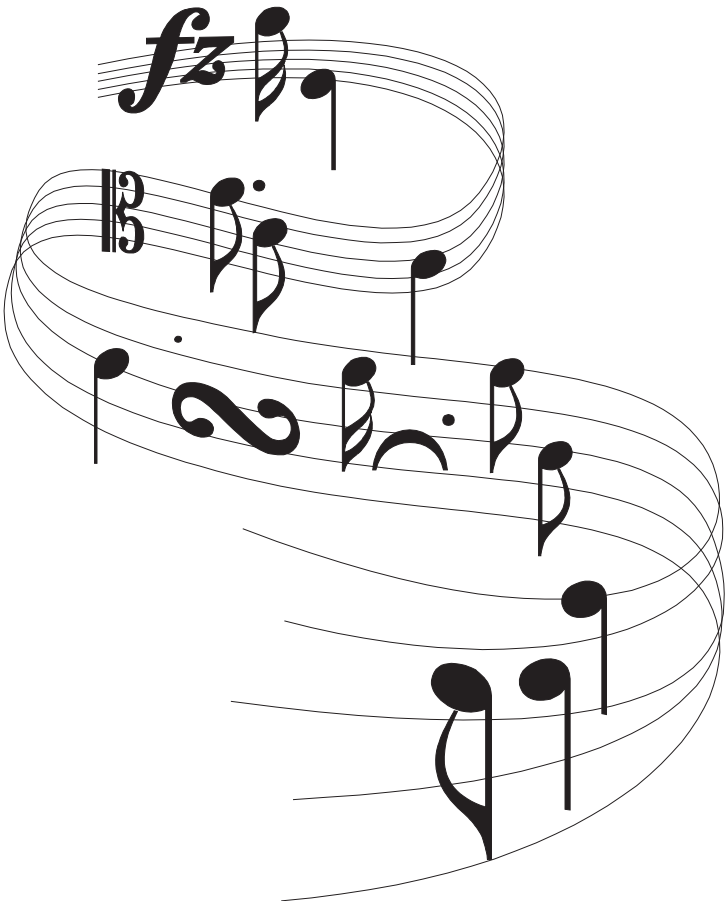
A Symphony of the Preborn Child



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A Symphony of the Preborn Child

Part I

(TENNESSEE FROZEN EMBRYOS)
COURT RULING AND TRANSCRIPT

Testimony of Dr. Jerome Lejeune

NAAPC
NATIONAL ASSOCIATION FOR
THE ADVANCEMENT OF PREBORN CHILDREN
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PROLOGUE

An epoch-making trial took place in Blount County, Tennessee in August of 1989. Judge W. Dale Young of the Blount County Circuit Court was called upon to decide a case of first impression in the world. He presided over a domestic relations case in which a husband had sued his wife for divorce and at the same time had sought and obtained a temporary injunction preventing her from implanting frozen embryos conceived by them in an in vitro fertilization procedure undertaken earlier in the year. He said he did not want to be a father against his will. She said he already was a father. He had told her privately that if he got possession of the embryos he would destroy them. She told the judge publicly that if the embryos could not be given to her for implantation, she wished that they be given anonymously to another woman who could not conceive so that their preborn children might live.

Upon reading of the case for the first time in the Sunday paper of August 6th, I telephoned Jay Christenberry, Mary's attorney, in Knoxville, Tennessee, and told him that the one man in the world who could help him as an expert witness was Dr. Jerome Lejeune, our current world father of genetics. Upon speaking with Dr. Lejeune on trans-Atlantic telephone and telling him of Mary's desire that the children go to another woman if she could not have them, he commented: "This is incredible. This is the judgment of Solomon. I did not think it could reoccur again in human history. It is reoccurring." He agreed to fly to the United States to testify in this little Tennessee courtroom to help Mary of Maryville, Tennessee, and her preborn children.

A rare moment took place in that little Tennessee courtroom as Dr. Lejeune took the stand and his testimony began to unfold. At the conclusion of his testimony, secretaries from the Judge's chambers, who heard his testimony only over the loudspeaker, flocked around him with the rest of the throng in the hallway to exclaim that he had painted a true "symphony of life."

You, the reader, and the nation, have it in hand. A new chapter is about to unfold as a grand new moral essay exam is presented to our Republic at this time in our nation's history.

James Russell Lowell said it best:

"Once to every man and nation comes the moment to decide,
In the strife of Truth with Falsehood, for the good or evil side."

Judge Young has fired a shot, based upon science, that will be heard around the world. It is now up to the nation.

You hold in your hands history.

All agree that Dr. Lejeune is to the world of genetics as Einstein was to the world of physics. His testimony in the *Davis* case (Blount County, Tennessee, August 10, 1989) is to the deliberations of our state legislators, courts and U.S. Supreme Court as the letter that Albert Einstein wrote to President Roosevelt regarding a new discovery on the splitting of the atom was to the future of energy. This testimony of Dr. Lejeune has figuratively split the atom of the humanity of the preborn child, and in so doing has released the tremendous energy of truth, which is circling the globe.

Just as man was given new respect for the atom, so man is now humbled in awe before the startling revelations of the very beginnings of preborn life-a human conceptus of a three-cell stage, which would fit on the tip of a needle and yet contains more information, perfectly organized, than would fit in one million NASA computers and which is differentiated as the constitution of this exact new human being immediately following fertilization-all information necessary to completely build himself, even the marvel of the human brain, capable of going to the moon, putting foot on the moon, or capable of building an NASA computer.

Dr. Lejeune's testimony is purely science, but it is science telling man a love story, for just as the splitting of the atom releases incredible energy and light, so man's splitting of the kernel of truth of the early beginnings of his own life has released a trillion-fold amount of energy and light and illuminated the source of that light, which is the real energy source of the entire universe: LOVE. The greatest force of the universe is and always will be LOVE.

Man having seen the light must respond in human love. All law disavowing the equal humanity of preborn children must change. The period of medieval darkness is forever over.

MARTIN PALMER, *Esq.*
October 1989

FOREWORD

America has set before her, the way of life and the way of death. Prayerfully, America will choose life, that she will have it more abundantly.

Part I of this book deals with the widely publicized Tennessee Frozen Human Embryo Case, in which Dr. Lejeune was called to testify in this unique "second judgment of Solomon." Based upon his testimony Judge W. Dale Young, ruled that Mary's seven frozen human embryos were "children in vitro" and entered up a custody award to Mary for implantation and live birth.

The Court of Appeals of Tennessee reversed the trial Judge and ordered the embryos destroyed saying that the father should not be made to be a "father against his will." Mary said her husband already was a father. Her husband replied, "Nonsense, they are only 'potential life.'" Mary said they are "lives with potential."

Mary asked that I represent her in her appeal to the United States Supreme Court. We prepared a petition for Writ of Certiorari to the high court, but the court declined to hear the case, which allowed the ruling of the Court of Appeals of the State of Tennessee to stand by which the embryos were ordered to be destroyed.

Dr. LeJeune, when he received the sad news of the Court's refusal to hear Mary's plea for her seven children, commented that it went entirely unnoticed by the newsman, but this was the first time in the history of the Supreme Court that it had condemned to death those adjudged innocent below.

On D-Day, in June of 1944, the allies hit the beaches of Normandy to push back the "culture of death" which had overshadowed Europe and threatened the civilization of the entire Western World. At the Neuremberg trials following the war, our representative could speak five languages and he summed it all up when he said: "It all started in Germany when it was decided that there was such a thing as a life not worth living."

Former Surgeon General Koop and Francis Schaeffer co-authored the book Whatever Happened to the Human Race. In their book they point out that it all started in Germany with abortion, then spread to the handicapped newborn, then handicapped adults, then the gypsies, then the Slavs, and eventually the politically unfit. The euthanasianists in Germany taught the Nazis how to build the Crematoriums.

Germany, which has learned from its own history, today strictly outlaws abortion and human embryo experimentation. Those nations of the world, including our own, which have not learned from history are now in the process of repeating it.

IN THE CIRCUIT COURT FOR BLOUNT COUNTY
STATE OF TENNESSEE
AT MARYVILLE, TENNESSEE

JUNIOR L. DAVIS,
Plaintiff,
vs. No. E-14496
MARY SUE DAVIS,
Defendant.

Transcript of excerpt of proceedings as had upon the trial of the above-styled cause before the Honorable William Dale Young, on the 10th day of August, 1989.

Reported by:
PEGGY M. GILES, C.C.R.
KNOXVILLE COURT REPORTING
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THE COURT: For the record, ladies and gentlemen, let the record reflect that prior to these proceedings being placed of record, that the Honorable Martin Palmer, a member of the Maryland Bar, had been introduced to the Court and welcomed, and that Dr. Lejeune, a witness in this case, had been given the oath to testify. Is there any need, gentlemen, to readminister the oath for the record?

MR. CLIFFORD: No, your Honor.
MR. CHRISTENBERRY: No, your Honor.
THE COURT: You may proceed.

The Witness,
JEROME LEJEUNE, M.D.,
having been first duly sworn, testified upon his oath as follows:

DIRECT EXAMINATION
BY MR. CHRISTENBERRY:

Q. Would you state your name for the record, please, sit?

A. My name is Jerome Lejeune.

Q. And to help the court reporter if she doesn't understand the French pronunciation you spell your name, J-E-R-0-M-E, capital L, little e, little j, E-U- N-E?

A. Perfect.

Q. Thank you. Dr. Lejeune, from your accent, I take it that you live elsewhere than East Tennessee?

A. Well, born on the river of the Seine, you know.

Q. And that is probably situated in another country, I hope?

A. It's a little country called France, and the little town is Paris.

Q. Thank you, Doctor. I guess you're a French citizen?

A. I'm French citizen, Parisian born.

Q. And you've traveled to this country, to Maryville Tennessee, to offer what you have as a witness in this trial?

A. Yes.

Q. Okay. Tell us, Doctor, What you do, what your profession is.

A. I am a M.D., that is Doctor in medicine, I'm also a Ph.D., Doctor in science, and after getting my degree in the University of Paris in medicine and also in genetics in the Sorbonne, Faculty of Science, I was research worker for ten years, and then I was appointed professor of fundamental genetics in the Faculty of Medicine of Paris. My special field is children, all the constitutional diseases of children, and more especially mental retardation.

Q. Okay. Doctor, you practiced medicine, I take it, as maybe a pediatrician?

A. Well, I started as a pediatrician, but I specialized In genetics, and we have the biggest consultation of the world in *l'Hospital des Enfants Malades*, Sick

Children Hospital in Paris. We have the biggest consultation of the world for children with mental retardation due to congenital diseases due to chromosomal mistakes.

Q. Have you been an educator as a result of your background? Have you been a teacher?

A. Well, I have been professor of fundamental genetics now for twenty years, but I began-my first teaching was not in France, it was in America. I was invited by Professor Beadle in Caltech, California Institute of Technology. It was just before I discovered the first diseases of man—first chromosomal diseases in man, but I was already involved in medical genetics, and Beadle invited me to give the first course of human genetics in Caltech. That was long ago. At that time my English was even rougher than it is today, and I came with all my course written in French. In the evening I was translating them with the dictionary, and in the morning I was delivering the course to the students. They were very kind, they helped me very greatly. That is the way I have learned to speak English, and I hope the way they have learned a little about human genetics.

Q. You remember the year that you went to Caltech?

A. Well, it was in '58.

Q. Did you remain there for some time as a professor?

A. I was a visiting professor from the OTAN, professorship from the OTAN; NATO, you say NATO, excuse me.

Q. You have been accredited with helping in human genetics with identification of some chromosome; will you tell us what that is about?

A. It happens that I discovered the first disease due to a chromosomal mistake in man which is Down's Syndrome which was called previously Mongolism because these children have a special odd look which is a little remembering for European some type of the Mongol features. But in Mongolia they don't like to call the disease Mongolism, they call it European Imbecility.

I discovered that they had one chromosome too much. That was long ago, thirty-two years, if I calculate well, and for that discovery I received the Kennedy Prize from the late president here in United States. And also for that discovery, I got William Allen Memorial Award which is the highest award that you can get in genetics in the world. It's given also in United States.

Q. I see. Have you followed with your genetic discovery even as you sit here today? Have you continued to study?

A. Oh, yes.

Q. Could you probably give us an enlightenment on what's happened over thirty-two years?

A. Well, I want not to speak too much about myself, it's not the subject. But we have discovered ten different diseases due to chromosomal errors, and I would say the first chapters of this enormous pathology was written in French by us. Now, we are dealing with mechanisms of mental retardation due to chromosomal diseases, and we are beginning to understand why having one

chromosome too much, that is, normal information but repeated, makes a nuisance for the development of the intellect. And, for example, very recently we demonstrated that in trisomy twenty-one, Down's Syndrome, previously called Mongolism, the cells of the children are more sensitive to some drugs which are used against cancer. It seems totally unrelated, but, in fact, it's defining a new field of research, because very likely this peculiarity is related to a deficiency in a chemical system which is used especially in our neuron, and it's probably one of the main reasons why they do not develop a normal intelligence. So, for the moment, you asked me what we are doing now: We are working on this particular hypothesis because it allows us to make experiments on cells, taken from the children, we cultivate, and we can manipulate, we deprive them, we follow them and we play with them, and we use a lot of drugs to see how they react, and that is the first time we can make experiment in human cells so that to try to cure a neuronal disease, a nervous disease, so it's a very exciting field, but the job is not yet finished.

Q. I trust you can do all that without harming the children?

A. Oh, well, you just take a few drops of blood, and you cultivate the cells, make cultures. We play with the cell: we do not play with the child.

Q. Thank you, Doctor. I understand you're on the boards of various academies in this world. Could you tell us about that?

A. I have the honor of being a member of the American Academy of Arts and Science, I'm member of the Royal Society of Medicine in London, Royal Society of Science in Stockholm, of the Science Academy in Italy, in Argentina. I'm a member of the Pontifical Academy of Science, and I'm a member in Paris in the *Institut de France of the Academie des Sciences Morales et Politiques*, that is, of Moral and Political Sciences, a special academy in France; and also the Academy of Medicine in France.

Q. The Academy that deals with moral and political sciences—

A. Yeah.

Q. Tell us what that academy's function is about, doctor.

A. That academy was made around two hundred years ago to give advice to the government about moral and political questions, and essentially to give advice to the government about the use of new techniques, considering that the respect of man is one ofthe bases of our constitution. We have five academies in the Institute de France, it's, one of them.

Q. And then you mentioned another that gave me some interest. You said the Pontifical Academy, where is that academy located?

A. The Pontifical Academy of Science is located inside the gardens of the Vatican, a very nice location. We are seventy members and no more than seven of any country, so that we're coming from all the world around. Our percentage of Nobel Prize is more than sixty percent. There is no difficulty because we choose the members in the whole earth, and so it's not difficult to choose good ones. The interest is many of them have been selected by another committee

long after they had been elected by our academy. I would say it's the only scientific international academy of science, the only one which is truly international.

Q. How long have you been on that academy?

A. Twelve years if I remember well, something like that.

Q. Tell us a little bit about the topics or research that is done there. What have you all considered?

A. In the academy?

Q. Yes, sir.

A. Well, for example, we are given the question: What is danger of the use of atomic energy? For example, we had four sessions about the danger of atomic weapons and their numbers, the use of them, the possibility of survival of humanity after an atomic war and how medicine could do something. And when we did the report, the Holy Fathers asked the academy to designate members to produce that report to the powers who head the atomic power. It was sent to-in Moscow, to the late Mr. Brezhnev. This was a very interesting interview during one hour discussing with Mr. Brezhnev in the Kremlin about the danger that humanity would feel if there was an atomic exchange.

Q. Did you find that interview interesting to say the least with Mr. Brezhnev?

A. I'm not a diplomat, I'm just a scientist, and it was very interesting for me, at least.

Q. I understand that in this country, you're familiar with our man that is in charge of our health and welfare of all the citizens of this state?

A. C. Everett Koop, yes, we are good friends. I know him since long.

Q. How long have you known him now?

A. I'm not good at counting the number of years, I know people-maybe fifteen years, something of that kind.

Q. Do you visit with him and speak with him?

A. Yes.

Q. Does he call your bureau or your agency or your scientific—on the phone in Paris?

A. No, we have discussions when we meet together. We don't use phone for very important matter. It's better to have a chat.

Q. What are his interests in you? In other words, what areas have you all chatted about?

A. Human genetics, which is my field.

MR. CHRISTENBERRY: I believe at this time, your Honor, I would ask the Court to recognize Dr. Lejeune as an expert witness in the field in which he's here to testify.

THE COURT: Any objection?

MR. CLIFFORD: Your Honor, we certainly recognize Dr. Lejeune's expertise in the field of genetics.

THE COURT: All right, he's qualified.

MR. CHRISTENBERRY: Thank you, your Honor. BY MR. CHRISTENBERRY:

Q. Dr. Lejeune, as you sit here today, it's fair to say you have come quite a distance, is it not, sir?

A. Pardon!

Q. It's fair to say you have come quite a distance to testify today, is it not?

A. Well, it's not that far, you know. I have been farther than that.

Q. You're familiar with the issues, the profound issues this Court is considering, aren't you. Doctor?

A. Yeah, and that is the reason why I accepted to come.

Q. Thank you. With respect to the issues in this case, you understand the-what we would say is the factual understanding of how Mr. Davis feels and how Mrs. Davis feels. There has been some publicity about this, has there not, Doctor? You have heard something about their dilemma?

A. I heard something, but very little. I must be very honest, I don't look at television, I don't listen to the radio, and I only knew when Mr. Palmer telephoned to me, that was the first time I heard about it. So I would not say I'm really knowing the whereabouts, no. I know there are babies, there are human beings in the fridge, this is the only thing I know.

Q. Thank you, Doctor. So let's start with that aspect of this case. You're familiar with in vitro fertilization?

A. Yes.

Q. When did you write your first article about it, if you recall?

A. Oh, you are terrible with dates; I'm not good with the answers. It must be fifteen years ago, something.

Q. Okay.

A. Before it was used.

Q. Before it was used. So before it was used it had been conceived in man's mind, had it not?

A. Well, you have to understand that artificial fertilization is something rather old in biology, and it was used for animals long before it was applied to man. And what seems today extraordinary, that is freezing a human embryo, it was not extraordinary for a cow. There is a lot of time that cows have been frozen and used and sent by air mail in little containers. And the novelty is to consider that the technique which was devised for husbandry was good enough for mankind.

Q. Tell us about in vitro fertilization and your view of it and your perspective that you could offer today.

A. Well, could I speak more about nature—

Q. Yes.

A. —of the human being, than specifically the condition in vitro, because to understand what means the fertilization in vitro, we have to understand what

means fertilization at the beginning of a human being.

Q. All right.

A. And if I can say so, I would say that life has a very long history, but each of us has a unique beginning, the moment of conception. We know and all the genetics and all the zoology are there to tell us that there is a link between the parents and the children. And this link is made of a long molecule that we can dissect the DNA molecule which is transmitting information from parents to children through generations and generations. As soon as the program is written on the DNA, there are twenty-three different pieces of program carried by the spermatozoa and there are twenty-three different homologous pieces carried by the ovum. As soon as the twenty-three chromosomes carried by the sperm encounter the twenty-three chromosomes carried by the ovum, the whole information necessary and sufficient to spell out all the characteristics of the new being is gathered.

Q. Is what, sir?

A. Gathered.

Q. Gathered.

A. Gathered. And it's very interesting, if I can say, your Honor, to remark that natural sciences and science of the law, in fact, speak the same language. In that sense that when we see somebody healthy, well built, we say he has a robust constitution, and when we see a country in which every subject is protected by the law, we say it has an equitable constitution. In the phenomenon of the writing a law, you have to spell out every term of the law before it can be considered to be a law, I mean in the science of the law. And secondarily, this information written in the law has to be enacted, and it cannot be before it has been voted for.

Now, life does exactly the same thing. Inside the chromosomes is written the program and all the definitions. In fact, chromosomes are, so to speak, the table of the law of life. If you get the right number of your table of the law of your life, then you begin your own life. Now, the voting process does exist as well. It is the fertilization itself, because there are a lot of proposals, many, many sperms. Only one got in; that is the voting process which enact the new constitution of a man. And exactly as would say a lawyer, once a constitution exists in a country, you can speak about it in the same way, when this information carried by the sperm and by the ovum has encountered each other, then a new human being is defined because its own personal and human constitution is entirely spelled out.

There exists a lot of minute differences in the message given by father and the one given by mother, even by the same person; we do not give exactly the same minute information in each sperm or in each egg. It follows that the voting process of the fertilization produces a personal constitution which is entirely typical of this very one human being which has never occurred before and will never occur again. It's an entire novelty. That was sure—that was

known for let's say not a hundred years but more than fifty years. But the bewildering was the minuteness of the writing of those tables of the law.

You have to figure out what is a DNA molecule. I would say it's a long thread of one meter (sic) of length, cut in twenty-three pieces. Each piece is coiled on itself very tightly to make spiral of spiral of spiral so that finally it looks like a little rod that we can see under the microscope that we call a chromosome. And there are twenty-three of them carried by father, twenty-three of them carried by mother. I said the minuteness of the language is bewildering because if I was bringing here in the Court all the one meter long DNA of the sperms and all the meter long of the ovums which will make every one of the five billions of human beings that will replace ourselves in this planet, this amount of matter would be roughly two aspirin tablets. That tells us that nature to carry the information from father to children, from mother to children, from generation to generation has used the smallest possible language. And it is very necessary because life is taking advantage of the movement of the particles, of molecules, to put order inside the chance development of random movement of particles, so that chance is now transformed according to the necessity of the new being.

All the information being written they have to be written in the smallest language possible so that they can dictate how to manipulate particle by particle, atom by atom, molecule by molecule. We have to be with life at the real cross between matter, energy and information.

Now, I would like, your Honor, to give you an impression of what happens normally. Most of the human beings have been conceived before the fertilization in vitro was used, and most of the humanity will still be made the old good days' fashion for a long time I do hope. Normally, when the ovum is ripe, that is, once a month, fifteen days after the menses, there is a rupture of the follicle, and the ovum is so to speak taken by the fallopian tube, which has a special expansion—we call it *le pavillon*—I don't know the name in English. And it can move, and if you take a picture it looks like as a hand making a slow palpation of the ovary to find where the egg will be laid and to take it.

Normally, the egg is a big cell, round, not mobile, floating quietly inside the fluid in the tube, and the tube will manage to carry this big cell towards the uterus by ciliate movements. On the contrary, the sperm is an indefatigable navigator. It has been deposited in the entry of the genitalia of the mother, and normally it goes up through the cervix of the uterus, he swims during the whole uterine cavity, and it is inside the fallopian tube that the encounter between few thousands, ten thousands, hundred thousands of sperm and the one egg can occur. And it is because every human being has been conceived in nature inside the little tube, a tube of flesh that we call the fallopian tube, that test tube babies are indeed possible. The only difference is that sperm and egg are meeting inside a tube which is now a tube of glass because the egg has been removed from the body of the woman, and the sperm has been just added to the little vessel. And it's because normal *fecundation*—I should say fertilization in

English—normal fertilization is occurring inside a tube that if you put the proper medium … It is not at all the inseminator who makes fertilization, he just puts on the right medium, a ripe ovum, active sperm, and it is the sperm who made the fertilization. Man would be unable to make a fertilization. It has to be done directly by the cells. And it's because they were normally floating in the fluid that this extracorporeal technique is at all possible.

Now, the reproduction process is a very impressive phenomenon in the sense that what is reproduced is never the matter, but it is information. For example, when you want to reproduce a statue, you can make a mold and there will be an exact contiguity between the atoms of the original statue and the atoms of the mold. During the molding process there will be again between the plaster and the mold contact atom by atom so that you reproduce the statue. But what is reproduced is not the original because you can make it out of plaster, out of bronze, about anything. What is reproduced is the form that the genius of the sculptor had imprinted in the matter. The same thing is true for any reproduction whether it is by radio, by television, by photography, what is printed or reproduced is the information and not the matter. The matter is a support of the information. And that explain to us how life is at all possible, because it would be impossible to reproduce matter. Matter is not living, matter cannot live at all. Matter is matter. What is reproduced and transmitted, it's an information which will animate matter. Then there is nothing like living matter, what exist is animated matter. And what we learn in genetics is to know what does animate the matter, to force the matter to take the form of a human being.

To give you an idea, I would take a very simple example, I would take the example of this little apparatus here, a recorder.

Q. Yes, sir.

A. Now, chromosomes are a long thread of DNA in which information is written. They are coiled very tightly on the chromosomes, and, in fact, a chromosome is very comparable to a mini-cassette, in which a symphony is written, the symphony of life. Now, exactly as if you go and buy a cartridge on which the *Kleine Nachtmusik* from Mozart has been registered, if you put it in a normal recorder, the musician would not be reproduced, the notes of music will not be reproduced, they are not there; what would be reproduced is the movement of air which transmits to you the genius of Mozart. It's exactly the same way that life is played. On the tiny minicassettes which are our chromosomes are written various parts of the opus which is for human symphony, and as soon as all the information necessary and sufficient to spell out the whole symphony, this symphony plays itself, that is, a new man is beginning his career.

In vitro fertilization does not change at all what I have said. It's just a technique sometime used to bypass a difficulty in the encounter of the egg and the sperm, so it's a–it's a derivation. It does not change at all the basic mechanism, the basic mechanism is just the same.

Now, if I could continue a little more, it's not about fertilization that we are

discussing. It's about freezing of embryos. I'm not a specialist at freezing embryos. Your Honor, I have never played with embryos. But in my laboratory we are freezing cells, we are thawing them, we are using a lot of those process, so we know about it, we use it on another system than embryos, but all cells are very similar in their reactions. Now, you have to realize —I don't know if it is true in English, but I think it's quite true, and it is true at least in all the Latin language, we use the same word to define the tempo that we measure with a clock and the temperature that we measure with a thermometer. We say in French *temps* and *temperature*; in English you say time which is a change of tempo, which a temporal thing, and temperature. And that is not a mistake of the ordinary language, it's a definition of the basic phenomenon. I don't know how they have recognized it so long ago to build it into the language. What means "time" is the flux of the agitation of the molecule, the flux of the particle which is continually going on. And temperature is just a measure of the speed with which the molecules are running in a given medium.

Now, if you diminish progressively temperature, you diminish the speed and the number of collisions between the molecules, and so to speak without any joke about the words, you are progressively slowing down, slowing down the temperature, you are freezing time. And, in fact, we are wrong telling that we are freezing embryos. In a sense it's very true like you deep freeze the meat in the supermarket, very correct. But in the fundamental sense what we are doing by lowering down the temperature is stopping not totally but very deeply the movements of the atoms and molecule so, in fact, inside the can, the thermal can in which we put in tiny canisters the cells or the embryos, we have more or less arrested the flux of the time. This seems to be rhetorical, but it is not because otherwise we could never understood why it is possible to freeze a cell, to have it entirely not moving, not respirating, not having any chemical exchange, and just if you have done it with precision (so that no crystals have been made inside the cells which could have ruptured its very minute architecture), if you thaw it, thaw it progressively and carefully, it will again begin to flourish and to divide. Then it's obviously sure that we have not arrested life and started life again. What we have arrested is the time for this particular organism which is inside this can.

If we could put a cell down to the minus two hundred seventy-three centigrade, that is, to the absolute zero, every movement would be stopped. And if the temperature would be maintained at that level, it would be kept unchanged for indefinity. I would not say eternity but indefinity. We are not achieving that when we freeze a cell in my laboratory (and you do the same here); we use not liquid hydrogen because it's very costly and very explosive, and it's used only in NASA for the rockets. We use mostly liquid nitrogen because it cannot explode, and it's rather cheap, and it's easy to manage. But it's only minus a hundred ninety degrees that we have inside the cannister. Well, it's rather cool, but it's not absolute zero, so the preservation is not a hundred

percent.

And probably you could not preserve the cells for more than a number of years, that nobody knows because it depends on the cells. For example, to the best of my knowledge for ordinary cells which are very resistant, they are examples of more than fifteen years in the cannister and being thawed and being correctly surviving and alive. For mouse embryo it's some ten years. In our species I think there are no long time, maybe one or two years, no more than that. And nobody knows with the actual technique how long the preservation would be real preservation. It's a question I could not answer, and I think nobody can answer precisely today.

But what I could say, that the information which is inside this first cell obviously tell to this cell all the tricks of the trade to build herself as the individual, this cell is already. I mean it's not a definition to build a theoretical man, but to build that particular human person we will call later Margaret or Paul or Peter, it's already there, but it's so small that we cannot see it. It's by induction that we know it for the moment. And I would say I would like to use the felicitous expression of the mathematicians. They would say that man is reduced at its simplest expression like you can do with an algebraic formula if you manipulate it intelligently. If you want to know what mean that formula you have to expand it to give value to the various parameters, and to put in use a formula, you expand it. It's what is life, the formula is there; if you allow this formula to be expanded by itself, just giving shelter and nurture, then you have the development of the full person. Now, I know that there has been recent discussion of vocabulary, and I was very surprised two years ago that some of our British colleagues invented the term of pre-embryo. That does not exist, it has never existed. I was curious, and I went to the encyclopedia, to the French encyclopedia, the one I inherited from my great father so it was fifty years ago it was printed.

And at the term of embryo it was said: "The youngest form of a being," which is very clear and simple definition, and it stated: "it starts as one fertilized cell, (fertilized egg which is called also zygote), and when the zygote splits in two cells, it is called a two-cell embryo. When it split in four it is called a four-cell embryo." Then it's very interesting because this terminology was accepted the world over for more than fifty years by all the specialists of the world, and we had no need at all of a sub-class which would be called a pre-embryo, because there is nothing before the embryo. Before an embryo there is a sperm and an egg, and that is it. And the sperm and an egg cannot be a pre-embryo because you cannot tell what embryo it will be, because you don't know what the sperm will go in what an egg, but once it is made, you have got a zygote and when it divides it's an embryo and that's it.

I think it's important because people would believe that a pre-embryo does not have the same significance that an embryo. And in fact, on the contrary, a first cell knows more and is more specialized, if I could say, than any cell which

is later in our organism.

Now, I don't know if I can abuse of your patience, your Honor?

THE COURT: You're doing fine.

THE WITNESS: The very young human being, just after fertilization, after it has split in two cells and then in three cells because curiously we do not split ourselves in two, four, eight and continue like that, no, at the beginning we don't do that. We split in two cells of roughly equal dimension and one of the two cells splits in two. There is a moment in which inside the zona pellucida which is a kind of plastic bag, which is, so to speak, the wall of the private life of the embryo in which it is protected from the outside, we have a stage in which there are three cells. This has been known for fifty, sixty years, and it was remaining a mystery for embryology, because after that stage of three cells, it starts again, it comes to four, and it continue by multiples of two.

What could be the meaning? We do not know yet the accurate meaning, but it is of great importance about the discussion we have today because we can manipulate non-human embryos like, for example, mices. We can disassemble the cells which are inside the zona pellucida of a sixteen cell embryo of mice and take few cells of it, take few cells from another embryo, of another type of embryo, if you wish, and put all that together inside a new zona pellucida from which you have expelled the legitimate occupant. Now, what happens? Most of the time it fails, but sometimes a chimera comes out. For example, if you have chosen a black embryo, a white embryo and you have mixed them together, you find a little tiny mouse which can run on your table but which has a chessboard on the body. Parts are black, parts are white because she has built herself of two type of cells that you had put together in the same zona pellucida. It has to be done with a very small number of cells.

We have tried, and when I say we, I should say geneticists, have tried to put three different lines, and they have got few mice with three different type of cells that they can see on the fur. They have tried four, does not work; five, does not work. It's only possible with three cells. And that remembers that when we split at the beginning of our life (two cells and then one cell in two), we go at a three cell stage. It's probably at that time that a message goes from one cell to the two other cells, come back to the first one and suddenly realize we are not a population of cells. We are bound to be an individual. That is individualization, that makes the difference between a population of cells which is just a tissue culture and an individual which will build himself according to his own rule, is demonstrated at the three cell stage, that is very soon after fertilization has occurred.

If we stop the process, if we slow down the movement of the molecules, we progressively come to a relative standstill, and when the embryo is frozen, these tiny human beings, they are very small, one millimeter and a half of a dimension, a sphere a millimeter and a half, you can put them in canisters by the thousands. And then with the due connotation, the fact of putting inside a

very chilly space, tiny human beings who are deprived of any liberty, of any movement, even they are deprived of time, (time is frozen for them), make them surviving, so to speak, in a suspended time, in a concentration can. It's not as hospitable and prepared to life as would be the secret temple which is inside the female body that is a womb which is by far much better equipped physiologically, chemically, and I would say intellectually than our best laboratories for the development of a new human being.

That is the reason why thinking about those things, I was deeply moved when you phoned to me, knowing that Madame, the mother, wanted to rescue babies from this concentration can. And to give to the baby—I would not use term baby, it is not perfectly accurate, not good English—would offer to those early human beings, her own flesh, the hospitality that she is the best in the world to give them. And because Mr. Palmer told me on the phone that it had been said that if you, Madame, were not entitled to give this shelter to the baby-to the early human beings, (beings perfectly correct in what I mean)—you would prefer that they would be enjoying another shelter and not being left inside the concentration can, or destroyed. And I was impressed because it remembered me of an extraordinary trial which has occurred more than two thousand years ago, and I could not believe it could occur again, that two persons will discuss whether it's better to have an early human being alive and given to a certain person or another person would prefer the baby not being alive at all. And to the best of my recollection this judgment has been considered as a paragon of justice when Solomon did it. I was not thinking I would come from Paris to speak in Tennessee about a two thousand years old trial. But I realized when you phoned to me, it was the first time it was arising in this earth with a very early human being, because before early human beings were not in our reach, they were protected inside the secret temple. And then I felt it was opportunity that a geneticist was going to tell you what our own science tells us.

If this trial had taken place two years before, I would have stopped because I would have told you all that we knew at that moment. But with your permission, your Honor, I will continue a little further, faster and faster.

THE COURT: Yes.

