

## CENTER FOR MIND-BODY MEDICINE

PLENARY: Choices in Healing and the Emerging Environmental Health Movement

PRESENTER: Michael Lerner, PhD

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## P R O C E E D I N G S

DR. GORDON: It's my great pleasure to introduce a new friend who's going to introduce an old friend. And the new friend is Helene Brown, who is one of the most important people in helping to keep the cancer care community aware and honest and thoughtful and focused on the important issues and on the big picture. She works at the Johnson Comprehensive Cancer Center at UCLA, but her influence is felt, certainly, throughout this country -- her influence, especially on prevention of cancer and on education about cancer. And I just met her fairly recently. Clem Bezold is the head of the Institute for Alternative Futures and is one of the people on our Advisory Council. I said I was going out to California; I had some things to do there. Well, he said you should stop off and see Helene. And I said, Helene? And he said Helene Brown, and then he started to tell me about Helene Brown. And I said absolutely. And so we spent a wonderful time together. She opened her heart and her house to me, and it was extremely helpful in terms of thinking through some of the larger issues in terms of how we make cancer care truly integrative and truly comprehensive.

So, Helene, I'm going to turn the mic over to you.

MS. BROWN: Thank you very much. I should go home while I'm ahead. Before I introduce Michael Lerner, I'm going to repeat a story that I told this morning in our group, because I've been asked by a half a dozen members who were there to please repeat it before this group. It has to do with what we're doing in this room today, why we're here and not at the beach or out on a sailboat or the thousand other places that we could be. Why did we really chose to be here?

And this has to do with a Persian rug. If anybody's ever seen a Persian rug being made, then you know that it's a very difficult job. There is an artist that sits up high like this, and the weavers sit on the floor weaving this tapestry. It is the artist who has in his or her head what the picture will look like. It's not colored by numbers, you know; it's not fill-it-in according to some redesigned stamping. But the artist knows that he wants blue and green over here and that he wants them for so many stitches, and he tells that weaver to do it and so on, across the floor.

Now, occasionally a mistake is made, and if you look at a good Persian rug, you can sometimes see those errors. You can't stop and take out the error. There is no taking away the bad stuff. Not like unraveling a piece of knitting. Instead, if he's a really good

artist, he weaves around that error, and still comes out with a gorgeous tapestry in spite of the error.

From my view, cancer is that kind of an error that creeps into our lives. It's a mistake. It's an aberration. It's something wrong. And if we are the true artists that we hope we are, we learn to weave around that error and still come out with a tapestry that is something great and wonderful and beautiful.

One of the people that I have met in my lifetime who is that kind of a true artist as Michael Lerner. Michael Lerner is a rare, rare man. He was the president and co-founder of Commonweal, and he is the president of the Smith Farm Center for the Healing Arts here in Washington, D.C.

Commonweal is located in my neck of the woods out in Salinas, California. Let me tell you what Commonweal means. Commonweal, pure definition, means general welfare, and if I'm wrong, Michael will have to tell me that. But a better definition is indebted in some of the other words that have come out of that word commonweal, like commonwealth, one in which the supreme authority in a commonwealth is vested in us, in the people. And that's the way it is in what we're trying to do here, and what Michael tries to do with Commonweal. We have all too few opportunities in today's world to make a real contribution to our own destiny. One arena in which we can still do it is in the arena of the choices we make in seeking our health care: How we do what we want to do with our bodies.

Michael is a friend of mine. A friend, you know, is a gift that you give yourself. He is friend of mine, and a compliment to me to allow me such a great wealth in friends. He's a Harvard graduate. He has a doctorate in political science from Yale. And prior to leaving to California, he was a member of the poli sci faculty at Yale. From 1988 to 1990, he served as a primary consultant to the Office of Technology Assessment as they were producing their landmark study for the U.S. Congress on unconventional cancer treatments. He was a recipient of a MacArthur Prize Fellowship in 1983 for his work in public health. He is recognized internationally as a leader in CAM, in complementary approaches to cancer therapy.

