



INTERVIEW

GARRETT HARDIN

"Every time we send food to save lives in the present, we are destroying lives in the future," says a biologist whose ideas may be shocking, but just might preserve the planet

As high winds whipping along the Pacific coast bounced and shook the small propeller plane, I tried to concentrate on my reason for flying to Santa Barbara. I was on my way to interview Garrett Hardin, microbiologist and human ecologist, most widely known—notorious even—for his 1968 essay, "The Tragedy of the Commons," in which he describes the follies of overpopulation.

I was five months pregnant, and given Hardin's views on population control and prophecies concerning the fate of the environment, I dreaded his response to my condition. To my surprise, the re-

puted harshly opinionated and fiery aspects of his personality had been greatly exaggerated—I suspect by his many critics. Instead, I found a gentle man suffused with a love of nature, family, and classical music. Despite his 77 years and a polio handicap, Hardin swims laps daily at his Santa Barbara home, which has become a haven surrounded by giant eucalyptus and dense chaparral.

Stronger than his determination to exercise vigorously, however, is his relentless 40-year challenge—in many books, papers, and lectures—to conventional social ideals. His latest book, *Living*

PHOTOGRAPHS BY TOM ZIMBEROFF

Within Limits (released by Oxford University Press this fall), further explores the concept that unrestrained reproductive growth throughout the world threatens to wreak widespread social disorder.

Born in 1915, Hardin grew up in the Midwest where his father's job with the Illinois Central Railroad moved the family from one town to another. Even though they never settled in one place, he found a sense of constancy at his grandfather's farm near Butler, Missouri. Hardin got his degree in zoology in 1936 at the University of Chicago, where he studied under W. A. Allee. At the time, the birthrate in the United States was declining. Books and articles prophesied the end of civilization, the extinction of the human race. But Allee, a professor of ecology, was virtually alone in insisting that the decline was temporary, a mere blip in the population curve. The birthrate, he maintained, would soon start going up again. "So early in my training," explains Hardin, "I was influenced by an unpopular theory. Alone with a small group of biologists, I was concerned about future population growth."

After completing a Ph.D. in microbiology at Stanford, during World War II, Hardin worked for the Carnegie Institution of Washington's Division of Plant Biology on the Stanford Campus, investigating how algae might be used for antibiotics and as a possible human food source. In 1946, he left the project. "The more I thought about producing algae for food," he remarks, "the less use I saw in the research." Developing new food sources would only encourage continued population growth.

Hardin was also influenced by Thomas Malthus, who in 1798 wrote that food would be the limiting factor of population size. When food resources were depleted, Malthus claimed, chaos and massive suffering would ensue, halting population growth. "Malthus was correct when he said there will be limits to increasing population, but wrong about what the limits would be," says Hardin. Since Malthus' prediction, per-capita production of food has increased dramatically in the world. "Overpopulation causes other obstacles," adds Hardin. "We've plenty of food, but we're wasting an awful lot of time trying to go anywhere." Hardin, like Malthus, suspects that if population growth continues at its current rate, chaos will ultimately ensue.

The same year Hardin left the algae project at Stanford, he accepted a teaching position at what is now the University of California at Santa Barbara to teach biology, genetics, evolution, and later human ecology. Retired in 1978, Hardin continues to stimulate debate and provoke controversy with his far-reaching ideas about the human condition.

—Cathy Spencer

“WOMEN WHO WANT LARGE FAMILIES WILL HAVE THEM. THERE IS NO WAY TO TIE THEIR WANTS TO NATIONAL NEEDS WITHOUT SOME SORT OF COERCION.”

Omni: In your 1972 book, *Exploring New Ethics for Survival*, you said you feel as if you are "living in the eye of a hurricane waiting." What did you mean?

Hardin: I'm impressed with the reluctance of society to confront certain issues, and the ingenuity people show in developing a rhetorical defense against controversial concerns. We don't budge from our positions. Everyone has a computer in his head that does a lot of work on its own. Many difficult conflicts are worked out at a subconscious level. When we run into a roadblock, the conflict is intercepted by the in-house computer and prevented from coming to the conscious level. Any thought brought to the surface is in a censored form. We look only for certain answers, closing our eyes to the possibility of others. This is the roadblock for all discussions of population.