THE WITNESS: We know much more, since the last two years, we know

that the uniqueness of the early human being I was talking at the beginning, which was a statistical certainty (but an inference of all we knew about the frequency of the genes, about the difference between individuals) is now an experimentally demonstrated fact. That has been discovered less than two years ago by Jeffreys in England, the remarkable manipulator of DNA. And Jeffreys invented that he could select a little piece of DNA, of which he could manufacture a lot of it, which is specific of some message in our chromosomes. It is repeated a lot of times in many different chromosomes and which is probably a regulation system. Some indication to do something or do another thing, but

not a kitchen recipe, but a precision about what to do.

And because its only telling the cells that this should work and this should not work, it can assume a lot of tiny change, so that there are so many of those little genes and there are so many little changes in them that we receive from father and from mother an array of those genes that we can realize very simply, you get the DNA, you put it in solution and you have it spread in a special medium. Then you put this special probe made by Jefferys, and what you see it looks exactly like the bar code that you have probably seen in the supermarket, that is, small lines of different breadth and different distance from each other. If you put that bar code and you read it with an electronic device, it tells the computer what the price of the object and tells a lot of other things.

Well, its exactly what it tells us that when we look at the DNA bar code, and we detect every individual is different from the next one by its own bar code. And that is not any longer a demonstration by statistical reasoning. So many investigations have been made that we know now that looking at the bar code with his Jeffreys system, the probability that you will find it identical in another person is less than one in a billion. So it's not any longer a theory that each of us in unique. It's now a demonstration as simple as a bar code in the supermarket. It does not tell you the price of human life, it has a difference with supermarket.

The second advance has been that we know now that in one cell we can detect its originality. That has been due to the discovery of a new system which is called PCR, which is becoming extraordinary popular. It started two years ago, You can take a tiny piece of DNA, one molecule taken from one cell, you see how little this is, you can with that technique reproduce it by billions, and when you have enough you can make the analysis of Jeffreys and see again that we have the whole demonstration of uniqueness, not only in a sample taken from the individual, but in one cell, in one nucleus of one individual.

Another is a third discovery which is by far the most important of all, which is that DNA is not as dull as the magnetic tape I was talking before. Nature is imitated by our discoveries, but she has known much more than we have yet discovered. In that sense, that the message written on DNA is written by change of the various bases which come one after the other in that one meter long molecule. But now it happens that twenty years ago it was described with certainty that some of the bases of DNA were carrying an extra little piece we call a methyl, (which is CH_3) which is just hooked on it and change a little of the form of one of the bars of this long scale which is the DNA molecule. Nobody understood what it was meaning. And it's only four years ago (especially by the discovery of Surani) that we have begun to understand that we were up to something extraordinary, which is that those tiny little bits of methyl which are put on the base, cytosine, which is transformed in methyl-cytosine—I'm sorry to be technical, your Honor, but I cannot translate it, it's chemical slang.

THE COURT: I understand.

THE WITNESS: Is exactly comparable to what does an intelligent reader when he wants with a pen to underline, to highlight some passage or to scratch, delete another sentence. That is with the methylation, one gene which is still there is knocked out, put to silence, but if it is demethylated on the next division, on the next cell, then it will speak again.

Now, the basic discovery was that this is possible because this tiny change on the DNA, changes the surface of the big groove of the helix of DNA. It is inside this big groove that some molecules, some proteins will hook on different segments specific of the DNA. It is a kind of language telling to the chromosome: You have to tell this information or for this information, shut up, do not speak this one for the moment. It's very necessary, because there is so many information in our cells that if they were expressing everything, every time, to have the energy spent by one cell would be much more than the energy of our whole body. So it's necessary that we have some silent gene and some gene giving expression, expressed.

Now, the basic discovery is the following, and it is directly related to our discussion: That the DNA carried by the sperm is not underlined (or crossed) by this methylation on the same places which are not equivalent in the DNA chromosomes carried by ovum. During the manufacture of the sperm there are indications, it's penciled, so to speak. It's underlined, you should do that. But on the equivalent gene, on the equivalent chromosome manufactured by the mother, the underline is in a different place, and it underlines something different. So that at the moment the two sets of chromosomes carried by the sperms and the egg are put together, they are not as we believed for years identical. We knew there was a difference with the "X" and "Y" chromosomes, but for the others they were believed to carry the same information; that is not true. Some information is to be read on as coming from the male chromosome, and another information from a chromosome coming from the mother. Now, the reason is that the fertilized egg is the most specialized cell under the sun because it has a special indication underlining segments of DNA which shall be expressed and others that shall not be expressed that no other cell will ever have in the life of this individual. When it's split in two we know that exchange of information comes from one cell to the other one. When it's split in three it receives information we are an individual. And when it continues progressively, the underlining system is progressively changed so that cells do differentiate, and cells become specialized doing a nail, doing hair, doing skin, doing neurons, doing everything.

And the very thing is that during this process, the expansion of the primary formula which is written in the early human being, nothing is learned but progressively a lot of things are forgotten. The first cell knew more than the three cell stage, and the three cell stage knew more than the morula, than the gastrula, than the primitive streak, and the primitive nervous system. In the

beginning it was written really not only what is the genetic message we can read in every cell, but it was written the way it should be read from one sequence to another one. Exactly like in the program of a computer, you don't put only the equivalent of the Algebraic formula, but you tell to the computer do that; if you get that result, then go at that and continue that program; or if you don't get the result, continue and go to the other program. That is written in the first cell; is progressively forgotten in the other cells of our body.

At the end of the process when the organism has grown up, it produce then its own reproductive cells, it puts the counter to zero again, and hence the rejuvenation. A new life will begin when a female and a male cell will encounter to produce the next generation. So I would say very precisely, your Honor, that two years ago I would not have been able to give you this very simple but extremely valuable information which we have now, beyond any doubt.

I would give you an example of why it's not theoretical. We can manipulate with mice—not me, but my colleagues. And with mice they have been able to make pseudo zygote, that is, to take one egg, expel its own legitimate nucleus and put, for example, two nuclei coming from sperm, so they have diploid cell, a diploid zygote containing only two sets of paternal origin; it fails to grow. They have tried to do it with two maternal original nuclei, that is, two maternal chromosomal cells and no paternal cells. It's diploid; by the old theory it should grow, but it does not. But curiously both of them do something; they don't build a full imago, that is, the whole form. But they specialize. If there is only male nuclei, two male nuclei making what is called an androgenote, it produce little cysts which are looking like the membranes and placenta that the child is normally building around himself to make its space and time capsule so that it could take the fluid from the mother vessels. An early zygote containing only male chromosome does only that.

If a zygote contains only chromosomes from female origin, it makes the spare parts. It makes pieces of skin, it makes piece of teeth, it can make a little nail, but all that in a full disorder, not at all constructed it makes the spare parts. We know this directly by experiment in mice done by Surani last year. But we knew that but we could not understood it before.

We knew that already in man, because in man we know that there are what is called dermoid cysts which is a division of a non-fertilized egg inside the ovary of a virgin girl. It cannot grow. It's rare, but it is well known. It will never give a little baby, but it makes the spare parts, teeth, nails, all that mixed in incomprehensible disorder. On the reverse we knew that sometime after apparently normal fertilization the product does not divide correctly but makes cysts, little balls again and again and again, and it's called a mole, hydatidiformis mole, and it's very dangerous because it can give the cancer to the pregnant woman.

Now, we have discovered—(not me), you have to know I'm professor and when I say we, it's all the professors of the world, it's not me. We have discovered that in those hydatidiformis moles, there were only paternal chro-

mosomes. There were two sets of paternal chromosomes and the maternal pronuclei had died, we don't know why. So we know by the mice experiments that it is related to methylation of the DNA.

Hence, we know by the human observation, that there is a specialization of information carried by the sperm compared to the information carried by the ovum. And I would say I was wondering, not surprised, but wondering that we were discovering at this extraordinarily tiny level of information built into the chromosomes, that paternal duty was to build the shelter and to make the gathering of the food, to build the hut and the hunting. And that the maternal trick was household and building of the spare parts so the individual can build himself. And it's a kind of admiration that we have for nature that since we have seen in the grown up that the man is going hunting and the mother is doing the kitchen, it is just the same deeply written inside our own chromosomes at the very beginning at the moments the first human constitution is spelled out.

Well, I have abused your kindness, your Honor. I have spoken maybe too much, but I would say to finish that there is no, no difficulty to understand that at the very beginning of life, the genetic information and the molecular structure of the egg, the spirit and the matter, the soul and the body must be that tightly intricated because it's a beginning of the new marvel that we call a human.

It's very remarkable for the geneticist that we use the same word to define an idea coming into our mind and a new human coming into life. We use only one word: Conception. We conceive an idea, we conceive a baby. And genetics tell us you are not wrong using the same word; because what is conception? It's really giving information written in the matter so that this matter is now not any longer matter but is a new man.

When we come back to the early human beings in the concentration can, I think we have now the proof that there are not spare parts in which we could take at random, they are not experimental material that we could throw away after using it, they are not commodities we could freeze and defreeze at our own will, they are not property that we could exchange against anything. And if I understand well the present case and if I can say a word as geneticist, I would say: An early human being inside this suspended time which is the can cannot be the property of anybody because it's the only one in the world to have the property of building himself, And I would say that science has a very simple conception of man; as soon as he has been conceived, a man is a man.

THE COURT: Before we go further, let's take a break, a very brief break, actually a little longer one than we usually do. As most of the representatives of the media know, there is some hospitality being furnished you by the Blount County Chamber of Commerce. I want you to have an opportunity to enjoy that if you care to, so we will stand in recess about twenty-five or thirty minutes at which time our testimony will resume,

Parties may excuse themselves and Dr. Lejeune you may come down.

(Parties and counsel leave the courtroom.)

THE COURT: Ladies and gentlemen, we'll stand in recess.

(Brief recess.)

THE COURT: Dr. Lejeune, if you would come around and take the witness stand. Mr. Christenberry.

MR, CHRISTENBERRY: Thank you, your Honor. BY MR. CHRISTENBERRY:

Q. Dr. Lejeune, suppose that—as a hypothetical question, but suppose that we had heard testimony in this hearing that indicated that each mom and each dad contribute identically the same to the embryo, and that there is no differentiation between their contributions, could you tell us what your opinion is about whether or not cells are differentiated?

A. It's difficult to answer that because once you know something in science, it's very difficult to tell what you would think if you were not knowing it. If the paternal and maternal chromosomal share of the baby was the same, we wouldn't have any idea how this differentiation of cells do occur, so if I had testified two years ago, I would have said that the mystery of cell differentiation was complete, and we did not know where it was written. Now we begin to know where it's written. It's the only difference, but it's a great difference that we begin to know. It tells us definitely that what was an implication that it must be written in the first cell, (this type of differentiation must occur at this time and at the other time another differentiation should occur). We knew it should have been written, but we did not know at all how it was.

Q. Okay. And so you testified at great length about the differentiation.

A. Yeah.

Q. And you did that for what purpose?

A. For the purpose of' understanding how from an apparently undifferentiated cell which is the one cell of the fertilized zygote, the full imago can emerge. If science cannot say anything about the mechanism of it, it just remains a pure constitution but no knowledge about it. It's the reason why I wanted to put on record those new findings about the methylation of DNA, because it proved that the implication which was as all of genetics, that differentiation is, so to speak, prewritten in the first cell, is now having an understandable physical support. Now, it cannot be said that the first cell is a non-differentiated cell. It must be said now the first cell is knowing how to differentiate the progeny, the cell progeny.

Q. Okay. And for me to understand

A. To make it clearer, if I am looking at the mass of cell growing, I know by my own experience in my lab for twenty years that never a baby will form itself in our bottles because we are growing cells taken from the body. On the contrary we know that if the cell which is dividing is a fertilized zygote, a new individual is Just now beginning to emerge.

Q. What ethical considerations do you have about freezing?

A. I think love is the contrary of chilly. Love is warmth, and life needs good temperature. So I would consider that the best we can do for early human beings is to have them in their normal shelter, not in the fridge. The fridge is not a second choice, I would say it's a third choice. And typically I would not be surprised that in a few years from now, this long way outside the female body which is artificial insemination and this long stay in concentration can will be considered as not very efficient. It will be much better to make graft of the tubes to repair the difficulty of the tubal incapacity, or to use antibiotics—new antibiotics to prevent special difficulty with the mucosa of the tubes, or find chemicals which will help find why certain couples, although they have normal production of cells, cannot manage to get fertilization, or to get implantation. It's surely some chemical thing which is not yet discovered which will be the real solution. Then I would consider that the extracorporeal fertilization, it's, so to speak, an emergency proposal of medicine on the present stage of medicine, but it's not good treatment. The good treatment is yet to be found in each of the cases. It's not the final answer, so to speak, not at all. That is my feeling, but it's a feeling.

Q. One moment, please. Doctor, I would ask you this question, and I'm going to read it to you so I'll understand how to ask it. It has been stated that once you get to blastomeres and they are unequal in size, that nobody knows for sure why division of these cells might be equal in some conditions and unequal in other conditions. Do we now know why the unequal and equal nature exists?

A. That is a very difficult question. We know that normally, as I said, the stage of three cells is due to inequal division of the first blastomeres, and that seems to be the basic normal phenomenon. But why nature do that it's still to be discovered, but it seem to be, the starting phenomenon. Then I would say that obviously there must be something written in the egg, telling the egg you split in two, then one of the cells split in two, then you can discuss together all three to know what to do, the three cells together. It's not a surprise, it's an obvious phenomenon known for a long time it was not explained at all, which has now found explanation. We know that in any typical chimera, made from different embryos, only three line of cells can manage to build an imago together. That means that the individualization is at the three cell stage.

Q. Within your knowledge, Doctor, can you tell us what we know and what we can tell about these human beings from three cells forward? What knowledge do we gain and at what rate do we gain it? Do you understand my question?

A. No.

Q. Okay. We have heard testimony that at three weeks you have got this, the nervous system starts at this stage

A. Yeah.

Q. This starts when and it's been confusing, because we have tried to

eliminate—we tried to identify body parts, we're thinking in terms, and you come to us with a different perspective. Can you tell us once again what it is we have and how it progresses in development?

A. Well, from the very beginning we have a embryo. We have first a zygote and a two cell embryo and then a three cell embryo and then a four cell embryo, and then eight, and sixteen, and all the power of two. This embryo, growing progressively, is inside the zona pellucida and suddenly at around six days or seven days it begins to "hatch." The zona pellucida is, in fact, the protection, or privacy, so that if they are twins, for example, they will not mix together because each of them is in its own zona pellucida.

At the moment the embryo begins to hatch and make trophoblast which will anchor itself on the mucosa, there is already so much commitments we cannot see. There is already so much committed to build the individual that it will not mix with a possible twin. Otherwise, in species in which you have a lot of pups in a litter of five, ten, like in kittens or in dog, if they were not protected, each of them at the beginning in their own plastic bag (in their own zona pellucida), they would not make different animals, they would mix and make a kind of chimera. But when it's so well committed, when all the cells are so well committed to continue to cooperate with each other, then nature has invented that embryo will hatch and rupture the zona pellucida and begin to anchor on the uterus.

The second step, we can describe around twelve days after fertilization; that is the very beginning of the little line which cells begin to draw on the embryo; this little line will progressively become a kind of *gouttiere*—I don't know the word in English—and finally will close itself in a tube, and it will be the beginning of the neural tube.

Then well, let's say, what I should say more? I will describe the whole development of the imago, let's say at three weeks, the cardiac tubes will begin to beat, so that the heart is beginning to beat three weeks after fertilization. And progressively you will reach the end of the embryonic period at two months after fertilization. At that moment the little fellow will be just size of my thumb. And it's because of that that all the mothers telling fairy tales to the children are speaking about Tom Thumb story because it's a true story. Therefore, each of us has been a Tom Thumb in the womb of the mother and women have always known that there was a kind of underground country, a kind of vaulted shelter, with a kind of red light and curious noise in which very tiny humans were having a very curious and marvelous life. That is the story of Tom Thumb.

Well, after Tom Thumb is visible, that is, two months of age, it has two centimeters and a half from the crown to the rump, and if I had it—if I had him on my fist, you would not see that I have something, but if I was opening my hand you would see the tiny man with hands, with fingers, with toes. Everything is there, the brain is there and will continue to grow.

It's from that moment which is two months after fertilization, that we don't call any longer human being embryos, we call them fetuses. And that is very true to change the name just because it tell a very plain evidence: Nobody in the world looking for the first time at a Tom Thumb bag, looking at an embryo of two months of a chimpanzee, of a gorilla, of an orangutan, or of a man, nobody in the world would make a mistake just looking at him. It's obvious this one is a chimpanzee, this one is an orangutan, this one is gorilla, this one is a man.

The reason why we change the name, and we call it fetus, it means only something to be carried because the full form is already present. But the man was there before everybody could tell the difference with a chimp. For example, if we were taking one cell—I would not do that because it's dangerous for the being, but if we were taking one cell of a four cell embryo, it would probably survive and compensate. We know it in mouse. Now, let's take one cell of a chimpanzee embryo, of a human embryo, of a gorilla embryo and give it to one of my students in the Certificate of Cytogenetics in Paris, and if he cannot tell you this one is a human being, this one is a chimpanzee being, this one is a gorilla being, he would fall his exam; it's as simple as that.

Q. When you see the development of three cells

A. Yeah.

Q. And if we used the most intricate computers, let's say, that would be used in our space program, NASA we call it, could those computers be programmed to keep up with what is going on?

A. No, totally not. The amount of information which is inside the zygote, which would if spelled out and put in a computer tell the computer how to calculate what will happen next, this amount of information is that big that nobody can measure it.

I have to explain that very simply. You have the two meters of DNA, one coming from father, one coming from mother, that it means ten to the eleven bits of information, just to spell out what is written on this DNA. If you add the subscript that I was talking about methylation, then it will increase this number by ten to the power four or to the power five. Thus, we will go very soon, just for the DNA, at ten to the fifteen. It's an enormous number. To give you an idea, just to print letter by letter all what it is written in the DNA of a fertilized egg, you would need, writing G, C, T, A, and all the string of symbols, you would need five times the Encyclopedia Brittanica just to spell out the DNA, five times Encyclopedia Brittanica. But nobody could read it. You could fit it into the computer. But now you would have to take care of all the molecules that are inside the cytoplasm which will recognize the message, which will send a message to the next cell. And to spell out this amount of information which is absolutely necessary, (otherwise no life would be possible), I think you would need a thousand, a million times more bits of information. No computer in the world would have a storage enough Just to fill the amount of data. Now, to tell

to the computer the algorithm to use it, nobody knows how to do it. You have to realize that this enormous information which makes a man is enormous compared to the information which makes a computer, because it's a man who has made the computer', it's not the computer which has made the man.

MR. CHRISTENBERRY: You may ask him. I would like to Interject at first if the Court—while it's fresh on the Court's mind, would have any questions of the Doctor. He's used to facing a judge after he's told his side of the story, and sometimes we do that in our system.

THE COURT: I have no questions at this point.

MR. CLIFFORD: Thank you, your Honor.

CROSS EXAMINATION

BY MR. CLIFFORD:

Q. *Bonjour*, Dr. Lejeune.

A. *Merci*.

Q. Now that we have exhausted my French, we'll hopefully proceed in English. Let me first thank you very much for being willing to come here to Maryville, Tennessee, to appear in this trial. I believe, in fact, you come at

your own expense, is that correct?

A. Uh-huh (affirmative).

Q. Now, please bear with me, Doctor, if you're not familiar with what I may be doing, in France they have civil law and we, as you may know, take our law from the British system, the common law. Please interrupt me if you're not sure where I'm going. Let me ask you this: Have you testified before in an American Court?

A. Yes.

Q. Could you tell me what testimony, what cases you have testified in?

A. Well, in American Court I have testified especially on those questions. It was —I don't remember the Court it was.

Q. Do you remember maybe testifying in 1981 in the state of Maryland?

A. Yeah,

Q. You recall that?

A. Yeah, yeah.

Q. What was that trial about?

A. Well, if I'm well remembering, the trial was about a baby who was inside the womb, a very different case. And if I remember exactly the story because I am not a lawyer, you know, I was not invited giving my opinion about the case, but giving opinion about another question which was whether this baby who could have been, I suppose at that time, some—must have been three months old, was really a human being. It was a very simple question, but it had to be as well answered with the available knowledge at that time.

Q. I believe, Dr. Lejeune, in that case the question was whether or not a woman should be allowed to have an abortion?

A. I think the question was whether the husband should say he did not want

the baby to be expelled. That was the question.

Q. And I believe, and correct me, of course, if I'm wrong that in the proof of that case the child had a chromosomatic, chromosome defect which would likely lead

A. No, I don't know that. I've not been aware of that, I have not heard about that. It was not said at the trial, no.

Q. In that case you testified, I believe, that in your opinion the fetus in that case was a human being?

A. It was not my opinion. It was the teaching of all the genetics that I was giving, It's no doubt it's a human being because it cannot be a chimpanzee being, so it's a human being.

Q. And you opposed abortion in that case?

A. I dislike to kill my—a member of my kin, no doubt. And beside that I'm a French Doctor, I have sweared the oath of Hippocrates. Hippocrates four hundred years before Christian era made an oath that, "thou shall not give poison, thou shall not procure abortion." It's very interesting for us doctors because at that time in which slavery was the law, at the time in which the father of the family was allowed to kill a baby at birth, or even later, he founded medicine by preventing new doctors to give poison or to give abortion. That was meaning that does not matter what the size of the patient; a patient is a patient. That is Hippocratic oath.

Q. I believe that perhaps the first commandment is first do no harm?

A. Thou shall not kill, yes, I have heard something about that.

Q. Let me understand what your expertise is. You are obviously an expert in genetics.

A. Yes.

Q. Do you recognize the scientific field of embryology? Do you recognize there is a scientific field called embryology?

A. Oh, yes, no doubt.

Q. Do you claim to be an expert in the field of embryology?

A. I claim to be not entirely ignorant.

Q. But do you offer yourself as an expert in the field of embryology?

A. No, I'm not an expert in the field of embryology by itself.

Q. Let me ask you if you are offering yourself as an expert in the field of psychology?

A. In the case of genetics I would have said yes because I have been so much involved in so many cases that I have learned about human psychology more than I should have in the faculties.

Q. But you, I take it, do not claim to have a degree in the field?

A. No, I have not a degree.

Q. Do you claim to have expertise in computer science?

A. Partly, sir,

Q. Do you claim to have academic credentials in the field of computer

science?

A. No, not academy credentials. I have written things which were agreeable to some academicians.

Q. Finally, do you claim any expertise in law?

A. Oh, not. I have some heredity about it, my father was.

Q. You may be more of an expert than you wish you were. But you do not claim any academic training in the law?

A. Oh, no.

Q. Or experience with the law.

A. Experience, yes, a little experience.

Q. Dr. Lejeune, I take it it has been known for quite a considerable length of time that the genetic material that started out in the ovum and the sperm combined, of course, into the zygote?

A. Oh, yes.

Q. How long has that been recognized?

A. It's difficult to tell because fertilization has been discovered by Spallanzani, but he did not know about DNA, he did not know about chromosomes, then it was just the mixing of two cells. It was at the end of the 17th century. You asked me to tell you the whole story of genetics

Q. No, no.

A. I agree, but it will take a month.

Q. Doctor, I'm asking you approximately how long it has been known by the science of genetics that it was the coming together of genetic material, regardless of whether the precise material was known by its nature or not?

A. I would say more than fifty years, going back to the early nineties.

Q. Early nineteen nineties?

A. Nineteen.

Q. 1920's?

A. Earlier than that, Eighteen, nineteen—I cannot explain.

Q. I think we would agree it's been a long time.

A. A long time. Three generations of students.

Q. And I take it at some point it became understood in the field of genetics, that the genetic code or blueprint for the mature entity was contained obviously in that first cell?

A. As I said it was known by inference, the inference was made, but the demonstration was not there.

Q. Of course, often we refer in science to the concept of a theory.

A. Uh-huh (affirmative.)

Q. A theory being, of course, and you correct me if I'm wrong, a proposed explanation of how a system, in this particular case genetics, works, and then we do experiments to see if our theory holds water or whether it needs to go back into the shop?

A. Yeah. I would say model.

Q. Model, yes. Now, in genetics, I would take it, it has been believed on the theoretical level, all of the genetic material, all of the information as you referred to it was in the zygote, that has been believed theoretically for a very long time?

A. No doubt.

Q. And that what you have described to us at such length today has been the working out of the precise mechanism of how that works?

A. In a sense, yes, but it's a little change that previously it was an inference and now we begin to have a demonstration. For a scientist it makes a lot of difference.

Q. Of course. But if I had come to you, Dr. Lejeune, ten years ago, and I had said, please help me with my genetics, Doctor, do you believe that all of the information that's necessary for the development and maturation of a chicken—

A. Yeah.

Q. Is contained in that zygotic cell we first see in the egg—

A. Yeah.

Q. Would you have told me that you believed that?

A. Well, to be perfectly correct, I would say I believe it; now I would say I know it. That's a small difference.

Q. But I take it it would be true that, again, ten years ago had I asked you this question about the chicken that your level of conviction about all that information being in the zygotic cell would have been very high?

A. Yes, pretty.

Q. And certainly if in genetics we had discovered that some information was coming into cells from some other source than the genetic material and having an impact, we would have all been stunned, scientific world would have been stunned?

A. Yeah, yeah.

Q. Now then, you described at great length this morning, the precise nature of the development of embryos as far as the mechanics of the genes and chromosomes and information that is passed from each gamete into that zygote, and you, of course, described it as an incredibly complicated procedure?

A. Uh-huh (affirmative).

Q. I take it that your questions, you were answering specifically about human embryos, zygotes, sperm, ova, but I take it that is also true of chimpanzees, gorillas, mice, they are-in those species it's also a very complicated fascinating complex mechanism?

A. Yes, but not exactly the same mechanism.

Q. Certainly. I think I have read somewhere, and I'm sure if I'm not right you'll correct me, that genetically as far as the chromosomes, as far as the contents of the DNA in the chromosomes, for instance, man, Homo sapiens, and the higher mammals, particularly the gorillas, chimpanzees—help me look for that species.

A. Orangutan.

Q. There is a remarkable similarity?

A. Well, it depends what you remark. You can remark the similarity, or you can remark the differences. And difference is incredibly interesting. I don't know where you want to ask me.

Q. Well, I have heard it said or read that approximately ninety-eight percent of the genetic material that is found in a chimpanzee or gorilla is identical to what may be found in a human being.

A. It has been written, and it has been written by statistical calculation of the DNA but not about the meaning of it. Now, what makes ninety percent similarity in the number of words in two different texts? They can mean something very different by the way the sentence are made. It's what makes the difference between the species.

Q. But there is a similarity in the DNA?

A. Oh, yes, exactly like the similarity in the fact they have two hands like us, not the same thumb, but they have hands, we have feet, but they are the most similar to us, no doubt. It's no surprise that the DNA also has some similarity.

Q. But the same basic process that we observe in human beings we also observe in chimpanzees?

A. Oh, yes.

Q. Mice?

A. Mice, I would not go that far but partly.

Q. Mice have zygotes?

A. Oh, yes, I mean—I want to make clear when we speak about basic mechanism we have to know what we mean by basic. For example, I told you the enormous importance of methylation of the DNA we discovered those years. But, for example, Drosophila does not methylate the DNA.

Q. That's the fruit fly?

A. That's the fruit fly but it's a very complex organism. It's makes a differentiation of cells that makes me believe that with methylation we have unveiled one of the tricks used by nature, but there are other tricks we are still using, we men, that were sufficient to build a Drosophila but would not be sufficient to build the human being. I would not agree that basic mechanism are the same in the whole living system. Surely it's much more complicated to build a human being, to determinate on one cell the wiring of his brain so that he will some day invent machine to help his own brain to understand the law of the universe. There is something peculiar to the human beings compared to others, you know. I will tell you one thing, very simple: I'm traveling a lot, and as far as I can I visit two points which are very important for me when I go in a new town: One is the university and other is the zoological garden. In the university I have often seen very grave professors asking themselves whether after all their children when they were very young were not animals, but I have never seen in

a zoological garden a congress of chimpanzees asking themselves whether their children when they are grown up will become universitarians. I feel there is a difference somewhere.

Q. Doctor, I forgot to ask you a couple of questions about your expertise, and please pardon me for having to come back, but I take it from your testimony when Mr. Christenberry was asking you questions that you have not worked in the field of what is called in this country in vitro fertilization?

A. No.

Q. I believe in France there is a different term for that.

A. No, it's called also *fecundation in vitro*.

Q. But you have not been involved any in in vitro fertilization clinics?

A. No.

Q. You have not been asked to advise in vitro fertilization clinics on matters of genetics or anything else?

A. Not directly, but I have advised a lot of my patients who consider whether they should have or not this type of investigation.

Q. I suppose I should ask you this. I understand in vitro fertilization is done in France?

A. Oh, yes.

Q. How long has this procedure been carried out in your country?

A. Well, I think Amanda has been six years, now, six years and a half, she was the first test tube baby in Paris. I think she is six years, seven years maybe.

Q. Let me see, Dr. Lejeune, if I understand the point you are making this morning. It is your belief as a geneticist, that all the information that is necessary to create a human being, a unique individual human being, we could go in and find in a nucleus of a zygote?

A. No, I never said that. In the zygote I would say, not in the nucleus. You need the nucleus and whole cytoplasm. The zygote cannot be reduced to the magnetic tape. We have also to have the tape recorder working,

Q. We can take if we wished on a perhaps philosophical scientific experiment here, we could take a zygote, look at it, look at the DNA, look at the other structures in that one cell and assuming that we had the knowledge to be able to do it, tell everything about that human being?

A. I would say yes, beside accident. which cannot be predicted, but I would say no machine is big enough to put in it this information, it Is purely\hypothetical.

Q. Right.

A. It's not practical.

Q. We're engaging on a philosophical experiment.

A. To be frank and to give you my belief I'm not sure well be any time able to build a machine big enough to do that job. There is no evidence about that.

Q. Dr. Lejeune, then theoretically

A. Otherwise this machine would be a fertilized egg itself.

Q. But if we had such a machine on our philosophical experiment, we could look into the zygote, and we could tell what color hair this person would have?

A. No doubt.

Q. What color eyes this person could have?

A. Yes.

Q. Could we look into the zygote and, either in the structure or chromosome or DNA, and tell what language the person would speak?

A. I don't believe so, sir, because language is a basic phenomenon built in. We could say, in your example, theoretical example, this being will be able to speak, but he will speak Japanese if he is in Tokyo. But we could say conversely with your same system, looking at a chimpanzee first cell, this being will never speak.

Q. Could we look into the zygote, into the genes of the chromosomes, into the DNA structure and tell whether this individual would like the music of Beethoven?

A. Partly, yes, sir, because we could in your hypothesis be sure that he is perfectly normal, and if he is perfectly normal he would like Beethoven.

Q. Dr. Lejeune, do you intend to investigate to find the defective chromosomes for those who do not like Beethoven?

A. No, no, but you were asking me about normality.

Q. Could we look into the zygote, into the chromosomes, DNA, into the balance of the structure, and tell whether this individual would grow up to be a person of liberal or conservative persuasion?

A. Well, even looking at the grown-up I cannot tell that, sir.

Q. Of course, as you realize, Professor Lejeune, I'm trying to make, I guess, a philosophical point, and that is while some information, a great deal obviously of information is contained in that zygote, that there would obviously be things we could not detect with our philosophical machine about the individual when he or she was twenty, forty or sixty?

A. Uh-huh (affirmative).

Q. Dr. Lejeune, let me come I guess to what is the heart of the matter here and the heart of your testimony. You mentioned using the word conception and defining it in two different ways, defining it as the point where a zygote comes into existence and the point where we have a thought, and really would you agree with me, Dr. Lejeune, that what we're concerned about in this case and in the great debate about human life are definitions? How do we define a human being?

A. Oh, yes.

Q. Now, of course, when you define a human being, what we're assuming there is that a human being has certain rights whether God given rights or legal rights?

A. That is not what define a human being.

Q. Of course not. I understand. But I take it and I will ask you directly, Dr,

Lejeune: You have referred to the zygote and the embryo as quote 'early human beings.'

A. Yeah.

Q. Do you regard an early human being as having the same moral rights as a later human being such as myself?

A. You have to excuse me, I'm very, very direct. As far as your nature is concerned, I cannot see any difference between the early human being you were and the late human being you are, because in both case, you were and you are a member of our species. What defines a human being is: He belongs to our species. So an early one or a late one has not changed from its species to another species. It belongs to our kin. That is a definition. And I would say very precisely that I have the same respect, no matter the amount of kilograms and no matter the amount of differentiation of tissues.

Q Dr. Lejeune, let me make sure I understand what you are telling us, that the zygote should be treated with the same respect as an adult human being?

A. I'm not telling you that because I'm not in a position of knowing that. I'm telling you, he is a human being, and then it Is a Justice who will tell whether this human being has the same rights as the others. If you make difference between human beings, that is, on your own to prove the reasons why you make that difference. But as a geneticist you ask me whether this human being is a human, and I would tell you that because he is a being and being human, he is a human being.

Q. And I take it you would believe from your testimony today that it is morally very wrong to intentionally kill a zygote?

A. I think it's no good, it's killing a member of our species.

Q. And it would be the same as if we were to kill twenty years later the person, human being, that the zygote would become?

A. It's difficult to tell because you ask me a justice question; I'm a biologist.

Q. Now, but those are your beliefs?

A. My belief is that it's no good to kill a member of our kin, very simple belief.

Q. There is not much difference to you between whether it's at the zygote level, the fetus level?

A. There is a great difference as they have not the same age. Some of them are very youthful ones, others are old ones. But it doesn't make for me a great difference, in the true sense of the fact it is discarding a member of my species. It's the only reason why I don't kill people, it's because they are human. Otherwise, some of them—some difficulty in life…

Q. Dr. Lejeune, you, of course, are a scientist, and I'm sure that in the large part, you base your convictions and feelings upon your knowledge of genetics and other sciences. Will you concede, Dr. Lejeune, there are other very distinguished scientists, men who are as learned as you, who have thought and who have access to the same scientific information that you have, who come to a

different conclusion?

A. About what?

Q. About the moral rights or moral duty to the zygote.

A. Oh, in that case yes, but not about the fact it's a human being or not.

Q. I understand that.

A. But that's the point.

Q. I understand that. There are even, I believe, individuals in your own country who differ with your view of what ethical duty is owed to the zygote.

