the *means* of defense that are at the center of the debate and how these means satisfy the state's general obligation.

Pope John Paul II in his 1982 United Nations speech, acknowledged that nuclear deterrence has some validity as an interim method for preventing war. The Pope has provided a *conditional* endorsement to nuclear deterrence until we're able to find some other way to ensure that wars don't occur. Consider the fact that there are over 40 years of history in which there has been no world war since nuclear weapons have been used as a deterrent. I think there is ample historical evidence that there might have been a number of occasions when major wars could have started but were averted due to the fear of nuclear weapons. The real question today is: where do we go from here? We face new dilemmas today with nuclear weapons unlike the ones we confronted 40 years ago.

You should remember that at the end of World War II (when nuclear weapons were first developed and used--for the only time), Europe was economically devastated. Britain had received a tremendous economic blow. France was in no position to be able to mobilize or maintain a major army. There were two major military forces in the world at that time--the Soviet Union and the United States. The United States chose to demobilize and largely withdraw from Europe. The United States redirected a lot of the money that had been going into the war effort towards the Marshall Plan in order to rebuild Western Europe and Japan. The Soviet Union did not significantly demobilize as expected, but stayed in Eastern Europe--and is still there today!

There were a lot of people at that time who were very concerned about the expansionist intentions of the Soviet Union. The United States chose not to spend large amounts of money in maintaining the kind of conventional military forces in Europe that could contain the Soviet Union. Certainly Western Europe had no resources available to resist a Soviet threat. Nuclear weapons appeared to be a very attractive option

to the Western Alliance since nuclear weapons were relatively cheap! With only a few nuclear weapons (at first, the United States was the only one that possessed them), the threat of their use was adequate to deter the Soviet Union from using their military forces to move any further west.

What kind of weapons did we have at that time? The weapon that was dropped on Hiroshima was a 13-kiloton device. It was physically a very big weapon, carried by a big bomber. Bombers were not terribly accurate in those days. The weapons were really only suitable (from a military standpoint) for use against cities. The United States did not have a lot of these weapons, so in a deterrent sense, they were used to threaten cities. The threat was: if you attack me, I will cause unacceptable damage to your population. Recall that during World War II a lot of city bombing was done by both sides, so the morality of such action was not of so much concern at the time. Subsequently, towards the late 1950s, the United States started developing InterContinental Ballistic Missiles (ICBMs). These new bombs were designed with a larger yield but they also were smaller physically. The United States still had both a quantitative and qualitative lead with these weapons which served as a "big stick." The United States used this threat to put down a number of potential crises.

One obvious example was the Cuban missile crisis. The United States had a significant advantage over the Soviet Union in the early 1960s. We had ICBMs, albeit not terribly accurate, and a sizable fleet of bombers to deliver them. The common perception at that time was that cities were the primary targets. However, if you examine the now-declassified military plans of the 1950s, you'll find that the primary targets actually were not cities but military targets. Unfortunately, the bombs were big enough and the delivery systems inaccurate enough to cause a lot of collateral city damage. So you might say it was academic as to whether or not the cities themselves were targeted. From a military standpoint, many of the planners felt bad about this tangential targeting of cities. They felt that the real military threat is not from the people in cities but from militarily significant targets. Therefore, one should destroy an enemy's military capability, and not civilian populations. The latter destruction was inevitable due to the relative lack of sophistication of the weapons.

As we progressed into the late 1960s and the early 1970s things changed. The ICBM's guidance design had progressed significantly to provide much better accuracy. The United States developed the capability to add multiple, independently targeted reentry vehicles (MIRVs) to one large missile. The technology of making smaller, more efficient warheads was key to this development. The yields were getting smaller still and the missile accuracy was getting more precise. The weapons could now be primarily countermilitary weapons. The belief was that if the United States aim was to deter the Soviets, we should threaten what they most value, namely, their military forces. But the Soviets were developing the same sort of capability (and we believe targeting philosophy) in this time frame.

With the signing of the SALT I treaty in 1971, there was a tacit admission between the Soviet Union and the United States that both sides had reached a degree of nuclear parity. They were willing to live with a fixed number of ICBM silos, formulas on bombers, etc. Some people felt that it was a very stable relationship. But, in fact, the whole theory of the utility of nuclear weapons to that point had been based on the fact that their use was unthinkable. NATO or the Western Alliance would not be attacked by the Soviet Union or the Warsaw Pact because nuclear weapons would be used against them in retaliation. The damage that would be inflicted on the Soviet Union would be nothing compared with what they could gain so there was no point in the Soviets' starting a war.