Our censored view about population is reflected in the wide-

PROFESSION:

Professor of Biology, University of California, Santa Barbara, 1946–1978

LIFE FOCUS:

The Human Condition

MOST FAMOUS WORK:

Essay "The Tragedy of the Commons," written in 1968 and reprinted 87 times

CURRENT BOOK:

Living Within Limits
How continued global population growth threatens widespread social disorder (Oxford University Press)

CHILDREN:

Four

GRANDCHILDREN:

Four. "My children paid attention to what I said, not what I did."

NOTABLE QUOTE:

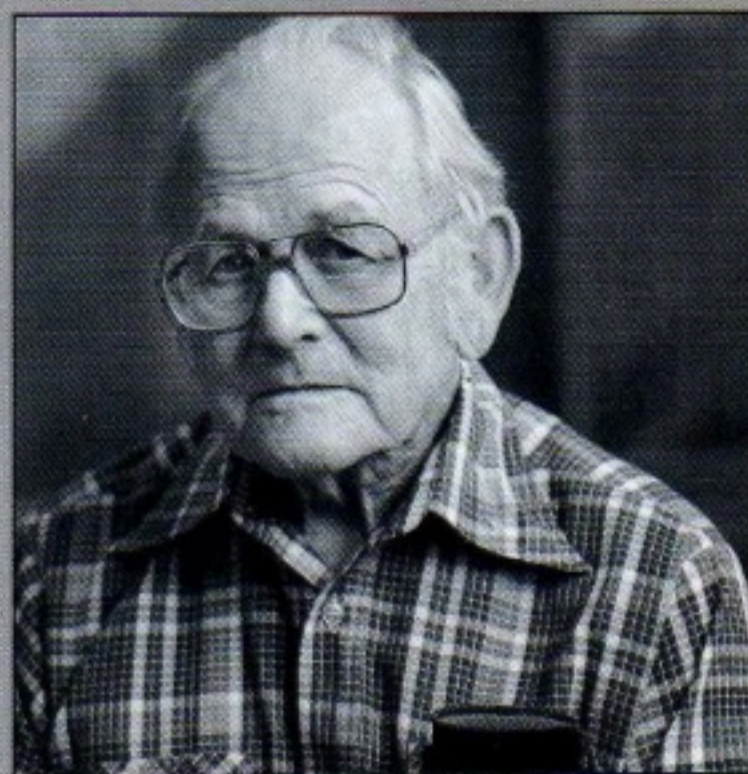
"Population is not a global problem. It is produced in each bedroom, a very local activity. So population control needs to be local."

RECENTLY READ:

The Nature of Politics by Roger D. Masters

FAVORITE BOOK:

A Sand County Almanac by Aldo Leopold



ly accepted "child-survival hypothesis." In a primitive community where couples have too many children and large numbers of them are dying, supporters of the child-survival thesis believe we can reduce infant mortality by sending these people the best modern medicine. Obviously, the first effect of reduced infant mortality is an increase in the rate of population growth. But, according to this theory, couples in Third World countries have so many children because so many die. A high birthrate is a safety measure to ensure some children's survival. So if child mortality is reduced, these people will supposedly eventually reduce their fertility.

The hypothesis is true in a sense: People do diminish their fertility somewhat. But the result is nevertheless an increase in the number of people that reach age 20. Fewer are born, but more reach adulthood, providing the next generation of breeders. So the population does not decrease

and the hypothesis isn't really true.

Why do we continue to practice the child-hypothesis theory? Because we are tenderhearted. We'd feel terrible if we didn't let others know there are ways to prevent infant mortality. So international Planned Parenthood generally provides medical assistance to reduce infant mortality in Third World countries. We think if we do the right thing—save babies—population control will happen spontaneously.

Omni: In 1967, Paul Ehrlich's *Population Bomb* prompted the formation of the organization Zero Population Growth (ZPG). Was this an effective move toward better understanding of population problems?

Hardin: The policy of ZPG has a fundamental weakness. Like the founders of Planned Parenthood, the members of ZPG were determined to enable women to have the number of children they wanted when they wanted. They believe if women are made aware of the importance of reducing population, ultimately they will want fewer of them. But women who want large families will have them—there's no way to tie their individual wants to national needs without some sort of coercion. I saw ZPG headed for failure. But still, it was a step in the right direction for helping to change the climate for population control.