A. Well, I think in France we are divided in forty million opinions about that.

Q. But you do recognize there are men in your own country of great learning who differ with your view on the ethics of the embryo and zygotic levels?

A. Oh, that's obvious.

Q. I believe, Dr. Lejeune, in the earlier—or I'd say slightly mid-nineteen eighties, your country set up a commission to study the ethical concerns raised by the technology of in vitro fertilization. Are you aware of the national commission?

A. Well, you can call it a national commission, it's specially appointed by the president of France, so all the people have been nominated by the president. It's a presidential thing. It's not really a national thing. It's called national, but it's not elected so it's not representative at all.

Q. Well, I believe it was called national commission.

A. They have called them national commission, but you have to know they are not representative. They are not elected by bodies.

Q. Were you on that committee?

A. No, and I can tell you why, because I'm a member of the *Academie des Sciences Morales et Politiques*, moral and political sciences, and normally a member of this academy should have been appointed ex officio. Deliberately in the constitution, the by-laws of this committee, our academy was not put on it because they knew that the *Academie des Sciences Morales et Politiques* would appoint me. Just an interesting phenomenon.

Q. So you feel –

A. I don't feel anything about it. It's just a fact. I don't feel anything.

Q. You believe you were intentionally kept off this committee?

A. I believe that our academy was kept off, no doubt.

Q. Since they knew that it would be you that was appointed you were intentionally kept off?

A. That is a scientific hypothesis, not demonstrated.

Q. But you do, I take it, recognize that the members of the national commission that were appointed were distinguished persons in their fields?

A. I have never seen somebody in a committee who is not distinguished, Sir.

Q. And regarding those individuals even if you disagree with them, I take it you would recognize their integrity?

A. Case by case.

Q. Case by case.

A. Case by case.

Q. Do you know all the members of the committee?

A. No.

Q. But you would, in general, agree they are persons of integrity and learning?

A. Case by case.

Q. Are you familiar with the report of the national commission?

A. Yes, I have read it.

Q. You have read it?

A. Yes.

Q. The report of your national commission expresses some very grave reservations about the technique we know here as cryopreservation. Are you familiar with that?

A. Uh-huh (affirmative).

Q. Let me ask you this, Dr. Lejeune: Do you share those reservations about cryopreservation?

A. I have many reservations. Probably it's not very good.

Q. We heard testimony from Dr. Shivers, who was the embryologist who worked in this case, that with cryopreservation there was a statistical loss of the frozen embryos in the range of, I believe he said, fifteen to thirty percent.

A. He's a better specialist about this attrition percent than I am.

Q. So that you can expect, therefore, by the rules of statistics if we freeze one hundred pre-embryos, and we come back to thaw them at any point, we know the odds are very, very high we'll only have seventy, seventy-five or eighty?

A. Uh-huh (affirmative).

Q. We knew that before we put them in the frigidaire?

A. Yes.

Q. Would you regard that as an intentional killing of embryos?

A. No, but I would consider that it's making the embryo running a risk, and whether this risk was in the best interest of the embryo or not is an open question. I explain. When we do an intervention in a baby for a heart disease, in some intervention we know that around twenty percent of them will be killed by the intervention. And in this case the intervention is made only if we know if we don't operate the child will be killed by the disease at ninety-nine percent of probability. Then we say in the real interests of this patient the best for him is to operate even if the operation is still dangerous, the danger is much greater if we don't operate. That is a way you can make indeed some choices in medicine which are dangerous but which are, in fact, the best that you can do in the interest of this particular patient.

Now, in the case of an embryo, I am not sure it is in his own interest that this choice is made.

Q. In fact it's made in a choice that as Dr. Shivers and Dr. King testified previously, that it merely gives the woman a better chance since she won't have to go through the stimulated cycle having shots and medication, hormones injected into her, it simply gives her a better chance of becoming pregnant. You're aware of that?

A. I am aware of that.

Q. So in cryopreservation we know that we are going to kill ten, twenty, thirty percent of these early human beings merely so the woman has a better chance of getting pregnant?

A. That would be one of the reservations that I would have, but I dislike you say you kill. It's not killing.

Q. If we were to take the members, the individuals seated in the jury box and I were to have a room I could put them in where we would know that thirty percent of them would come out dead, would you not agree I would be guilty of murder?

A. Well, it depends, sir, because if the room you were talking about were a shelter during a bombing time and if remaining in that room all of them will be dead, but in the shelter some of them will survive, even if thirty percent of them will be dead, you did well. So it depends on the reason why you did it.

Q. What if I did it not to take them out of a position of greater harm but merely for the benefit of some person other than themselves, not one of them but Mr. Palmer?

A. I suppose he would refuse you do it, I'm sure.

Q. You recognize the ethical and moral dilemma I'm raising, of course?

A. No, I don't recognize it, sir.

Q. You don't?

A. No, because you use the word killing. And if you take a embryo which has been frozen and you put him briskly at normal temperature so that he will die, you are killing the embryo. If you are freezing the embryo you are not trying to kill him, if I understand what you have in your mind is to help the embryo surviving so he could be implanted in the womb of the mother. So your technique is not good because you lose part of them, but you are not killing. And I would not say that my colleagues who are freezing embryos are killers. It's not true. Otherwise, maybe it's because I don't understand English, but I would not use the word kill.

Q. The national commission in its report used a term which in English is supernumerary?

A. Yeah.

Q. Referring to supernumerary embryos, referring particularly to cryopreservation, embryos which are not to be used with a particular patient, woman, who has undergone IVF. Are you familiar with that term, first of all?

A. I know that term, and it's a wrong term. Can you tell me a man who is supernumerary?

Q. Maybe just a lawyer.

A. I don't believe that, as a man he is not supernumerary. Maybe—I'm not saying anything.

Q. But that is the term that is used in the report of the national commission?

A. Yes, but it is a very misleading term, exactly the same thing as preembryo. You change the name because you will change your behavior, and I dislike that. I like to call a cat a cat, and a man a man. It's Wendell Holmes who said a man is a man is a man.

Q. And a dog a dog and chicken a chicken?

A. No, but "a man is a man is a man," is a saying in your country.

Q. Well, rather at this point debating whether the term was wise or not, I'm asking if that was the term that was used.

A. Right.

Q. Now, as I think I asked you and you told me awhile ago, the French commission did have reservations about the whole process of cryopreservation, because, of course, it leads to the precise problem that we have in this case. Of course, you know that regular IVF the woman is implanted or preembryos–excuse me, the embryos are inserted within forty-eight hours?

A. As soon as you can, yes.

Q. Whereas with a cryopreserved embryo, it might be six months, it might be a year. In fact, I believe that you are aware that the French guidelines provide for a year for the first child, recommend that a cryopreserved embryo should not be saved longer than twelve months for the first child?

A. Could I tell you because you speak about what is said in French that this committee is consultative. It means that what he says as guidelines is for himself.

Q. But these are the guidelines published by the national commission that was appointed by your government

A. It's consultative. It has no law, no force; just an opinion.

Q. But you are aware that the commission recommended one year for the first child?

A. Yes.

Q. And then with an extension of an additional twelve months if a second child was desired?

A. I don't follow you.

Q. One question that was raised in the commission was how long you should keep a cryopreserved embryo?

A. Yes.

Q. Now, and the committee recommended that it should not exceed twelve months without very special circumstances and without a great deal of thought by people concerned with the ethical dilemma of IVF, do you recall that?

A. I know about that, but I don't see the meaning.

Q. I'm just asking you about the report at this point.

A. Yes. Nobody knows from where it was coming, the time of one year. Out of the air?

Q. Now, the French commission recognized that one of the dilemmas that was posed by cryopreservation again was the open ended time, time during which, as in this case, things could change, is that correct?

A. I have to be very precise, I don't know by heart the whole document you are talking about.

Q. I'm not going to ask you to quote it. But let me ask you this: Are you aware that the national commission of France that spoke on this subject recommended that in the case where the project of the couple, that is, the IVF project of this couple is abandoned in the meantime, and that meantime refers to cryopreservation being used or is unfeasible because, for example, of the separation of the couple, the only solution retained by the committee by way of the least evil consist in the destruction of the embryos with the reservation of the possibility of donation for research"

A. I'm not aware of that at all, sit, because the consultative committee said it would not give any indication because they have not reached any opinion. I don't know what document you are talking about, but the one I have read was not this one. If you talk about this document, the opinions saying that it's better to kill the frozen embryos, it's just in my opinion wrong, I disagree with it.

MR. CLIFFORD: Your Honor, may I approach the witness?

THE COURT: You may.

BY MR. CLIFFORD:

Q. Let me show you a page here which unfortunately for me is in French.

A. That's good for me.

Q. And ask if you could read the title of the document?

A. (Reading in French.)

Q. Could you

A. I'll try to make a translation. Advice concerning research on human embryos in vitro and their utilization for medical and scientific purposes.

Q. Could you continue to read the page? If you would rather not—

A. Well, what interest?

Q. Just the headings.

A. Recommendation to the use of in vitro fertilization as answer to infertility— it's very long.

Q. Well, that is, in fact, the report of the national commission, is it not?

A. Well, I'm sorry, sir, but it's not printed. It's something made on a computer. I don't see any important document there because it's—probably it has been a project of it, but it has not been published as a final advice because as I know, what I have heard on television, they said they have not reached an opinion on that. I'm sorry, but it doesn't matter anyway. It's a consultative party.

Q. I'm somewhat surprised by that answer, Dr. Lejeune, because I'm given to understand—you can correct me here—in December of 1986, a committee of

distinguished French scientists made their report to the government. The report was started 1983.

A. No, no, there is no final advice given by this body on this particular problem. They have discussed it, and they said we will continue to discuss it. as far as I know.

Q. As far as you know?

A. Uh-huh (affirmative).

Q. You are not familiar with the national commission report?

A. When it is published, yes, I read it, but that is not published matter. I don't see where you want to go with this question.

Q. In fact, Dr. Lejeune, will you agree with me, sir, that there are distinguished, learned men and women in your own country of France who take the view that when a couple separates or is divorced that any embryos that may be in cryopreservation should be discarded or destroyed?

A. That there exists people thinking that, no doubt, because if they say that it's probably because they think it. But it does not prove they're right.

Q. Of course, not. Of course, not. And, of course, I take it because you have your feelings, you would concede that it does not prove that you are right?

A. On that, I would not agree entirely with you.

Q. Okay. All right. Would you agree with me, Dr. Lejeune, that really, of course, we're talking about what will become in this Court a legal question!

A. Yeah, partly.

Q. And that legal question is what quote 'rights,' if any, an embryo should have legally?

A. Disagree with that. I'm not thinking about the rights of the embryos—I'm thinking about the duty of the parents and of society. Duty is a different thing.

Q. Lets talk about duty because that is a word that courts can understand. You believe, in fact, there is a duty, and a strong duty, to bring, or attempt to bring an embryo to term and birth?

A. The embryos have been frozen for that purpose.

Q. I'm not so much talking about the particular seven embryos in this case, but any embryo that's been produced by IVF or in vitro fertilization.

A. It if it has been produced, it has been produced in the view that it could be put somewhere in which it could be developed, that is the womb.

Q. So you would believe that the man has a duty to bring it to life, bring it to birth rather, is that correct?

A. What man?

Q. This man, the man who is the donor of the sperm.

A. Yeah.

Q. That he has a duty, a moral duty to bring it to term?

A. Yes.

Q. And you would believe that the woman has such a duty?

A. I would believe that if she was not feeling having that duty, she would not

have accepted the beginning of the process.

Q. Now, you, of course, are best known for your discovery of the chromosome connected with Down's Syndrome?

A. That is long ago.

Q. You have researched since that point other conditions or diseases, abnormal conditions which relate to the chromosomes that are passed on by heredity, is that correct?

A. Yeah.

Q. If I understand what you also told us this morning, it is possible to tell at the zygote level whether

A. Not at the zygote level.

Q. At the embryo level?

A. Yes, and late embryo.

Q. Late embryo level whether or not this early human being will suffer from Downs Syndrome?

A. Oh, yes, yes.

Q. And as

A. In fact, it's essentially for a fetus. It is after two months.

Q. But there is no reason that you know of, I take it that we could not at some point in the not very distant future even make that diagnosis in the embryo level?

A. In some future, might not.

Q. I take it from your testimony, Dr. Lejeune, you would believe that even if the embryo, that early human being, was going to suffer from Down's Syndrome or some other very serious condition or abnormality, that it would still be the duty of the mother and the father to brings it to term?

A. I would say the duty is not to kill, and that duty is universal. And I would say that if by technique I was looking at the chromosomes of' this baby, and I see the chromosomes abnormal, say for example, he has a trisomy twenty-one, I would say that this is the disease. But if I look at the other forty-six chromosomes that are normal I would see the mankind of the baby. And I don't condemn a member of my kin.

Q. You would believe that the donors of that embryo would have a moral imperative, a duty to bring that

A. Not to kill the embryo.

Q. That early being into a later stage of human being?

A. Not to kill him.

Q. Now, let me drop back down to a bit more normal level of questions, Dr. Lejeune. Bear with me. Let's take a embryo in general, just statements that we can make about all embryos that would be true. That there is obviously a genetic contribution both by the woman and by the man?

A. Yes, there is a contribution by the father and by the mother.

Q. By the father and by the mother?

A. Yeah.

Q. And without the contribution of either there would be no embryo?

A. Correct.

Q. So on that sense the contributions of the mother and contribution of the father

A, Are both necessary.

Q. Are equal?

A. No, they are not equal. They are different, but they are both necessary.

Q. Both—

A. Necessary, absolutely.

Q. And now let's talk about a particular embryo, early human being, and let's look at this early human being when it's became a later human being. Obviously, as far as the genetic makeup of this particular individual, it might be, in fact, more strongly influenced by the mother's contribution, at least in some areas, or might be more strongly influenced by the father's contribution.

A. Who knows.

Q. Who knows. And, of course, unless we were to examine it, we wouldn't know.

A. Uh-huh (affirmative).

Q. And certainly you are not in this Court saying that women contribute more genetic material?

A. In fact, I'm obliged to say, yes, they contribute more genetic material. For example, all the DNA on the mitochondria is coming from the mother, not from the father. Makes a little difference. It's a fact.

Q. It's a fact?

A. It's a fact.

Q. But it's also a fact without both contributions—

A. They are both necessary, no doubt.

Q. But you are not here today saying, Dr. Lejeune, that the reason, the sole reason that Mrs. Davis should win this case and prevail is because her DNA contribution may have been slightly more than Mr. Davis' DNA contribution?

A. I don't understand your question. I cannot see how you can solve a judicial problem with DNA contributions.

Q. You are saying that it's your opinion that these embryos should be allowed to develop in this young lady because you believe they're early human beings?

A. I do believe they are early human beings, and I have been told that their mother offered them shelter. Who could refuse that?

Q. But not because of DNA contribution?

A. Because they're her own flesh.

Q. Well, they're his own flesh, too, aren't they?

A. Yes.

Q. And obviously he will be their father forever, for the rest of his life if there are children?

A. (Witness nods head in the affirmative).

Q. You will not deny that would have an effect?

A. I would not deny anything.

Q. I take it, Dr. Lejeune, therefore, if you believed that a embryo was not a human being as that term is used in ethical or legal or moral or philosophical or religious way that your view of this case may well be different?

A. Totally. If I was convinced that those early human beings are, in fact, piece of properties, well, property can be discarded, there is no interest for me as a geneticist. But if they are human beings, what they are, then they cannot be considered as property. They need custody.

Q. What it really turns on is what philosophically, ethically, legally that embryo may be. In your mind, sir, you have come to the very firm conviction that the early embryo or that the embryo is a human being, early human being, as you described it?

A. Yes.

Q. And you do recognize in other men's minds, after long and deep thought, learned men, they come to the opposite conclusion you do?

A. No, I don't agree with that.

Q. You don't agree with that?

A. I have not yet seen any scientist coming to the opinion that it is a property. It is what is the case. It's whether they are property that can be discarded, or whether they're human being who must be given to custody. That is it. You ask my question, I answer precisely; I have never heard one of my colleagues—we differ on opinion of many things, but I have never heard one of them telling me or telling to any other that a frozen embryo was the property of somebody, that it could be sold, that it could be destroyed like a property, never. I never heard it.

Q. Just so I understand what you're telling us, I take it, Dr. Lejeune, from your testimony that you would be opposed to abortion?

A. Oh, I dislike to kill anybody. That is very true, sir.

Q. You would believe that abortion should not be legal?

A. That is another point which is different. I think abortion is killing people, and I think in a good jurisdiction would make those killing people become rare. You cannot prevent everything.

Q. I take it, again, your basis of that belief would be that the fetus or embryo is an early human being?

A. Exactly. If it was a tooth, I would not worry about it.

Q. Finally, Dr. Lejeune, I'd like to thank you very much first for coming here to Maryville, Tennessee, to share your scientific and philosophical views with the Court. I hope that you enjoy your stay and that your trip back is enjoyable. I have only one final question for you. Okay? What is this?

A. Well, from here I suppose it's an egg, but I'm not sure.

Q. Let me get a little closer.

A. It looks like an egg.

Q. It's an egg?

A. It looks like.

MR. CLIFFORD: Thank you, Doctor, I thought you were going to tell me it was an early chicken.

THE WITNESS: Oh

MR. CLIFFORD: I have no further questions.

THE WITNESS: Your Honor.

THE COURT: You may respond, if you wish.

THE WITNESS: Yes, I would respond to that because I have never pretended that I could see through a shell. I don't know if it's has been fertilized so I cannot know whether it's an early chicken.

BY MR. CLIFFORD:

Q. All right. Let's talk about the difference for a moment, If I had in this hand a live chicken, would you agree with me if I were to take it and squeeze its head that it would feel pain?

A. Oh, probably.

Q. That it will be frightened?

A. Yes.

Q. And it would suffer psychological, if you can use that term with a chicken, stress?

A. I'm not competent in psychology, you told me, and especially not about chickens.

Q. But if I take this egg and assuming it is fertilized—I wouldn't really do this, Jay—but if I were to crush it in my hand, this egg would not feel pain, it would not be aware in the slightest of what was happening to it?

A. Yeah. But it would be still a chicken and only a chicken.

Q. I thought you told me it was an egg?

A. You told me it was a chicken.

MR. CLIFFORD: No further questions.

(A brief discussion was held off the record.)

CROSS EXAMINATION BY

MR. TAYLOR:

Q. Dr. Lejeune, I have just a very few questions. You testified earlier that in the case of freezing human embryos, the temperature is lowered only to, I think, a hundred and eighty or ninety degrees below centigrade, is that correct?

A. Yes, generally.

Q. And because that is not absolute zero there are still certain processes that continue within those embryos?

A. Very slowly.

Q. And because of that, it is your opinion that life or the processes are not suspended completely, and therefore the embryo continues to age or develop, is

that right?

A. No, it does not continue to develop, but it can age in the sense of losing some properties because of the agitation of the molecule and not being able to repair it. It's the reason why if you freeze cells, ordinary cells in tissue culture, and if you thaw them, after one month you will get ninety percent groove, after ten years you will get fifty percent, so eventually some of them have died in the process.

Q. Is it then your opinion if these embryos are left in this frozen condition indefinitely, ultimately they will perish?

A. If they were to be protected for a long time, I would put them in liquid hydrogen, but it will cost very much.

Q. If they're in liquid nitrogen which is not absolute zero, is it your opinion that they would ultimately perish?

A. I cannot tell time but ultimately.

Q. Is it your opinion that the ultimate effect of storage in cryopreservation ultimately would have the same effect as destroying them now?

A. In the ultimate, yes, but I dislike to speak about very long time because I'm not sure of what would happen in between.

Q Yes, sir. You indicated that you do not object to in vitro fertilization as a process, do you?

A. I do not favor it for theoretical reasons. I guess it's a trick we use now in the present stage of knowledge, but it's not the best answer. If you read the newspaper it seems to be the last word about helping reproduction, and I guess it's a wrong idea. But that is a technical opinion.

Q. Even though it may not be the ultimate solution, the ideal solution, you would concede that many, many infertile couples have been helped by in vitro fertilization, would you not?

A. I would consider some have been helped, but the number that have been helped by other methods is much greater. But some have been helped, no doubt.

Q. Doctor, you indicated that one of the reasons you objected to cryopreservation was because there is a mortality rate, certain percentage of the embryo do not survive the process, is that correct?

A. It's not only that. That is one of the reasons, but it's not the only reason.

Q. Are you aware, Doctor, in a normal cycle, a natural reproductive cycle that as many as sixty percent of the ova produced by a mother undergo actual fertilization? Are you familiar with that particular statistic?

A. No, I don't understand what you mean.

Q. We have been told that as many as sixty percent of the eggs produced by a mother may be actually fertilized, but statistically only about twenty-five actually result in a birth.

A. You mean about the early death of early human beings. Well, it has been a very disputed field. To the best of our knowledge, we can rely on experimental animals because we can look at the number of yellow corpus which develops on

the ovary and tells us how many eggs have been laid and look at the litter, for example, in mice or any other animals. It seems that thirty percent of the conceptus die, but that more than sixty percent of' conceptus come to birth and to normal-that has been established in many wild animals. Then it seems that the number of early deaths has been overestimated recently in our species. I would guess it around the order of thirty percent. Some of them said sixty percent—I would guess myself it's around closer to thirty than to sixty, but that is

Q. You do recognize

A. A sizable number.

Q. You do recognize, do you not, though, Doctor, that when a man and woman attempt to have a child by normal sexual intercourse, there is a percent of embryo human beings, in your terminology, that are created that never result in a birth; that is a risk they undergo?

A. It's difficult to answer your question because some of those fertilizations are probably abnormal fertilizations that can be early cysts and what we call empty cysts which are probably not really true fertilizations. It is very complex, but I agree with you that the road of life is dangerous, even at the very beginning.

Q. I guess my question is, Doctor, then even in natural intercourse trying to achieve a pregnancy, there are going to be some risks that some of the embryo will not survive just like in vitro fertilization?

A. Yeah.

Q. Finally, Doctor, as I understand your testimony here today, if you were advising his Honor on a solution to this very troublesome problem, your first preference would be that the embryo be returned to the mother, Mrs. Davis, in this case, is that correct?

A. I would go step by step, if you ask me. May I, your Honor?

THE COURT: Yes, you may.

THE WITNESS: I would first say it's not a property so they must not be destroyed. Secondly, they have been put into suspended time in the hope that some day they will be given shelter by their own mother, and their mother offers them shelter. I don't see any reason not to grant it to them and to her.

BY MR. TAYLOR:

Q. Let me take that one step further: If his Honor should decide for some reason that it is not appropriate that Mrs. Davis, the mother, should have these embryo, would you then agree that the second preference, the second best solution would be to donate them to some other couple, some other mother who would bring them into being, or attempt to bring them 'into being?

A. I would agree with that because that would preserve the life of the embryos, but then if you agree with that, you are coming back to the Solomon decision. The true mother is the one who prefer the baby given to another than the baby being killed. Then I would suppose that the justice would be on the

side of Solomon.

MR. TAYLOR: We all hope his Honor has the wisdom of Solomon. Thank you, Doctor.

THE COURT: Do you have anything?

MR. CHRISTENBERRY: No, thank you, your Honor.

THE COURT: Any recross?

MR. CLIFFORD: No, your Honor.

THE COURT: Dr. Lejeune, you may come down and have a seat over here with Mr. Palmer and Mr. Christenberry.

(The witness was excused.)

IN THE CIRCUIT COURT FOR BLOUNT COUNTY, TENNESSEE,
AT MARYVILLE,
EQUITY DIVISION (DIVISION I)

JUNIOR L. DAVIS,
plaintiff,
vs. No. E-14496
MARY SUE DAVIS,
Defendant,
vs.
RAY KING, M.D., d/b/a
Fertility Center of East Tennessee,
Third Party Defendant.

OPINION OF THE COURT

IN THIS DOMESTIC RELATIONS case, the only issue before the Court is the disposition of seven cryogenically frozen embryos maintained by the Third Party Defendant and the product of in vitro fertilization undertaken by the Plaintiff and the Defendant.

THE CASE is one of first impression.

IN ITS OPINION below, the Court has made certain findings of fact and conclusions of law resulting in judgment.

THE SALIENT findings, conclusions and the judgement are summarized as follows, to-wit:

(1) Mr. and Mrs. Davis undertook in vitro procedures for the purpose of producing a human being to be their child.

(2) The seven cryogenically preserved embryos are human embryos.

(3) American Fertility Society Guidelines are for intra-professional use, are not binding upon the Court, but are of probative value for consideration by the Court.

(4) The term "preembryo" is not an accepted term and serves as a false distinction between the developmental stages of a human embryo.

(5) From fertilization, the cells of a human embryo are differentiated, unique and specialized to the highest degree of distinction.

(6) Human embryos are not property.

(7) Human life begins at conception.

(8) Mr. and Mrs. Davis have produced human beings, in vitro, to be known as their child or children.

(9) For domestic relations purposes, no public policy prevents the continuing development of the common law as it applies to the seven human beings existing as embryos, in vitro, in this domestic relations case.

(10) The common law doctrine of *parens patriae* controls children, in vitro.

(11) It is to the manifest best interests of the child or children, in vitro, that they be available for implantation.

(12) It serves the best interests of the child or children, in vitro, for their Mother, Mrs. Davis, to be permitted the opportunity to bring them to term through implantation.

JUDGMENT OF THE COURT: The temporary custody of the seven cryopreserved human embryos is vested in Mrs. Davis for the purpose of implantation. All issues of support, visitation, final custody and related issues are reserved to the Court for consideration and disposition at such time as one or more of the seven human embryos are the product of live birth.

APPENDICES TO OPINION OF THE COURT

BECAUSE of much public interest in the case, Appendix A will assist the parties and the public to understand some fundamental rules and principles required to be applied the Court in the process of deciding the case. Appendix B is the Court's summary of the testimony given in the case over a period of almost three days (August 7, 1989, August 8, 1989 and August 10, 1989). Appendix C is footnote references to the Court's Findings of Fact and Conclusions of Law section of the Opinion.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

The Davises - Their Marriage

Based on the record before it, the Court finds that Mr. Davis is a gentleman; he is 30 years of age, employed as an electrician and a refrigeration technician by the Maryville Housing Authority, Maryville, Tennessee, earning about S17,500.00 annually. Mrs. Davis is a lady; she is 28 years of age who, at the trial, was employed by the Sea Ray Boat Company, Vonore, Tennessee, as a sales representative earning about $18,000.00 annually. Subsequent to the trial, Mrs. Davis has become domiciled in the state of Florida.[1]

Infertility of Mrs. Davis

Mr. and Mrs. Davis have been married about nine years. They very much wanted to have a family, but after Mrs. Davis suffered five tubal pregnancies, her physician advised and she undertook surgical treatment which rendered her incapable of natural conception. The Court finds that Mrs. Davis suffered significant trauma and pain resulting from the parties' attempts to procure their family by way of natural childbirth. In vitro fertilization[2] is the only option now available to her to have her own child.

In Vitro and Adoption Attempts

Remaining committed to having a family, Mr. and Mrs. Davis sought the advice and counsel of Dr. Ray King in the Fall, 1985, became familiar with and participated in the in vitro fertilization program under Dr. King's direction and guidance. Dr. King was assisted by his colleague, Dr. Charles A. Shivers, who performed the necessary laboratory work in connection with the in vitro fertilization program. In addition, Dr. King was assisted by his patient coordinator, Deborah Cooper McCarter, a Registered Nurse and Dr. King's administrative

assistant.

After some six attempts by the couple to produce a child through the in vitro fertilization process, resulting in no pregnancy, the parties temporarily suspended their participation in the program and sought to obtain a child through adoption. The adoption process did not work, and the parties abandoned adoption attempts and returned to the in vitro fertilization program conducted by Dr. King.

Cryopreservation Technique

In the Fall, 1988, Mrs. Davis learned of the new cryopreservation[3] program sponsored by King's clinic whereby several ova[4] could be aspirated[5], inseminated[6] in the laboratory and if the insemination process produced fertilized zygotes, the zygotes[7] could be allowed to mature in the laboratory to a medically accepted point for the purpose of either implantation[8] or cryopreservation for future implantation. Mrs. Davis discussed the new technique with her husband and armed with that information the parties proceeded to reenter the program with the intent of producing a child or children which would constitute their family.

Further In Vitro Attempts

It is undisputed in the record and the Court finds that in order to prepare her reproductive system to produce quality ova for insemination, Mrs. Davis went through many painful, physically tiring, emotionally and mentally taxing procedures, both before the December, 1988 events and after those events. As a prospective Mother, she spent many hours of anxious moments waiting for word as to whether she would be a Mother. The cry(preservation technique offered Mrs. Davis much welcomed relief from the rigors of the full procedure each time in vitro fertilization was attempted.

It is further undisputed and the Court finds that Mr. Davis donated sperm for the December, 1988 insemination and resulting fertilization process, that he spent many anxious hours, early in the morning and late at night, waiting at the hospital while Mrs. Davis underwent the aspiration and implant procedures and that he spent many anxious hours, as a prospective Father, awaiting word as to whether he would be a Father.

On December 8, 1988, nine ova were aspirated from Mrs. Davis, nine ova were inseminated with Mr. Davis' sperm by Dr. Shivers in his laboratory and the nine ova were fertilized, producing acceptable zygotes for implantation consideration by Dr. King and Dr. Shivers, The zygotes were permitted to mature under laboratory conditions, variously developing from the four-cell cleavage[9] stage to the eight-cell cleavage stage, all of which were found to be of excellent quality by Dr. Shivers and Dr. King. On December 10, 1988, two of the embryos[10] were implanted in Mrs. Davis, neither of which resulted in pregnancy, and the remaining seven embryos were placed in cryogenic storage for future implantation purposes.

Cryopreservation For Davis Family Only

The Court finds that before their embryos were committed to cryogenic storage, Mr. and Mrs. Davis knew, were aware of and had discussed between themselves (and with at least Dr. Shivers) the fact that reliable medical data indicated the practical storage life of the human embryos would probably not exceed two years. Mr. and Mrs. Davis had discussed the fact that if Mrs. Davis became pregnant as a result of her implant on December 10, 1988, the possibility existed that the remaining seven embryos in cryopreservation could be donated to another infertile couple, but the parties made no decision about that matter.

The Court further finds that during the time between December, 1988 and the filing of the original Complaint in this case (February 23, 1989), Mr. and Mrs. Davis discussed the possibility of and had tentatively planned to implant at least one of the cryopreserved embryos in Mrs. Davis' body in March or April, 1989.

The Intent of Mr. and Mrs. Davis

The Court further finds that Dr. King and Dr. Shivers engaged in a concerted effort with the Davises to help Mr. and Mrs. Davis become parents, both as to the IVF procedures before and after the utilization of the cryopreservation technique; and the Court finds and concludes that Mr. and Mrs. Davis participated in the IVF program, both before and after the employment of the cryopreservation technique, for one purpose: to produce a human being to be known as their child.

Issues for the Court

There is no fact in the record to persuade the Court that Mr. and Mrs. Davis discussed or had any thought of changing their intent until the Complaint was filed in this case on February 23, 1989 and it must be determined from the proof whether Mr. and Mrs. Davis accomplished their intent. That determination is to be made by the answer to the most poignant question of the case: When does human life begin?

To answer this question, several additional questions must first be asked and answered, based on the record in this case: Are the embryos human? Does a difference exist between a preembryo[11] and an embryo? Are the embryos beings? Are the embryos property that may become human beings?

Human Embryos- The Experts

Of the eight witnesses who gave testimony in this case, five of the witnesses presented themselves possessing the requisite knowledge, special skill, experience and education necessary to establish themselves as experts[12] in their respective fields of professional endeavor.

Because of her special training as a Registered Nurse, Mrs. McCarter is an expert witness; Dr. King[13] is a Medical Doctor and is a well qualified specialist in the field of Infertility/Reproductive Endocrinology; Dr. Shivers[14] is a well qualified Embryologist and is experienced in the laboratory work necessary for in

vitro fertilization and cryogenic storage of human embryos; Professor Robertson[15] is an eminently qualified Professor of Law whose scholarly treatises, dealing primarily with non-coital reproduction, have served as the basis for consideration of many medical-legal subjects; and Dr. Jerome Lejeune[16] is an eminently qualified Medical Doctor, Doctor in Science, Professor of Fundamental Genetics and recognized throughout the world in his specialty, Human Genetics.

The expert witnesses (except Mrs. McCarter) offered opinions to assist the court in determining when human life begins. It should be noted that all four witnesses agree that the seven cryopreserved embryos are human: that is, "belonging or relating to man; characteristic of man . . ."[17]

The Court finds and concludes that the seven cryopreserved embryos are human.

Preembryo vs. Embryo: Human Beings

Three of the experts, however, respectfully disagree with Dr. Lejeune that the human embryos are in "being;" that is, in "existence; conscious existence; as, things brought into being by generation…" or living, alive[18]. The three experts insist the entities are at a stage in development where they simply possess the potential for life.

In the analysis of the testimony offered on the point of whether or not the seven embryos are human beings, the Court believes it is helpful to even further condense the already summarized opinion testimony (Appendix B)[19] of each expert on the subject:

1. **Dr. Irving Ray King:** There is a first a one-cell gamete[20], a zygote (after the first cell divides), a preembryo (up to 14 days after fertilization) and finally an embryo (after 14 days and upon cell differentiation).
2. **Dr. Charles Alex Shivers:** A preembryo is a zygote up to 11-14 days and consists largely of undifferentiated cells; that after attachment to the uterus wall and the appearance of the primitive streak, the cells then become different; that is organs, organ systems, body parts and the like are formed. At the time of fertilization, genetic controls are "locked in forever" and control who the preembryo will later be, but, "…as far as we know…to my knowledge…there is no way to distinguish the cells [at the zygote stage]…[T]hey are the same [undifferentiated]…"
3. **Professor John A. Robertson:** A human preembryo is an entity composed of a group of undifferentiated cells which have no organs or nervous system. That at about 10-14 days, the preembryo attaches itself to the uteran wall, develops its primitive streak and life then commences. It is "…not clear…" that a human preembryo is a unique individual that simply because fertilization has occurred, the gamete contributors have not procreated[21].
4. **Dr. Jerome Lejeune:** Each human has a unique beginning which occurs at the moment of conception. Embryo: "…that youngest form of a being…"

> Preembryo: there is no such word. There is no need for a subclass of the embryo to be called a preembryo, because there is nothing before the embryo—before an embryo there is only a sperm and an egg; when the egg is fertilized by the sperm the entity becomes a zygote—and when the zygote divides it is an embryo, When the first cell exists, all the "tricks of the trade" to build itself into an individual already exists. Shortly after fertilization at the three-cell stage, a "…tiny human being…" exists. When the ovum is fertilized by the sperm, the result is "…the most specialized cell under the sun…"; specialized from the point of view that no other cell will ever have the same instructions in the life of the individual being created. No scientist has ever offered the opinion that an embryo is property. As soon as he has been conceived, a man is a man. New findings recited [Jeffrey's-DNA][22] [23] definitely prove differentiation and that from the very beginning there exists an embryo.