In my view, a leader is someone who has an absolute burning interest in what he does, and he's able to transmit that to other people to get them to follow him. It's a simple definition. Michael is that kind of a leader. He's one of the most objective human beings that I have ever met. He delves into all sides of an issue, and he gives everybody a fair chance at documenting their views. But if you come on with a view and you don't document the validity of it, that's not where he is. When they coined the phrase, "a prince of a man," I think they were talking about Michael Lerner. He's compassionate, he's loving. He is a rare individual and a friend of mine.

Michael?

MR. LERNER: Oh, my. You can see that Helene is a friend of mine, right? Thank you, Helene. You know, Helene, I just have to say, sort of embodies the heart of the American Cancer Society, and she really was the person who introduced my work on complementary therapies to the American Cancer Society, along with Clem Bezold of the Institute for Alternative Futures, who's here. And I'm just forever grateful to Helene for the open-mindedness and fierce integrity with which Helene keeps the interest of Americans with cancer at the heart of her life work. So thank you, Helene, for that. Yes, I'd like to applaud her.

I also want to take a few of these precious minutes to say that Jim Gordon as created a historically important conference here. There's no question in my mind. When Jim called me originally and -- we've spent three years trying to fix our schedules so that I could be part of this, and I've wanted to from the beginning. But I told him that I thought this conference was politically impossible. I didn't think it was possible for him to bring together the people that he wanted to bring together from mainstream cancer care and complementary medicine. I didn't think they'd sit together in the same room, much less speak from the same podium.

Jim has done just a masterful job in the nation's capital of bringing these things together, and there's nothing more important that could be done right now. So I just deeply honor what Jim has accomplished.

I have two tasks today, and they overlap, but they're different. One is to talk to you about choices in healing, and the other is to talk to you about the emerging environmental health movement. And I'll spend about half of my time on each of these things.

My work on choices in healing started when my father developed cancer about 16, 17 years ago, and he was not given much of a chance to live a very long time. He had non-Hodgkins lymphoma, prostate cancer, metastatic to the lung. And I began to look into complementary therapies, as many people do, to see if there was something that would be useful to him there.

My father, who developed cancer, his name was Max Lerner. He was a political philosopher. He developed cancer at the age of 77. He lived to be 89, and he wrote a book about his experience with cancer called *Wrestling With the Angel* -- he wrote it at 87 -- which the *New York Times* called the best of the illness memoirs. And he lived to be 89. But my favorite part about this, because I had devoted those 12 years to exploring complementary therapies, was that he never used any of the complementary therapies that I had explored.

And I loved that fact, beyond any telling of it, because it absolutely confirms my view, which is, there is no single right answer at this point with respect to complementary therapies. There are in mainstream therapies some right answers. There's some very high-probability answers. But in complementary therapies, there are no right answers

yet, and the fact that my father did so incredibly well with no complementary therapies at all is something I absolutely love.

So over the last 15 years, after looking around the world at complementary therapies, we started -- Rachel Naomi Remen, my colleague and I, started at Commonweal the Commonweal Cancer Help Program, a week-long program for people with cancer, an educational program for people under the care of qualified oncologists, that makes no claims about its health effects. And we've conducted 100 of these week-long programs at Commonweal and Smith Farm, the new center for the healing arts founded by Barbara Smith Coleman, a very visionary Washingtonian, and Shanti Norris, also a visionary Washingtonian. We've conducted about 100 of these week-long programs at these two centers at this point.

And what I have learned from these 100 weeks, which really have been the core of my work life over the last 15 years, is that if you take a group of 8 or 9 people who believe that it would be useful to come and spend a week doing yoga, meditation, deep relaxation, massage, art therapy, healing circles, writing poetry together, listening to evenings of talking about choices in healing, which is what I do -- if you take a group of eight or nine people and do that for a week, then it has a transformative impact on the way they carry their cancer for the rest of their lives. And they will tell you that for the rest of their lives, that this was a transformative moment.