This situation came to be called "extended deterrence." One of the primary uses of United States nuclear weapons has been to provide a defense of Western Europe. Officially there are two major requirements for our nuclear weapons. The first is to deter nuclear attack against the United States. The second is to deter nuclear or conventional attacks against Europe. With the SALT I treaty we acknowledged that the Soviet Union should have the same nuclear capability we possess. People then asked, "What if we use nuclear weapons against the Soviet Union to stop conventional aggression in Europe? The Soviet Union now has more than enough nuclear weapons in its arsenal to be able to use those weapons against us. This is potentially suicide for the United States.

If, in defending Western Europe, we shoot them, they shoot us. That doesn't look like the acceptable exchange situation of the '50s and '60s."

People started doubting whether the United States would protect Western Europe and risk nuclear retaliation by the Soviets. Would any President really "push the button" and cause unacceptable damage to the people of the United States to save Western Europe? The theory of deterrence started to become shaky. Even though the United States began to have misgivings, Europe still wanted to believe the United States would use nuclear weapons against the Soviet Union if necessary. Europeans were saying that if there were going to be a World War III they would rather have that war fought over their heads than on their land. It doesn't make too much difference to some Europeans whether or not it's a nuclear war. They know of the destruction of World War II. Using today's weapons, after two weeks of war it wouldn't matter whether it was a nuclear war or a conventional war--Europe would be destroyed. Therefore, the Europeans like the idea of extended deterrence.

As deterrence started losing its credibility (and deterrence has to be credible to be useful), people started clamoring for some plan to "regain credibility." The argument went something like this: "Let's develop more and even smaller nuclear weapons, designed to target many military installations accurately. We're not trying to destroy Kiev, Moscow, or Leningrad because the Soviets would in turn destroy New York, Chicago and Los Angeles. We're going to have a strictly countermilitary option. If we develop such small tactical nuclear weapons that their use will be credible, we will have escalation control. We can state that if the Warsaw Pact forces roll across Western Europe and come across the Rhine, we can say, confidently, 'Stop.' We can now be very effective against those military forces by having very constrained, small, relatively clean weapons that minimize collateral damage."

If you're a West German, you may not recognize the subtlety of this new "credible" theory but if you're a Londoner, you might. In some sense the theory worked, because people began to say, "You know, these are credible options, but they're so credible somebody might just do this. We really didn't think anyone would ever use big megaton-plus nuclear weapons when the effect would be to destroy cities and kill

their inhabitants. But the enemy just might start shooting 10 kiloton- and 1 kiloton-type weapons at our tank divisions. Once we have done that, we have opened Pandora's Box, because we would counterstrike and then they'd counter and so on. We'd now be on what they call the 'slippery slope.' The war would continue to escalate and ultimately one couldn't tell the difference between a controlled escalation response of counterforce weapons and an uncontrolled countervalue attack against cities. That would be the end of northern hemisphere civilization."

This is the problem we face today. The very credibility of the weapons we have (by trying to move away from city-killer weapons and in some sense by trying to live within the Just War theory) has helped to put us in this situation. We'd like to have a discriminate and proportional response. In some sense, a small nuclear weapon is really not much different from a big chemical weapon. There are many people who argue that this is the right way to go. But in the process of regaining credibility, they acknowledge that the unacceptable may occur.

Now I want to say a few words about the cost of nuclear weapons. I've pointed out that nuclear weapons were cheap in the '60s. They're still cheap. In 1983, only nine percent of the entire defense department budget was allocated for all strategic offensive forces. Also, in 1983, the defense budget was about seven-and-a-half percent of our gross national product. Nuclear weapons as a function of gross national product represent only about 0.7 percent of our national expenditures. Most of the cost for the United States military is for maintaining conventional forces: buying equipment, maintaining it and paying a lot of salaries.