Dr. King, Dr. Shivers and Professor Robertson rely at least to some degree on the report of the Ethics Committee of The American Fertility Society[24] in forming the basis of their opinions. Each makes a distinction between "embryo" and "preembryo" in conformity to the AFS guidelines.

The ethical considerations by the committee for the AFS were referred to in, cited and relied upon by the Brief[25] filed by Mr. Davis; testimony was given about the Committee and its work. Professor Robertson is a member of the Ethics Committee, Dr. King is a member of the American Fertility Society and various witnesses gave testimony indicating reliance on the pronouncements of the Committee.

The AFS guidelines were published by the Society in September, 1986 after the Committee's last deliberation on April 14, 1986 in Norfolk, Virginia.[26] The guidelines were promulgated by the committee pursuant to the charge of the Society's President by letter dated November 7, 1984,[27] requesting the committee to address ethical issues regarding reproduction and to disseminate the committee's knowledge of these positions on those matters.

In its report, the committee defined the term "preembryo," and prefaced its definitions section with the following language:

> **"In order to avoid confusion**, the committee found it necessary to adopt certain definitions **for the purposes of this document."** [Emphasis supplied][28]

The Committee then defined the word preembryo this way:

> "**A preembryo** is a product of gametic union from fertilization to the appearance of the embryonic axis. The preembryonic stage is considered to last until 14 days after fertilization. This definition is not intended to imply a moral evaluation of the preembryo." [29]

In reviewing the guidelines, it is of interest to call attention to several considerations set-forth in the report. One of those considerations is the recognition by the committee that there are several respected views relative to

the moral and legal status of a preembryo. The committee adopted this view:

> "A third view one that is most widely held—takes an intermediate position between the other two. It holds that the preembryo deserves respect greater than accorded to human tissue but not the respect accorded to actual persons. The preembryo is due greater respect than any other human tissue because of its potential to become a person and because of its symbolic meaning for many people. Yet, it should not be treated as a person, because it has not yet developed the features of personhood, is not yet established as developmentally individual, and may never realize its biologic potential."[30]

Under the heading "Emerging Consenus On Preembryo Status," the following statement is made:

> "The Ethics Advisory Board, for example, unanimously agreed in 1979 that "the human **embryo** [i.e., **preembryo** in this report] is entitled to profound respect, but this respect does not necessarily encompass the full legal and moral rights attributed to persons" (Ethics Advisory Board, 1979)." [Emphasis supplied.][31]

In the Committee's summary of points of special interest, the following is found:

> "The Committee finds that the human preembryo is not a person but is entitled to respect because it has the potential to become a person. This view limits the circumstances in which a preembryo may be discarded or used in research…"[32]

The Court finds and concludes that the report of the Ethics Committee of the American Fertility Society constitutes guidelines for those professionals involved in the field of fertility treatment; as Professor Robertson testified, they constitute guidelines for these professionals to be primarily utilized for litigation purposes. In other words, they are the self-imposed standards one professional would testify must be met by another professional, for example, in a medical malpractice suit. 'The guidelines do not have the force and effect of the law but must be considered by this Court for whatever probative,[33] value they may possess.

The Court finds and concludes that the guidelines of the AFS do not serve as authority for this Court in making a determination of whether the seven human embryos in question are human beings, and concludes the term "preembryo" has arisen in this suit primarily because the AFS Committee chose that term to avoid the confusion for the purposes of its own guidelines. The Court has made a thorough search of encyclopedias and dictionaries of which the Court may take Judicial notice and the Court can nowhere find the word "preembryo" defined nor can the Court find even a reference to that term.

Careful scrutiny of the testimony and an exhibit at the trial gives the Court even greater assurance that the term "preembryo" serves as a false distinguishing

term in this case.

Exhibit 8, at the trial, are the handwritten notes of Dr. King. Dr. King's notes concerning the status of his patient, Mary Davis, covering the period of time from December 8, 1988 at 10:08 a.m. through and including December 10, 1988 at 3:31 p.m., all refer to the ova after fertilization as "embryo"; and the last document in that series of notes makes reference to the "condition of embryo" and variously describes the seven embryos as…4 cell embryo-perfect…"

The Court finds it curious that Dr. King, who adopts the AFS guideline definition of a "preembryo" to distinguish it from an "embryo" would in his own notes call them embryo(s).

Counsel for Mr. Davis furnished the Court a revised copy of Professor Robertson's paper[34] written recently by him (probably finished in July, 1989), dealing specifically with the case at bar. The solution Professor Robertson set-forth in his paper is the same solution he offered through his testimony. He was asked about that opinion on direct examination by Counsel for Mr. Davis; he was cross-examined by Counsel for Mrs. Davis about his opinion cited therein. The paper is entitled *Resolving Disputes Over Disposition of Frozen Embryos;* from the title page through 31 additional pages (the entire text), Professor Robertson, speaking about the case at bar, referred time and again to the "embryos."

It is curious that this very scholarly paper does not reflect the very fine distinction between "preembryo" and "embryo" made by Professor Robertson throughout his testimony at the trial.

The Court is persuaded that the debate between these most sincere and knowledgeable witnesses perhaps boils down to much the same debate Sweet Juliet had with herself when she rationalized her strong affection for Romeo, who was not a Montague:

> "…'Tis but thy name that is my enemy;
> Thou art thyself, though not a Montague.
> …What's in a name? that which we call a rose
> By any other name would smell as sweet …"[35]

The Court finds and concludes there is no such term as "preembryo"; that to use the term in the context of this case creates a false distinction, one that does not exist. The Court finds and concludes the seven cryopreserved entities are human embryos.

DNA Manipulation Verifies Uniqueness

Based on the analysis of the testimony comprising the positions of Dr. King, Dr. Shivers and Professor Robertson, it appears that where these gentlemen most sharply differ with Dr. Lejeune is in the area of cell differentiation. Dr. Lejeune, of course, gives emphatic testimony that the cells are especially differentiated and that such position is a proven scientific fact.

The term "differentiate,"[36] means to distinguish by a specific difference. If the cells, therefore, of a four cell zygote are undifferentiated, the cells lack any distinction, a skilled scientist could not distinguish the cells of one zygote from

those of another zygote nor could the scientist distinguish between any of four cells within the hypothetical zygote. Dr. Lejeune bases his emphatic opinion to the contrary (". . . the most specialized cell under the sun . . .") on a complicated scientific process of manipulating and reading the DNA molecule, characterized by him as new findings which definitely prove differentiation, now known through the science of molecular genetics[37] beyond any doubt.

The testimony given by Dr. Lejeune relative to conclusive proof induced through DNA examination is highly technical, incapable of observation by the Court and requires the Court to either accept or reject the scientist's conclusion that it can be done. While this factor requires the Court to proceed with special caution, it does not of itself render testimony or other evidence based on this highly specialized field of molecular genetics unreliable.[38]

Quite to the contrary, DNA profiling, through "genetic fingerprint" evidence by which strands of coating found in genetic molecule of deoxyribonuclei acid (DNA), has been accepted as competent and admissible evidence in Courts of law, is considered reliable, is performed by a number of laboratories around the world and is generally accepted in the scientific community.[39]

As indicated in footnote 39, the *Andrews* case was decided by the United States District Court of Appeals of Florida, Fifth District, on October 20, 1988 and review of the case was denied in 1989. It is the only case this Court has been able to find dealing with the reliability of the DNA procedures so forcefully relied on by Dr. Lejeune. *Andrews* approves the reliability of DNA profiling, a process very similar to the one described and relied on by Dr. Lejeune.

Both Dr. Shivers and Professor Robertson cite undifferentiated cells as one basis for their opinions that human embryos are not human beings, but each hedges on the point. Dr. Shivers says "as far as he knows" there 'is no way to distinguish the cells, that they are undifferentiated; and Professor

Robertson says "it is not clear that a unique individual" then exists.

The testimony of Dr. Lejeune stands unrebutted in the record; the Court accepts his testimony that DNA manipulation of molecules of human chromosomes[40] reliably proves cell differentiation. The Court is persuaded that this relatively new technique opens a tiny window to the world to see and be aware of the most intimate and intricate details of man from his very beginning.

The Court finds and concludes that the cells of human embryos are comprised of differentiated cells, unique in character and specialized to the highest degree of distinction.

Dr. Shivers and Professor Robertson testified that the preembryo is not a being because he or she has no (observable) organs or nervous system, no body parts. Dr. Lejeune, on the other hand, says a man is a man; that upon fertilization, the entire constitution of the man is clearly, unequivocally spelled-out, including arms, legs, nervous systems and the like; that upon inspection via DNA manipulation, one can see the life codes for each of these otherwise unob-

servable elements of the unique individual.

The testimony of Dr. Lejeune stands unrebutted in the record; the Court accepts his testimony founded on the fact that DNA manipulation of the molecules of human chromosomes reliably detect these features of man; that the life codes for each special, unique individual are resident at conception and antimate the new person very soon after fertilization occurs.

The argument that the human embryo may never realize its biologic potential, it appears to the Court, is statistically[41] and speculatively true, but is a hollow argument. A newborn baby may never realize its biologic potential, but no one disputes the fact that the newborn baby is a human being. And if it is a part of the logic that an embryo, only a few hours old and perhaps only four cells in development, is not a being because it cannot sustain itself, then we must also reason that a newborn baby (which no one disputes is a human being) can likewise not sustain itself without the aid and assistance of a mature individual (hopefully its Mother); and we must reason the newborn also lacks a necessary criteria to qualify as a human being. For surely it is good logic that a newborn human being, left naked in a field without the sustenance, aid and assistance of another human being will surely die; it is utterly helpless; it, too, lacks the capacity to sustain itself.

It must be noted that one solution offered for the Court's disposition of the embryos is to allow them to die a passive death. Mrs. Davis reasons that in order to die, one must first live. Her logic is appealing, persuasive and accepted by the Court.

The technical arguments of human genetics aside, Mr. Davis asserts the theory that embryos constitute property jointly owned by the parties[42]; that the embryos do not constitute life, but have the potential for life. Professor Robertson also adopts this view and suggests the embryos, at this stage of development, might properly be designated fungible property[43].

In light of all the proof before the Court, it is impossible for the Court to find the assertion well founded in logic and good reason. Perhaps Tennessee's Senator Albert Gore best expressed the Court's apprehension when then Congressman Gore (in 1984), hearing a similar theory asserted during testimony before the U.S. House of Representatives' Subcommittee on Investigations and Oversight of the Committee on Science and Technology, said:

> "I disagree that there's just a sliding scale of continuum with property at one point along the spectrum and human beings at another. I think there's a sharp distinction between something that is property and something that is not property . . ."[44]

The Court finds and concludes that by whatever name one chooses to call the seven frozen entities—be it preembryo or embryo—those entities are human beings; they are not property.

Human Life Begins at Conception

The answer then, to the question: When does human life begin? ... from the record in this case, the Court finds and concludes that human life begins at the moment of conception[45]; that Mr. and Mrs. Davis have accomplished their original intent to produce a human being to be known as their child.

What then is the legal status to be accorded a human being existing as an embryo, in vitro, in a divorce case in the state of Tennessee?

For the purposes of the **Tennessee Wrongful Death Statute,**[46] an unborn child is accorded status only if the child is viable at the time of injury; that is: if a child had achieved a stage of development where it could reasonably be expected to be capable of living outside the uterus. For the purposes of the **Tennessee Criminal Abortion Statute**,[47] the child is accorded no recognized status during the first three months of its Mother's pregnancy. But the legislature for the state of Tennessee has not yet, and to the best of the Court's knowledge, information and belief, no state in the union has, established a public policy[48] declaring the rights to be accorded a human embryo, in vitro, in a divorce case.

In order to give effect to this Court's judgment, it is necessary to establish, in the absence of any authority to give the Court guidance, the status of these unborn human beings in this divorce proceeding.

As my learned colleague in the law, Professor Robertson, pointed out during his testimony, the recent *Webster*[49] case leaves open the door for a state to establish its compelling interest in protecting even potential human life by legislation declaring its public policy. Even as to the abortion issue, the *Webster* Court opined that it saw no reason why the state's interest in protecting potential human life should come into existence only at the point of viability.[50]

The Court understands that both *Roe*[51] and *Webster* dealt with questions of the constitutionality of **abortion statutes** and the court's decisions in those cases have a profound effect on the states' compelling interest in the protection of human life, **but only as it deals with the abortion issue.**

In its research of Tennessee law, the Court finds only one case that gives it solace. In *Smith v. Gore,* 728 SW 2nd 738 (1987), a tort action was brought for a wrongful pregnancy resulting from a failed tubal ligation. While the case deals in the main with the tort aspect of the claim, the Court, in its discussion of public policy recognizes that the state places great value on human life. But of greater importance, it appears to the Court, is the *Smith* Court's consideration of the distinction between judicial decisions which infringe on the legislative right to set public policy and a Court's finding that no public policy prevents the continuing development of common law.

The function of the Courts is to declare the law as the Courts find it, and it is for the Legislature to weigh the affect [sic] and the consequences of legislation enacted.[52] The Legislature has exclusive and ample power to determine the public policy of the state.[53] The law in Tennessee, therefore, restricts this Court's role in declaring public policy. The Court is not free to establish what it

believes to be the best policy for the state; rather, the Court must determine where public policy is to be found, what the specific publ Ic policy is, and how it applies to the case at hand.[54] For the Court to find that no public policy prevents the continuing development of the common law is wholly different from positively declaring the public policy of the state.[55]

This Court finds and concludes that for domestic relations purposes in Tennessee no public policy prevents the continuing development of the common law as it may specifically apply to the seven human beings existing as embryos, in vitro, in this domestic relations case. The Court is of the opinion, finds and concludes that the age-old common law doctrine of *parens patriae*[56] controls these children, in vitro, as it has always supervised and controlled children of a marriage at live birth in domestic relations cases in Tennessee.

The common law doctrine of *parens patriae* is defined as that power of the sovereign to watch over the interests of those who are incapable of protecting themselves.[57] It is well settled that Court's having historic Chancery or equity jurisdiction exercise and control the sovereign power called *parens patriae*.[58] The thrust of the equitable nature of this doctrine is that it turns Its full focus on the best interests of the child; its concern is not for those who claim "rights" to the child, nor for those who claim custody of the child, nor for those who may suffer perceived or real inequities resulting from scrupulously guarding the child's best interest.[59]

The doctrine of *parens patriae* is most commonly expressed as the "best interests of the child doctrine" and its sole objective is to achieve justice for the child.[60] In the case of very young children, it was a former practice in Tennessee for many years to confuse the so-called "Tender Years Doctrine" (the placing of children of tender years with their Mother, regardless of the circumstances) with the "best interests of the child" rule. In 1987, our legislature amended the custody provisions of our Tennessee divorce statute to create a rebuttable presumption of parental fitness in child custody cases, mandating the long-standing test, however, as the welfare and 'interest of the child or children may demand…"[61]

In the case at bar, the undisputed, uncontroverted testimony is that to allow the parties' seven cryogenically preserved human embryos to remain so preserved for a period exceeding two years is tantamount to the destruction of these human beings. It was the clear intent of Mr. and Mrs. Davis to create a child or children to be known as their family. No one disputes the fact that unless the human embryos, in vitro, are implanted, their lives will be lost; they will die a passive death.

Mr. Davis strenuously objects to the anonymous donation of the human embryos even for their survival; Mrs. Davis wants to bring these children to term; the human embryos were not caused to come into being by Mr. and Mrs. Davis for any purpose other than the production of their family. Therefore, the Court finds and concludes that it is to the manifest best interest of the children,

in vitro, that they be made available for implantation to assure their opportunity for live birth; implantation is their sole and only hope for survival. The Court respectfully finds and concludes that it further serves the best interest of these children for Mrs. Davis to be permitted the opportunity to bring these children to term through implantation.

It is the judgment of the Court that the temporary custody of the parties' seven cryogenically preserved human embryos be vested in Mrs. Davis for the purposes set-forth hereinabove, and that all matters concerning support, visitation, final custody and related issues be reserved to the Court for further consideration and disposition at such time as one or more of the seven cryogenically preserved human embryos are the product of live birth.

Mr. Christenberry, Counsel for Mrs. Davis, will prepare an appropriate Order, pursuant to and in accord with the provisions of the Court's Opinion, submit same to Counsel for Mr. Davis and to Counsel for Dr. King for approval as to form, and the Order will be tendered to the Court for entry on or before October 23, 1989, taxing the costs hereof to the Plaintiff.

This 21st day of September, 1989.

W. DALE YOUNG, Circuit Judge

Fifth Judicial District, Tennessee

CERTIFICATION

THE UNDERSIGNED hereby certifies that a true, correct, and exact copy of the foregoing Opinion of the Court has, the day and date shown below, been hand-delivered to each Counsel of Record in the above-captioned case.

THIS 21st day of September, 1989.

W. DALE YOUNG, Circuit Judge

Fifth Judicial District, Tennessee

APPENDIX A

(Footnotes for Appendix A appear
immediately following the Appendix text.)

Some Fundamental Principles Utilized By The Court

The fundamental duty of any Court is to fairly and impartially administer justice as between the litigants, resolving all their disputes, if possible, so a just end results. Litigants are entitled to understand how the Courts arrives at its decision, even if they disagree with the resulting judgment.

Where litigation affects or is of interest to a material segment of the public, the Court is persuaded that an additional and important responsibility is imposed on the judiciary: to assist the public in understanding the procedures of the Court.[1] With this in mind, the Court deems it appropriate to briefly outline some of the basic principles of law and rules of evidence which are to be considered by the Court in connection with its decision in this case; and of equal importance, it will also be noted that there exist many theories, ideas and concepts which may not be considered by the Court in connection with its decision in this case.

The duties and responsibilities of a Trial Court are numerous and are largely carried out by the Judge without the assistance of others. The Judge is assisted in his administrative duties by his Secretary, his Court Officer(s), the Clerk of the Court and the Clerk's Deputy Clerks. Trial Judges in Tennessee are not provided law clerks to assist the Court in its research of the law; it is the duty of Counsel for litigants to call to the Court's attention applicable legal precedents and, through arguments given, either orally or through written briefs, to persuade the Court to apply the referenced law to the facts in the record of the case.

Occasionally, learned members of the bar, on their own initiative or at the request of the Court with the knowledge of the parties, file *amicus curiae* briefs ("friend of the court" briefs) to aid and assist the Court in resolving issues of precedential or unusual nature.[2] The Honorable Richard Hash, a member of the Blount County, Tennessee Bar has filed *amicus* briefs in this case, for which the Court is most grateful.

The Oath of Office of a Judge

In considering the responsibilities of a Trial Court, it is important to understand that the Judge has taken an oath of office to administer justice without respect of persons, to impartially discharge all the duties incumbent on him to the best of his skill and ability and he makes a public affirmation to support the Constitution of the state of Tennessee and of the United States of America.[3]

Trial Court's General Duty

The Trial Court's general duty is not to change the law, but to work out the principles already sanctioned by the practice of the past; the duty is to develop the principles which are found with such consistency as the Trial Court may be able to attain.[4]

Weighing the Evidence

This case was heard by the Court without the intervention of a jury; domestic relations cases are generally conducted in that manner.

As the finder of fact in a non-jury case, the Court is bound to determine the facts by what the law perceives to be the "preponderance of the evidence," which means that amount of factual information presented to the Court during the course of the trial which is sufficient to cause it to believe that the matter being asserted is probably true. In order to preponderate, the evidence must have the greater convincing effect in the formation of the belief about the facts; and if the evidence on a particular issue appears to be equally balanced as between the contending parties, the party having the burden of proving that

particular issue must fail. The term "preponderance of the evidence" is sometimes expressed as the "greater weight of the evidence."[5 6]

The evidence considered by the Court in connection with its findings of fact may be either direct or circumstantial evidence. It is direct evidence if it proves a fact without any inference, and which in itself, if it is true, conclusively establishes that fact. It's circumstantial evidence if it proves a fact from which the inference of the existence of another fact may be drawn.[7] The law makes no distinction between direct and circumstantial evidence as to the degree of proof required.

The finder of fact is correct in considering any evidence of probative value, that is, evidence which has a tendency to prove or actually proves a fact.[8]

No Prejudice, Passion, Sympathy

In deciding any case, the Court must not be influenced by prejudice, passion or sympathy, for or against any party.[9] Cases are to be decided by the head, not by the heart.

Conflicting Testimony

Many times, the Court will hear conflicting testimony. In that connection, it is the law of evidence in the state of Tennessee that the testimony of one witness worthy of belief is sufficient for the proof of any fact. Cases are not decided in conformity with the testimony of a number of witnesses which does not produce conviction in the mind of the Court against the testimony of a lesser number of witnesses or other evidence which appeals to the mind of the Court with more convincing force.

An issue is not to be decided by the simple process of counting the number of witnesses who have testified on the opposing sides; the final test is not in the relative number of witnesses, but in the relative convincing force of the evidence.[10]

In reaching its decision, the Court must consider only the evidence in the case; however, the Court is not required to set aside its common knowledge—"horse sense"—as it has the right to weigh the evidence in light of its own observations and experiences of life.[11]

Credibility of the Witnesses

The finder of fact is the sole and exclusive judge of the credibility (or believability) of the witnesses who testify in a case. In determining the credibility of a witness, it is proper to consider any matter that has a tendency in good reason to prove or to disprove the truthfulness of that witness' testimony and among the many things the trier of fact may consider in judging the credibility of the testimony of any witness are the following: the demeanor of the witness while testifying and the manner in which he testifies; the character of that witness' testimony; the extent of his capacity to perceive, to recollect or to communicate about any matter about which he testifies; the extent of his opportunity to perceive any matter about which he testifies; and the existence or non-existence of a bias, interest or other motive for giving testimony.[12]

Discrepancies in Testimony

Often, the trier of fact will note discrepancies in a witness' testimony or between his testimony and that of others. The notation of that fact, within itself, does not necessarily mean that the witness should be discredited. Whether a discrepancy pertains to a fact of importance or only to a trivial detail should be considered in weighing its relative significance.[13]

Expert Witnesses

Courts often hear testimony from expert witnesses. A witness who has special knowledge, skill, experience, training or education in a particular science, profession or occupation may give his opinion as an expert as to any matter in which he is skilled.

In determining the weight to be given such an opinion or in resolving conflicts in the testimony of different expert witnesses, the trier of fact should consider the qualifications

and credibility of the expert, the relative qualifications and credibility of the other experts, as well as the reasons, the facts and any other matters upon which any opinion is based.

The Court is not bound by an expert's opinion, but it must give the weight, if any, to which the Court thinks it is entitled.[14]

It must be emphasized that expert testimony is adduced only to aid the trier of fact to understand the evidence, not to dominate or control the Court in the decision of the disputed issues.[15]

The Judgment

In its simplest form, the duty of the Trial Court is to make findings of fact based on all the evidence presented during the course of the trial, regardless of who presented it, and to apply the applicable law to those facts as the Court finds them to be. The result is the Court's judgment in the case.

The Technical Record

The facts which the Court finally decides as true in the case must appear in the record of the proceedings. The record of the proceedings is comprised of the pleadings filed by the litigants, any exhibits appropriately attached to the pleadings, the testimony of the parties and their witnesses given under oath in open Court, any testimony submitted to the Court by way of deposition (testimony given outside of Court, under oath, and transcribed both as to questions and answers by a Court Reporter, typed, and in bound form), and any exhibits to the testimony of the parties and their witnesses deemed appropriate by the Court at the trial under applicable rules of evidence.

Judgment Based On In-Court Proceedings

The Judge of a Court does not live in a vacuum. Just as any other citizen, the Judge is exposed to the opinions and ideas of others outside the Courtroom by way of radio, television, newspapers, magazines and the like. This Court has received hundreds of communications through the mail from most sincere people who have expressed their opinion on the case, sent newspaper clippings and other material for the Court's consideration.

It is not proper for the Court to consider such extrajudicial communications in making any findings of fact, conclusions of law and the resulting judgment of the case. This case has not been decided by the Court based upon or influenced by any such extrajudicial communications.

As a citizen, the Judge of this Trial Court is keenly aware of the various theological positions which may be impacted by the Court's judgment in this case; the Court is aware of the various ethical positions which may be impacted by the Court's decision in this case; the Court is aware that many members of the public consider the questions involved to be of a strict moral nature, not of a legal nature, and that the impact of the Court's decision may offend, give support to or otherwise affect many moral views of a substantial segment of the public; the Court is aware of the so called "pro-life" and "pro-choice" factions of society and the Court's decision in this case may offend, give support to or otherwise impact one side or the other; and finally, the Court knows the positions of the political parties may be impacted by the Court's decision.

Consideration of these matters do not come within the purview of the duty or authority of this Court; the Court's duty is to decide the case based on the evidence before it and the applicable law to be applied to the facts as the Court finds them to be. The matter of public policy is fully dealt with by the Court in its Opinion. [16]

Divorce Proceedings

The case at bar is a domestic relations case, heard by the Court without the intervention of a jury and is, by its very nature, an equity cause of action.

In a divorce case, it is incumbent upon the Trial Court to take full responsibility over all issues involved with and arising from the marriage relationship of the husband and wife. The Court must find the facts and apply the law in order to make an equitable distribution of the parties' property, if any, and provide for the care, custody and support of the parties' minor children, if any." [17] [18]

Because divorce is statutory, the Court must look to the mandates of the legislature of the state of Tennessee relative to the dissolution of the parties' marriage and in considering all the issues involved in connection with the dissolution. These statutory provisions are discussed in the Court's Opinion.

Equity Jurisdiction

In domestic relations matters, the Circuit Courts of our state are vested with the same equity jurisdiction as exists inherently in the jurisdiction of the Chancery Courts of our state.[19]

The system of jurisprudence called Equity is best defined by describing its origin. In England, when an injustice was found at law, or perhaps the law had no remedy for a particular circumstance, a plea to the Crown or to its Lord Chancellor led to the creation of a separate system of law-one where the Chancellor, as "keeper of the King's conscience," sought to do equity and to cure the injustice and inequities often caused by the inflexible forms of the common law. As the system of equity jurisprudence grew, its hallmark became one of flexibility and invention to meet new situations and circumstances. [20]

Out of equity jurisprudence has arisen a litany of equity maxims: universal statements of justice. Equity maxims lie at the foundation of universal justice and have been worthily and aptly called "the law of laws."[21] It is a part of our jurisprudence system that in default of the law, the maxim rules;[22] maxims have an inherent probative force and need not be proved[23] and, among many other salient, sage pronouncements, one maxim forcefully notes that the welfare of the people is the supreme law and the rights of the individual must be subordinated to public good.[24]

Judicial Discretion

Another fundamental tool in the administration of equity jurisprudence is the ability of the Court to temper the Court's decisions with judicial discretion.

Judicial discretion may be defined as the liberty which a Judge possesses to decide as may seem to him, in the light of his experience, right and just under the circumstances of the particular case, not being governed in such decision by any inflexible rule of law, but being guided by the principles of law and justice.[25]

This flexibility is needed in our jurisprudence system: no compiler of laws and codes has yet been able to devise a system of laws that will embrace all situations and will furnish the means of solving all jural and social difficulties. In the very nature of things, it is impossible to foresee and anticipate all events of life; yet Judges and lawyers must never forget that things unanticipated and unsuspected will surely arise and those matters must be dealt with as difficulties and obstructions which must be solved by the possessors of the power to adjudicate; hence the unquestioned assumption of the Judges of the right and the power to dispose of the unheard and the unpredictable. [26]

In its broadest sense, judicial discretion is a feeling of right and wrong which has arisen or been brought about from the combination of various legal and equitable considerations, which have never been reduced to codes or written laws but are nevertheless essential parts of an enlightened system of jurisprudence.[27]

In its narrower sense, it is referred to as the capacity of the trial judge to understand and to apply the law of the land to particular facts or situations arising in a pending lawsuit and which call for some decision which will tend toward a settlement of the rights of the parties and the attainment of justice.[28]

Judicial discretion concerns itself with the election or choice between two or more

courses of action. It implies a discriminating examination of alternatives for the purpose of arriving at a conclusion as to which is the better way of solving or obviating a difficulty or attaining a certain end. It is further suggested that judicial discretion has reference to the mental faculty of separating the whole of a set of circumstances into its parts and the balancing of its several elements and when it is considered in connection with judicial power, it can readily be seen that the true meaning of the term is the discrimating consideration of all the contending elements of forces not controlled by well-established rules of law and the adoption of the most feasible, convenient, and efficacious way of proceeding with the administration of justice.[29]

But judicial discretion has its limitations, and a notable one is that it must be understood that at no time can Judges act arbitrarily or capriciously and in disregard of the spirit of the law and of sound public policy.[30]

Judicial Notice

It has been aptly stated that for every rule at law or in life there is at least one exception. Judicial notice is a note-worthy exception to the rule that each case must be decided based strictly on the technical record before it.

Judicial notice is the cognizance by the Court of certain facts which Judges may properly accept and act upon without proof, because they already know them. A fact of which a Court takes judicial notice must be universally regarded as established.[31]

Our Tennessee Courts have spoken often about how our Trial Courts have used and abused their concepts of judicial notice. The appellate Courts have held that a Trial Court cannot take judicial notice of the contents of scientific books and treatises,[32] but has permitted Trial Courts to take judicial notice of facts universally known and found in encyclopedias and dictionaries if the facts are of such universal notoriety and so generally understood that those facts may be regarded as forming a part of the common knowledge of every person.[33]

In addition, Trial Courts are permitted to take judicial notice of facts relating to human life, health and habits, and management and conduct of businesses which are common knowledge; and such matters may be properly considered by the finder of fact in its determination of inferences to be drawn from proven circumstantial facts.[34]

The Intent of Appendix A

The foregoing is submitted for the reader's consideration of several general rules and principles which assist the Trial Court in reaching a fair and just decision. But because each case is different, the specific rules applicable to each case may also vary, according to the nature of any given case.

It is the Court's intent that by delineating the foregoing rules and principles, some of the judicial mystique surrounding the way our Courts operate will be stripped away and the reader will better understand how and why some results are reached in this complicated legal proceeding.

FOOTNOTES: EXHIBIT A

(1) *Rules of the Supreme Court of the State of Tennessee,* Rule 10, Canon 3, A. (6). While this Canon does not direct such action, the Canon does not prohibit Judges from making public statements in the course of their official duties or from explaining for public information on the procedures of the Court.

(2) *Rules of the Supreme Court of the State of Tennessee,* Rule 10, Canon 3, A. (4). In the commentary to this Canon, the following appears: "An appropriate and often desirable procedure for a court to obtain the advice of a distinguished expert on legal issues is to invite him to file a brief amicus curiae."

(3) Oath of Office of William Dale Young, September 2, 1986.

(4) *Hamm v. Hamm,* 204 SW 2nd 113 at 127 (1947).

Quoting with approval a statement to the same affect made by United States Supreme Court Chief Justice Holmes.

(5) In outlining many of the fundamental concepts to be applied in this non-jury case, the Court has modified some of the concepts set-forth in the *Tennessee Pattern Jury Instructions (Civil)*.

The pattern instructions statements are useful because they are framed in such language as to be understood by the ordinary layman and, while the pattern instructions do not have official status, they represent the collective wisdom of the Committee on Pattern Jury Instructions (Civil) of the Tennessee Judicial Conference and represent the collective understanding of that Committee as to what the law of Tennessee is or would be, should there be lack of specific authority for the particular instruction.

The references to these instructions are hereinafter designated "T.P.L", followed by the charge number.

(6) *T. P. L.* 2.40
(7) *T. P. L.* 2.01
(8) *Black's Law Dictionary* (3rd Edition)
(9) *T. P. L.* 1.10
(10) *T. P. L.* 2.02
(11) *T. P. L.* 1.15
(12) *T. P. L.* 2.20
(13) *T. P. L.* 2.21
(14) *T. P. L.* 2.30

APPENDIX B

The following constitutes the Court's summary of testimony given by the respective witnesses at the trial:

Junior Lewis Davis

Junior Lewis ("J.R.") Davis is thirty years of age, employed as an electrician and a refrigeration technician by the Maryville Housing Authority, Maryville, Tennessee, earning about $17,500.00 annually.

Mr. and Mrs. Davis met while both were in the United States Army in Germany and were married about nine years ago. Both Mr. and Mrs. Davis very much wanted to have children and after Mrs. Davis suffered some half dozen tubular pregnancies, the couple consulted Dr. Ray King in the Fall, 1985, shortly after which they entered the in vitro fertilization program under Dr. King's guidance.

After several IVF attempts, Mrs. Davis failed to be pregnant and the parties temporarily abandoned the program and sought to adopt a child. A Kentucky girl, pregnant with child, offered her child for adoption prior to birth. The Davises paid her medical expenses, but upon delivery, the Mother chose to keep the child.

The parties had discussed on many occasions their keen desire to have a family, had decided they wanted at least two children by way of adoption or through IVF and were thwarted in their attempts through either method.

In the Fall, 1988, Mr. Davis noted the parties marriage had been somewhat unstable for about two years. Notwithstanding the status of his marriage in the mind of Mr. Davis, (Mrs. Davis testified she was not aware their marriage had incurred the problems Mr. Davis testified about), the Davises agreed to again enter King's IVF program in an effort to have a child. Mrs. Davis counseled with Dr. King about cryopreservation of embryos for future use, Mrs. Davis explained the technique and procedure to Mr. Davis and the parties agreed to this technique as a part of their resumption of IVF attempts to accomplish a family.