And the second thing you will learn is that no two people will use that week in the same way, that the transformation is different for each person. There is no cookie-cutter version of how people will use that week. So the ideal week doesn't promote any single ideological position on cancer or complementary therapies or anything else, but rather, it creates an open, caring space where people are exposed to a wide range of options, and where every position, from the most secular, atheistic, agnostic view of the world to the most born-again, Christian, profound believer of faith or other person of faith -- but we try to create a space where those people can come to see and care about each other and listen to each other without a sense that one or the other has to be right or wrong in some fundamental sense. And that's what we do in the Cancer Help Program.

So during the Cancer Help Program, I spent two evenings talking about choices and healing. And the five areas of choices and healing that I talk about, which are described in my book *Choices in Healing*, which is from MIT Press and it's available complete on the web at [www.commonweal.org](http://www.commonweal.org) -- the five areas that I believe any human being in the second half of life ought to know about, regardless of whether they have cancer or not, are these: That every human being faces or will face choices in healing, in conventional therapies, in complementary therapies, in pain control, and in death and dying. And each of those five areas is like a great book, and to know that you can open those books when you need them and that there's knowledge, skill, choice and control in all of those five areas, is of enormous benefit to people with cancer.

So I focus in this first half of this talk on healing more than the other four areas. In fact, I'm going to talk about healing, conventional therapies, and complementary therapies,

and Dale Borglum does such good work on death and dying that I'm not going to cover pain and dying. So I'm going to focus on three so that I have time to talk about the environmental health movement.

Healing is crucial. And the key distinction that you all know about, but many cancer patients don't, is the distinction between curing and healing. A cure is what a physician seeks to offer with a curative treatment that reliably cures a specific form of cancer, or even a curative treatment that sometimes heals a specific form of cancer.

Healing, by contrast to curing, is the inner human potential to become whole -- physically, mentally, emotionally and spiritually whole. Curing is what a physician seeks to offer. Healing can only come from within us. And this is recognized in medicine, so that in medicine, there is the distinction between two sentences. In biomedicine, biomedicine seeks to cure the disease and alleviate pain. Biopsychosocial, or mind-body, medicine seeks not only to cure the disease and alleviate pain, but also to heal the illness and alleviate suffering.

Just think of the difference. Cure the disease and alleviate pain, heal the illness and alleviate suffering. They are interrelated but distinctly different goals.

You can have 100 women with absolutely identical primary breast cancers. They all by definition have the same disease. How many illnesses do they have? They have 100 different illnesses, because each woman has a different way of relating to and carrying that disease.

Now, whether or not we can change the course of the disease -- and I think this conference provides a lot of provocative evidence that we may, in some instances, be able to influence the course of the disease -- there is no question that every human being with cancer is able to transform the human experience of the illness. There is no question that every human being with cancer has the potential to change the way that they carry the disease. And that is the work of the Commonwealth cancer health program. It's not about curing. It's about healing. It's about our birthright in healing.

So one fundamental question is, how do you optimize the conditions of healing? We know a lot at M.D. Anderson, at Sloan-Kettering and elsewhere -- my brother is an oncologist -- about optimizing the conditions of cure. But how much have we studied optimizing the conditions of healing? My friend and colleague Dr. Marty Rossman was saying this morning about the placebo effect, which is a very powerful aspect of psychophysiological healing -- not only mental, emotional and spiritual, but actually physiological healing. Marty was saying that there are three conditions that make the placebo effect powerful. One is that the patient believes in the approach. The second is that the practitioner believes in the approach. And the third is that the patient believes in the practitioner. To which Marty added a fourth placebo condition, which I think is very profound, which is that the fourth condition, he suggests, is that the practitioner believes in the patient's self-healing capacity. So I offer those as four ideas about the conditions of healing.

Let me approach it in another way, and suggest to you three tools for healing that we use a lot in the Cancer Help Program, and they are imagery, creativity and meaning. Imagery, my colleague Dr. Rachel Naomi Remen calls the language of the unconscious. And when we have a life-threatening illness, there is no question that what happens -- and Jim Gordon will prove to you this morning -- is that there is enormous upwelling of unconscious forces that want to help us respond to this as powerfully as we can. But if we don't take the time to consult those unconscious forces, we can't access them. And imagery being the language of the unconscious, it's the language with which we can consult with the enormous unconscious forces that mobilize periods of crisis in our lives.