Because nuclear weapons are cheap they pose part of our dilemma. You see, if no one had nuclear weapons, and we still felt that we had an obligation to provide a defense of Western Europe (and ultimately perhaps of our homeland), we'd probably have to double our military expenditures if we restrict ourselves to conventional forces. Now, where's that money going to come from? Will we increase taxes or the federal debt? Many people do not like either option. Will we divert funds from our social programs? That doesn't seem to be an acceptable alternative. And so every time this topic comes up in the debate, people begin to say, "Well, maybe nuclear weapons aren't so bad after

all; we haven't had a war for 40 years. Nuclear weapons are relatively cheap. Some of these are getting old, however, so if we have to take the old weapons out, we're going to have to replace them with modern equivalents." We are on a treadmill where we continually modernize weapons and we don't know how to get rid of the old ones. The option of completely backing off from nuclear weapons, saying, "Let's rely solely on conventional forces," does not seem to be economically attractive to us.

Note that the Soviet Union spends about 14 percent of their gross national product (GNP) on defense. This is about twice what we spend. Western Europe spends about 3 1/2 percent on defense. This is about half what we spend. Since a sizable portion of the United States cost is to defend Europe, economic considerations really come into play. The United States does not really want to spend as much as 14 percent of our GNP for the military because we are already spending about 19 percent of U.S. GNP on social programs (if you take federal, state and local programs together). About 51 percent of the annual federal budget is spent for social programs, not defense. Some people are of the opinion that if we cut back on federal defense expenditures, we would have a lot more money available for social programs. As we have seen, the federal government does have a legal and a moral responsibility to provide for the common defense, but social programs are already absorbing almost three times as much of the taxpayers' money as defense.

President Reagan's administration continued Jimmy Carter's defense buildup. Recall that when Carter came to the Presidency he was strongly against nuclear proliferation and that he retired a number of nuclear weapons from our stockpile. I think he was a person who had a fairly strong moral conscience. In 1979, the Soviet invasion of Afghanistan produced a major change in Jimmy Carter's military program. Carter looked at the defense trends and said, "I think we're going to have to start spending a little bit more money on defense."

President Reagan took office in 1980 at a time when the Warsaw Pact had about a two-to-one numerical superiority in conventional forces over NATO forces. He also knew that there was a very vociferous, antinuclear movement that had been growing, both in Europe and in the United States. A very open debate about the morality of nuclear weapons was emerging.

The *American Catholic Bishops' Letter* was being prepared in 1982 and 1983. One month after the publication in 1983 of this letter on nuclear weapons and nuclear war, Ronald Reagan gave a speech saying, "We can make nuclear weapons impotent and obsolete." He said "...this will be different from the kind of defense that we talked about in the '60s, where the only defense people contemplated was defending strategic offensive forces and ICBM silos." (There are technical, military reasons why that is perhaps a good thing to do.) "This is going to be different. We're going to defend people and cities. My advisors have told me that the United States can use high technology to do this. We can also gain the moral high ground. We don't have to use the threat of nuclear weapons anymore to be able to maintain the peace or to deter aggression. This will be a good thing."

I believe that President Reagan honestly felt that this was possible. Unfortunately, I think that President Reagan did not receive the best of advice from his advisors. There are several points that I would like to bring up regarding my concerns about SDI.

The first point concerns defense effectiveness of realistic military systems. The types of systems we're talking about with SDI are systems similar to those we've had in our inventory for many years-- e.g., surface-to-air missiles (SAMs). Today, SAMs are fairly sophisticated. When an engineer or a weapons designer opts for "90 percent effectiveness," this is what we call a single-shot kill probability. It's a good goal. In fact, after these systems are built and tested, they tend to be about 50 percent effective. Considering the difficulty of the task, this is pretty good. The new approach proposed by SDI is the layering of these systems. A system that only has a 50 percent effectiveness, but has four opportunities to shoot at something will be much more effective than a system with only one or two opportunities. As a matter of fact, this type of system was considered in the late '60s.

For example, suppose I had four layers: a layer that would intercept a missile in boost phase, in post-boost phase, in midcourse, and in the terminal phase. Suppose that each one of these layers had a 50 percent chance of killing the missile in that layer. Then for every one thousand missiles that were fired at me, only 63 of those missiles

would get through. So, if there were 4000 reentry vehicles fired at me, about 252 missiles would get through this four-layer defense. Remember, this should be considered to be a pretty good system, but it's not terribly attractive. Some people might say, "That's not the bubble defense that the President promised us. Two-hundred-and-fifty thermonuclear weapons exploding on the continental United States is an awful prospect. We would have spent a lot of money and if that's all the defense can do, that's not good enough. Even if we had 70 percent effectiveness for each one of these layers (which, incidentally is very good from the designer's perspective), that would mean nine missiles per thousand would get through or 36 missiles for a small raid of 4000 incoming missiles."