In December, 1988 nine ova were surgically extracted from Mrs. Davis, all of them inseminated in Dr. Shiver's laboratory with Mr. Davis' sperm, the nine ova were fertilized,

two were implanted in Mrs. Davis with the hope that one would cause her to become pregnant and the remaining seven were cryopreserved by Dr. Shivers for future implantation purposes. No detailed discussions were undertaken with Mr. Davis by Dr. King or others relative to cryopreservation and no decision was made by Mr. and Mrs. Davis as to the disposition of their cryopreserved embryos in the event of divorce, death or other unforeseen eventuality. No writing was executed by the parties as to the subject embryos.

The night of the implantation (December 10, 1988), Mr. and Mrs. Davis discussed how long the embryos would last in cryopreservation and the possibility of donating embryos not utilized in causing Mrs. Davis to be pregnant. Mr. Davis acknowledged the embryos were frozen with "…the intent they be saved for later use…", but maintained there was no decision or even any discussion relative to whether they would be used in the marriage or out of the marriage.

Mr. Davis requests the Court to: (1) give Mr. and Mrs. Davis joint custody of their embryos; or (2) prohibit Mrs. Davis or another from using the embryos for implantation until he can decide about their disposition; or (3) if none of the foregoing, then consider only Mrs. Davis as a suitable party for implantation (Mr. Davis opposes destruction of the embryos, but prefers their destruction rather than allow someone other than Mrs. Davis to implant the embryos).

As to his joint custody request, Mr. Davis emphasized that he does not want exclusive control over the embryos; he insisted that he and Mrs. Davis should jointly decide about their disposition; that all decisions prior to the divorce were jointly made by the parties; that only the parties should be involved as to future decisions. Davis insists that until the parties can agree, the embryos should remain in their cryopreserved state.

Mr. Davis opposes Mrs. Davis' use of the embryos because he does not want to be…raped of my reproductive rights…"; he maintains her use without his consent forces unwanted parenthood on him, a situation which disturbs him greatly. He doesn't want a child produced to live in a single-parent situation. Mr. Davis detailed how his own life, at age 6, had been shattered by the divorce of his Mother and Father; how he and three brothers were sent to a boys home where he stayed until age 18; he related the problems he experienced being away from his family and he emphasized his despair because there was no natural bond with his parents. Because of his own shattered and disappointing childhood, he became angry, he became distrustful of others and he bears that psychological burden even today. He strongly and sincerely insists that because of his poor relationship with his own parents he strenuously objects to bringing a child into the world who would suffer the same or a similar experience without any opportunity on his part to bond with his child.

Mr. Davis objected to the anonymous donation of the embryos to another infertile couple inasmuch as it would place a great psychological and emotional burden on both him and Mrs. Davis. In addition, he testified that the parents of the potential child might possibly divorce in the future, giving rise to enhanced apprehension for the child's welfare.

As to destruction of the embryos, Mr. Davis speculated that someday he might change his mind about their disposition and would then regret any such action. He opposes their destruction except in lieu of donation to anonymous recipients.

It is Mr. Davis' position that the embryos do not constitute life, but firmly believes the embryos have the "potential for life." (Davis commented that he is very much opposed to abortion.) He maintained that if the only choices are to donate the embryos to anonymous recipients or allow Mrs. Davis to use them, he would prefer Mrs. Davis having them.

If Mrs. Davis is awarded the embryos and a child results, Davis testified that he would

visit with the child as much as possible and he would try to develop a parent/child bond; in addition, he would actively seek to support his child and he would actively seek the custody of his child.

Davis readily admits that he and Mrs. Davis began and continued the IVF program with Dr. King with the intent and for the purpose of having a child or children.

John A. Robertson

Professor John A. Robertson is a Baker and Botts Professor of Law at the University of Texas at Austin, Texas.

Professor Robertson testified that he is a member of the American Fertility Society's Ethics Committee, serving since the Fall, 1985. The AFS's first publication came about in 1984-85 and on the subject of ethical considerations of the human preembryo, the AFS had taken the position that human preembryos are not persons, but deserve special respect because human preembryos have the potential to become persons. AFS guidelines constitute suggested standards of care for physicians involved in fertility practice and are generally utilized for litigation purposes. Robertson did not appear as a spokesperson for the AFS, but as a scholar who researched the issue, formed an opinion and written an article concerning this specific case, as well as many other articles dealing primarily with issues relating to non-coital reproduction.

Professor Robertson described his understanding of a human preembryo as an entity composed of a group of undifferentiated cells which have no organs or nervous system. He testified that at about 10-14 days, the preembryo attaches itself to the uterine wall, develops its primitive streak and life then commences. Robertson believes it is "not clear" that a human preembryo is a unique individual; that simply because fertilization has occurred, the gamete contributors have not procreated.

Robertson asserts the position that both gamete contributors are the only decisional authorities over their preembryos; in the event the gamete contributors cannot agree, it is his position the preembryos should be allowed to die a passive death.

Where there is no [statutory] law, no agreement between the gamete contributors nor any previous Court decision on which to rely, Professor Robertson reasons that the Court, as in this case, should then decide the case by balancing the equities as between the two gamete contributors and, in this case, decide in favor of the party who does not want to go forward with parenthood, Mr. Davis. The precise issue in this case, according to Professor Robertson, is the balancing of the equities; that is, considering the relative burdens of the parties, the Court should make a determination of which party will be injured more if the process goes forward. In this case, Professor Robertson sides with Mr. Davis because of the traumatic psychological burdens of being forced to be a parent against his will, countered by the ability of Mrs. Davis to apparently successfully participate in the IVF program with another partner in the future.

As to the law applicable to in vitro fertilization, Robertson concedes that his research has indicated there is no case precisely in point to give this Court guidance. He recited Great Britain's Wornack Committee consideration of similar issues in 1978, the *Rios* case in Australia in 1984, the New York *Delrio* tort case in 1978, the Pennsylvania Statute of 1980 (recordkeeping, mainly), and the Louisiana Statute passed in 1986 which, among other things, limits the authority of parents as to disposition of their preembryos and grants certain as yet unquantified rights to preembryos to sue and be sued.

Robertson opines that the *Webster* case possibly leaves open the question of whether a state may pass a Constitutionally sound statute regulating IVF transactions derived from the point of view that fertilization/conception is the commencement of human life. The *Webster* Court declined consideration of the preamble issue, did not decide it and said it had no effect or bearing on the *Webster* issues, thus leaving unsettled whether the preamble provisions passed relevant Constitutional scrutiny.

Irving Ray King

Dr. Irving Ray King is a medical doctor, licensed by the State of Tennessee and has been involved in the subspecialty of Gynecology, Infertility/Reproductive Endocrinology, for some twelve years. He operates the Fertility Center of East Tennessee, Knoxville, Tennessee; the intent of his IVF practice and the ultimate goal of the cryopreservation procedure is to assist infertile couples to become parents.

Dr. King testified that the natural human pregnancy rate is about 25%; that humans are not the best reproducers of the mammalian species; that there are seven general indicia of infertility; and there is about a 50% success rate in correcting some or all of the general causes of infertility.

As to Mrs. Davis, Dr. King testified that while she could become pregnant she could not follow with a normal birth. After some five miscarriages and surgery in 1983, he recommended in vitro fertilization as an alternative way of accomplishing the strong desire of Mr. and Mrs. Davis to have a family.

Dr. King outlined the history of in vitro fertilization, beginning with the first success in the United States in 1978 and how he came to establish his clinic in the Fall, 1984. Statistics as to success rate and the methodology and procedures of in vitro fertilization were outlined.

In October, 1988 Dr. King employed a new program whereby excess preembryos could be cryogenically preserved for later implantation, thereby avoiding the necessity of aspiration and insemination on the occasion of each implantation. Dr. King delineated the December, 1988 procedures resulting in the extraction from Mrs. Davis of nine ovum, the laboratory insemination of the ovum, all of which were fertilized, two of which were implanted and seven of which were cryogenically frozen. Dr. King is of the opinion that Mrs. Davis has a 52% chance of becoming pregnant utilizing the seven preserved preembryos and there is no medical reason Mrs. Davis cannot use the preembryos.

King testified that in the development of a human child from the first cell division after fertilization to the embryo stage, there is first a one cell gamete, a zygote (after the first cell divides), a preembryo (up to fourteen days after fertilization) and finally an embryo (after fourteen days and upon cell differentiation).

As to the Davis' IVF attempts, Dr. King testified that the normal cost was from $4,000 to $6,000, each attempt. No forms were signed by the Davises and Dr. King has no recollection of whether Mr. Davis was present when he spoke with Mrs. Davis about whether unused preembryos would be cryogenically preserved.

Dr. King testified that cryopreserved human preembryos can be kept in good condition for at least two years, but King had no further data on the length of cryopreservation. Dr. King acknowledged that freezing and thawing is the hazardous part of cryopreservation. An annual storage fee is charged for cryopreservation.

Normally, a woman can produce eggs until about 52 or 53; after 35, there is a concern because of Down's Syndrome and other genetic malfunction; and it is possible to implant eggs relatively late in life, as long as the eggs have been extracted early in life.

When the seven preembryos were cryopreserved, five were of the four-cell stage and two were in cleavage between four and eight cells. As to all seven, there is no cell differentiation and twinning is still possible.

Dr. King knows of no physical reason why Mrs. Davis cannot undergo future ovum aspirations with a similar success rate, recognizing that her health varies from cycle to cycle. Dr. King has treated Mrs. Davis for six years, has performed 21 aspirations and has transferred 14 preembryos, none of which have resulted in pregnancy. Dr. King characterizes Mrs. Davis as "a committed person in an effort to have a child."

Considering Mrs. Davis' infertility, IVF is the only method available to Mrs. Davis for having a child.

Dr. King testified there are no guarantees Mrs. Davis could ever produce another usable egg and notwithstanding his clinic's current policy to not allow single persons to participate in the IVF program, if the Court awarded her the preembryos, he would implant the preembryos at her request.

Dr. King's theory of balancing the equities between the parties is that there is no more psychological burden on one party than the other; that both parties are very much emotionally involved; that the seven preembryos are of excellent quality; that a 52% chance of pregnancy exists for Mrs. Davis if all seven preembryos were thawed and implanted; and that the greater benefit would be bestowed if Mrs. Davis were allowed to use them.

Under all circumstances, Dr. King opposes destruction or unlimited cryopreservation, suggesting the embryos be anonymously donated if not used by Mrs. Davis.

Charles Alex Shivers

Dr. Charles A. Shivers is the Head of the University of Tennessee Department of Zoology, Knoxville, Tennessee. Since 1963, Dr. Shivers has been involved in teaching and research in biology and chemistry at U.T.; he is an Embryologist, teaching and directing graduate work in the study of the development of the embryo. Dr. Shivers has worked in the field of embryology since 1958 and has worked with in vitro fertilization with Dr. King since 1984. His work is primarily in the laboratory.

Dr. Shivers explained to the Court the various steps and procedures from aspiration (extraction of ovum) to implantation and gave detailed testimony regarding his laboratory work.

In explaining the normal process of his laboratory work for IVF patients after aspiration, Dr. Shivers defined "insemination" as the laboratory worker's placing of the male sperm and the female ovum together in a laboratory petre dish and that "fertilization" was the actual joinder of an ovum and a sperm (a union, fusion), which process was entirely completed by the sperm and ovum without the intervention of lab workers or mechanical devices. Under ordinary circumstances, Dr. Shivers said, fertilization takes place sometime after insemination and usually within four-six-eight hours of insemination. Ordinarily, inseminated eggs are left in a secure laboratory environment overnight for examination by him the following morning. Under ordinary circumstances, and upon inspection the following morning, fertilization can be determined by using a powerful microscope; the fertilized ovum continues in the laboratory environment until from two to eight cell development has taken place at which time implantation is usually perfected through an out-patient type procedure.

Dr. Shivers stated that cryopreservation of animal cells had been conducted since the 1970's and that he had participated in the cryopreservation in connection with the IVF program since 1988.

As to his contact with Mr. and Mrs. Davis, Dr. Shivers indicated that he had worked with the couple since July 30, 1985; that thereafter he had completed only one cryopreservation of human embryos for the Davises when nine ova were extracted from Mrs. Davis, all nine were inseminated in his laboratory, two were transferred by Dr. King to Mrs. Davis and the remaining seven were committed to cryopreservation pursuant to considerable discussion with Mr. and Mrs. Davis as to how many preembryos to transfer and how many preembryos to cryopreserve.

Dr. Shivers stated that all seven frozen embryos were from the four to eight cell development stage when frozen and all of them appeared to be of first-rate quality.

Dr. Shivers expressed the opinion that the chances of a pregnancy resulting from frozen then thawed preembryos are better than the implantation of freshly fertilized preembryos, the risk to cryopreserved preembryos being mainly in the freezing process.

Dr. Shivers testified that the longest human preembryos have been stored and remain viable has been for an approximate two-year period; that embryos of mice have been suc-

cessfully preserved for as long as ten years; and that it was impossible for him to offer an opinion about the condition or human preembryos past two years.

In the opinion of Dr. Shivers, a human preembryo is a zygote up to eleven-fourteen days and consists largely of undifferentiated cells; that after attachment to the uterus wall and the appearance of the primitive streak, the cells then become different: that is organs, organ systems, body parts and the like are formed. At the time of fertilization, Dr. Shivers testified, genetic controls are "locked in forever" and control who the preembryo will later be, but, Shivers stated, "…as far as we know…to my knowledge .... there is no way to distinguish the cells [at the zygote state] ... [T]hey are the same [i.e., undifferentiated] . . ."

During the course of his testimony, Dr. Shivers greatly assisted the Court by using photographic slides to visually demonstrate many areas of his testimony, for all of which the Court is deeply grateful.

Deborah Cooper McCarter

Deborah Cooper McCarter, is a Registered Nurse, the primary patient coordinator for Dr. King's IVF clinic. She is a liaison between patients and their spouses and Dr. King, she teaches medication injection techniques, gives new couples counselling about IVF and its step-by-step procedures and generally is an administrative assistant to Dr. King, scheduling and coordinating the various IVF procedures from start to finish.

Normally, Ms. McCarter is responsible for obtaining informed consent-type forms to be executed by participants, but, through oversight no forms were executed by the Davises. (The December, 1988 document utilized by Dr. King contained no covenant or understanding which would be, had it been executed, dispositive of the issues in this case.)

In December, 1988, Ms. McCarter recalls an approximate ten minute discussion with Mr. and Mrs. Davis relative to the cryo-preservation process, at which time both Mr. and Mrs. Davis acknowledged themselves to be willing participants in cryopreservation of embryos not utilized for implantation on December 10, 1988.

On the morning of Mrs. Davis' last implantation (December 10, 1988), Ms. McCarter distinctly recalls a statement made to her by Mrs. Davis (she is not certain at all that Mr. Davis was present when the statement was made) to the effect that if she became pregnant as a result of the December, 1988 implantation, she would consider donating the cryopreserved embryos to another infertile couple for implantation.

Mary Sue Easterly Davis

Mary Sue Davis is twenty-eight years of age; she has twin brothers. At the trial, Mrs. Davis was employed by the Sea Ray Boat Company, Vonore, Tennessee, as a sales representative, earning about $18,000.00 annually. The record shows that since the trial, Mrs. Davis is now domiciled in the state of Florida.

Mrs. Davis testified at some length about the trauma and pain she suffered resulting from five tubal pregnancies during the course of the parties' marriage. At the fifth tubal pregnancy, the marriage had lasted four years; she concluded she could no longer endure further natural attempts to bear a child even though she and Mr. Davis remained desirous of having children.

The couple turned to Dr. King's IVF program in 1985 and six IVF attempts were made for her to become pregnant. She gave considerable testimony relative to the many injections she received or administered to herself to prepare her body reproductive system for the removal of her eggs in preparation for the IVF procedures; and she emphasized the painful, physically trying, emotionally and mentally taxing ordeals she endured to participate in the program. During six IVF attempts, no cryopreservation procedures were employed; each implantation was the culmination of weeks of preparation—drugs to stimulate her reproductive system, surgical extraction of ova, insemination in vitro, anxious hours of waiting to confirm fertilization, implantation—then additional weeks of

waiting to determine if an in utero pregnancy had occurred. The six IVF attempts were futile each attempt cost from $4,000.00 to $6,000.00.

At the last aspiration and implant (December, 1988) and at the time the embryos were cryopreserved, Mrs. Davis testified she didn't realize the parties' marriage was so "rocky", else she wouldn't have participated in the attempt; that there was an understanding between herself and Mr. Davis relative to the cryopreservation process and she testified that ". . . we [Mr. and Mrs. Davis] made decisions together as to when to re-enter [the IVF program] . . ."

Mrs. Davis testified the embryos are ". . . the beginning of life ... I'm the Mother of the embryos . . ."; she feels an attachment to the embryos, views them as children, testified she would like to have her own children through their implantation and requested the Court to award the embryos to her for that purpose. In the event she is not allowed to utilize the embryos, she testified, she would not foreclose the possibility of donating them for use by another infertile couple.

Mrs. Davis testified that her husband consented to being a Father; that their efforts constituted a partnership to become parents; and that she and Mr. Davis had tentatively planned to implant one cryopreserved embryo in March or April, 1989. She says it is difficult for her to understand her husband's somewhat sudden change in position.

Mrs. Davis assured the court that she would have no problem raising a child as a single parent, especially in light of Mr. Davis' expressed willingness to be a Father to and support such a child even after dissolution of their marriage; that allowing the embryos to remain frozen is equivalent to killing them inasmuch as she understands that two years is the maximum life of cryopreserved human embryos.

Mrs. Davis responded to Professor Robertson's testimony that the court should allow the embryos to die a passive death by remaining frozen: she maintains that if the embryos can suffer a "passive death, then they must constitute life."

Sue Easterly

Mrs. Sue Easterly, is the Mother of Mrs. Davis. Mrs. Easterly's brief testimony indicated her strong affection for her son-in-law, describing Mr. Davis as having been ". . . like a son to me."

Mrs. Easterly testified that she is the Mother of six children and she would very much like to be a Grandmother as the result of her daughter's having a child,

Jerome Lejeune

Dr. Jerome Lejeune is a Medical Doctor, a Doctor in Science and has been a Professor of Fundamental Genetics for about 20 years. He started his medical practice as a Pediatrician, now for several years specializing in Genetics, is a French citizen, residing, teaching and practicing his profession in Paris, France. Dr. Lejeune discovered the genetic cause of Down's Syndrome, receiving the Kennedy Prize for the discovery and, in addition, Dr. Lejeune received the Memorial Allen Award Medal, the highest award for work in the field of Genetics in the world. Both awards are conferred in the United States.

Dr. Lejeune testified that artificial fertilization is not new to biology, having been applied to animals long before it was applied to man; and that in vitro fertilization is an area with which he is familiar, having first written an article on the subject some fifteen years ago, before the modern practice of IVF came into being.

In considering the IVF process, Dr. Lejeune stated it is important to understand the meaning of fertilization at the beginning of a human being: that each human has a unique beginning which occurs at the moment of conception. Dr. Lejeune testified that when the 23 chromosomes carried by a sperm encounter the 23 chromosomes carried by the ovum, all information necessary and sufficient to spell out all the characteristics of a new human being is then gathered in one place that upon fertilization of the ovum by the

sperm, a unique personal constitution is spelled out for the specific human being then created, which personal constitution has never occurred before and will never occur again.

Dr. Lejeune testified that the novelty of the unique creation has been known by scientific induction for more than 50 years, but because of the minuteness of the information written on the DNA molecule of the chromosome, such supposition was a mere scientific hypothesis until about two years ago when it became a demonstrable scientific fact.

Dr. Lejeune gave detailed information to the Court relative to the composition of the DNA molecule of a human chromosome, generally defining it as a long thread of about one meter in length, cut in 23 pieces, each piece being coiled on itself very tightly to make a spiral so that under the microscope, it appears as a very tiny rod.

In comparing the difference between IVF fertilization and natural fertilization, Dr. Lejeune stated that the only difference is that the sperm and the egg are meeting inside a tube of glass because the egg has been removed from the body of the woman and the sperm has just been added to the tube of glass, pointing out that it is not at all the inseminator who makes fertilization but it is the sperm that makes the fertilization. Fertilization, Lejeune stated, can not be implemented by man fertilization requires that it come about directly by the cells. What is reproduced and transmitted as a result of fertilization is information by way of the DNA molecules; the information then antimates matter.

Turning to cryopreservation (sometimes called "freezing") of human embryos, Dr. Lejeune offered the opinion that temperature is merely a measure of the speed at which molecules move in a given medium; that if one progressively diminished temperature, the speed and the number of collisions between the molecules are progressively slowed down and, therefore, time is frozen, not embryos. Life is not arrested at freezing and life is not started again when thawed: time for the embryo has been arrested and in the human species, a human embryo cannot successfully withstand an arrest of time greater than two years.

As to the term "preembryo," Dr. Lejeune is of the opinion that there is no such word. In support of his position, Dr. Lejeune cited to the Court the definition of embryo, found in his dictionary printed some fifty years ago: "…that youngest form of a being…" There is no need, he testified, for a subclass of the embryo to be called a preembryo, because there is nothing before the embryo; before an embryo there is only a sperm and an egg; when the egg is fertilized by the sperm, the entity becomes a zygote; and when the zygote divides it is an embryo. When the first cell exists, all the "tricks of the trade" (or "tricks of Mother Nature" as he later called it) to build itself into an individual already exists. This fact has been known for many years, Dr. Lejeune testified, by induction but is now scientifically demonstrated in the laboratory. Lejeune stated the term "preembryo" is misleading and was invented by the British to lead one to believe there is a difference between a preembryo and an embryo when there is no such entity as a preembryo.

In describing the cell division which takes place shortly after fertilization, Dr. Lejeune stated that at the three-cell stage, "…tiny human being …" exists and that less than two years ago through a discovery of [Dr. Alec] Jeffreys in England ("…the remarkable manipulator of DNA…"), it is now an experimentally demonstrated fact that at the three-cell stage, every individual is uniquely different from any other individual and the probability that the genetic information found in one cell would be identical to another person is less than one in one billion. Through further research and discovery not more than two years ago, Dr. Lejeune testified, Jeffreys developed a technique whereby one molecule could be taken from one cell and in the nucleus of that cell the uniqueness of the individual could be scientifically demonstrated.

But the most remarkable discovery of all, said Dr. Lejeune, came about only four years ago through the work of Sanai [sic], whereby it became demonstrated that some of the basis of DNA were carrying an extra piece of material called methyl (CH_3). Dr. Lejeune testified the import of this discovery is that the DNA carried by the sperm is not underlined or crossed by methylation on the same place that the equivalent molecule, chromosomes carried by the ovum; the sperm contains the ability to underline certain information from step to step in the process resulting in the fact that at the moment the two sets of chromosomes coming from the sperm and egg are joined, they are not identical, as had been thought for years. When the ovum is fertilized by the sperm, the result is "…the most specialized cell under the sun…"; specialized from the point of view that no other cell will ever again have the same instructions in the life of the individual being created.

The special underlining instructions tell the cells when it splits in three, all the information it needs to form the unique individual under construction. Dr. Lejeune stated that during the process, as the cell develops, nothing new is learned by the developing cells, but progressively a lot of things are forgotten: the first cell knew more than the three cell stage, and the three cell stage knew more than any of those to follow. In other words, Lejeune explained, the information is written in the first cell and it is not written progressively in the other cells. This information is not theoretical, Dr. Lejeune said, it is information which the science of genetics now knows beyond any doubt.

Lejeune described the cell resulting immediately after fertilization in this way:

…at the very beginning of life the genetic information and the molecular structure of the egg, the spirit and the matter, the soul and the body must be that tightly intricated because it is a beginning of the new marvel that we call a human…"

Assuming the embryos are early human beings, Dr. Lejeune offered the opinion that those early human beings constituted Mrs. Davis' own flesh (and are also Mr. Davis' flesh) and that the hospitality of her body is the best place in the world for them to be. He asserted that "…the early human beings in the concentration can… are not spare parts in which we could take at random, they are not experimental material that we could freeze and defreeze at our own will, they are not property that we could exchange against anything…An early human being inside the suspended time which is the can cannot be the property of anybody because it's the only one in the world to have the property of building himself… As soon as he has been conceived, a man is a man."

Because of Jeffreys' relatively recent discoveries and the development of scientifically provable procedures to verify through DNA that all of life's messages are written in the very first cell, Dr. Lejeune stated the conclusion that the mystery of cell differentiation has been solved because we now know where the information is written. He testified the observation or conclusion that the one cell of the fertilized zygote is an apparently undifferentiated cell mass is wrong; that the new findings recited definitively prove differentiation and that from the very beginning there exists an embryo.

On cross-examination, Dr. Lejeune explained the meaning of the Hippocratic Oath: that it does not matter what the size of the patient, a patient is a patient.

In explaining the difference between the rights an early human being should have compared to a later human being (such as an adult), Dr. Lejeune explained: "…as far as your nature is concerned, I cannot see any difference between the early human being you were and the late human being you are because in both cases, you were and you are a member of our species…"

On the subject of whether or not the embryos constitute property, Dr. Lejeune testified that no scientist has ever offered the opinion that an embryo is property; that he had never heard one of his colleagues say to him or to anyone else that a frozen embryo is the property of somebody, that it could be sold, that it could be destroyed like property.

Dr. Lejeune offered the opinion that the person to have custody of the embryos is the person who "…would preserve the life of the embryos…the Solomon decision. The Mother is the one who prefers the baby be given to another than the baby being killed. Then I would suppose that the justice would be on the side of Solomon .

APPENDIX C

The following constitute footnotes for the section of the Court's Opinion designated **"Findings of Fact and Conclusions of Law":**

(1) Pursuant to an in-chambers conference between the Court and Counsel of record on September 7, 1989, Counsel for Mr. and Mrs. Davis agreed that it would be stipulated that subsequent to August 10, 1989, Mrs. Davis became domiciled in the state of Florida. As of September 19, 1989, no Order memorializing this stipulation has been tendered to the Court for entry.

(2) As used in the context of the Court's Findings of Fact and Conclusions of Law, in vitro fertilization means the fertilization of a human ovum by a human sperm in a laboratory container. Testimony at the trial described the entire process, about which there is no dispute. The term is used by the Court interchangeably as "in vitro," "IVF" or "in vitro fertilization."

(3) Cryopreservation is a procedure whereby the cells of plants or animals are subjected to freezing in a laboratory and unthawed through a step by step procedure for later use. Liquid nitrogen is generally utilized as the freezing agent.

(4) Ova are unfertilized human eggs.

(5) Aspiration is the process by which ova are surgically withdrawn from the ovary.

(6) Insemination is the placing together of the sperm and the ovum.

(7) Zygote: "fertilized ovum." (*Dictionary of Medical Terms for the Nonmedical Person*, Second Edition, 1989, Rothenberg & Chapman)

(8) Implantation is the process whereby the physician deposits a zygote in the human uterus.

(9) Cleavage: "Process of dividing, as of the fertilized egg into successive multiples of cells, from the single cell; line formed by a groove between two parts." (*Dictionary of Medical Terms for the Nonmedical Person*, Second Edition, 1989, Rothenberg & Chapman)

(10) Embryo: ". . . a beginning or undeveloped stage of anything. (*Websters New Collegiate Dictionary*, 195 1, G. & C. Merriam Co.)

(11) Preembryo: The human entity existing before the passage of fourteen days of development, prior to attachment to the uterine wall and the development of the primitive streak. The term is used by some to distinguish a difference between a zygote in its early stages and an embryo in its later stages. The Court deals specifically with this terminology and makes a specific finding of fact about the term.

(12) Expert Witness: Reference is made to Appendix A relative to the way the opinion testimony of expert witnesses is to be treated under applicable Tennessee law.

(13) Dr. Irving Ray King is a Medical Doctor, licensed by the state of Tennessee and has been involved in the subspecialty of Gynecology, Infertility/ Reproductive Endocrinology, for some twelve years. He operates the Fertility Center of East Tennessee, Knoxville, Tennessee.

(14) See Exhibit 6 for the personal data sheet outlining Dr. Shivers' educational and professional involvement in biology, chemistry and embryology.

(15) See Exhibit 5 for Professor Robertson's *curriculum vita*.

(16) Dr. Jerome Lejeune is a Medical Doctor, Doctor in Science, Professor of Fundamental Genetics on the Faculty of Medicine of Paris, France, a Practitioner at l'H Hospital des Enfants Malades, Paris, France, former Professor of Human Genetics at the California Institute of Technology, the discoverer of Down's Syndrome, recipient of the Kennedy Prize for the discovery of Down's Syndrome, Recipient of the Memorial Allen Award Medal, for the discovery of Down's Syndrome, a member of the American Academy of Arts of Science, the Royal

Science of Medicine in London, England, Royal Society of Science in Stockholm, Sweden, the Science Academy in Italy, the Science Academy in Argentina, the Pontifical Academy of Science, the Vatican, the Institute of France of the Academic de Science Morale et Politique, Paris, France and the Academy of Medicine, Paris, France.

(17) *Webster's New Collegiate Dictionary,* (Second Edition).

(18) *Webster's New Collegiate Dictionary*, (Second Edition).

(19) Appendix B to the Court's Opinion constitutes a summarized version of the testimony given by each witness at the trial; it does not purport to be transcript of the testimony.

(20) Gamete: "A matured sex cell or germ cell, usually haploid in chromosome number, capable of uniting with another of like origin to form a new plant or animal." (*Webster's New Collegiate Dictionary*, Second Edition)

(21) Procreate: "To generate and produce; to begat." (*Webster's New Collegiate Dictionary,* Second Edition)

(22) Dr. Alec Jeffreys: A British Genetist.

(23) DNA: (Deoxyridonucleic Acid) "Large molecule, shaped like a double helix and found primarily in the chromosomes of the cell nucleus, that contains the genetic information of the cell. The genetic information is coded in the sequence of subunits (nucleotides) making up the DNA molecule." (*Dictionary of Medical Terms for the Nonmedical Person,* Second Edition, 1989, Rothenberg & Chapman).

(24) The Report is entitled "Ethical Considerations of the New Reproductive Technologies" and appears in the September, 1986 (Vol. 46, No. 3) publication of Fertility and Sterility, Supplement 1, the official journal of the American Fertility Society. The American Fertility Society is sometimes referred to in the Opinion as "AFS".

(25) See Plaintiffs Brief In Support of Plaintiffs Statement of Issues, filed July 14, 1989.

(26) AFS Publication, Vol. 46, No. 3, Page v.

(27) AFS Publication, Vol. 46, No. 3, Page iii.

(28) AFS Publication, Vol. 46, No. 3, Page v, vi, vii.

(29) AFS Publication, Vol. 46, No. 3, Page v, vi, vii.

(30) AFS Publication, Vol. 46, No. 3, Page 29S.

(31) AFS Publication, Vol. 46, No. 3, Page 30S

(32) AFS Publication, Vol. 46, No. 3, Page 77S.

(33) Probative Evidence: "In the law of evidence, the effect of proof, tending to prove, or actually proving. Testimony carrying quality of proof and having fitness to induce conviction of truth, consisting of fact and reason co-operating as a co-ordinate factors." (*Black's Law Dictionary,* 5th Edition)

(34) See Plaintiff's Brief In Support of Plaintiff's Statement of Issues, filed July 14, 1989, Page 5.

(35) *Romeo and Juliet* (Act 11, Scene 11).

(36) Differentiate: "1 to distinguish by a specific difference develop differential characteristics or forms in. 2, to ascertain or express the specific difference of; discriminate …to acquire a distinct character; to become differentiated." (*Webster's New Collegiate Dictionary*, Second Edition)

(37) Molecular Genetics: "that branch of genetics concerned with the chemical structure, functions, and replications of the molecules-dioxyribonucleic acid (DNA) ribonucleic acid (RNA)-involved in the transmission of hereditary information." (*Dictionary of Medical Terms for the Nonmedical Person,* Second Edition, 1989)

(38) *Andrews v. State of Florida,* 533 So. 2nd 841 (1988) (Review denied 1989)

(39) *Andrews v. State of Florida,* 533 So. 2nd 841 (1988) (Review denied 1989)

(40) Chromosome: "Threadlike structure in every cell nucleus that carries the inheritance factors (genes) composed of DNA ... and a protein (usually historic). A human cell normally contains 46 chromosomes, or 22 homologous pairs and one pair of sex chromosomes; one member of each pair of chromosomes is derived from each parent." (*Dictionary of Medical Terms for the Nonmedical Person*, Second Edition, 1989)
(41) Dr. King and Dr. Shivers gave testimony to the effect that with normal coital sex, a pregnancy resulted in only about 25% of the cases that in noncoital reproduction, such as in vitro, the chances of a pregnancy resulting were somewhat increased and that Mrs. Davis probably had about a 52% of becoming pregnant utilizing all seven cryogenically preserved embryos.
(42) See Plaintiff's Original Complaint, Page 2, Paragraph 8.: "Plaintiff alleges that said fertilized eggs at present constitute property jointly owned by the parties . . ."
(43) Fungible Things: "Moveable goods which may be estimated and replaced according to weight, measure and number. Things belonging to a class, which do not have to be dealt with *in specie… (Black's Law Dictionary*, Second Edition)
(44) See Defendant's Brief filed July 17, 1989.
(45) Conception:…beginning…*(Webster's New Collegiate Dictionary*, Second Edition)
(46) *Tennessee Code Annotated* § 20-5-106(b).
(47) *Tennessee Code Annotated* § 39-15-201(c)(1)(2)(3). [The effective date of this statute is November 1, 1989]
(48) In *Smith v. Gore*, 728 SW 2nd 738, the Court said: nevertheless, 'public policy is the present concept of public welfare or general good.' " [citations omitted]
(49) *Webster v. Reproductive Health Services, Et Al*, 109 Supreme Court Reporter 3040(1989)
(50) The term "viability" has the generally accepted meaning as set-forth in the *Tennessee Wrongful Death Statute*, which definition is set-forth in the text of the Court's Opinion.
(51) *Roe v. Wade*, 93 Supreme Court 705 (1973)
(52) *Royal Jewelers Co. of Knoxville v. Hake*, 205 SW 2nd 963 (1947)
(53) *Cavender v. Hewitt*, 239 SW 767 (1922)
(54) *Smith v. Gore*, 728 SW 2nd 738 (1987)
(55) *Smith v. Gore*, 728 SW 2nd 738 (1987)
(56) *Parens Patriae:* "Father of his country; parent of the country. In England, the King. In the United States, the State, as a sovereign-referring to the sovereign power of guardianship over persons under disability. (*Black's Law Dictionary*, 3rd Edition)
(57) *In Re: Baby M*, 525 Atlantic Reporter 2nd 1128 (1987)
(58) *In Re: Baby M*, 525 Atlantic Reporter 2nd 1128 (1987)
(59) *In Re: Baby M*, 525 Atlantic Reporter 2nd 1128 (1987)
(60) *In Re: Baby M*, 525 Atlantic Reporter 2nd 1128 (1987)
(61) *Tennessee Code Annotated* § 36-6-101 (a)

EPILOGUE

By way of epilogue, Dr. Lejeune departed this life at sunrise on Easter morning, April 3, 1994. Just as the sun was lifting the fog from the city of Paris and illuminating the throats of the Easter lilies that would trumpet the resurrection dawn, Jerome Lejeune went home! The following day, Pope John Paul II issued a statement commending Dr. Lejeune's life and finding more than coincidence in his death at sunrise on Easter morning.