So a second point, if imagery is one approach, is creativity. There's a beautiful poem by W.H. Auden about a country physician who's been treating an older woman with cancer and has come home and is sitting at the kitchen table with his wife while she's cooking dinner, and he's reflecting on his visit, his home visit to this older woman with breast cancer. And he said to wife, you know, cancer's a curious thing. He said, childless women get it, and then when they retire. It's as though they needed an outlet for that foiled creative fire. It's as though they needed an outlet for that foiled creative fire.

Now, I am not saying that Auden was right about the epidemiology of cancer. Cancer is an epidemic in our time. Lots of people get cancer. But if you ask cancer patients whether there were traumatic events in the years before, the year or two before they developed their cancer, and what they think about the relationship of those traumatic events to their cancer, they won't necessarily say it caused their cancer, but they will attribute -- there's a big difference between cause and attribution -- they will attribute part of the development of their cancer to these traumatic events. And these traumatic events, they feel, in some deep sense deflected them from their true life purpose or goals or the direction they were going. They were in some sense foiled in their creative direction in life. It's as though they needed an outlet for that foiled creative fire.

So, you know, the word "neoplasm" literally means new growth. And so that sense that when growth in the direction that they were moving was not possible to them, that this new growth takes place, and they wonder about the relationship.

Now, I'm speaking a symbolic language here. I want to be very clear. As Helene says, this part of this talk is not about science. But this part of the talk, we're talking about mind-body medicine. So attribution matters, you know. Belief systems matter. So the sense that there was a relationship between having been deflected and the development of the cancer can be very powerful. And therefore, if something like the Cancer Help Program or a practitioner or someone close to this person or the person themselves recognizes that reconnecting with their creativity might be a very powerful thing to do, that is another dimension of healing, just as the use of imagery is. So the use of creativity is.

And the third tool that I just want to mention is meaning, which is my favorite of these three. And I take it from Victor Frankel, the great Jewish psychoanalyst, who found

himself in Auschwitz, the Nazi concentration camp, trying to survive and also, as a physician, trying to help others survive. And as he looked around him to try to discover how one could survive in these ultimately difficult conditions, do you think it was the biggest and healthiest people who were surviving in Auschwitz? It was not. Frankel found -- and Elie Wiesel found the same thing -- that the people who survived were people who had some deep core of meaning that even Auschwitz could not touch. And Frankel speaks about seeing prisoners in Auschwitz line up to walk into the gas chambers with a smile on their lips and a prayer in their hearts. So that sense that there was a place that they could go that even Auschwitz could not touch was a survival tool for people at Auschwitz.

So what I would suggest is that a great deal of the literature on religion and health, on a sense of coherence and health -- there are many, many things pointing to the fact that finding within ourselves that core of meaning for ourselves is a survival tool. And that is another dimension, as I suggested with imagery and creativity and meaning, of what healing work can be.

I want to take the time to tell you the only story I think I'll tell you about an individual. It was about a very great pediatrician and psychiatrist who gave me permission to use his name. His name was Milton Senn, and he was a professor of psychiatry at Yale University, and he nursed his wife through a very difficult disease at the end of her life, Lou Gehrig's disease. And in the course of it, he developed bladder cancer, but he didn't want to leave his wife while she was going through Lou Gehrig's disease to take treatment.

And so by the time she died, his bladder cancer was metastatic. And so he came on the Cancer Help Program at the age of about 80, a very distinguished, extraordinary pediatrician who devoted his life to serving poor children. And he said to me, "Michael, you know, I don't know why I'm here. Everybody else here is here because they're trying to survive and recover from this cancer." He said, "You know, I never believed in life after death before, but I have a sense that my wife is waiting for me, and I really don't have much to keep me here, and I'm kind of looking forward to going to see her again if she's there. So I don't know why I came."

I could have talked to Milton Senn all week about imagery and diet and things like that. It would have had no impact, because that's not where he was.