I contend that the best possible Star Wars defense is realistically going to be a somewhat leaky defense. You'll find many people throughout the country, including a lot of technical as well as political people who will say that this will probably be the case. The President is one of the few who really hold on to the hope of a leak-proof defense.

The second point that I would like to bring up is the cost of such a system. Supporters of SDI have said, "We won't deploy a system unless it's cost-effective." That's a good goal. Ambassador Nitze has said that a necessary condition for any defensive system to be deployed is that the system must be cost-effective at the margin. That is, it must be cheaper for us to defend than it would be for them to attack. There have been very few cost studies done to examine this tradeoff. In one recent analysis, however, the numbers \$600 billion to \$800 billion are proposed. This is a lot of money to be spent over 10-15 years. It represents fully one-fourth of the entire defense budget that we have today.

You will recall my earlier comment that traditionally only nine percent of the entire defense budget is applied to our entire strategic offensive forces. So this proposal is two-and-a-half times what we would normally spend today, and it's probably going to be a leaky defense system. If we decide to spend that kind of money, where will it come from? Currently a lot of the defense budget is allocated to support conventional forces like tanks, troops and supplies in Germany

across the line from the Warsaw Pact. Are we going to take money away from that budget line item? If so, our conventional readiness in Europe is decreased! If we're not going to take money away from the defense budget, are we going to take it away from social programs? That is not a very attractive option. Financing SDI is a big problem. Suppose for a moment that we had \$800 billion of new money. Perhaps we could afford to double the size of our conventional forces in West Germany and thus have conventional deterrence. Maybe there's an entirely different set of options if that kind of money were available for defense.

The third point that bothers me is that SDI is really designed only against ICBMs. Some people assume that's all there is to worry about today, but you should recall that in the '50s we were worried about nuclear war and there weren't any ICBMs. There were only bombers. Today we have bombers with air-launched cruise missiles and submarines with submarine-launched cruise missiles. These missiles fly low and are very hard to detect. Unless we also have a good air defense system that could stop these missiles in an attack, then we still will not have a bubble defense. Merely providing a defense against ICBMs is analogous to closing and securely locking the front door, but leaving the back door wide open for entry by any passerby. The "back door lock" in this analogy is an effective air defense system against cruise missiles. Analysts have compared air defense systems with SDI and have said it's probably a harder job to provide a defense against cruise missiles than to do what we're trying to do with SDI. The cost of such an air defense system would probably be at least as much as the cost estimate for SDI. So it's not just a lot of money, it's *twice* a lot of money that we're talking about to be able to provide this kind of total, effective defense.

I also should point out that the Soviets have expended a tremendous amount of money in the last 20 years to develop one of the most elaborate air defense systems in the world. In a world of no ICBMs, we have no air defense, but they do. Our military people don't think that's a very good situation either. It should also be noted that we think their very elaborate air defense is leaky and that we probably have enough weaponry capable of penetrating that defense to provide a deterrent.

The fourth and last point I'd like to raise about SDI is that from my standpoint as a technologist whose professional career has dealt with high-tech, leading-edge defense systems for many years, I am impressed with the many technical challenges offered by SDI. But the solutions won't come quickly or easily. It is necessary to design, test, redesign and retest, build and test again. You can't always buy time with money. SDI is not comparable to the Apollo Program. My experience on that program leads me to think that it was a pretty straightforward engineering task compared to SDI.

The interesting thing is that recently the Soviets have come back to the arms control bargaining table and they have said, "Maybe we should talk. Maybe we should really start reducing the number of nuclear weapons we've got." They haven't been willing to talk about that for a long time. I think that most people would agree it's the threat of SDI that has done this. Whatever the reason, whether it's economic or whether it's technical, they seem to be willing to bargain and to make some significant reductions in strategic offensive forces. That's probably not a bad thing to do. The more nuclear weapons that are deployed, the worse it is. Of course, one thing that both the Soviet Union and the United States are very concerned about is that someone else is going to get hold of nuclear weapons. The more we have stockpiled, the bigger that chance. The proliferation problem is a scary one.

