

But, in trying to answer the question proposed by the chairman, I was merely pointing out that the International Biological Program does not separate itself from the problem of human welfare.

Mr. BROWN. I think your point is correct. I am merely making the point that you have certain preconceptions about the nature of human welfare which are not necessarily a part of any scientific program.

Dr. RAY. Definitely, I have preconceptions. I quite agree with you. I would like to think they are all right, but I am not sure they are not.

Mr. BROWN. You are getting into the field of politics this time.

Dr. RAY. Well, I think we all are. I just do not see—I will repeat, the International Biological Program as simply biological. It is much more than that. Put it the other way; if we did not have an International Biological Program, how else are we to solve the problems we know we must solve on a world basis, not a regional basis. We have to, in taking this little blue book and put it under the table, come up with a red book or pink book, but some book, that will enable us to have a program by which we can help to guide our own destinies—it is a question of how much destiny we have left.

Mr. BROWN. Well, in the physical sciences in general, we are trying to approach the problem of how man can live better on this earth by figuring out better ways to destroy man.

The point I am trying to make is that I probably agree with your normative biases.

But we have to do something to get these into the equation and get them accepted and not be ashamed of them, or else I don't think our scientific programs per se are necessarily going to do much for man, much as we would like to have them accomplish that.

Dr. RAY. Well, may I add one thing, Mr. Congressman. I think there is always a danger in the pursuit of any scientific endeavor that that scientific endeavor be directed toward use or nonuse. What good is it, is a very frequent question that is put to me particularly. I like to go swimming in the polar seas under ice, to look at seals. What good is that?

We all know the arguments that perhaps a lot of these things are not good or bad. But in the finding out about the total ecology of our environment, this must at least be useful.

Mr. BROWN. Well, you in your statement quoted from Mr. Ogburn's book, which I haven't read but I can imagine what it says. I think it assumes possibly a rather pessimistic outcome for these efforts to solve our problems. In the field of science in general, I think it is a mistake to assume that man is going to solve these problems one way or another, or that there is any good or bad because we don't have any guarantee, as is stated here, the earth will shrug it off in favor of a fresh start. I presume that means it will eliminate man and try some other species or activity or planet, or something.

Dr. RAY. I would not presume that this is guaranteed, but this is the whole area that we are really concerned about. Really, there comes as Fairfield Osborn said, a limit to the earth. Man is a biological organism. He has to live with his environment. So far in the course of human history I think we can fairly easily state that we have always had something else to go to, some other corner to turn to.

I would like to think that the International Biological Program in part, although I can't guarantee this, came about because there is a