So I said to Milton, "Look, you are far too wise a man for me to talk you out of what seems like a deep truth." I said, "But, Milton, you're not dead yet. And while you're here, is there anything that would give more meaning to your life?"

Milton thought. He was a very thoughtful man, and he said, "Well, there is one thing but I can't do it."

And I said, "What's that?"

He said, "I'd like to get a cat but I can't get a cat."

And I said, "A cat?"

He said, "Yes, a cat."

And I said, "Milton, why can't you get a cat?"

And he said, "Well, if I got sick, who would take care of the cat? And if I died, what would become of the cat?"

Well, I spent the whole week negotiating with Milton about whether he could get a cat. I said, "Look, Milton. I used to teach at Yale. I lived in New Haven. I've got a lot of friends there. You've got a lot of friends there. If you get sick, believe me, we'll find somebody to take care of the cat." And I said, "And if you die, I'd be honored, my wife and I would be honored, to take your cat. But in that case, let's get a Siamese, because my wife likes Siamese cats."

Milton wouldn't hear of it. He had spent his whole life taking care of poor, disadvantaged kids. If he was going to get a cat, which he hadn't decided to do, it would be a cat from the ASPCA that nobody wanted, and that had been beaten up on and so on. So even by the time he went home, Milton had not decided that in his integrity, he could get a cat.

About a month later, he called me up -- very kind of gruff voice. He had just happened to drop by the ASPCA, and there had been this kitten that had been thrown from the window of a moving car, and he had taken it home and was nursing it back to health. Milton lived for a very long time with metastatic bladder cancer, and every Christmas, we'd get a card from Milton and the cat. And when Rachel Remen had heard me tell this story for maybe the 50th time, because it's my favorite story, she said to me, "You know, when Milton asked you if he could get a cat, what he was really asking was whether he could love again." Because Milton was like a swan. He was one of those people who had mated for life, and there were lots of women in the retirement community -- he was a very handsome man -- who would have liked to keep him company. But he wasn't interested in another human life partner. He was interested in a cat. And so giving himself permission to take a cat, to get a cat, was giving himself permission to love again, and I think love is really the most powerful of the healing forces.

So when I tell this story, one of the major points about it is not only that there are common conditions of healing, like deep relaxation and imagery and good diet and all those things, but also that there are incredibly unique conditions of healing, and that sometimes the unique conditions of healing can be more powerful than all the common conditions put together, which is why I would ask each of you, do you know what your cat is? Do you know what that is? And when you talk to people with cancer, do you ask them, in effect, what is your cat? That's what Larry LeShan also talks about: What is

that unique condition of healing that really helps you? And the process of helping people identify not only the common conditions of healing but the unique conditions of healing, I think, is a great way of helping people with cancer.

Okay. That's healing. Conventional therapies, I'm going to treat much more briefly. Conventional therapies, in my judgment, are absolutely the first place to start for people with cancer, because they have the only clear-cut cures for cancer that we know about. The difficulties are the difficulties in choice that people face, and that is a tremendous difficulty. People are snowed under with different options very often.

So the central thing that I talk to people about in conventional therapies who are not scientists is to recognize that there are different cultures of medicine -- a wonderful book by Lynn Payer on that. Lynn Payer looked at cancer therapy in the United States, Britain, France and Germany, and she compared them. Now, these are all countries with the same scientific literature available to them. If mainstream cancer therapy was simply a direct result of the scientific evidence, shouldn't cancer treatments be the same in the United States, France, Germany and Britain? And obviously, they should. But in fact, there are profound differences in the way cancer is treated in Europe and the United States. When European oncologists and patients who come to the United States will immediately tell you -- and by the way, this is true for Japan as well; in fact, much of the rest of the world -- that what they notice about the United States is that Americans are much more aggressive about their cancer therapies than people are in Europe. In Europe, they tend to favor more conservative cancer treatments.

So there are these different cultures. It's not science in, treatment out; it's science mediated by culture in, treatment out. And it's very helpful for cancer patients to recognize that, because then I can say, there are also cultures within American cancer medicine: In chemotherapy, in radiation and in surgery, each of those tribes of cancer treatment has its own culture. And within each of those tribes of cancer treatment, you see the international differentiation between aggressive and conservative treatment repeating itself, so that there are radiation therapists who prefer aggressive or conservative treatment, surgeons who prefer aggressive and conservative treatment, down the line.