ZPG also had another problem. To put it exceedingly bluntly and in prejudicial terms: In general, people who go to college are more intelligent than those who don't. It would be better to encourage the breeding of more intelligent people rather than the less intelligent. ZPG's entire attraction has been among the college population. So in effect, ZPG is encouraging college-educated people to have fewer children instead of encouraging reduced fertility among the less intelligent.

Omni: Writing "The Tragedy of the Commons" was very difficult, you've said, because "I was reaching conclusions that repelled me and tried desperately to avoid them."

Hardin: The basic concept of that essay was first published in 1833 by the mathematician William Foster Lloyd. He wrote that if a community purse is made available to the public, someone will spend a crown more quickly without thinking than if the crown comes from that person's own purse. Lloyd also said that public land is like a public purse: If everyone can dip into a common pasture, then that land will be abused. The pasture on private land will be protected by the owner and not overgrazed, so it can be used year after year. Rather than focusing primarily on a common purse, I concentrated on

a common land, common pasture, and developed my essay from there. I tried to show how reproductive freedom, like a common pasture or community purse, is abused. People are allowed to have as many children as they choose without complete responsibility for their care. Society carries the extra burden parents can't undertake.

I kept coming up against a conflict with the idea of individual freedom—that each should do whatever he or she wants and everything will be all right. This is widely believed in Western civilization where individualism has been successful in so many other areas, particularly free enterprise. Laissez-faire economics permits an entrepreneur to price his goods any way he wishes. On the free market, the person pricing his products too high will go broke because he doesn't sell enough; the person selling too low will also go broke because he doesn't make a decent profit. Eventually prices balance out. By and large, this is the way the free market works, and it's a good system.

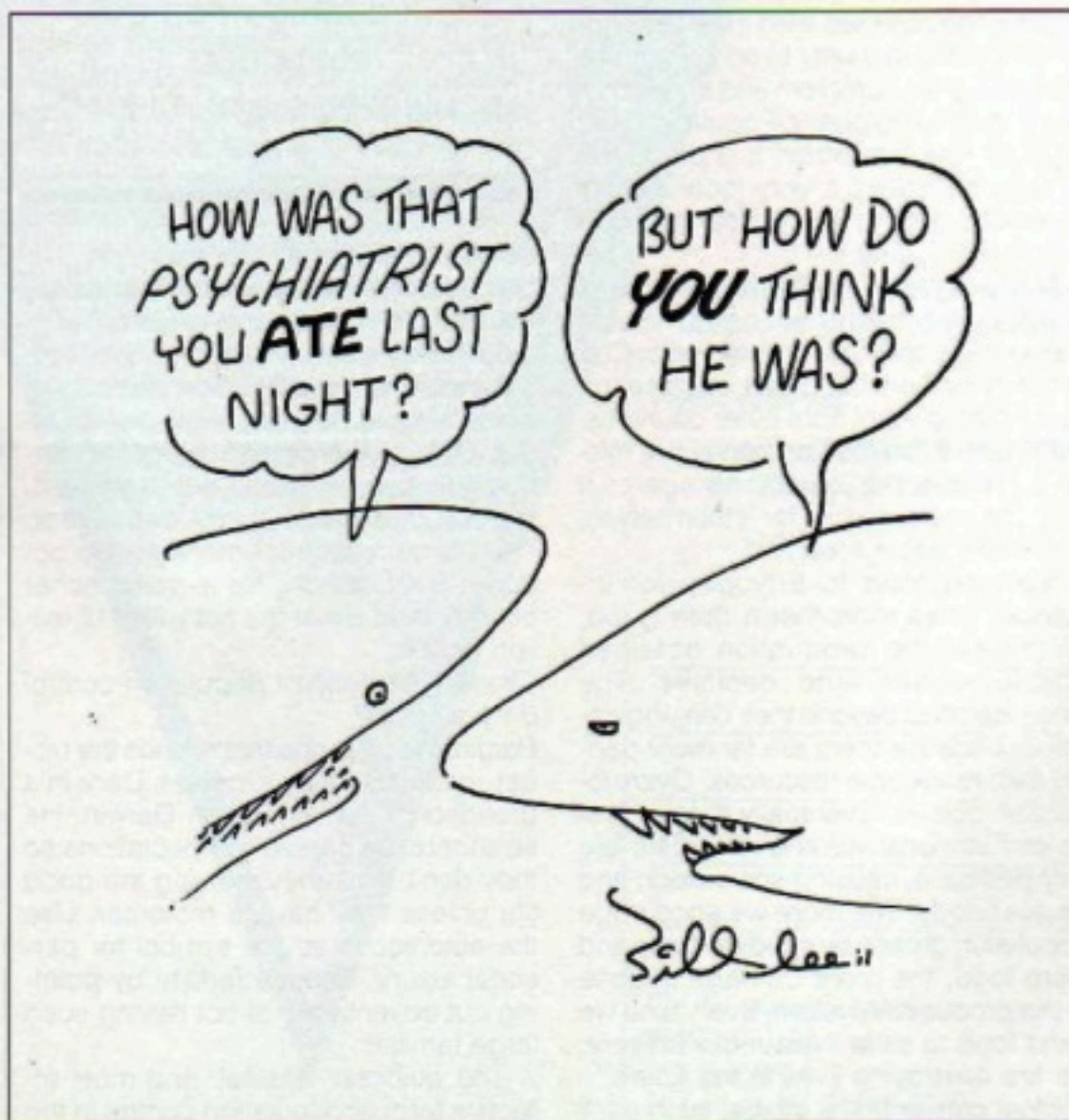
In writing "The Tragedy of the Commons" I resisted giving up the idea of applying the principle of laissez-faire economics to population control. Can a free market be applied to how many children a couple raises? Unfortunate-