His funeral mass was held at Notre Dame Cathedral in the city of Paris. The cathedral was packed to overflowing with friends from all across Europe and the world. Seven bishops and 150 priests were in attendance. When I visited with Dr. Lejeune's widow and family a couple of weeks following the funeral, Mrs. Lejeune told me that what she remembered most were the hugs of the Down's Syndrome children that had attended her husband's funeral mass. One young boy, she said, came up to the microphone wishing to speak and curiously said: "Dr. Lejeune, he heal me."

Dr. Lejeune headed the hospital there in Paris that had the largest consult in the world of Down's Syndrome children, over 5,000 patients. It was said that he had the medical case histories of 3,000 memorized.

Several years later you may remember seeing in the news that the Pope visited Paris, and while there, he surprised the French government by taking a helicopter out to the countryside to visit the grave of his friend. Pictures appeared in the papers of the world showing the Pope kneeling in prayer at the grave of Dr. Lejeune. The French government protested, saying that the Pope was only stirring up pro-life sentiments in France by visiting the grave of Dr. Lejeune who was so closely associated with pro-life issues.

Dr. Lejeune's last trip to our nation's capital was in October of 1993 when over a three-day period he addressed the assembled academic and medical community of Washington in a series of lectures at Providence Hospital. He summed all of those lectures up in the last words of his last lecture on the last night of the series by stating:

"So now we must choose, and we need something which would tell us in every case what to do—some touchstone that would tell us what is good and what is evil. There is a phrase which would do this - you know it - a phrase that would determine in every case what to do. If the judges and politicians remember it, they can always make honest law. If the technicians do not forget it, technology will remain the honest servant of humanity. But if both of them forget it, then you would have to deal with a very denatured biology, and there would be a very dim future for mankind. This phrase, you know it. It judges everything and forever. It simply says, 'As you have done unto the least of these, you did it unto Me.'" (The words of Christ)

We cannot improve upon Dr. Lejeune's eloquent words, and I would end

here except I would like to humbly share with you one last reflection. Modern technology is allowing mankind to touch and manipulate things that are almost too holy to touch. If we could but see it, the human embryo figuratively glows with a white-hot incandescence, having just been released from the fingertip of God! Hence, the need to heed Dr. Lejeune's admonition to heed the words of CHRIST!

In the summer of 1990, Dr. Lejeune was invited to speak at the 16th Annual International Conference on the Family held in Brighton, England. I had an occasion to be present, and as always, it was amazing to me to see him work with the English language (he being French) and discover things in the English language that had been entirely overlooked by those of us who should have noticed them. He spoke on the Tennessee frozen human embryo case because all of Europe had great interest in it, and he had been traveling throughout Europe speaking in response to invitations to tell more about what had become known in Europe as "The Judgment of Maryville." In addressing those assembled for the International Conference on the Family that year, Dr. Lejeune made a very curious observation when he stated:

"I was asked to testify for Mary of Maryville for the 'Seven Hopes of Mary' (seven frozen human embryos) and the lawyer who represented Mary was named CHRISTIANberry and the judge who was to pronounce the judgment for the very young, his name was Judge 'Young' and my name in French, Lejeune, it means the same, 'the young.' Sometimes truth ventures coincidences that science fiction would not dare!!!"

Someone commented to Judge Young ten years after the Tennessee frozen human embryo case had concluded that the case was now over and forgotten. Judge Young opined: "Far from being over, I think the case is just beginning."

After reading Dr. Lejeune's testimony in that landmark case, Professor John W. Brabner-Smith, founder of the International School of Law, spent $10,000 of his own money to have copies of Dr. Lejeune's testimony reproduced and distributed as a gift to the Christian Legal Society for dissemination to its members. Professor Brabner-Smith termed Dr. Lejeune's testimony in the "Judgment of Maryville": "The greatest testimony ever given in any case, at any time in history, anywhere!" Quite a statement coming from the founder of the International School of Law and a legal scholar reflecting back over his life's readings at age 92.

Mankind is made in the image of God. This is what distinguishes man from the chimpanzee and from the animal. God gives man a soul at the moment of conception, and if we could but see it the human embryo figuratively glows with a white-hot incandescence having been just released from the fingertip of God. Technology, however, is now enabling man to come in contact with something almost too holy to touch! Wisdom is needed. Technology is cumulative; wisdom is not. Dr. Lejeune has pointed the way to the wisdom that will light man's pathway: "As you have done unto the least of these, you have done it

unto Me."

When we stop to reflect, all of human history is the saga of mankind's response to the urgings of the human conscience and ultimate law written upon the human heart to reach heavenward for the ultimate truth of our being and meaning of our life and capture the realization of that truth in words that ring down through the ages to all men and all cultures everywhere – words such as "all men are created equal and endowed by their Creator with certain unalienable rights . . ."

Nazi Germany was to move against the inalienable rights of all men when it disenfranchised the rights of preborn children. (Remember, it all began in Germany when it was decided that there was such a thing as a life not worth living. It began with abortion and spread. Next Germany disenfranchised the rights of the handicapped newborn, then handicapped adults, then the Gypsies, then the Slavs, and eventually the politically unfit while euthanasia began with the killing of the old, and the two grew in to meet in the middle.) The proponents of euthanasia taught the Nazis how to build the crematoriums. It took the lives of the 6 million!

Not too far in from the coastline of France and the beaches of Normandy and from that windswept ridge upon which are lined row upon row of white marble crosses honoring the Allied dead – just a little way in from this battlefield, consecrated far above our poor power to add or detract, in the little town of Caen lies a memorial consecrated to this great struggle to uphold human rights, the Caen Memorial, which President Reagan joined in the dedication of. It is a living memorial not just of the brave men, living and dead, who struggled here, but a memorial to the cause of human rights. It houses an expansive library and lecture halls, and once a year an international competition is sponsored in which ten lawyers from around the world are invited to come and speak on the cause of human rights being trod underfoot somewhere in the world that they would most like to have advocated against in the preceding year. The wisdom is that it all started in Germany with the trampling underfoot of human rights (the God-given, inalienable rights of man).

In 1991, I had an occasion to speak at the Caen Memorial regarding the cause of the equal humanity and personhood and human rights of the preborn child as a human embryo. I told again the story of the case of Mary of Maryville, and indeed, as Judge Young observed, this case is only now beginning as you hold this book in your hands at this very moment.

At the time of World War II, the world looked to the United States and rallied beneath its flag and the flags of the Allies to push back the darkness that would tread underfoot the inalienable rights of man and set the oppressed free from the concentration camps and break the Nazi juggernaut that had enslaved Europe.

The U. S. again can offer leadership to the world (and indeed, the world looks to us) by taking the leading and prompting that was left us by our fore-

fathers right in the lines of our own Declaration of Independence. It is very curious that they did not make an exhaustive list of the inalienable rights of man (our forefathers used the interchangeable word 'unalienable' rights), but they left the list open for future addition:

"…that all men are created equal and endowed by their Creator with certain unalienable rights; that AMONG these are life, liberty and the pursuit of happiness…"

Notice they said "among." It was not meant to be an exhaustive list. They were just giving us some of the unalienable rights. They foresaw and foreshadowed and left open to future generations the addition of other unalienable rights. Figuratively speaking, they put the quill back in the inkwell, released their hands from it, but left it (they did not break the quill and throw it out). They left it for the hand of their posterity to take up again at an appropriate time.

If our forefathers thought they had something on their hands with Bunker Hill and the bloodshed of the Revolutionary War, they would have difficulty imagining the subsequent bloodshed of the Civil War (brought about by the trampling underfoot of the unalienable rights of the black man and his enslavement—as Lincoln said: "Must it continue until every drop of blood drawn with the lash shall be paid in kind with another drawn with the sword? If so, then as was said 3,000 years ago, so still it must be said, 'The judgments of the Lord are true and righteous altogether.'") Our revolutionary forefathers could not have imagined the carnage of World War II, and remember, our lesson from that war came from the Nuremberg trials in which our representative, who could speak five languages, returned to sum it up when he said: "It all started when it was decided that there was such a thing as a life not worth living" (abortion).

And World War II saw the ushering in of an instrument of human carnage that even Benjamin Franklin, with his bright, inquisitive, scientific mind, surely never imagined: the incomprehensible, explosive power of destruction found within the extraordinarily small particle of the atom.

Man has needed wisdom from on high and prayer offered up from the human family here below to have handled the mushroom clouds of heat and destruction that have threatened to blot out the white clouds and blue skies for the human family these many years since the first two atomic bombs were dropped to end World War II. It is nothing short of miraculous (and we need to be prayerfully thankful everyday) that of the thousands of nuclear bombs since manufactured throughout the world (and some in the hands of rogue states that we don't even know about) that to date not another has been detonated on the human race, but how long that statement will remain true we do not know. When big Chinese learns it is okay to kill little Chinese, and when big American learns it is okay to kill little American (abortion), then big Chinese will find nothing wrong with killing big American, and big American will find

nothing wrong with killing big Chinese. Nuclear war, as Dr. Lejeune observed, is "just a matter of time."

Blessed are the peacemakers! And for this respite, this breathing spell of peace, we are indebted to the prayers of the people and the wisdom of the peacemakers up through and including the wonderful work of Ronald Reagan and other world leaders. But Ronald Reagan, like Lincoln, understood the greater wisdom. Ronald Reagan, like Lincoln, issued an Emancipation Proclamation. In 1988, President Ronald Reagan issued the EMANCIPATION PROCLAMATION OF THE PREBORN CHILD, the text of which is as follows:

"NOW, THEREFORE, I, RONALD REAGAN, President of the United States of America, by virtue of the authority vested in me by the Constitution and laws of the United States, do hereby proclaim and declare the unalienable personhood of every American, from the moment of conception until natural death, and I do proclaim, ordain, and declare that I will take care that the Constitution and laws of the United States are faithfully executed for the protection of America's unborn children. Upon this act, sincerely believed to be an act of justice, warranted by the Constitution, I invoke the considerate judgment of mankind and the gracious favor of Almighty God. I also proclaim Sunday, January 17, 1988, as a national Sanctity of Human Life Day. I call upon the citizens of this blessed land to gather on that day in their homes and places of worship to give thanks for the gift of life they enjoy and to reaffirm their commitment to the dignity of every human being and sanctity of every human life."

Ronald Reagan
January 14, 1988

Ronald Reagan was taking up again the quill of our forefathers and penning the inalienable rights of not just preborn Americans but preborn children the world over!

So, you the reader, have it in hand. You hold in your hands the historic opportunity to take up where Ronald Reagan left off and write in the sky for the entire world to see (while the blue skies are still clear and free of mushroom clouds) the inalienable personhood of all humanity from the moment of conception until natural death.

And as America leads the world, another man worthy of taking up that pen of our forefathers on behalf of the citizens of the world, Dr. Jerome Lejeune, took up that pen to add these additional inalienable rights made necessary by the advent of modern technology:

"The human body is inalienable.

The human embryo is inalienable.

The human genome is inalienable."

The full text of Dr. Lejeune's proposal of law setting forth the inalienability of these three is as follows:

PROPOSAL OF LAW

Article 1

Before the law, each human being is a person, from fertilization until death.

All action of intervention, biological or medical, is licit only if its direct or indirect goal is to evaluate, to protect or to restore the health of that person.

Article 2

The human body is inalienable.

The products of the human body can be acquired with the agreement of the donor, properly warned of the use that will be made of them.

The gift of organs, freely consented to for direct therapeutic purposes for the recipient, must preserve the physical and psychological functions of the donor.

The consent of minor or incapable persons, which might be attested by their legal representatives, is submitted to the authority of the judge of the guardians and can be accepted only for regenerable organs.

Postmortem surgical removal must maintain the respect due to the dead person.

Article 3

The human embryo is inalienable.

The donation of embryos is forbidden, and agreements for the procreation or gestation on the behalf of other people is illicit.

No human embryo can be submitted to any exploitation whatsoever.

The pursuit of its continued development until its term, in the organism of the mother, must be offered to each embryo before another embryo is conceived.

Article 4

The human genome is inalienable.

It cannot be made the object of any ideological or commercial exploitation.

No manipulation of the human genome is licit, with the exception of the therapeutic interventions conforming to the three preceding articles.

In the interest of the person, or in that of the descendant or by order of the court, investigations of genetic constitution and biological filiation are licit.

A Symphony of the Preborn Child

PART II

Testimony of Dr. Jerome LeJeune
and
Dr. Bernard Nathanson

PROLOGUE

Lincoln stated: "A house divided cannot stand." As at the time of the Civil War, our nation is again divided over the civil rights of the Creator's children, this time, over the civil rights of preborn children. Someone has said that when you examine closely the division in our people, you will find that it boils down to a question of Faith. Likewise, as at the time of the Civil War, the pulpit of our nation is divided over the civil rights and personhood of the preborn child.

It has always struck me as ironic that we Americans allocate millions of dollars on Capitol Hill every year for NASA to try to find life on Mars, when right across the street at the Supreme Court, they have been unable to find it in the womb. It was for this reason that when Chris Fritz and Dan Coleman walked into my office approximately one year apart, both seeking to stop their wives from aborting their preborn children, I was happy to take their cases and give them my best efforts for the sake of these little lives in being.

There follows a transcript of the testimony of two eminent physicians, Dr. Jerome Lejeune of Paris, France, and Dr. Bernard Nathanson of New York City. Their testimony here is reproduced from the record of the Circuit Court of Montgomery County, Maryland, as they testified in the *Coleman* case in January of 1984. It was following this case that I wrote Bernard Nathanson in February of 1984 and suggested to him the filming of a first-trimester abortion, which became known as the movie, "Silent Scream." "Silent Scream," and its sequel "Eclipse of Reason," however, speak solely to the eye and intellect of man. The humanity and equal civil rights of preborn children are being denied by the hardened hearts of man. To persuade the intellect is not to persuade the heart. The heart can only be opened from the inside. This can only be done by knocking gently and lovingly on the door.

The greatest force in the universe is love. We must love the women who have mistakenly adhered to the propaganda that the preborn child is not a person and who are considering taking the life of their child. We must love the doctors, nurses, and technicians who perform the act of taking the life of that child. We must love the legislators and judges who are misled into promulgating and enforcing laws that would take the lives of preborn Americans. Slowly, lovingly, and in the time of the Creator, Himself, this struggle to reaffirm sanctity of life and equal civil rights of all preborn children will and shall be won!

The time for STATE ACTION is upon us. The legislatures of those states desiring to do so should place back upon their lawbooks the same anti-abortion criminal laws which were on their books prior to the *Roe v. Wade* decision of the U.S. Supreme Court. in 1973.

James Madison, as a founding father, said it best: "States are meant to retain a residuary and inviolable sovereignty of the lives, liberties, and properties of the

people."

The Supreme Court illegally and unconstitutionally usurped this inviolable sovereignty of the respective states in the union in 1973, and they did so by first opining that preborn children are not persons.

Therefore, you, the reader, have it in hand. Knowledge is power, and knowledge changes the viewpoint of individual minds and the course history. Regardless of your present knowledge of the preborn child, your thinking will never be the same again after reading these pages. If, in your individual life's journey of Faith, you have already come to embrace the preborn as an equal member of the community of man, you are about to have your Faith reaffirmed. However, if you have doubts, you are about to attain an understanding that will not allow you to dismiss this issue until you have resolved it to your individual satisfaction.

Let's get on with it. The houselights dim, the drums are beginning to roll, and the Rostopovich of them all, this current personage of Dr. Jerome Lejeune, who is to the world of genetics what Einstein was to the world of physics, is about to raise his baton to begin the symphony of the preborn child. He will carry you along on strains melodious and sweet, as grand as the finest that ever came from the hand of Beethoven, Bach, or Mozart. For this man is a man as much a poet as a brilliant scientist, and the harmonies of this symphony are then to be accentuated by the kettle drums and the final hallelujah chorus of this communicator of communicators, Dr. Bernard Nathanson.

R. MARTIN PALMER, JR.
Sept. 9, 1987

Testimony of Dr. Jerome Lejeune and
Dr. Bernard Nathanson
from the Trial Record, pages 56-83.

IN THE CIRCUIT COURT
FOR MONTGOMERY COUNTY, MARYLAND

DONALD PAUL COLEMAN
Plaintiff,
vs. Equity No. 87107
CONSTANCE JEAN COLEMAN
Defendant.

HEARING ON PETITION

Rockville, Maryland January 13,1984

BEFORE: THE HONORABLE STANLEY B. FROSH, JUDGE

APPEARANCES:
On Behalf of the Plaintiff
MARTIN PALMER, ESQ.

On Behalf of the Defendant:
CONSTANCE JEAN COLEMAN, PRO SE

JEROME LEJEUNE, M.D.

was called as a witness and, first having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. PALMER:

Q. Doctor, state your name and address for His Honor, please.

A. Monsieur le President, my name is Jerome Lejeune. I am Professor of Fundamental Genetics in the Faculty of Medicine of Paris.

Q. And what is your profession, Doctor?

A. My profession is as a pediatrician. I began as a pediatrician and I got my scientific degree at the Sorbonne in genetics, and I was interested essentially in human genetics, and essentially in disabled children, and especially those suffering a disease called Mongolism.

My studies were in the Faculty of Medicine in Paris. My residency was in a city hospital 60 kilometers south of Paris, which is Etang, and then I specialized as Professor of Fundamental Genetic Science since 1964. 1 was elected to the first chair of Fundamental Genetics in France, in Paris.

I must add that I have been, for ten years, purely a research worker in the scientific research, Centre National de la Recherche Scientifique in Paris, before I got appointed a professor in the Faculty of Medicine.

Q. Doctor, in this country, of course, you would be first of all an M.D., and then we would go on to internship. You have expressed—in Paris, and in a specialty, so you are known then to specialize in what field, genetics?

A. I am in genetics, and it happened that I discovered the first chromosomal disease in man, which is an extra chromosome in Down's Syndrome, Mongolism, and from that point a new field of research was opened in human genetics and it helped to clarify not only the causes of that disease but to understand the basis of the human nature, because it demonstrated that all the genetic information is carried inside the chromosome, also in our species, and that genetic information is what makes the nature of every one of us so that each one is different from the next one.

Q. Doctor, if I may briefly, to finish your qualifications, please don't be modest because this Court needs to hear it. They need to know.

You mentioned the extra chromosome. Did you receive any honor for that, and please tell us any other honors or awards that you have received, and any professional or international societies that you are a member of.

A. Excuse me, Your Honor. I don't do that really, habitually. I had the honor of receiving the first Kennedy award from President Kennedy in this country for the discovery of the extra chromosome in—and for the other discovery I made in human chromosomes I received, also in this country, the William Allen Memorial Medal which is the highest prize you can get in genetics in the world.

I was elected a member of the American Academy of Arts and Sciences, and in other countries I have received various awards and am a member of the

Swedish Academy of Science, the Italian Academy of Science, the British Society of Medicine, the Argentinian, the Danish and the other things like that, a member of the Pontifical Academy of Science. That is essentially due to the type of work that I did on the structure of the genetic information which makes the difference between human beings and non-human beings.

And it is because of that, that I have—I have other awards in Paris and in France, but I am a member of the Acadamie de Science Morale et Politique, the French Academy in Paris.

Q. Then, any other professional associations that we should know about, Doctor, or did there come a time that you taught in this nation, and can you tell us the circumstances under which you were a professor here?

A. I had been teaching a course of human genetics at the California Institute of Technology, Caltech. It was in '58. It was the year after I did the discovery about the chromosomes, but that was not yet made. And the president of Caltech asked me to come and to give the first course in human genetics at Caltech. I must confess that my English is rough, but it was much rougher at that time, and my students learned a little of human genetics. I learned English that way.

THE COURT: Most of us would be quite satisfied and happy to deal with a second language as you deal with English.

THE WITNESS: Thank you, Your Honor.

BY MR. PALMER:

Q. Doctor, I show you what has been marked as Plaintiff's Exhibit 1, and ask you if you can identify that for us, please.

A. Yes. This statement was published. I don't know exactly the name, but the official papers of the U.S. Senate because I had the honor to testify on a commission about what we know of the scientific determination of what makes a human being, and I had the honor to speak before the Senate, and that is the right paper.

Q. Can you tell us what No. 2 is?

A. This paper is a little different. It speaks essentially on the in vitro fertilization because it has changed—it has increased, not changed. It has increased very much our knowledge of the early human being, and this paper was written for the British government who has a special committee to investigate what in vitro fertilization would mean from the legal point of view, whether they had to make a new law about it, so they wanted to know the science, and I was asked to write down this statement which is seven pages.

Q. Doctor, have you published any other papers or publications?

A. Yes, sure.

Q. How many?

A. I don't know exactly. Around 400 papers in scientific newspapers.

Q. And they are primarily in what areas?

A. Essentially in human genetics, that is, the fundamentals which makes you

healthy or unhealthy, and which makes a difference between a chimpanzee and a man, a gorilla and a chimpanzee, which allows us to understand how some diseases prevent the complete blossoming of our human nature.

MR. PALMER: If Your Honor has any other questions, I would ask the Court to accept Dr. Lejeune as an expert witness.

THE COURT: I certainly will accept him as an expert.

BY MR. PALMER:

Q. Doctor, based upon what you have heard here this morning, and assuming the six-week gestation, approximately, of this preborn child, have you had an opinion as to whether or not this child is a person, a human being as we understand the term, and whether or not this child, for His Honor's consideration, would be deemed in France to be viable, and if so, can you explain for His Honor your answer.

A. Well, I would say very simply, Your Honor, that at six weeks of age we are very tiny creatures. But those tiny creatures we are—or we have been, I should say—are truly a member of our species. That is, we know from especially the study of the chromosome, the information which is carried through the chromosome, that at the very moment that 23 chromosomes from the mother, coming from the ovule, are fecundated by the 23 chromosomes carried by

Q. If I may interrupt you, Doctor, "fecundated" means

A. Oh, excuse me. I used the French term. I should say fertilized, excuse me. Difficulty of the language.

When it has been fertilized by the 23 chromosomes carried by the sperm, we know from scientific evidence that all the information necessary and sufficient to determine all the qualities of this very person is already spelled out. That is very akin to the definition of a constitution, by a lawyer, because the table of the laws are written in a very tiny scripture which we call the genes, inside the molecule we call the DNA, and the whole thing is coiled a little like the magnetic tape in a mini-cassette, and the coiling makes that this long thread is now visible under the microscope, and we call it a chromosome.

But we know that the spelling of every information which will tell—you will have brown eyes, you will have blond hair, you will grow that high if no disease until then, you will live that long if no accident intervenes—is all spelled out there in full terms, just exactly the same as the full constitution of a country and the full exercise of it is spelled out in the laws of this country.

Now, to come back to the very early beginning, it is, I would say, a constant miracle for the scientist that it could all work, because we know that every information which is necessary to build not only the body but our brain, our brain who is able to understand part of the universe, and even calculate how to go to planets and put a foot on the planets, this brain is at the very beginning reduced—at its true information, it is reduced to the simplest expression of the mathematicians, that is, all the necessary information to have it building himself. And as we know, nothing is coming in as an information to the fer-

tilized egg after fertilization. Then, everything must be there.

Now, for long, all those data were taken from pathology on one hand and general knowledge of biology on the other hand, in simple plants and animals, but with new developments of science we know more and directly on our own species.

For example, we know that it is possible to take a ripe ovum, to put it in petri dishes, and to have the sperm put on those petri dishes totally outside the mother's body. That is the so-called in vitro fertilization.

With that, we have the proof that we can monitor the entry of the sperm on the egg in the microscope to see that the new being is beginning to split himself into organized cells very rapidly. We have finished this fertilization in around four to six days. And at that moment we have the demonstration that the early human being is fully viable outside the womb. It just needs a fluid, a very simple fluid but the correct fluid, and some heat and some protection for radiation. It could not be exposed to radiation of the sun directly, for example. It has to be in shadow, in good temperature.

After that, the viability of the early human being has been, I must say, a surprise for the geneticist and for the biologist, because we did not know with certainty that its viability was that profound and that deep. For example, in animals it has not been made—actually in man I would not recommend to do it but there have been attempts to do it, but I guess we have to respect more human beings, not playing with them—but it has been done, for example with a cow, with cattle. It is possible to have a cattle being fertilized in vitro and to ship it away, for example from France to the United States. Now, the tiny cattle being is around one millimeter and a half in size, and to ship him normally would require to have a cow and to ship the tiny cattle being inside the cow. But what you can do, which was the great surprise that was feasible, was put that cattle being inside the Fallopian tube of a rabbit female—the rabbit is a very small animal as compared to a cattle—and to put ten or twenty of those tiny embryos inside the Fallopian tube of the rabbit, to send the rabbit by air mail to the United States, for example—it has been done especially between France and the United States—and to recuperate the tiny cattle and to put them one by one into a recipient female cattle and get normal French calves from American cattle around nine months later.

And the demonstration is that the cattle resulting from such a process have all the qualities of the parents who donated the ovum and the sperm, and they have none of the qualities of the carrier mother, the recipient cattle, and it has none of the peculiarities of the in-between recipient, the container which was the female rabbit.

So that, we have the proof in animals that their very nature is entirely dictated after fertilization has taken place, to be that very type, and that very individual cattle with those specifications and not the others. The other surprise has been that the drive to life of the early human being is that strong, that he

can suffer mistreatments that we could not believe possible. For example, you can freeze an early embryo of a mouse, and freeze it very deep, on the low temperature of the liquid nitrogen, very close to the absolute zero. And we can keep it in the deep freeze for months, years. And if you thaw it very kindly—you have to be careful doing that—you can have it back and implant it in a recipient mouse and it will develop into the very tiny mouse being that it was from the very beginning.

So that, we can even suspend time because when we slow down the temperature, what we do is just to suspend the time, and then the cell is like sleeping that deep, that it is not destroyed, and nothing is destroyed. So that, if it has again the fluids and the temperature, it will develop again. It is already there.

In fact, if in vitro fertilization is possible in our species, it is because normal fertilization does appear that way. Normally the ovum is expelled from the ovary and it is taken by the Fallopian tubes and then it floats freely in a kind of liquid which is inside the Fallopian tube. And the encounter between the sperm and the ovum is normally inside that tube of flesh. But, when we have a test tube baby, the tube is of glass but is the same thing, that the two cells, the ovum and the sperm are floating freely.

And it is because all of us have been conceived that way inside the Fallopian tube, that test tube babies are so possible. The only change is that the tube of flesh, which is a normal fertilization process in our species, is replaced by a tube of glass. But otherwise, the development is the same.

Now, curiously—and that is an extraordinary impression of the striving to life of the early human being—even implantation inside the womb is not necessary, even in our species. For example, it can happen that by accident, that the early embryo anchored itself inside the Fallopian tube instead of reaching the uterus. And it can develop very easily there, and very normally. It produces its tiny placenta, it hooks on the walls of the Fallopian tube, and it develops perfectly well for the first two months of the pregnancy. But after two months of pregnancy the size of the baby is increasing and the Fallopian tube is a tiny tube, and it is not very extensive, and then you risk a rupture, an hemorrhage, and it can kill the mother and the baby, indeed. That is the reason why a tubal pregnancy is so dangerous, an urgency in medicine.

But, the phenomenon is that the baby, who has never been inside the womb, is perfectly normal at the moment he is separated.

Now, we know more than that, which is, instead of going inside the Fallopian tube, the early being, the fertilized egg, falls down inside the peritoneal cavity instead of being activated by the Fallopian tube. And in rare cases it can attach itself on the walls of the intestine, of the ovary, that is entirely outside the womb, and develop to term.

Now, those cases are very rare, but we know recently, one baby was born in North America, in Canada, and another baby was born in England, just like

her, and those two babies are perfectly normal. They have developed entirely during nine months inside the peritoneal cavity of the mother. They have never been inside the womb, and they have managed to put their placenta well enough on the vessels of the bowel of the mother, on the ovary, so that they would get the fluid.

That is very important because it demonstrates that—well, I must be clear that at the end of the process, suddenly the mother recognizes that she is pregnant and you have to make a laparotomy to open the walls, otherwise the baby cannot go out because there is no way for him to go out. And it is the reason why a womb has been invented, the way out of the womb by natural process. In the case of extragenital pregnancy you need to open the wall of the abdomen and to remove the baby, and the baby and mother survived entirely well in those two cases, at least.

It is a dangerous thing, but it proves that even the baby does not need to live in the womb. What he needs only is a supply of fluids, and normally he anchors himself inside the womb but if he can anchor himself on any other human, living tissue, he can survive just as well because it is not the womb which produced the baby, no more than the space shuttle is producing an astronaut. It is, in fact, giving shelter to it. But if you give an artificial shelter like the peritoneal cavity, then the baby manages to do the whole thing which is necessary for him. Because all the envelope that we call the amniotic bag, which we swim inside the amniotic fluid, all that is made by the baby himself. The placenta to anchor itself is made by the baby itself. It is not made by the mother herself.

So that, we know that from the very beginning, he is a perfect human being. It is a being because it exists by its own virtue. It is a human because if you were looking at its chromosomes, and if I were showing the chromosomes to one of my students, if my student could not tell that is a baby, and that is a monkey baby and that is a gorilla baby, if he could not make the difference between a human baby and a gorilla baby, he would fail his examination. It is that simple.

Now, we have to realize that the development of the early human being is quite explosive. From the moment of fertilization, I would say of conception because you have all the concepts which will allow him to be constructed, from that moment he measures, at that moment, around one millimeter, one millimeter and a half.

One month later he has grown all the surroundings, all this bag, all his space suit, so to speak, so he can hook on mother and have the fluid, and measures at one month, four weeks, he measures around three millimeters and a half of length, but his heart already has been beating for one week, because the heart begins to beat at three weeks after conception.

And since that time, from four weeks to eight weeks, it will continue the growing of the members, that is, the hands, the feet, and finish the brain. At eight weeks, that is, two months of age, we know that everything is finished in

the sense that nobody, having never seen any tiny creature, would mistake it if comparing a human baby to a chimpanzee baby. At two months of age no mistake is possible for anybody, just looking at it. It has its fingers, its toes, its flexion in the hands, and if I was a palmist I could tell the good adventure at two months of age. I am not a palmist.

And if we were looking very carefully with a microscope, because the guy is very tiny, at two months of age it is two centimeters and a half. It is half my thumb's length from the crown to the rump. And it would fit very nicely in a nutshell. And if I had it in my fist, you could not notice that I have a human being inside of my fist. But if I was opening it, you would notice that the tiny human being is totally there. You could even read, with a good magnifier, the tiny ridges of the tiny hands of this tiny creature, and with a good microscope you could detect the palm prints, the fingerprints which will never change during the whole life. They are always there. You cannot see them with the naked eye. You have to look very precisely to see the little openings of the sweating glands which already will never change during all the rest of the life.

And already he has the sensitivity. I speak about the baby of eight weeks. It can feel. If with a hair we are just touching its upper lip, it is already able to remove itself because it is an aggression and he is afraid of it. I say afraid—I don't know what he is feeling, but at least he feels it and it retreats from it.

Now, it was a surprise, rather recent—recent, it is five years that it is in use—imagery of ultrasound, that we could see the baby jumping in utero long before the mother can feel it. At two months of age it plays trampoline, but it is that size and the amniotic bag is that size, so that it has room in it and it goes up and it goes down and he plays there. And with sonic vision we can see that very easily.

The first movements recorded as far as I know–maybe I am wrong because we developed very rapidly in this field because first, dance has been found at eleven weeks. We know he dances, and we have photography at eight weeks. Now, the first movement that can be detected–now the dancing has been photographed at 11 weeks. It has been shown at eight weeks. And the first movements are—maybe a better specialist should say the last word because those refinements of the technique show that surely around the first month, that is four weeks, the beginning of the movement is already there, but it is very difficult to see because the being is very tiny.

So that, my testimony is very simple, Your Honor. From the scientific point of view, we know that the viability of the fetus is there just after fecundation, for the rest of his life, if he is not prevented to continue, he is good. And I would say, to try to make myself clear, that inside this tiny time capsule—not a space capsule but time capsule, the one he has built at around two weeks and a half in his life, that he has built, is now there. He is as independent and viable as an astronaut is on the moon. That is, he has everything to live by himself, but he has to receive the vital fluids from the mother ship.

When you have an astronaut on the moon, and if you open his space suit, he will die immediately on the moon. But nobody believes that an astronaut is not viable on the moon. We believe he is viable provided we give him the vital fluids which,are given by the mother ship.

Now, it is the same thing in the beginning of human life, that we have to receive the shelter, the fluids, and the temperature from the body of our mother, but it is not the mother who makes a baby. The pregnant mother has already made the baby. The baby is already there. She is just protecting him, and this protection is the most important because in the actual state of affairs we could not afford artificially this protection to the baby; that is, we cannot have baby grow in vitro for a long time. After eight days at most after fertilization in vitro, the baby must be replaced inside a womb because our systems are not good enough to feed him.