So the key point for a cancer patient interested in bringing their own healing style into their choices in mainstream medicine, is to recognize the benefits of asking this question. Can I find a medical team that can accommodate my style of risk? Because each person has a different style of risk, and so to be able to say to your doctor when he recommends a treatment, "Doctor, I thank you for that recommendation, but tell me this: I understand that there's usually a continuum from conservative to aggressive treatment. Where does your recommendation fall on that continuum? What would more conservative treatment look like? What would more aggressive treatment look like? And if I were to choose one of those other options, do you believe that you could accommodate my style of risk?" It creates a dialogue that has meaning for both the oncologist and the patient in a language that the patient can understand and over which he has some real control.

So there are many other things I could say about mainstream therapies, but I just want to point to one area that I'm particularly interested in. There is a literature, and some recent studies have come out on the timing of breast cancer surgery in premenopausal women. And several studies have suggested that women who have their breast cancer surgery in the second half of the menstrual cycle have very significantly better survival than women who have it in the first half of the menstrual cycle.

My colleague Dr. Charlene Weiss at the University of Miami and here, also at Commonweal, is working for six months at Commonweal on a review of this literature. And there are two major clinical trials involving this issue underway right now, but they won't report for a considerable number of years.

So my question is, if we reviewed the literature on a precautionary basis, should women know about these studies, some of which have shown no effect, but several of which have shown quite significant effect, on a precautionary basis, should women be given the option of discussing with their surgeons whether the timing of breast cancer surgery is possible for them?

But there are thousands of issues like that, and one of the things that the Internet has done is create a situation where it's like we're in the Star Wars, you know, spaceship, and it's like we've got ourselves on hyperdrive, and we're going through galaxies, and this information flow is coming at us like this. And what it really means is that the most informed cancer patients are deeply hooked into the Internet, so that throughout their treatment, they're watching this flow for studies that may be useful to them.

So that's a whole other subject, about the disease tribes on the Internet, but it has absolutely transformed the role of the informed cancer patient in his or her own mainstream treatment.

Complementary therapies, I'll spend a little more time on. I studied complementary cancer therapies for 15 years, and my findings have remained essentially the same for these 15 years, and they are as follows. First, I have seen no clear-cut cure for cancer among the hundreds of complementary cancer therapies that I've studied. I want to be very clear what I mean by that. I have seen no complementary therapy that, if you told me you had a specific kind of cancer, I could say to you that, as with a curative mainstream therapy, "Go try this, it cures that form of cancer." I have seen no clear-cut cure for cancer amount the complementary cancer therapies.

Second, there is an increasing amount of scientific evidence and a great deal of anecdotal or case evidence on a much more interesting question than whether there's a cure among the complementary therapies, which is this: Do some cancer patients do better when they integrate the very best of conventional and complementary therapies? And there's a lot of anecdotal evidence, and Jim Gordon and others have referred to the studies by Spiegel and Fawzy and Fawzy on psychological approaches. The new interesting work on PC-SPES, the herbal formula for prostate cancer, the work Dean

Ornish and Bill Fair, who's here and the late Ernst Wynder are doing very exciting -- and Dan Nixon, who's here, are doing on low-fat diets with prostate cancer and potentially with breast cancer. There's a lot of really interesting evidence.

And my belief is that the cures are more likely, the clear-cut cures are more likely, from mainstream medicine, with the incredible dynamism of science and technology behind them. But cancer control is more likely, or at least as likely -- I don't want to say as likely -- it's significantly likely that some forms of cancer control are going to emerge from the complementary therapies. If the Spiegel Studies turn out to be upheld, if things like PC-SPES turn out to have an effect, if -- I was talking to Mike Hawkins, who suggested it's probably a hormonal therapy. We don't know how to compare it with other hormonal therapies.