ly, because some of the expense of having children is born by society, there is not sufficient pressure on the couple to have only the number of children they can take care of. So unlike the equilibrium obtained in the free financial market, a laissez-faire system of parentage yields too many children, too poorly taken care of. I finally gave up the idea that free-market principles could be used to control population.

Omni: Haven't a number of people criticized the validity of the concept embraced in "The Tragedy"?

Hardin: Sure. One argument claims that a community of lobster fishermen who fish off the coast of Maine functions as a successful commons. "Therefore Hardin is wrong!" my critics say. What these skeptics miss is that this commons of lobster fishermen has only a few members. They take as much lobster as they want, but the commons is not depleted. A commons only works successfully when a restricted number of people dip into its resources. Numbers become very important.

The example I frequently cite is a successful communistic group of religious farmers, the Hutterites, in the northwestern U.S. and Canada. They are disciples of the Marxist principle, "To each according to his needs," where a gen-



eral pot is provided for the entire populace. The Hutterite society has found from practical experience, however, that the Marxist concept doesn't work if the community grows beyond 150 people. People start going astray, stop doing their share of the work.

To resolve this problem, when a new community of Hutterites forms, its members immediately lay plans for splitting into two separate groups. They buy another farm as soon as they can; when the community grows over 150, they divide into two villages with the same number of old, young, and workers. The Hutterites can't make a commons work over 150. So to my critics I say, "A commons doesn't work if it's made up of too many people, even if they are good." With today's growing populations, the possibility for a successful commons becomes less and less likely.

Omni: Yet you've also frequently argued that there is no such beast as a global population problem.

Hardin: True. Roads all over the world have potholes. Now suppose that people suddenly become concerned with "the world pothole problem" and as a result set up the World Pothole Commission to fix the widespread potholes. Would you get the pothole in front of your house fixed faster by a local county agency or a world agency? We'd never get those potholes filled if we depended on a world authority to do it. Potholes are not a global problem and should not be considered globally. Population isn't a global problem either. It is produced in each bedroom; a very local activity produces it, and so the control of it needs to be local.

Many of my critics believe people of Third World countries can't handle these issues and need outside help. Certainly they can be given information about birth control from other countries, but to give them food or money is a mistake. This is the commons again: If they don't have to pay for it themselves, they won't use it wisely.

Sending food to Ethiopia, for instance, does more harm than good. Each year the production obtained from Ethiopian land declines. The lands are used beyond their carrying capacity because there are far more people than renewable resources. Overproduction occurs. Eventually the soil loses its nutritional value and forests are stripped bare, causing soil erosion and severe floods. The more we encourage population growth by sending more and more food, the more damage is done to the production system. Every time we send food to save lives in the present, we are destroying lives in the future.

Most conventional ethics, such as "I

am my brother's keeper," work only where small numbers of people are involved. Those who initially formulated these ethics I suspect never conceived of a time when people in the U.S. could see others starving to death on TV in "real time" on the opposite side of the world. We must realize our ability to know what's going on in other parts of the world far exceeds our ability to do anything about it. Conventional ethics sound good but don't work when the scale is enlarged. It works in the village, not in the whole world.