But someday, it will be eventually possible to give the fluids, the special fluid supply to the baby, and then the baby will grow entirely in vitro. It has been told by Aldous Huxley in Brave New World, but it is not possible, not feasible actually. But if it was feasible, and in lower animals it will probably be feasible rather in the close future, that would demonstrate then without a doubt that if a bottle of mice, so to speak, was made, if the bottle were saying, this baby is mine, nobody would believe the bottle.

That would be the demonstration that the mouse being was a mouse being from its very beginning, and the same is true with all of us. And Your Honor, I am talking too much but I wanted to tell you what I feel about that.

I took the liberty, when I spoke to the Senate, to speak about the fairy tale of Tom Thumb, which is told in every country of the world, which is told in every language, and by different stories and obviously by a common experience. That is, that a long time before we invented sonars and Xrays and all genetics and biochemistry, that women had known that at the beginning, in the womb, there are very tiny human beings, that they are looking like human beings, that they are really human beings. And that's the reason why they invented this extraordinary story of tiny humans, smaller than the thumb, who are living in an underground country with a special feeling in which marvelous things are happening.

And if this fairy tale has been so much in every subconscious of every nation, it is because it is not a fairy tale. It is a tale of truth, that each of us has been during this early period of development, a kind of tiny Tom Thumb living in a vaulted shelter which is the womb, with a reddish light because the baby can already at eight weeks see the light through the wall, a very dim red light, and is dancing there. And he has the capabilities of hearing. And he hears two sounds. One is the racing, hammering of the mother's heart which beats at 60 beats a minute, around, and the other is the very rapid cadence of his own heart which runs at around 140 per minute. And curiously, those two tempos are the tempos of the contrebass for the rhythm of the normal adult heart, and the tempo of the

maracas which is the tempo of the fetus. And it is not by chance that you find those two tempos in every pop music, in every primitive music, because that primitive music all of us have heard when we were in very young, in utero. That was our own heart and the heart of our mother.

So that, it is very moving for the scientist that I am, to observe that the artists have rediscovered all that story that is the few months that we have lived inside of our mother, is in fact a symphony between two hearts beating together. That is the reason why, as a geneticist, I feel that those two hearts should beat together and not one of them be departed from the other.

Q. Doctor, if I may, I didn't want to interrupt you.

I am showing you what has been marked as Plaintiff's Exhibit No. 3. This is a magazine, of course, that is published in our nation called Life Magazine, and it was the November '82 edition, a little over a year ago. And the cover story was called, "Test Tube Baby Boom. Elizabeth Kerr, America's First In Vitro Baby, at the Lab Where She Was Conceived."

Is this what you were speaking of?

A. Yes, exactly.

Q. What is this, if you can tell us, that she is holding in her hand?

A. Well, I guess it is the petri dish from where she has grown. That is so simple, and it does not hurt my personal common sense, because I know that all of us have begun that way, that when we speak about topology, the inside of the Fallopian tube is outside the female body because the Fallopian tube opens in the uterus, and the uterus in the vagina, and the vagina in the outer air. And that is very necessary, to have the way out for the baby.

And then, fecundation in vitro is just doing the process as it is occurring in nature, but normally

Q. Doctor, this photograph that appears on page 47, it is entitled, "Twelve hours later the fertilized egg begins to rearrange itself." Now, that doesn't mean much to me except for my old science books, but does that fairly and accurately represent what a 12-hour conceptus looks like?

A. Yes, it is a good picture, nothing—

MR. PALMER: We would move to introduce these—

THE WITNESS: But we are not giving a course of genetics, Your Honor. There is a stage before that one in which there are only three cells, and that is a very odd number, very interesting. The eggs split in two, and then it is supposed to split in two and two and two again. But it does not do that thing. It split in two, and then one of the two cells splits again in three. And we know from experiments that the individuality is building itself out of three cell lines, so that we know that in its plastic bag, which is the-the early individual is building his individuality just a few hours after the entry of the sperm.

So, the whole thing is extraordinarily intricate and extraordinarily rapid.

Q. If I may, Doctor, I have asked Dr. Carlton—to put on the three slides that he had, which I think we discussed and you can tell us what they are. Although

they belong to Dr. Carlton and you have not seen them, but—if they would lower the screen for us.

We are talking of modern advances, and coming from Hagerstown, I feel like I am in the space age right here. We have to go in the closet and get a screen. It disappeared.

If you will tell us first, Bill—

THE COURT: Will you identify the speaker for the record.

MR. PALMER: Identify yourself, just for the record, Doctor.

DR. CARLTON: William F. Carlton, Jr. I am an obstetrician and gynecologist here in the county and I am on staff at Holy Cross Hospital.

MR. PALMER: Dr. Lejeune has not seen this slide before, has he?

DR. CARLTON: Not this particular slide. He might have seen this picture before.

MR. PALMER: What is that supposed to be, Dr. Carlton?

DR. CARLTON: This is the product—I think Dr. Lejeune in his testimony alluded to fertilization occurring in the Fallopian tubes, not always progressing down the tubes to the womb but sometimes going out the end of the tube, and that is the specimen that you see here. This was an ectopic pregnancy, six menstrual weeks along, four weeks along as far as the development of this being is concerned. It passed out the end of the tube in what we call a tubal abortion, and the surgeon handed this off to the anesthetist who held it up, and took a picture because he saw the baby moving and saw the heartbeat functioning.

MR. PALMER: So, then you are saying this is four weeks gestation, or two weeks younger than the baby Coleman at the present?

DR. CARLTON: I believe that is correct, if I understand Mrs. Coleman's

BY MR. PALMER:

Q. Dr. Lejeune, does this fairly and accurately represent a four week old preborn child?

A. I would guess so. I would say there is no—that is exactly what it looks like.

Q. Doctor, you indicated in your testimony, the heart has been beating from three weeks, is that correct?

A. Well, I said that the heart is beating after 21 days; 21 days after conception, the heart is beating. As I said, in a baby four weeks old, the heart has been beating since one week.

Q. All right.

A. If you speak about six weeks, it has been beating for three weeks. The first three weeks—the heart is built so that it beats correctly at the end of the third week.

Q. Doctor, you indicated in your testimony that viability has been a surprise. Has this been a recent surprise, since 1972 which is Roe v. Wade—has this surprise of viability come along as a recent development in medical science in the last ten years or five years, or what period of time?

A. Well, I would say it is very recent. It is in the last ten years. We were not suspecting that the early human being could survive so much mistreatment, that strongly. We were supposing that the early human being was extremely fragile and that he could die of any mistreatment, and that is not the case, and that was the surprise. That surprise came directly from the discovery, we were surprised to find that nature was that strong in its drive to life, that even a very tiny human being can resist the difficulties. That is where the surprise was.

Q. Doctor, you used in your testimony the phrase, "like a little astronaut in his space suit," and I must say when I first read your testimony before the Senate, that helped me understand medicine. I could picture that.

Is this what you mean by—

A. Well, it is exactly that, with the exception, that is, the baby is dead in this picture because the placenta has been removed from the tube. And if you were looking at the same baby that was alive, you would see two things different, that the amniotic bag is quite perfectly spherical, it is under tension, that it moves a little with the beating of the heart of the mother because it receives the impulses of the beating of the heart of the mother through the placenta and the heart of the baby itself is beating at its own speed. And the color is different, it is more alive, and the baby is moving.

Otherwise, I would say this gives a good impression of the morphology. It does not give a good impression of the life, because unfortunately this baby was already dead when the picture was taken.

Q. Now, Dr. Carlton said that when it was removed, the nurse saw that it was moving and took a picture. Would it be possible that it would be moving?

A. Oh, yes, no doubt. With that size of the arms and of the limbs, already the muscles are already functioning. I could not say that it could really swim. It can swim at eight weeks. At eight weeks it has a movement of stroke inside the bubble. At this stage, which is four weeks, I don't think it can swim, but it moves, but the movements are not as complicated as swimming.

Q. Doctor, our courts spoke ten years ago of a concept of right of privacy, and the right of a mother to privacy of her body, her own body. Is what we see on the screen a part of the mother's body, like an appendix or a kidney, is that part of the mother's body, when it is still in her body, even?

A. No. It is not at all a part of the body of the mother. It is an early human being who needs the protection of the mother. That is a very different thing. Now, for example, the winter is very severe here in this country.

If you went outside during the night, you would possibly die. Now, if you were inside a house, you would possibly survive. Now, does the house—do you become a part of the house because you are protected by the house? No, you are not a part of the house, but you need its protection.

And I would say that we know even that it is the baby who takes the—from the mother, because around one week after fecundation, it is manufacturing a special hormone which is sent to the blood of the mother to prevent the next

menstruation, because if there was menstruation the baby would be rejected. And it is the baby at one week after conception, which sends a message to the mother, stop your menses so that you keep me at home.

And then you see that he even is commanding his mother from the very first week of his life, and he forces his mother to do what he wishes, so to speak, that is to protect it.

And you know that babies do that for a long time after birth, forcing their mother to do a lot of things that the mother dislikes, but just for the protection of the baby.

Q. Doctor, you had said something about, everything that is necessary for the brain is there in the very beginning molecular stage?

A. Yes.

Q. So, if you are saying that the baby is controlling throughout the pregnancy, is that what I understand you to mean?

A. Yes, that too.

Q. You are saying that the brain is the computer that is sending these messages and signals?

A. Oh, it is too complicated, Your Honor. The brain is building himself, and what is the computer is the whole genetic information which tells the cells how they should manage to build the computer. The very extraordinary process of life is that it does not come from outside. It comes from inside. And then you ask me a too difficult question, you ask me whether the brain of the baby is calculating the kind of hormone it should do. What I know is that the baby is doing that. Whether he does it with the glands or anything like that, we still do not know.

Q. Doctor, if we can see the next slide. I don't remember what it is. I don't know if we need that or not.

MR. PALMER: What is that, Dr. Carlton?

DR. CARLTON: Seven weeks in the spherical sac that the doctor described, except once again the placenta attachments that come off the surface of the sac that you see have been removed so that the picture can be taken. They pretty much surround the sac earlier on, but one can see the umbilical cord, the "astronaut hooked to the mother ship" that the Doctor has alluded to.

THE WITNESS: Definitely.

BY MR. PALMER:

Q. Dr. Lejeune, does that fairly and accurately represent—

A. Exactly the early Tom Thumb. What I spoke about is one week older than him, but looking at him one week earlier than in the picture, that is not totally finished. Tom Thumb is just right there. The size is that.

Q. Doctor, you said that Tom Thumb dances on, like a trampoline in utero.

A. Yes.

Q. Do you mean that he actually can control his own legs and muscles?

A. Yes, that is what he does, yes. He makes the flexion of his— and then he

presses on the wall, and then he springs and because the buoyancy of the fluid, his movement when he falls down is very slow and very gentle and very graceful, and only cosmonauts can do that because when they are on satellites they don't feel the gravity, so that when they jump, when they fall down after jumping, they fall down very gently. It is exactly like a tiny baby, Tom Thumb, playing trampoline.

Q. Now, you indicated in your testimony, "if we touch his lip with a hair"—

A. At two months of age, we are sure of that.

Q. How do they do that?

A. It is at the moment of those interventions for extrauterine pregnancy, and just at the moment you are opening the sac, that if you have not removed and not clamped the arteries that give the blood to the placenta and life to the baby, the baby is just perfectly alive during the beginning of the intervention. And if you just touch its upper lip, it will move.

Q. And then, for me to think about it, if I touch with a pencil I feel it. If I touch harder, I feel pain. Does a tapping sensation–is that what you are saying?

A. Oh, no doubt. But that is necessary because nature is doing everything in view of the life in the outside world. So that, building the nervous system around the lips is very necessary to begin with, so that everything is ready when the baby goes out so that he can find the nipple. It is that much that, at two months and a half, it begins to suckle its thumb in utero. At three months of age they are sucking their thumb the whole day, because they are beginning to learn how to suck and they, need that when they will be out of the uterus.

Now, there is one word I would add, Your Honor, which is that this fantastic development of the early human being is made at the expenses of the resources of the mother, and it costs biochemically a lot to the mother, even at the beginning of the pregnancy. That is the reason why, for example' breasts begin to be tense, and increase, and they have difficulty with digestion, and there is a very curious syndrome we know very well, which is that the baby is taking, so to speak, the best of the blood of the mother for this very refined food that we need to build a new human being.

So that, mother is deprived of some minerals and especially from some vitamins which are very important to her, and in our countries, especially in the United States, most of the mothers in the beginning of the pregnancy have a deficiency of various vitamins including folic acid. And we know that those deficiencies can produce a kind of depression syndrome, some difficulty to cope with the general situation, which renders more fragile, the mother, and the beginning of the pregnancy. And that is the reason why the mother needs enormous care and enormous protection, and much better nutrition from the very beginning of the pregnancy, not only when the baby is big and writing poems, but even at the very beginning the mother needs the best care we can give her and the best food we can give her, and very generally in all our countries there is nutritional deficiency at the very beginning of pregnancy and

then a difficulty psychologically for the mother to go over this physical and neurological difficulty that she can feel.

And that is the reason why the society must help the early mother to overcome those difficulties.

Q. Doctor, returning to the type of sensation which if I press more I feel pain, does Tom Thumb feel pain? Does he feel the pain of an abortion, for example?

A. That is a very difficult question, Your Honor. I do not know if you, Mr. Palmer, you feel pain, because I can hurt you, I would suppose you feel pain, but I have no proof of that. The only proof I can have, that you begin to cry. You begin to try to prevent the assault which produced the pain.

Now, we have to realize that the feeling of pain is something which is our own psychological experience. It is not transmissible, a transmissible experience. Now, Tom Thumb, we are entirely sure just as we are entirely sure that another member of our species will feel pain when receiving some painful treatment, just the same. But that is deep psychology. He surely feels, there is no doubt.

Q. So, when we speak of Tom Thumb, Doctor, when in your medical judgment does Tom Thumb's life begin? When does human life begin?

A. It begins like everything, at the beginning. And the beginning is conception.

Q. When are we a person, first?

A. Well, a human being—now, we call later the human being—what do you call it, a newborn. You call it a schoolboy. You call it a GI. You call it senile. You call it an old man. But it is the same person, during the whole process who has been a preborn baby, a newborn baby, a schoolboy and an old man. It is the same person.

And the reason why it is the same is because its genetic makeup, which is defining him or her, has been there from the very beginning. So that, when we speak about one living being, one individual, no matter whether we are calling him a schoolboy or a person, genetically he is still the same being. He was there from the very beginning, because if he had not been at the beginning, he would never have been there.

We are entirely sure that a fertilized egg containing gorilla chromosome will never become a human being, will never become what we call a person. It will become a gorilla then. And that is what I can say on this question.

MR. PALMER: Could we see the next slide, kindly, Doctor.

THE COURT: Would you move that projector a little further away from the microphone. It apparently is causing some problem.

MR. PALMER: Can you tell us what that slide depicts, Doctor?

DR. CARLTON: This is the eight weeker that Dr. Lejeune, I think, has described. You can see the complete development here of the lower extremities, and all the organs and systems that the Doctor testified, that we enjoy the use of, are fully in place in this preborn child.

BY MR. PALMER:

Q. Just to repeat, Doctor, that fairly and accurately represents that?

A. Yes.

MR. PALMER: Thank you, Bill. We can turn off the machine.

MR. PALMER: If Your Honor would have any further questions, that would be all I would have of Dr. Lejeune.

THE COURT: Do you want to ask any questions?

MS. COLEMAN: No.

THE COURT: Doctor, let me simply see if I understand what you are saying. You have indicated that this preborn baby, or fetus, however you want to call it, has some viability itself, separate and apart from the viability of the mother, but can it exist outside of a womb or another protective device similar to that, in order to provide it firstly the fluids and secondly the protection from temperature changes or radiation or anything of that sort?

THE WITNESS: In the present state of the technology, we cannot supply the fluids and the protection that a human body can supply. But to make you understand, if I can, Your Honor, I would say that we can make an in between experiment which has not yet been done, which could be a mouse, to take an embryo of a mouse in vitro, and to implant it inside the abdominal cavity of a male mouse, that only the supply would be given and not the hormones. And my guess—the experiment has not yet been made—my guess, my informed guess on what we know in biology, would tell us, well, this would supply enough fluid and protection for the baby to grow to normality, for the mouse baby.

I do not propose at all to do that in our species, but that will be to demonstrate that it would have the supplier of the fluids. Then the situation is found, the viability depends only upon our technical ability to give the supply of vital fluids, exactly like to the first man on the moon. If you stop the vital fluid, it will die on the moon. If you have enough fluid, it will live and come back to earth.

THE COURT: Someday we may have the dream of the second child being carried by the male.

THE WITNESS: I would say it is a nightmare. I would not—I have been reputed, Your Honor, in newspapers, the newspapers as having invented the pregnancy in males and that is perfectly untrue. I refuse absolutely that paternity. I like ordinary and honest paternity, not the artificial, I was talking about.

But for more than one reason of convenience, what I believe, and that is a belief as a geneticist, that if nature had taken the step that if the mother was the recipient, women must have in their genetic makeup something more than the men do have, to make them understand that tiny human beings are beings of human kind, and there must be some very—I would say illogical but deeply logical feeling in the female nature to understand the respect to life that we men would have to learn the hard way, of science.

THE COURT: I have no other questions.

BY MR. PALMER:

Q. Doctor, you just used again the word "science." In your paper on "In Vitro" in the British government that has been introduced here today—if I may, Your Honor, I had meant to introduce—I think the microphone picked it up—the Life Magazine article—you made reference to, "sometimes poets and writers have greater vision than scientists." Can you explain what you meant by that?

A Well, I made reference to two great writers. One was Aldous Huxley because he said that, in his "Brave New World," that we would have factories to make babies in bottles and make line production of the special type of mankind to be used in factories and so on.

Now, what he says is one thing remarkable, that in his Brave New World, in which all sexual behavior was allowed and encouraged since infancy, no matter whether hetero or homosexual or anything, in which every dirty word was in everyday use and encouraged in the school, they were nevertheless obliged to rewrite all the literature because they wanted to expurgate of one obscenity, one dirty word, one word that should not be read, which should not be spoken, which should never be heard, and this word is the word "mother." That word, in the Brave New World, was the only dirty word left. And this reversal of the value makes me feel that those poets see deeper than we see, we scientists, that if we try to masquerade nature that then we would reverse the value and that motherhood becomes an obscenity. Is it proper reversal of a value? That is the reason why I quoted that.

But another I quoted was Vulcan from Goethe, possibly the greatest poet in human history, and when he wrote his history of Faust, the damnation of Dr. Faust is the story of the beloved seduced, pregnant, and abandoned, and the whole story of the damnation of Dr. Faust is the story of an abortion. And in the second poem about Faust, he even invented fertilization in vitro, and Faust and Mephistopheles, his diabolic companion, come back to the house of Dr. Faust and they look at the scientist—he is called Mr. Wagner, who is building an humonculus. That is a tiny human being inside a bottle.

It is from that moment that Dr. Faust becomes entirely mad, invents an impossible love with a ghost of Helen of Troy which is not real love, it is not real babies, and finally he gives these two last orders and they are very important for our own civilization. He said to Mephistopheles, "You have now to silence that tiny church bell, the only one which is still ringing in my empire, and you have to destroy this little cabin in which two old people living there, Filemon and Baucus, who are the paragons of human love."

And Mephistopheles goes, and the bell does not ring any longer, and when he comes back after burning the two old people in their cabin—that is, destroying the love of God and the love of humans—then sorrow comes inside the heart of the doctor.

We have to realize, we modern Fausts, that we have to respect those two

loves that make the truth of our lives, and to respect especially those two hearts who are beating together, which is the beginning of our symphony.

MR. PALMER: Thank you, Doctor. Thank you for coming all the way from France.

THE COURT: Thank you, Doctor.

We will take a ten minute recess.

THE CLERK: All rise. The Court is in recess for ten minutes.

(Recess.)

MR. PALMER: Call Dr. Bernard Nathanson.

Whereupon,

BERNARD NATHANSON, M.D.

was called as a witness and, first having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. PALMER:

Q. State your name and address for the record, Doctor.

A. Bernard Nathanson, 230 West 22nd Street, New York City.

Q. And you are an M.D.?

A. Yes, I am.

Q. And what is your profession, Doctor?

A. I am an obstetrician and gynecologist.

Q. And would it be correct to say that you are licensed to practice medicine?

A. Yes, in New York and Pennsylvania.

Q. And are you Board certified?

A. Yes, I am.

Q. Give us your medical background, your education and your schooling and training, Doctor.

A. Yes. I was graduated from the McGill University College of Medicine in 1949 in Montreal, Canada. I spent a year as a rotating intern at the Michael Reese Hospital in Chicago, a year as a surgical intern at the New York Hospital Cornell Medical Center, a year as a resident in urology at the New York Hospital Cornell Medical Center, and four years of obstetrics and gynecology residence at the Woman's Hospital in New York City.

Somewhere in there I was two years in the United States Air Force as Chief of Obstetrics and Gynecology at the Northeast Air Command in Newfoundland.

Following the conclusion of the various residencies and training, I entered private practice and simultaneously undertook teaching at the Cornell University Medical College, with which I have been continuously associated for 26 years.

Currently I am Assistant Clinical Professor at Cornell. From the years 1973 to 1977 I was the Chief of the Obstetrical Service at the St. Luke's Hospital in New York City, which is a teaching unit of the Columbia College of Physicians,

and Surgeons, Columbia University's medical college, and I am still associated with that university as well.

I am a member of the American Medical Association, the New York State and County Medical Society, the American College of Obstetricians and Gynecologists, the American College of Surgeons, the New York Academy of Medicine, the New York Academy of Sciences, the Royal Society of Medicine, and many other scientific organizations.

Q. Your publications, Doctor, any publications that you have—

A. Yes, I have published approximately 15 or 16 scientific papers and two books.

Q. What I was going to ask, what are the titles of the books?

A. Yes, one book is called Aborting America, which was published in 1979 by the Doubleday Company, and a more recent book called The Abortion Papers which was published by the Frederick Fell Company in New York City.

Q. Doctor, now I am familiar with the first book you mentioned. I would like to ask you, from our knowledge of that, what was your initial position on the question in this nation of abortion, and were you—did you begin an organization, and what was the evolution of this?

A. Well, I suppose I was as responsible as any single person in the United States for the uncaging of the abortion monster in this country. I was the organizer, or at least one of the three or four organizers, of the Abortion Rights Action League in 1968.

Q. Then you are saying you are pro-abortion in that sense?

A. I was strongly pro-abortion. I was very active in the political arena on abortion, and in the bioethical area in general, and for several years was active throughout this country, speaking and testifying, working in legislatures, on the pro-abortion side.

When the law was struck down in New York State in 1970, I organized and ran the largest abortion clinic in the world. It was called the Center for Reproductive and Sexual Health. The acronym is CRASH. And at that clinic I had 35 doctors working under me. We functioned every day in the week including Sundays, from 8:00 in the morning until midnight, and we did 120 abortions a day, every day in the year except, I believe, Christmas Day when we were closed.

In my two year hegemony in that clinic, we performed 60,000 abortions, which is still the largest single experience with abortion in the world, or at least in the Western world. So that, for a period of approximately seven or eight years I was very active in pro-abortion politics, and on the scientific and medical side of abortion.

Q. Was the safety record, or track record of this clinic you have mentioned, Doctor, in New York, cited by the Supreme Court in Roe v. Wade?

A. Yes. It was cited in a number of instances in that decision when the procedure itself was discussed and its safety was considered, yes.

MR. PALMER: We would ask, respectfully, Your Honor—we would proffer him as an expert in obstetrics and gynecology.

THE COURT: I will accept his qualifications.

BY MR. PALMER:

Q. Doctor, based on the testimony we have had here today, that the preborn child of Mr. and Mrs. Coleman is approximately six weeks' gestation, do you have a medical opinion as to whether or not that preborn child is a being, a person, a fish, an animal, whatever is it not, and as to whether or not it is viable and if so, would you explain that to His Honor.

A. Yes, I do have such an opinion. My opinion is that this child at six weeks is a person, a human being. It is viable and it, in my opinion, requires all the legal and moral protection that we can afford it.

When I underwent my apostasy on the abortion question, in 1974, it was as the result of leaving the abortion clinic job or directorship in '72 and—

Q. Let me interrupt you, Doctor. Excuse me, but it may be important for His Honor. You used the word "moral." If I were to ask a personal question, what is your religious background and–

THE COURT: Let's not get into that. I am interested only in the viability question, not the catharsis or anything else.

BY MR. PALMER:

Q. Would it be fair to say you are an atheist?

A. That is correct.

Q. Would you continue, Doctor.

A. Yes. When I left the abortion clinic, I took up the position of Director of Fetology and Chief of the Obstetrical Service at the St. Luke's Hospital in New York City. This was in 1973, which marks the advent of the modern science known as fetology.

It was in that year that we introduced into clinical research and use, modalities and techniques and technologies known as ultrasound electronic fetal heart monitoring, hysteroscopy, fetoscopy, immunochemistry, amniocentesis, and a great many other of the technologies which now are collectively termed the instruments of fetology.

I spent four years directing that unit, conducting research, and carrying out teaching responsibilities in that area, and it was in 1974 that as a result of these new perceptions of the fetus which we were afforded with these new technologies that I began first to question the ethical permissibility of the elective or non-medically indicated abortion, and I articulated those doubts in an article in the New England Journal of Medicine, an editorial article.

My work in fetology continued for another two years, during which time we were amassing literally an enormous volume of material on the issue, and it was becoming more and more plain, more and more impossible to deny that with these new perceptions, with what we now knew about the fetus, that we could no longer continue to regard it as something of a second-class citizen or a piece

of meat or something which was not important.

It now was clear that it was biologically indistinguishable from any of us. It has all the same functions, all the same capacities, and in 1979 1 crystallized my opinions regarding the impermissibility of abortion in the book, Aborting America.

As a result of the technologies and the new perceptions of these technologies which were afforded, a new view of the fetus as of ten years ago, as of 1973, many observers, and I of course concur with them, have postulated that every human being goes through a phase in its life, his or her life, called prenatality. This is the time before we are biologically cast out into the outer world. But there is no question that as we study that period in greater and greater depth we are convinced that this is just one more phase of man's existence on this earth.

It is a relatively new concept, prenatality, a nine month period of developing ourselves, developing our perceptions, our sensations, our thoughts, our dreams and our fears. But there is no doubt any longer in the minds of those of us who have worked in this area that prenatality is a reality, it is a real phase of our lives.

I would remind Your Honor that until the mid-nineteenth century, childhood was not even recognized in the law or otherwise as a true phase in our lives. At the age of seven children were cast out into the world to fend for themselves or work in factories, and we had no clear understanding of what childhood was about until probably the 20th century.

We are now almost into the 21st century, and that will be the century of prenatality, that we will begin to understand that that is a real, palpable phase in our lives, one to be respected as childhood is now, and one as important, if not more important, than childhood, and it must be protected by all the means which are at our disposal.

Q. Doctor, would you care to tell us when the new science of in vitro fertilization that Dr. Lejeune told us something about, whether or not it has had an impact on the definition of viability.

A. Well, in vitro fertilization and its offspring, embryo transfer, have allowed us for the first time to witness the creation of life. Much of the waffling and dithering about abortion and the question of its ethical permissibility has long centered on the issue of when life begins. And there has been a great deal of miasma and cloudy opinion on this subject. And many people have said that it is a philosophical or religious or theological or even an economic consideration.

In point of fact, we now know exactly when life begins. It begins when the sperm meets the egg. We have been witness to it in the laboratories now. We see it happening. And there is no longer any question of doubt as to when life begins.

It is very much on the order of one wondering when a fire begins. If there is a conflagration raging in the city, we know that at some point a spark was lit and the fire began, and we now know in biology that it is at the moment that the

sperm meets the egg that the spark is lit, the fire is on, the continuum is established, and that will not die out until the biological life dies.

The biological life is an immense spectrum, the bounds of which are named as prenatality, infancy, childhood, adolescence, adulthood, senescence and so on. These are only bounds in that continuous spectrum.

So that, with in vitro fertilization, we have now clarified beyond any serious dispute, exactly when biological life begins. Now, there are many people of other persuasions on this issue who will say that life, or a mere human being, is not a person; that a person is a social entity, that a person requires bonding to another person, or some kind of meaningful relationship to another person.

After this has been investigated, this question, very recently in an article published in the New England Journal of Medicine just a year ago by two researchers, one of them here in Washington at the National Institutes of Health by the name of Fletcher, and an obstetrician named Evans, Mark Evans at George Washington University.

What they did was quite simple. They had women who were applying for abortions at an abortion clinic subject themselves first to ultrasound examination, at which time they could see the six week or five week or seven week fetus on the ultrasound screen, and they interviewed these women following this experience, and in every case those women who had, prior to the examination, committed themselves to abortion for various reasons and were prepared to undertake it, turned their backs, changed their minds and left.

The conclusions of Fletcher and Evans were that these women had bonded themselves to their fetuses after seeing them on the ultrasound screen, and the further conclusion of that, of course, was that if one bonds to someone else, then that someone else is a person, not just a human being or a life, but an actual person who has now established some meaningful social relationship with another person.

Taking off on that, a researcher named Utien in Cleveland, who is the head of the in vitro fertilization unit at the Mt. Sinai Hospital in Cleveland, has recently published, again in the New England Journal of Medicine, an article in which he pointed out that women tend even to bond themselves to the dividing egg after the in vitro fertilization has taken place, and if the egg does not continue to develop and live, these women have said that they feel as if they have suffered a stillbirth.

But more interestingly, Utien also points out that the workers in his team of in vitro fertilization, the workers themselves, the nurses, the technicians, the doctors, when one of these dividing eggs would die and not survive, they found themselves profoundly disappointed and they concluded that they had actually bonded themselves too, to this dividing egg; that the dividing fetus, the early, early embryo, provoked feelings of bonding not only in the mother but in the technicians and people who were working in the in vitro fertilization team themselves. And in a sense, of course, this shows us that even that early

dividing zygote, that blastocyst, the embryo, has the capacity to bond to other human beings, and it is simply undeniable that this must also be regarded then, as not only a human life but an actual person.

Q. Doctor, when you speak of this bonding and this ultrasound, to me that means seeing is believing, is that—

A. That is correct.

Q. Can you describe for His Honor what this ultrasound procedure involves? Is it invasive? Is it radiation like an Xray? Is, it harmful at all to the mother? What is it; what happens when—

A No, ultrasound was developed in the 1950's. It is a technique in which high-frequency sound waves are passed through the mother's body and the echoes are gathered into a computer and a picture is made exactly of the contents of the body, including the contents of the uterus.

Ultrasound has been probably the most rapidly proliferating technology in the last ten years. It is used literally in all branches of medicine now, from neurology and neurosurgery of the brain through pediatrics and obstetrics and so on.

It is, to the best of our knowledge, harmless. It consists merely of placing what is called a transducer, an instrument on the mother's abdomen, and moving it back and forth, transmitting the sound waves through the mother's body, and gathering the echoes back. It takes perhaps five or ten minutes. It is totally noninvasive. And it is remarkably, astonishingly accurate.

We now have, instead of static pictures, in 1976 the technique of real time ultrasound in which the pictures now are continuous. It is like a motion picture camera, so that we can put the transducer on the mother's abdomen and we can actually watch the five week fetus's heart beating, that is, a three week old fetus—obstetricians speak in terms of the pregnancy from the first day of the last period—but actually the three week old fetus's heart beating. We can see the four week old fetus's extremities moving. We can see the five week old fetus putting its thumb in its mouth. We can watch, literally, all of the functions of that very early young person.

The technique is simply mind-boggling. It is now being produced in color. And the potential of this. particular technology is simply limitless.

Q. Doctor, I was just—while you were explaining that to Your Honor, I was asking Dr. Carlton if we have such a device in this community and he tells me that we do, so this isn't limited just to

A. Oh, no. This is a common practice over the entire United States.

Q. So, you are speaking of a bonding that these mothers see, and then they change their mind and walk out, seeing is believing. Assuming today, if the mother was desirous or wanted to, or would ask you, with Your Honor's permission, would go to Holy Cross, would it be—are you saying this is something that she can see if she wants?

How long does it take to do it? What is involved?

A. Absolutely. The screen can be placed right in front of the mother. It takes perhaps five minutes or less.

Q. Can you describe what she would see at six weeks?

A. Yes. She would see the heart beating. She would see the perfectly formed, very small person, including the extremities moving. She would see the child rolling over. She would see literally everything that one associates with a human being who is living and functioning.

Q. In your opinion, Doctor, if you know, does a child of six weeks' gestation feel sensation or pain?

A. Oh, yes. We have good evidence for that now. We know that if you stroke the lips of a six-week child, it will move away. If you touch the palms of the hands, it will pull its hands away. These methods have been carried out, or these things have been carried out under ultrasound technique.

Q. Does it have taste? Can it hear?

A. Taste buds appear at about seven or eight weeks.

Q. How do you know?

A. We know that from examination of the tongue itself.

Q. Can you sweeten the fluid or something?

A. No, but we can examine the tongue of the fetus and we can identify the taste buds there. The fetus begins to swallow at about six or seven weeks, so we know that it is having gastrointestinal activity.

Q. Can it hear you and I talking? Does it respond to music?

A. Yes, we have done some work in that, and we discovered that if we put a fetal heart monitor on the fetus, that is, an instrument which will record the beat to beat rate of the heart, and we blow an automobile horn, the fetus will get frightened, its heart rate will speed up and it will jump around. However, if we play some chamber music from Mozart, it seems to be quite soothing.

But, there is no question that the fetus can distinguish between sounds, and in fact this technology, or apercu has been capitalized upon. There are companies which manufacture little devices which mimic the maternal heartbeat and they are used for babies who are fretting. If you put this heartbeat of the mother on a tape into the crib of a baby who is fretting and crying, frequently they will stop crying. They know that sound. They heard that for many months before they were actually born. And this is a commercial instrument in use in nurseries and in homes.

Q. So then, Doctor, you mentioned your clinic did 60,000 abortions in the two years that you presided over it?

A. That is correct.

Q. How many, personally, have you done in your practice?

A. Well, I personally have done about 5,000. I have supervised another 10,000 done by residents under my direction in hospitals, and I was responsible as the director of the clinic for 60,000, so I have about 75,000 abortions in my life.