These are important research questions -- the question of whether a low-fat diet will make a difference in prostate cancer. But these things will tend to be controls, and probably not full controls. They will likely be partial controls. And as Julia Rowland was saying this morning, we need to begin to think of mind-body medicine -- it doesn't need a whole paradigm shift. We've had multimodal approaches to cancer, chemotherapy, surgery with radiation, and their combination for a long time. It's simply a matter of adding these other modalities. We don't really need a whole paradigm shift to begin to add these modalities so that, for example, with prostate cancer, potentially something like the Ornish program that's worked so well with heart disease, and he's trying it with prostate cancer, of meditation, yoga, a vegetarian diet and so on, group support, may turn out to be a legitimate part of the multimodal approach to prostate cancer. We don't know that yet, but that's a serious question.

So if there's increasing scientific evidence and strong anecdotal evidence, how do we, in the meantime, evaluate this incredible forest of complementary therapies? I developed a typology that the Office of Technology Assessment used in part in its study on conventional cancer treatments that goes like this. It seems to me if you look at complementary therapies, there are spiritual approaches, psychological approaches, nutritional approaches, physical approaches like yoga or qigong or tai chi or massage. Traditional medicines: Jim mentioned a very important area of traditional Chinese medicine research. Herbal approaches: PC-SPES is an example, and of course, there are a lot of traditional Chinese medicines. Pharmacological approaches: Hydrazine sulfate, shark's cartilage, those kinds of things. Electromagnetic approaches: The work in Sweden using electromagnetic therapies for cancer. Unconventional uses of conventional treatments: The Jancker Klinik in Bonn, Germany where many Americans have gone. Esoteric approaches, like psychic surgery in the Philippines and so forth. And finally, a deep emphasis on humane approaches.

And just sort of giving you a shopping list: Spiritual, psychological, nutritional, physical, traditional medicines, herbal, pharmacological, electromagnetic, unconventional uses of conventional, esoteric, humane -- you could alter that, but it gives you a kind of a map.

So when you look at that map, then the real question is, how do you choose? And when I looked at that map for long enough, it began to seem to me that the first four -- spiritual, psychological, nutritional and physical -- were fundamentally different from all the rest. And the reason was that if any human being starts to take care of themselves spiritually, psychologically, nutritionally, and physically, what happens? They tend to begin to feel better. They tend to begin to get healthier.

So what do you call, if you're an oncologist, a cancer patient who feels better and feels healthier? We say in research language, well, they have a better quality of life and better functional status.

So if you then say to the oncologist, "Tell me, Doctor, in your research studies, when you track quality of life early in the disease and functional status, what are they predictors of?" And the answer is, they are predictors of outcome. People live longer when they have better quality of life and better functional status, and that's not really rocket science, because it's a difficult disease, difficult treatments. So it's not entirely unobvious that people might live longer if they were doing things that gave them a better quality of life, improved functional status.

So the point about this, what I call the vital quartet of spiritual, psychological, nutritional and physical approaches to cancer is, it's completely different. It's a different category from all those things that require careful scientific evaluation. And of course, we could get into detail here. But essentially, cancer patients who undertake this vital quartet of spiritual, psychological, nutritional and physical approaches, there's a lot of research literature that suggests that on a precautionary basis, they're not doing an insane thing.

We cannot end the epidemic of cancer with either mainstream or complementary cancer cures. We cannot end it that way. We need prevention, and we need not only lifestyle preventions -- smoking, diet, exercise, the regular litany of things that you hear -- we need environmental public health as well.

We live -- the scientists, the naturalists will tell you -- in an age of extinctions, in which the human impact on the earth is driving the tree of life, the sacred tree of life that the scientists call biodiversity, back to the lowest levels in 65 million years, back to the lowest levels since the end of the age of dinosaurs, which was the last great cataclysm of extinction. We are creating the fifth great cataclysm of extinction on the planet's history. And we have created four great drivers of these extinctions, and they are climate change, ozone depletion, toxic chemicals, and habitat destruction, and the scientists agree on that.

