PROFESSOR: I

LAWRENCE SUSSKIND: I think, collectively, I did not hear the full-fledged justification of the precautionary principle. And I think that focusing on the fact that its application would be the greatest good for the greatest number of people is probably manifestly wrong because I think there are plenty of instances where being precautionary means that you look out for subgroups or sub effects which in fact, are very unlikely. In a world of certainty, one can argue utilitarian ethics applies. If you ban a chemical, you're going to have a certain cost and you going to have a certain benefit.

As soon as the cost becomes uncertain, or the benefit becomes uncertain, which is related to risk assessment because the benefit of controlling the chemical is derived from doing some sort of risk assessment which has high uncertainties in it. But it's not the only thing that has uncertainties. Costs have uncertainties, too. So as soon as you depart from a well-defined benefit and a well-defined cost.

Utilitarian ethics is no longer important because what's important is how you value the mistakes that you could make. A type I error comes when you've failed to regulate something, and it later comes out to be worse than you thought or at the tails of the distribution of what you're thinking. A type II error is where you regulate, and things turn out to be not as bad as you thought and then impose a higher cost upon.

But there's a type III error which is you're working on the wrong problem. And I think that's what you all really. Missed the point is that when you ban a chemical, that isn't all that happens. What happens is you end up coming face to face with a substitute, with an alternative technology, with alternative ways to meet the public needs.

And so a straight cost-benefit analysis, even with uncertainty, unless it includes the alternatives that you have is not a complete analysis. And you can make anything look good depending upon how you value life or value the environment. And so the precautionary principle, properly, which is which applies when you have great uncertainties, has to ask the question, what are the alternatives to the action that you've decided to promote. There are alternatives. There are there substitutes

I'll give you one more comment. I know the word of Cass Sunstein well. I graduated from

[INAUDIBLE], same law school. I think he is a poor scholar. He does not understand.

SPEAKER 1: You heard it here.

LAWRENCE SUSSKIND: He does not really understand what this whole issue was about, has never really understood it. For example, people say, suppose you regulate vinyl chloride. You put worker controls on vinyl chloride. And the workers now earn a smaller salary because the vinyl chloride producer can't afford to pay them.

So what do they do? They quit their health clubs. They buy less lean hamburger.

And the health impact, is argued by Sunstein, is worse than if you regulated the hazard because you made the workers poor. And they eat fat hamburger and don't exercise. But that doesn't take into account the fact that when you regulate vinyl chloride, what replaces it, let's say, is polyethylene. So those industries increase production, increase the wages of their workers, who now join health clubs and lean hamburgers.

Now if you're really going to take this calculus to the extreme, you could see how ridiculous it is because you can't really determine. But what you can determine and what regulation shows, when it's stringent, you don't make marginal changes in production. You may see serious shifts in the nature of industrial policy.

And you shift to nonchemical alternatives. For example, the banning of CFCs didn't just supply one inhalant which was slightly better. People started to use pump cans. You sell less product, then that's too bad for the producer. But you don't need to inhalant to deliver deodorant or those things.

So it is narrowly defined. You work on the wrong problem, and you ignore how you feel about air avoidance. That's when the precautionary principle comes in.

SPEAKER 1: Beautiful.

AUDIENCE: --go along with it, slash bring up that point that I think there is a middle ground where with some things I think we should look into alternatives and have them as backseat if we find that whatever precautionary didn't work out. I think it's really dangerous to just ignore other alternatives. Like the Susskind article said, going with that action leads to unintended things that maybe could've been a benefit.

LAWRENCE SUSSKIND: Take the global warming situation. This middle ground, I think, is a fiction. You either have to regard the probability of serious global impacts as within the realm of possibility, or you don't. Even people who aren't certain about the science, you ask them the question, should we plan for a rising sea level? Should we plan for floods and droughts would be a bad thing to do.

And the answer invariably comes, no, it should be a good thing to do. And if you act in a timely fashion, even if you turn out to be wrong, imagine what would happen if you turned out to be right and turn out to have the coastal cities disappearing [INAUDIBLE]. I think the precautionary principle's been criticized by people who have an economic dog in that fight, that it's too expensive and their particular industry will disappear.

But the alternative is to have, generally, other people bear the cost. So who bears the cost and who reaps the benefit of the decided policy? It's very important. And the distributional effects of going one way or the other are really serious.

If you decide to put a carbon tax on oil, let me tell you, the petroleum industry will survive. If you don't put a carbon tax on the floor, it's not clear that the planet will survive. So if they ask whose ox is being gored, how certain are we that you are producing an irreducible effect of these people. And do you want to keep your options open? So I reject the fact that what you're trying to do is find a middle ground.

LAWRENCE SUSSKIND: But I want to turn the dial, as a last note, one more tick beyond what Nick just said. I believe, take the climate change example, that if you say, let's take this seriously because it might happen that a whole series of second and third order decisions can get made that, in fact, wouldn't get made otherwise. It's related to the point you're making first.

And that will create all kinds of benefits because if people don't do it to create these benefits, they'll do it to create benefits. But they never would have searched. They never would've tried, They never would've looked there.

So when we talk to communities about taking various moves to manage potential climate risks, and once you do it in a way that creates all kinds of other second and third order benefits now, instead of just looking at what the costs are and arguing that the long term benefits outweigh the short-term costs, my argument is why don't you try to do something that deals with those risks and creates all kinds of short-term benefits.

And that becomes a design consideration in formulating the policy. And if you can't do it, you

can't do it. But I would argue that the problem with the precautionary principle is it doesn't link to, and let's look at ways of using this theory that we're not going to do something. I told you the story about the central Arctic and fisheries question.

You can use a period of time to do more scientific investigation that might in fact lead us to understand better ways of using those resources as opposed to, oh my god, we're scared. A bad thing could happen. It might only be a 1% chance. But, oh my god, if it happens horrible, horrible things will affect us in the future. So let's not do it.

LAWRENCE SUSSKIND: But the precautionary principal has been linked to alternatives analysis. Now nobody doesn't ask, what are the alternatives. And by the way, the big failure, Bush and Cheney decided, we're going to get Saddam before he gets us.

He was operating under precautionary principle. Look what the application of that precautionary principle brought us.

SPEAKER 1: If you only say, let's look at alternatives, that's not the same as let's search for alternatives--

LAWRENCE SUSSKIND: Right.

SPEAKER 1: --that both reduce the risk and create a variety of alternatives.

LAWRENCE SUSSKIND: And develop those alternatives.

SPEAKER 1: And let's be clear about trying to distribute the benefits of those alternatives in a progressive way. You could add that, too. Anyway. Thank you both for coming.