Our best chance of solving these problems is to let each country produce as many babies as the government decides is appropriate. This means each country must take care of the babies it produces. No rich country should be an escape hatch for a poor country.

But then no nation is really poor. If it has a small enough population, it can

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be rich. Bangladesh, for instance, is a rich country. It's the same size as Iowa. But 115 million people live in Bangladesh, while Iowa supports 3 million. If Bangladesh had 3 million citizens, its people would be living in the lap of luxury. Only one crop can be grown annually in Iowa, whereas in Bangladesh, two or three can grow each year. There's no reason for starvation to occur in Bangladesh. It's a much richer country than Iowa, but not with 115 million people.

Omni: What form of population control do you favor?

Hardin: Well, the one that sounds the nicest was raised by Charles Darwin's grandson, Charles Galton Darwin. He said increase people's expectations so they don't think they're living the good life unless they have a motorcar. Use the automobile as the symbol for personal luxury. Reduce fertility by pointing out advantages of not having such large families.

The quickest, easiest, and most effective form of population control in the

U.S., that I support wholeheartedly, is to end immigration. Our population growth would be spontaneously controlled. The U.S. accepts more immigrants each year than the other 179 nations of the world combined.

Economist Kenneth Boulding suggested that at birth, every female in the country be endowed with a certain number of green stamps giving her the right to have a certain number of children when she reaches child-bearing age. Depending on the population, the value of these stamps may vary from year to year. Let's say one year each woman is entitled to one and eight-tenths green stamps. If a woman wants to have one child she can sell the eight-tenths to somebody else. If she wants two children, she has to enter the market and buy two-tenths more stamps. This could work in any country.

Omni: What is your opinion of China's population policy, which prohibits couples from having more than one child?

Hardin: I give the Chinese credit for officially recognizing that they have a problem and for having the nerve to propose the single-child program. China is the only country in the world that recognizes it has too many people. They have failed, however, by not making this directive universal throughout the country. The one-child policy is only enforced in congested urban areas. People in rural regions continue to have too many children. So the Chinese haven't solved their problems at all.

Omni: Will population control cause other problems in Chinese society? Might a single child truly become what they call "a little emperor"?

Hardin: The Chinese admit their children are being spoiled, but this is natural behavior. I don't see any particular difficulty developing because less babies are born there. On the contrary, a smaller population should contribute to a better quality of life in China.

As for too many old people, the existence of a dominant elderly populace is not a serious danger anywhere. If an excess of young people exist, the older members of society are encouraged to retire early. When a deficiency of young develops, the elderly will be urged to work longer. This process automatically adjusts itself. How much and for how long a person works before retiring depends on the community.

Omni: Infanticide as a form of population control is hard to accept, yet you support it in its historical context.

Hardin: Yes. Looking at history with an open mind you'll see that infanticide has been used as an effective population control. In writings about the South Seas, Robert Louis Stevenson express-

es astonishment that island peoples practiced infanticide and yet were unusually loving towards children. Stevenson came from Calvinistic Scotland where, by God, children were treated severely. The Scots would never think of killing a child, but they'd never pamper it either. In the South Seas, the reverse occurred. In all societies practicing infanticide, the child is killed within minutes after birth, before bonding can occur. The mother never nurses the child. The South Pacific peoples must have easily seen the problems associated with overpopulation. When you live on an island, you know you live in a limited world.

Through most of history there's been no need for concern about population control. Nature would come along with epidemic diseases and take care of the matter for us. Disease has been the primary population controller in the past. Because widespread disease and famine no longer exist, we have to find another means to stop population increases.

Omni: What scenarios will unfold if world population growth continues at its current rate?

Hardin: Some organizations have done the proper demographic analyses and have the best answers for the fu-

ture. Usually I quote one of these projections. Now having said that, I'll go a step further and say that I don't have confidence in these projections. The pressures from expanding populations will become so great that trends will change. I suspect disasters such as widespread famine will prevent us from reaching the projected numbers.

I reluctantly make this statement because people say, "Oh you cruel man, you want to kill people." I don't want to kill anyone; but clearly, crippling conditions already exist in parts of the world due to escalating populations. People in central Africa suffer greatly from the effects of overpopulation; the land has been stripped of vegetation, causing erosion and flooding, leaving little hope for new crops. These countries may yet face a worse disaster, perhaps, in the spread of AIDS.