If we take cancer alone, there are two of these four drivers of the distinction that are particularly relevant. One is the hole in the ozone layer. The hole in ozone layer is not only at the South Pole anymore; it's also at the North Pole. It's getting wider, it's getting deeper. It has a very direct relationship, and the correlations are really -- the lines are being connected to skin cancers, to melanoma, but it also depletes immune function in a very broad way that may affect a wide range of conditions, including cancer.

In addition to the hole in the ozone layer, we have created a society built on a petrochemical background of chemicals, and there are 75,000 chemicals in use, and every single person in this room carries hundreds of chemicals in our bloodstream. And not only are some of these chemicals -- thank God, not all -- but some of them carcinogens, but others are what are called endocrine disruptors, and there is an exploding literature on endocrine disruption, suggesting that the mother's chemical load disrupts fetal development in the womb, where the result, not only of an increase in some cancers, but in learning and behavior disorders of children, endometriosis, infertility, Parkinson's disease -- a wide, wide range of the epidemic conditions of our time.

We have reached the point -- and I give you this as the symbol; in fact, this is the hardest thing I have to say to you all day -- these chemicals tend to bioaccumulate in our bodies, and we live very close to the top of the food chain, we get much higher levels than other species that live lower on the food chain.

But guess who lives ever higher than we live on the food chain? Our babies. And guess what food they drink? Breast milk. And breast milk bioaccumulates one more time, and a bioaccumulation is ten to a hundredfold more for many chemicals, so that the deep sadness for me is that I have to say to you that breast milk is the most toxic human food.

Now, to me, that is an insupportable fact. I simply am not willing to live in this world and say it's okay that we continue to pour chemicals into the environment, when breast milk in many parts of this country would not meet FDA standards a food to be sold to adult human beings, let alone to children.

So I'm curious, if breast milk is the most toxic human food and we live with an epidemic of breast cancer and there's evidence that total lifetime estrogenic exposure may be related to some breast cancer, why isn't it a tremendous concern for the National Cancer Institute and the American Cancer Society and all the institutions that I care about and love, why aren't they researching this stuff? Why don't they care about it as much as the American people care about it? It's simply an almost lost issue. You know, it is minimized in 100 different ways. I am not saying -- and I deeply agree with Helene Brown that the science is disputed here, and there are many first-rate scientists who will tell you that only 5 or 10 percent of cancers are chemically related. But they say a large part are nutritionally related, and if you talk to Harmon Eyre, the medical director of the American Cancer Society, he will agree that when you take that nutritional piece, that includes the chemicals in the nutrition.

So I don't think the end of the story is written, and even if we take that lowest level, that it's only 5 or 10 percent, that's still a big deal. It's still a big deal. That's still lots and lots of people.

I think what we are witnessing in response that these realities that our main institutions are not yet addressing is an emerging and environmental health movement, all over this country and all over the world, that for women's reproductive health, that for parents with kids with learning disabilities, that for the solid epidemic of endometriosis, which is a horrible disease, that for the cancers, breast cancer all around, in every one of these illness tribes, you are beginning to find the pioneers who are driving the agenda of including environmental health in their constituency organizations. And I believe that environmental health is going to be one of the greatest human rights issues of the new millennium. I believe that the right to breast-feed your children toxic-free is a human right, and it will be an aspirational right for the new millennium. And I believe that just as surely as over the last 25 years, many of us in this room have participated in the mind-body health movement, that over the next 25 years, you are going to watch environmental health come in with the same unbelievable power, and it is going to transform our sense of what is possible.

If you think that my hope of a world where it is possible for women to breast-feed toxic-free is unrealistic, ask yourself how it looked to the early people, the early Quakers who tried to end slavery, or to the early proponents of democracy, or to the early proponents of women's rights. It all seemed impossible at that time, that there were people who voted with their feet and said, yes, this is not popular yet.

I believe that we in this room in the mind-body health movement have a profound responsibility to join forces with emerging and environmental health movement, so that the next 25 years is not just about filling in the blanks in our now-triumphant mind-body health movement, but it is to make from personal to planetary healing, and to take part in the emerging environmental health movement as well.

Thank you very much.

(Whereupon, the PROCEEDINGS were adjourned.)

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