I should also point out that even though these arms talks right now seem to be fairly encouraging in many ways, they are bilateral negotiations, i.e., negotiations held just between the Soviet Union and the United States. The British and the French have very significant nuclear forces and they are not included in these discussions right now. India has nuclear weapons. China has nuclear weapons. Israel, as you've probably read in the paper, very probably has a reasonable number of nuclear weapons. The technological genie is now out of the bottle. It's very hard (if not impossible) to do away with the knowledge of how to design and build these weapons.

Consider this situation: suppose tomorrow you had control of a switch that could change the world situation today (where we and the Soviet Union threaten each other with nuclear weapons), to a world where we both had perfect defenses. Our mutual security rested on those defenses and not on the threat of using tremendous force against each other. If you could just flip that switch and move completely from one world to the other, would you do it? My personal answer is, "Yes." I think it's a much better world, it's a much safer world, a much more moral world. This comes back to the ideal that Augustine was talking about. We just need to build a big wall and we don't have to worry about the enemy coming in. We don't have to kill anybody. We're safe and we can defend our citizens. Unfortunately I don't think that the switch to create that wall exists.

I want to leave you with a few final questions this evening. Who feels comfortable leaving the security of ourselves, our country, our allies and our children and our children's children forevermore on the good sense and emotional stability of an unfriendly foreign leader? That's what deterrence is all about. You're counting on world leaders always being rational people who would never do something that would cause unacceptable harm to themselves or to those they govern. I think the leaders of the superpowers since World War II have been, in fact, rational people. As an example, we really lost the Vietnam War and nuclear weapons were never used. No one at that time felt that it was worth winning the war by using nuclear weapons.

If you don't like the world of continued deterrence with nuclear weapons and you don't know how to get rid of the knowledge of nuclear weapons, what do you do? You have two options. One is that you could have a complete, verifiable, worldwide nuclear disarmament (and I stress "worldwide"). Everyone who has nuclear weapons destroys them all. They don't hide any in a cave someplace. There's no cheating. Even the countries who claim they don't have nuclear weapons but actually do, agree to get rid of their nuclear weapons. Or, you develop some sort of strategic defense system that says, "I don't have to worry about whether they have them or not. I can control my nation's security by some other means."

The kind of worldwide disarmament that I'm talking about is a cooperation of the world community that we have never seen before. We have never been able to imagine it in the past. Some people have a hard time imagining it in the future. The consequences of cheating in this situation of worldwide nuclear disarmament would be catastrophic. The last person in the world who's got nuclear weapons becomes the world leader. If that leader's a Khadafi--that's not a world that many people would think they would like to be in. This is the problem that policymakers have in trying to think about and talk about a nuclear-free world. On the other hand, strategic defenses wouldn't require this sort of full cooperation but they'll be enormously expensive and probably will never be leakproof.

Neither of these two options seems to be very attractive to me or to my colleagues. Both options involve great risk. Some people would say that the total disarmament risk is a larger risk than the strategic defense risk because of the potential for cheating. But we've got to try something. Our policymakers, your government leaders, can't just sit back and do nothing. They have to proceed with some course of action. What President Reagan is doing is trying both options. Whether or not this is the right or the wrong approach is not under discussion here tonight. What I want to point out is that these kinds of decisions are very tough. There are many, many dilemmas involved. To talk responsibly about these options, you have to understand all of the implications and interrelationships of the factors comprising those options. We should all be trying to find our way into a safer world.

I have perhaps a naive belief that if we can avoid a major world war for the next 20, 40 or maybe 60 years, we'll have enough generations who will have forgotten about what war was really like. Perhaps it will just slowly fade from our memory and our experience. Now, that may be a utopian view, but a lot of what is talked about today is utopian. From my personal perspective, I am just trying to say that anything we can do to keep a nuclear war from happening (whether it be deterrence or continuing with nuclear weapons buildup) will "kick the can down the road" as one of my friends says. If this generation can successfully avoid war, we essentially pass that responsibility on to somebody else.

"Just make sure it doesn't happen on our watch" is one response I've heard.

I think there are a lot of people working on SDI who are doing it with very noble reasons. Certainly the Soviets will cynically look at SDI and say, "Well, it's just another offensive weapon." I will admit that it could be used that way. I do not believe that anybody in the United States, and certainly not the President, sees it that way, but he has a particular way of looking at issues in very black-and-white terms. Sometimes there's a lot of gray. We've tried to take a look at those gray areas tonight and the dilemmas they present as we consider national defense in general and Star Wars in particular. I hope the perspectives I've presented will provide a springboard for discussion.