Omni: In the early Sixties you stopped writing and lecturing about population and decided to speak out in favor of abortion. Why?

Hardin: First, I didn't want to fight two battles at once. I didn't want people to oppose population control if they were not in favor of abortion. It's quite possible to be against abortion and still be in favor of population control. Until the mid Fifties, I strongly opposed abortion.

Then in 1958, I read *Abortion in the United States*, an account of a conference of doctors and Planned Parenthood professionals.

I'd always thought abortion was an extremely dangerous operation. Reading this book, I discovered abortions, when performed by competent medical professionals, were only one-fourth as dangerous as normal childbirth. (Today a normal childbirth is ten times more dangerous.) Other evidence presented at this conference suggested that having an abortion was a psychologically sound procedure, less harmful mentally for a woman than being compelled to have a child she didn't want. By 1962, I'd moved around to the other side and became a strong supporter of legalized abortion. By spring 1963, I was ready to go public with my ideas. Certainly the time was right for me to speak out on legalized abortion.

Omni: The Supreme Court decision legalizing abortion in 1973 stated, "The unborn have never been recognized in the law as persons in the whole sense." Why is this significant?

Hardin: The argument for and against abortion today encompasses this very issue. Is a fetus a person? Are all lives equally valuable? Biologists don't believe all life has the same worth. In many instances, qualification is important. Evidence is clear in nature. About 50 percent of all conceptions in mammals perish before birth. By having fewer offspring, mammals are able to take better care of their young. The conceptions that perish are virtually without value; if they persisted, the continued existence of the species might be jeopardized.

This happens with humans as well. About half of all pregnancies are lost the first few days after conception. If people say that an embryo is a human being from the moment the sperm enters the egg, then all laws applying to humans must apply to this tiny embryo. This fertilized egg has to be buried with all the expenses applied to a person who dies. Suppose a woman thinks she's pregnant because she's missed her period. A week later she gets it and says, "I guess I was just late." Maybe she wasn't late; maybe she was pregnant and had a spontaneous abortion. In such cases—if the conception might be "life"—whenever a woman is late with her period, the menstrual products will have to be collected and given a proper burial. If people want to change the law and declare that a human is present from the time the sperm enters the egg, they must face these consequences.

A fetus is of so little value, there's no point in worrying about it in a society



"I wish Dr. Bolton would try to improve his bedside manner."

where over- not underpopulation is a problem. We don't need to chase after every last one of these embryos. Like the blueprint of a house, a fetus doesn't have the same value as the house itself; it is not a human being. Just like 10,000 acorns; the loss of these seeds would be not be considered the loss of 10,000 oak trees, or deforestation. If a woman wants an abortion, either because of poverty, poor health, or because she doesn't think she will be a good mother—whatever reason—it's not in society's interest to urge her to have the child. We have enough poorly taken care of children already; we don't need any more. If a woman says she doesn't want a baby, that should be final.

Omni: What might happen if *Roe v. Wade* is reversed?

Hardin: It's difficult to predict history, but I can see no good resulting from forcing women to have babies they don't want. Many who oppose legal abortion condemn women who have them as selfish and immoral. I urge people to forget about the problems these woman may face and instead consider how reversing the right to have an abortion might affect them. The cost of raising these children will sooner or later reach the general public. As taxpayers, do they really want to support an unwanted child? Studies conducted in Europe show unwanted children have more psychological, educational, and health-related problems than children born to women who want them. It is paradoxical that people who call themselves conservatives oppose abortion. Conservatives usually strive to avoid taxes and high expenses. And yet, by opposing abortion, they ultimately ensure higher taxes. They should be the last to condemn abortion.

Omni: After the 1973 Supreme Court decision, why did you stop lecturing on this topic?

Hardin: We had essentially won the battle, or so we thought at the time. I decided I could go back to talking about population and its effects. When I first started lecturing on abortion, so few people were talking about it, I figured I was needed even though I was a man. But I was relaying secondhand information. By the early Seventies, women were speaking out on their own. If anything needed to be said about abortion, women could say it better.

Omni: Might you start speaking out regularly again?

Hardin: It's possible. Whether I start defending *Roe v. Wade* depends on what happens—on whether I get so riled up enough, so irritated that I can't stand being silent. 