Q. Up until what stage of pregnancy, to your knowledge, are abortions done in the United States?

A. Well, we have evidence that abortions are being done well into the 30, 31, 32 week, 33 week range. I myself opposed the abortion of a 33 week pregnancy at one of the hospitals at which I work. I placed myself directly in front of the procedure, as it were, and in defiance of the chief of the service, the salaried administrative director of the service, and as a result I was removed from certain teaching duties because I opposed the 33 week abortion. But I have no regrets over that intervention.

Q. Doctor, of the 5,000 that you personally have done, let me bring you back to the instant time frame. How many have you done at approximately six weeks?

A. The bulk of the 5,000 I personally have done would have been at six weeks.

Q. Can you describe the procedure? How is it done?

A. Yes. The procedure is done by taking graduated metal instruments called dilators, putting them into the cervix of the woman, and gradually opening the cervix. The cervix is the neck of the womb. It is normally closed tightly. If one puts progressively larger tapered steel instruments through that small opening, one can progressively open it sufficient to introduce a hollow tube which looks much like a straw, into the uterus, and at the other end of the straw, a vacuum force is applied and the force literally sucks out the products, the unborn child.

The child is sucked out in pieces and the pieces are collected in gauze bags to be sent to the laboratory for analysis.

Q. In your opinion, Doctor, is there a sensation of pain in this preborn child?

A. Yes. I think we have sufficient evidence that the child is developed enough at six or seven weeks, certainly to feel the pulling, the force of the vacuum, and the ripping away forcefully from the wall of the uterus.

I must say that I have lived through the development of a great deal of technology. We cannot hear the child cry. We don't know the child feels pain for certain because pain is subjective. But I have no doubt that within the next ten years, technology marching forward inexorably as it will, we will have that capacity to know those things, without question.

Q. Doctor, how far has technology about the preborn taken us since 1973?

A. Well, let me put it in perspective this way. When I was a medical student in 1949, we used a textbook called Williams' Obstetrics. It was in its eighth edition at that time. And it had in it about 22 pages on the fetus.

The last edition of Williams, the 16th edition, came out three years ago. It is a 750-page book just like the other one was. But it has approximately 300 pages on the fetus.

The science of fetology has exploded exponentially in the last ten years. We did not know anything about fetology ten years ago, but it today is perhaps one of the most flourishing, the most dramatic, sciences we have. Ten years ago, if

one consulted the Cumulative Index Medicus, which is a volume listing every scientific article that is published in the world in any language, if you consult the 1973 Cumulative Index Medicus you find about 100 articles a year on the fetus.

If you consult the 1983 Cumulative Index Medicus, you will find somewhat in excess of 3,000 articles a year on the fetus. The science has developed beyond our wildest dreams. The technology is pressing forward. This science, and I do not mean to make a pun, is in its infancy and ten years from now it will be enormous beyond our wildest dreams.

Q. Doctor, of course as you yourself—I know from reading the book that you have written, and the Supreme Court's cases themselves, although of course you are not a lawyer but you understand the language as any layman would?

A. Yes.

Q. Initially the sign of viability is the ability to exist by natural or artificial means outside of the womb. Was in vitro fertilization invented in 1973?

A. No, it was not.

Q. When was the first in vitro child, if you know, born in the world, Louise Joy Brown, I believe, in Britain approximately

A. Yes, I believe Ms. Brown was born in '78 or '79.

Q. Are you familiar with Justice Sandra Day O'Connor's writings of the dissent in the most recent case of a High Court, Akron, in which she indicated that Roe was on a collision course with itself because it left a window of viability, and viability was held to be something that must be defined at the level before—by properly adduced medical testimony, and it was to evolve with changing medical science.

What implications, then, do you see—is the medical world now willing to communicate to the judicial world?

A. Yes, I am familiar with Justice O'Connor's dissenting opinion. Again, I will refer to my own personal experience when I was a medical student in 1949, viability was defined as a fetus at 32 weeks.

We had none of the technology which one finds now in premature intensive care unit nurseries. We had no respirators. We had no arterial blood gases. We had none of the technology, the monitoring systems, nothing.

Today viability—now, this is 30 years later, 33 years later— viability is down to about 23 or so weeks. We have marched it back ten weeks in those years. Now, I don't expect that it will take another 35 years or so to march back ten more weeks, because the technology is progressing geometrically, not arithmatically now. It is exploding.

I predict, and I think that I can stand well and firmly on this prediction, that within five years we will have the technology to keep eight, ten, and twelve week fetuses alive. The technology is almost in place to take the six or eight week fetus off the wall of the uterus of the pregnant woman, put it into a life support system, and allow it to flourish extracorporeally, outside of the woman's

body, for the remainder of the pregnancy. That technology is almost perfected. It is a short step away in this Orwellian year of 1984.

Q. Doctor, when you say 23 weeks viability, you mean—let's see, that is a little over five months. Babies can be born that premature and you have an incubator good enough that can keep them going?

A. That is—

Q. Totally on their own? Now, the other—back at the other end of the gamut when we were addressing viability by demonstrable scientific evidence, by means of in vitro fertilization, this existence in the petri dish extrinsic to the womb, fertilization taking place extrinsic to both parents, in your medical judgment does that then satisfy the definition of viability by artificial means, the incubator, the petri dish?

A. Yes. As I indicated to you, viability now is at 23 or so weeks. Actually, that is about a 600 gram infant and about 75 percent of those are now surviving.

We are moving viability in two directions. We are moving it backwards from term pregnancy to about 22 or 23 weeks, and we are moving it forwards from in vitro fertilization. And again, I have no doubt that within a few years those two movements will collide, as it were, and we will be keeping fetuses alive from the test tube on outside the mother's body.

I think that that technology is, again, almost in place.

Q. But Doctor, as to the time when it will be done, when we will have artificial wombs, and then the man that says, "I'm from Missouri, show me," he will see it, are you able to state, as a medical theory, from just what you see and observe, that, yes, it is possible, it is just a matter of when we are going to do it or can do it if we want to do it. Is that what you are saying?

A. Yes. Even the question of viability is a relative one in the sense of viability where. I mean, viability here in Washington is different than viability in Zaire. You want to know when, that is to say low long, how do you define viability, is it only 30 seconds out of the uterus, or is it ten years? Whose viability?

These questions are all such relative questions, but there is no doubt that the whole issue of viability is now, at least in scientific circles, moot. We are in such a state of flux, of transition in science because of the explosion of technology, to say, well, it is moving backwards so fast that 1984 may see it moved another two weeks. We don't really know.

It is a science which is progressing so rapidly that no one any longer even speaks confidently of viability.

Q. Doctor, one other question, I can't help it but I always wanted to ask you, having read your book, because I know your background is of the Jewish faith and you freely admit in the book and have said that you are an agnostic, or of atheist persuasion now. And if you performed, individually, 5,000 abortions, and if you headed the world's largest abortion clinic, and if you founded the National Abortion Rights Action League, and if you almost singlehandedly

were responsible for Roe v. Wade, why have you made this reversal?

Is it based on science; surely not religion—what is it? Why?

A. Mr. Palmer, it was an apostasy based purely on science. I was told as a medical student, we were all told that there was a baby in the uterus, there was a product of conception, there was something. But that was an article of faith and I don't believe I ever fully accepted it, but I did know that in those days we had problems with women who were having illegal abortions and there was no countervailing force then, in my ethical equation there, that—to legalize abortion then would save many women suffering and mutilation, and there was no other force on the other side.

But in 1973, when fetology became a science, when we began to see and hear and communicate with the prenatal person, then that countervailing force became established and it became a very strong, undeniable moral force in the equation, and I could no longer sanction the protection of women's political rights over the overriding right to life of that prenatal person. And that is when I changed my mind.

Q. Thank you, Doctor.

MR. PALMER: If Your Honor would have any other questions of Dr. Nathanson.

THE COURT: Mrs. Coleman, do you want to ask any questions?

MS. COLEMAN: No.

THE COURT: Nor do I.

EPILOGUE

The Apostle Paul said it: "For we wrestle not against flesh and blood, but against principalities, against powers, against the rulers of the darkness of this world, against spiritual wickedness in high places." (Ephesians 6:12) We cannot improve upon Paul's statement, and its truth has been echoed by the lessons of history down through the ages.

When I had lunch with Dr. Lejeune some time ago, we were talking about the cloud of the threat of nuclear war that hangs over the world, and I remarked to him about my feelings of it being hypocritical for us, the living, to be worried about the sanctity of our own life if we are not first and foremost concerned about the sanctity of all life, beginning with the preborn child. Dr. Lejeune stated to me that one of the reasons he was willing to come to our country was that he thought this issue went far deeper than people realized. He put it this way: "If big Russian learns it is okay to kill little Russian, and big American learns it is okay to kill little American, then you are not going to tell big Russian it is not okay to kill big American, and you are not going to tell big American it is not okay to kill big Russian." Dr. Lejeune sits on a world body to assess the genetic effects of nuclear war on the human species. He said to me, "Mr. Palmer, nuclear war—three years." We must listen to this man. If we are to salvage the sanctity of all human life, we must reaffirm the sanctity of preborn children's lives immediately.

Our nation has cancer of the spirit. The Supreme Court case of *Roe v. Wade*, vintage 1973, could never have been enunciated in a completely healthy nation. We must eradicate and expunge this cancer before it destroys the complete body of our democracy and closes its dark curtain around the liberty and life of all of us. On the back of our money we read, "In God we trust." We cannot disavow the personhood of the youngest and most tiny of His creations without incurring the wrath of that Providential Hand which holds this nation's enemies at bay. So you see, this symphony has not been one in the abstract about the life of the preborn child you once were but now have safely passed from being, but is a symphony about your life as you hold this book right now.

President Reagan said it when he first took office after reflecting on the monumental task of healing and knitting together the problems of this democracy—this lamp set on the hill that is, indeed, the last hope of mankind. Our President looked out the window from the Oval Office, turned, and concluded he felt the message to our nation at this time could be found in II Chronicles 7:14: "If my people, which are called by my name, shall humble themselves and pray, and seek my face, and turn from their wicked ways; then will I hear from heaven, and will forgive their sin, and will heal their land."

A Symphony of the Preborn Child

PART III

The Constitutional Personhood
Of The Preborn Child
As Found In The
Declaration Of Independence

by
Professor John W. Brabner-Smith

PROLOGUE

Part III reflects upon the "unalienable rights" referred to by our forefathers, to which must now be added the inalienability of the human body, the human embryo, and the human genome.

Our nation needs to examine and debate closely what this Constitutional Law scholar is telling us. This is a remarkable man, whose mental acuity and brilliance refuses to fade. He was recently consulted by the Baltic States in drafting their new Constitution and just returned from a trip to Russia. He still chops his own firewood. He is our Benjamin Franklin here, and he outranks in age alone any single member of the High Court.

Professor Brabner-Smith pointed out in his recent address to the Christian Legal Society that the Declaration of Independence (he calls it really a Declaration of 'Dependence' upon God) is actually the Charter of our government. The Constitution is only the by-laws of our government. It is an established, irrefutable principle of law that you cannot amend the bylaws so as to affect the Charter.

You are about to learn that the Charter of our government (Declaration of Independence) irrefutably and immutably establishes for all time that the Sovereign of this nation is the one whose birthday we celebrate on December 25 in the Year of Our Lord, A.D. (anno Domini).

Who the Sovereign of a nation is becomes important because it is the Sovereign who ultimately defines the term "person". In our Judeo Christian nation God is the ultimate Sovereign, and it is His Word in the Holy Bible that we must ultimately turn to for the definition of person. Man alone has Imago Dei-created in the image of God; known by God individually before he was born, and loved as a person when he was secretly knit together in the womb. The 6th Commandment of our nation's Sovereign is: "Thou shalt not kill." This Commandment makes no exception for size of the human person. Size is perceived only by man's earthbound senses, not by God's divine love or the love for one's fellow man that God commands us to have. You will understand this in more detail after reading Professor Brabner-Smith's second article *Who Is Sovereign - Science Rebukes the Law Profession* herein.

The High Court of this nation, with Justice Blackman as its author in 1973, ignored the 6th Commandment (Thou shalt not kill) of the Sovereign of our republic and authorized the killing of 20 million preborn children in a day that ushered in an age that shall live in infamy. Justice Blackman, as the Court's author, played with the word "person" in the Constitution, and you will recall that he stated in the text of Roe v. Wade that they had to first find that the preborn child was not a "person" within the language and meaning of the 14th Amendment. He went on to admit that if they had held that the preborn child was a person, then that child's very right to life would be guaranteed by the 14th

Amendment.

It is important not to blame Justice Blackman, or for that matter the other six justices voting with him, for the tragedy that ensued in Roe. The Apostle Paul said it: "For we wrestle not against flesh and blood, but against principalities, against powers, against the rulers of the darkness of this world, against spiritual wickedness in high places." (Ephesians 6:12) We cannot improve upon Paul's statement, and its truth has been echoed by the lessons of history down through the ages.

If Justice Blackman had written in a different age as "in the year of Caesar Augustus" or "in the reign of King George III", then and in that event he would first have known or consulted the wishes of the Sovereign before writing a Court Opinion so as not to incur the displeasure of the Sovereign, who was recognized as the ultimate law-giver, and therefore the one who ultimately would define the term "person". Justice Blackman wrote the Roe v. Wade court opinion holding that the preborn child was no longer to be protected and defined as a person under our Constitution: "In the year of our Lord 1973, A.D. (anno Domini)."

It is our Lord's definition of person which must prevail as defining who is protected under our Constitution—not Justice Blackman's definition or any other Court's definition, nor the definition of the United States Congress, nor the definition of the State Legislatures, nor the definition of the President. Our forbearers established the system of government of this republic so as to prevent too much power reposing in any one man who would be king or in any one branch of government, be it Executive, Legislative or Judicial that would try to act like a king and usurp the unalienable God-given rights of the people. The British legal scholar, Blackstone, in the 18th Century, recognized and asserted that the Natural Law of God was the supreme law of England and of its colonies.

The highest function of government is the protection of human life. Man, as a corporate group is to safeguard the sanctity of human life as a gift of God which cannot rightly be disposed of except as God permits. To intentionally take the life of an innocent preborn child is to break the Sixth Commandment "Thou shalt not kill." "Thou shalt not kill" is not a 'choice'—it is God's commandment. (The Hebrew language employs several words to express the idea, "to kill." The verb used in the sixth commandment is a special word which can only mean "murder" and always indicates intentional slaying.)

As Professor Brabner-Smith points out, the very manner in which we mark a date gives reference to the acknowledged Sovereign of that nation, and hence the ultimate law-giver of that nation. All presidential proclamations and acts of Congress continue to be signed: "In the year of our Lord 199 1, A.D. (anno Domini)."

We need only look at the back of our money to see who our trust is ultimately reposed in as the Sovereign of this nation. The money does not say

"In Caesar Augustus We Trust." The money does not say "In the President We Trust." The money does not say "In the Supreme Court We Trust." The money does not say "In the Congress and Senate of the United States We Trust." The money does not say "In the State Legislatures We Trust." The money does not even say "In the People We Trust." Indeed our forbearers, as the people who established this engine of democracy, distrusted human folly and the political pressure of human decision both on the bench and in the White House and in the Congress and in the States to such an extent that they set up a system of checks and balances so that any one man or body of men was not given the final say. There was only one Sovereign to be recognized by the nation henceforth, and He is properly acknowledged on the back of our money which says: "In God We Trust."

Although the darkness permitting the killing of 20 million preborn children was pervasive, the light of this nation, like Ninevah, had not gone out for all the people.

Slowly but surely the God-fearing people of this nation who pray daily to that Sovereign have succeeded in putting on their High Court men who walk in the light. The newly constituted High Court is about to correct the darkness of Roe by reversing it, but it is not enough to reverse Roe. In order for the Supreme Court to do true justice and be respected by this and future generations it must acknowledge its subservient position to the true Sovereign of this nation and humbly acknowledge the full personhood of each new human being from the moment of fertilization as that new preborn citizen of this republic is about to be handed to us on the outstretched palm of God, our true Sovereign, who knits the preborn child together in the womb and knows him before he is born. Marvelous are His works and this the souls of the nine mere judges of our Supreme Court knoweth right well.

It will be a human temptation of the Supreme Court to want to get down the bowl of Pontius Pilate and wash their hands of the essential matter of going on to properly define the word "person" as the Sovereign of our republic would have it defined and state that each new human being is a person endowed equally with the unalienable right to life, liberty and the pursuit of happiness from fertilization, the moment at which the new life begins. It is going to take some strong persons themselves on that Court to insist that the Court do true justice this time and not simply wash their hands of it and pass the buck to the State Legislatures to define "person." The Sovereign defines person—no one else—and the High Court needs to simply point out what the Charter of our government says, what our forbearers said, and do their duty as the High Court of making it clear that the definition of "person" is thereby already enshrined in the Constitution. This is not a matter of discretion with the Legislative, Executive or Judicial branch of Government. This is not a matter of discretion with the State Legislatures or the State Executive or Judicial branch of Government. Indeed, the original thirteen colonies (states) and the balance of

the fifty states coming into the union adopted the Declaration of Independence as part of their own State constitution and declaration of rights, and as such are bound by it.

There is no need for a Constitutional Amendment to enshrine a definition of personhood protecting preborn children into the Constitution. The definition of personhood is already enshrined for all time in the Charter of our Government (the Declaration of Independence), which cannot be altered in any event by a change in the Constitution or a judicial interpretation of the Constitution or its Amendments. Justice Blackman relied solely upon an erroneous interpretation of the 14th Amendment which was passed after the Civil War to guarantee that black men were defined as persons and not property. He played with the one word "person" in there, changing on his own its definition to work the evil that was worked—devilish trickery.

Professor Brabner-Smith's essays are extraordinary, and it shows how we have overlooked the clear intent and meaning of the Charter of our government as enunciated by our forefathers in its Declaration of Independence as they prayed in humble supplication to the Sovereign of this nation for Divine guidance in their writings and deliberations. Lincoln himself would have used those portions of these essays of Professor Brabner-Smith contemporaneous with his era if he had had them at the time of the Dred Scott debates.

To leave the definition of personhood up to the politics of 50 state legislatures would make the second error of the Supreme Court greater than the first. Such a ruling would play into the hands of the master of deceit and create division in the nation that would again, like at the time of Dred Scott and the Civil War, rip this nation asunder. The Supreme Court must not allow this to happen. Professor Brabner-Smith speaks truth in his essays, and this same truth must now be enunciated by the High Court of this land if we are to continue as a light set on a hill for all the world to see.

Our Sovereign God is patient. He stands at the door in the garden with the preborn child in His arms and quietly knocks in love. The door is the door to the human heart and it has no latch on the outside because it can only be opened from the inside.

Our nation, our President, and our people have nothing more pressing and urgent to tend to than to set the record straight on who the Sovereign of this nation is, what His 6th Commandment is, and to uphold the preborn child as created by the Sovereign God as a full and equal person with the unalienable right to life, liberty and the pursuit of happiness such that his soul may be sown in the fallow fields of this dear Earth with his fellow man to ripen into fruition for the harvest of a Heaven to be. Man's days are but as grass. They soon wither and are gone. Man's laws and man's nation states are but as dust, and unless man's laws conform to the ultimate law of the Sovereign God those nations become as dust and ultimately are carried away on the wind.

The following taken from the poem *Prayer for the Preborn Child* may indeed

be instructive in this time of decreasing economic prosperity and increasing worldwide military instability. The excerpt begins with a quote from President Lincoln's Second Inaugural Address as the nation was drawn deep in the struggle of the Civil War that would not have been necessary had these same principles set forth by Professor Brabner-Smith been used to resolve peaceably and constitutionally the personhood of the black man which divided our nation. We now find ourselves again divided over the personhood of all preborn men—red and yellow, black and white. Let us see ourselves in the mirror of history held up by Lincoln and reflect upon a new admonition for this present age.

"Fondly do we hope, fervently do we pray
that this mighty scourge of war may speedily
pass away. Yet, if God wills that it
continue until every drop of blood drawn with
the lash shall be paid by another drawn with
the sword, as was said three thousand years
ago, so still it must be said, 'the judgments
of the Lord are true and righteous altogether.'"

(Abraham Lincoln, second Inaugural address)

But what sword can avenge the
little ones TWENTY MILLION strong?
But the nuclear sword in the enemy hand
which threatens to destroy our land
And now we see our Father
as in the time of old
You punished Your people whom
You loved by allowing their
enemies bold
To overrun their camps; scale the walls
of their cities fine
And scattered their tribes over
the face of the earth for departing
in sin from Your vine

So where does our salvation lie
as we're soon to be caught in the strife?
Repent, repent the little ones
that we cruelly took their life
Fall to the ground and pray
Ask for Your forgiveness of our sin and

Turn from our wicked way.
For then will You hear from Heaven
and truly heal our land

America, America, God shed His
grace on Thee,
This is the prayer we fervently pray
now on bended knee.

Yours Prayerfully
for the Preborn Child,

R. Martin Palmer, Jr.
Hagerstown, MD.

ADDENDUM TO PROLOGUE

Symphony of the Preborn Child, Part I and II presented the scientific facts of the humanity of the preborn child from fertilization. *Symphony I* contained the Court testimony of Dr. Jerome Lejeune and Dr. Bernard Nathanson in January of 1984. *Symphony II* contained the Court testimony again of Dr. Jerome Lejeune of Paris, France, in the Tennessee frozen human embryo case. With *Symphony I and II* the scientific facts of fetology and genetics now known to modern man were squarely presented to this nation.

In this little book which will assuredly not be greatly noticed or remembered, entitled *A Symphony of the Preborn Child Part III* there is presented to the nation the constitutional basis for translating the scientific facts of the preborn child's humanity into legally protected and enshrined constitutional personhood. The facts have now been discovered by the scientists and enunciated by Dr. Lejeune. The 'law' has already been written in a document some 216 years old, which makes reference to the Ultimate Law-giver whose Laws are to be found in a very old Book.

Dr. Lejeune concluded his testimony in the Tennessee frozen human embryo case by stating to Judge W. Dale Young that he presumed that his Honor would be on the side of Solomon. Judge Young so decided.

And let us presume that our Supreme Court Judges when they reenunciate the personhood of the preborn child will be on the side of The Sovereign, whom our forefathers recognized as the sovereign of this nation in the Declaration of Independence, Charter of our Republic and our Liberties, including the liberty of life.

THE REDISCOVERY OF NATURAL LAW

(by Professor John W. Brabner-Smith)

(If a Dedication is necessary for this Rediscovery, it should be to Lord Coke, who temporarily subdued King James [the Bible King], with: "Your Majesty is under no man, save God and the Law." [What Law?] And to Hugo Grotius, the forgotten father of the international law upon which our nation is based: "the laws of nature and of nature's God." As well as to Judge Edward Dumbauld, who, like both of them, has spent much of his life searching for knowledge of Law, and then communicating that knowledge to others.)

Today there is much confusion about "natural law." Some law scholars deny its existence, asserting that the only law is Positive Law, the rules enacted by political governments, sometimes called secular, or the Civil Law. Natural Law is no longer taught in many law schools. Nevertheless, it was made the basis for the Nurenberg war crime trials, and execution of Nazi leaders who planned and waged a war of aggression. A previous Hague Peace Conference decided not to make this a positive law offense. The United States representative argued that the victor would always say that the loser started it.

The Foundation of Nation-States

Our nation, the United States of America, is based upon both natural and divine law. On July 2, 1776, the Second Continental Congress, which was then the government of the united colonies, voted to become independent of Great Britain. That night a great celebration followed. An Act dated two days later, July 4, 1776, created a new international political corporation. This charter set forth its purpose for existence. Jefferson was the principal drafter of this Declaration. He was a member of a committee appointed by Congress for that end, following the motion of Richard Henry Lee of Virginia. Lee requested a resolution, not only for independence, but also for a better form of government, and one that could deal directly with other powers. This draft was designed by Jefferson largely to justify independence to the many colonists still loyal to England. It was materially changed, both by the committee and Congress after the July 2 act of Congress for independence from colonial rule. This Declaration based legal existence upon "the laws of nature and of nature's God," in order for the now united colonies to take a place "among the powers of the earth." This was the foundation of all international states, according to Hugo Grotius, of Holland and France, known as "the Father of International Law." Edward Dumbauld, the legal historian, says that this law of nature "flourished in its purest state" in the time of Abraham.

The western community of nations had accepted this Grotian concept through its monarchs. The latter asserted "the Divine Right of Kings" to rule, having been "ordained" by an official of the state church, as a Viceroy of the Sovereign God. So this new nation-state was also accepted among the great powers. France recognized it as an international state even before the treaty of peace with England. The aid of France against the military might of the British was of prime importance to our new nation.

Animal Natural Law

One confusion concerning "natural law" arises because there are other "natural laws." There is a "natural law" governing man as merely a physical animal. This being is subject to natural forces, and inevitably develops from a unique human embryo to end in death and physical decay. This would logically appear to be a primitive concept of natural law. The recent scientific theory of Evolutionism has helped reintroduce this concept. In education, mid-twentieth century culture produced the "do your own thing, Joe," philosophy. Individual rights were emphasized and social obligations were ignored. Even school books and the nation's prestigious Museum on the Mall popularized a sketch of a crouching baboon gradually standing erect until it becomes a modem man, a brutish concept of the laws of nature.

Secular Natural Law

Then there is the philosophical concept of a "natural law" governing man as an intellectual being. That "law" can be discovered by man's reason. Grotius called these rules of law which rest on reason "the secondary law of nature," but only if there seems to be universal agreement. It presupposes no superior super-natural governing power—no "law above the law"—merely an ever-evolving natural universe. It was the natural law of the Greek Sophists. This is, in effect, the French Enlightenment and its sensual worship of the Goddess of Reason. It is a prostitution of the philosophy of Thomas Acquinas and John Locke. It ignores not only the world of the Spirit, but also the foundation of those scholars upon God's ultimate revelation in man's search for knowledge of the Truth.

The knowledge man seeks, and requires as one of the human species, is how to conduct himself towards others, toward himself, and toward God, his Creator. This is the essence of Natural Law. Man's reason is not reliable to produce this knowledge, and positive law cannot adequately supply it. The increase in crime in the Soviet Union and the United States in the past half century is evidence

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Ed. The word "man" as used herein has its primary dictionary meaning of a human being. "God created man ... male and female created He them."

of the failure of a reliance on human reason alone, even with positive law and a great police force. What is lacking in this theory of Natural Law?

The Sovereign Natural Law

"Our Lord" is acknowledged as sovereign of this nation by dating our laws and Presidential Proclamations "in the year of our Lord" and "A.D." (Anno Domini). The Continental Congress, and every President, from George Washington to George Bush, has, in Inaugural messages, recognized the dependence of our nation upon the blessings of an all-powerful Divine Being.

George Washington closed his first Inaugural Address to the newly elected Congress, in the city of New York, on April 30, 1789: "…resorting once more to the benign Parent of the Human Race in humble supplication that, since He has been pleased to favor the American people with opportunities for deliberating in perfect tranquility, and dispositions for deciding with unparalleled unanimity on a form of government for the security of their union and the advancement of their happiness, so His divine blessing may be equally conspicuous in the enlarged views, the temperate consultations, and the wise measures on which the success of this Government must depend."

The address of the Senate in reply referred to the brief history of the nation: "When we contemplate the coincidence of circumstances and wonderful combination of causes which gradually prepared the people of this country for independence; when we contemplate the rise, progress, and termination of the late war, which gave them a name among the nations of the earth, we are with you unavoidably led to acknowledge and adore the Great Arbiter of the Universe, by whom empires rise and fall. A review of the many single instances of divine interposition in favor of this country claims our most pious gratitude…"

The primary questions raised by natural law with God as Sovereign is, how does one discover this law, and what is man's place in it? The Congress and the President have recognized the importance of God's law as disclosed in the Bible, for instance, by proclaiming 1983 "the year of the Bible," and the President taking oath of office on the Bible. That book, often referred to as "God's Word" or "God's Law Book," establishes man's dominion and responsibility in the universe, including the environment. Man is created "in the image of God," and is ordained: "…male and female…" "Be fruitful and multiply and fill the earth and subdue it. Rule over…everything that hath the breath of life in it…" (Genesis, chapter 1) In this Book, the natural and divine worlds are clearly separate but complementary. A Sovereign governs under both natural and divine law in this view of Natural Law.

The Same Natural Law Clarified By Grotius

The "natural law" of Grotius and of western civilization is based upon this concept of a universe created and controlled by a supreme supernatural

Sovereign, with human beings made in His image (Imago Dei), to live in community (Societatem), tranquilly with fellow men, in order to survive as a distinct species. The Greek Stoics called this "the dominant instinct." This living in community requires rules of conduct and modes of communication.

"This tendency to the conservation of society…which tendency is in agreement with the nature of the human intellect, is the source of 'Jus', or natural law, properly so called." So concludes Grotius. Among principles he mentions which are derived from this Natural Law are: abstaining from what belongs to others; fulfilling promises; reparation of damage done through fault; and recognition of actions deserving punishment. Grotius called it "the Primary Law of Nature."

Giving unintended homage to Grotius, a number of political scientists over the years have seized on one phrase in all of this scholar's writings to justify the secular, materialistic view of natural law. They refer to his remark that certain rules of conduct follow from man's natural need to live in society. Grotius continued, "all this would be true if there were no God, but since there is, we are bound to obey Him." Then Grotius concludes that God has made His will known by the laws set forth in His writings, the Scriptures. There certain "laws" are given consistent with His Natural Law, for instance, the "Ten Commandments." So our Declaration reads, "the Laws of Nature and of Nature's God"—both natural and divine law of God. Later scholars explain that Grotius was questioning in his mind the very nature of natural law: whether, if God created anything we accept by reason, such as "2 + 2 equals 4", or His Natural Laws, could God change this? For all Grotius' life, including his greatest work, the Sixteenth Century "bestseller," The Truth of the Christian Religion, he accepted and proclaimed the God of the Bible as Sovereign of the universe, and the author of Natural Law.

The principal political effort of the rapidly ending Scientific Age has been the attempt "to separate God and state," making the State supreme, and relegating the spiritual world to an unnecessary luxury.

The Natural Law of the New Agers

Multitudes of self-styled New Agers are rebelling against the materialistic age of science with no clear uniform beliefs. Their symbol dove, unlike the Christian dove, which descends from a Sovereign, flies upward. It flies but halfway, a compromise. In general, the laws of nature are not distinct from those of nature's God. For nature, to them, is also god, not complementary but the very same. So, as all human beings are in and of nature, they are also both in and of God, "the ultimate reality." This same amalgam of natural and divine law without a Supreme Sovereign is as ancient in India as the tribes of Israel. Today, Guru now takes a place among society with Priest and Bishop and Prophet throughout most of the western world. The process of meditation is the

communion of man's natural mind with man's divine mind. So the New Agers "'natural law" is a material mind seeking to identify with its divine mind; not two distinct kinds of law, natural and divine, which complement each other. No "law above the law," and no Sovereign Lord can exist in this theory of natural law. The man of nature has become that same man's god.

The Natural Law of Islam

The Moslem world celebrates Allah and has a physical natural law. Developed over a thousand years ago, the worldwide community of Islam worships God, Allah, and looks to the Founder, Mahomet, and his revealed Book, the Koran, for both divine and civil law. To the Moslem, there is no difference. Contrary to the New Agers, the distinction between the material world and the world of Allah is definite, but neither has a personal conversation with a loving God. Jesus, the greatest prophet before Mahomet's time, could not also be divine. So the Koran denies that Jesus died on the cross and was resurrected, and became "our Lord." Moreover, Allah is so inscrutable, so far beyond man's comprehension, the prayers to him are part of a public ritual, a ceremony. The Bible instructs the Christians to pray to God "in a closet" and avoid ostentatious prayer. The Moslem seeks the praise of Allah by "good works," chief of which includes destroying the "enemies" who prevent the spread of Islam. The Christian's Gospel is one primarily of faith not action.

Civil Law
The Law Created By Governments

When a juror recently commented after a case, "it may not be justice but it's the law": by "law" he meant positive or civil law "Justice" would have been Natural Law. The lawyers were not embarrassed, because legal education, for almost a century, has been limited to the study of law as a science, a process. This overlooks the purpose of acquiring knowledge. The concept of Justice as a substantive product, as "a law above the law," gradually disappeared. The courts, called by Lincoln, "Courts of Justice", are now the "Law Courts."

Hugo Grotius was also the father of the philosophy of political science. He showed that Civil Law, the law of the state, is derived from the Natural Law. The latter requires observance of compacts, which is fulfilling agreements. Criminal, property and tort laws are other examples of positive law derived from Natural Law.

Although the British legal scholar, Blackstone, in the 18th century, recognized the ultimate power of Parliament to make the civil laws of England, he always asserted that this Natural Law of God was the supreme law of England and of its colonies. Upon that same principle, George Mason and other leading colonial lawyers argued in justification of the legal right to rebel against British colonial government. Its agents were denying to the Colonists their Natural

Law rights.

Utility, which recently has been suggested as the source of all Law, is rather an occasion of it. It is also now suggested that a return of the Supreme Court to Natural Law "will end the recent advances in individual rights" effected by a majority of its justices in recent years. The very purpose of government, under the Natural-Divine law concept of the United States, is to protect and promote individual rights, including those unalienable rights of Life and Liberty and the pursuit of Happiness. This is of the essence of true Natural Law.

Civil Law and Judicial Legislation in the United States

This era of skepticism, scientific method and positive law was, even including the depression years, a bonanza age for the legal profession. The Constitution, as distinguished from the Charter of 1776, is only positive law, the corporation's by-laws. Constitutional questions are raised by lawyers, and decided by members of that profession. For half a century, if they were decisions of a majority of the nine U.S. Supreme Court Justices, they were considered to be The Law of the nation. This same federal agency has effectively overthrown state laws (laws in fields never delegated to the federal government) by its own "interpretation" of a constitutional amendment (the Fourteenth), intended for a very different purpose—to support the abolishment of slavery.

This "judicial legislation" is in direct opposition to the present national constitution, which provides (Article I) that "all legislative power herein delegated is in the Congress…" These federal courts, as with all tribunals of justice, were to have only "judicial power"—the ability to settle a conflict—to bind only those who come before the court in a legitimate dispute (Article III). (Actually, the power of enforcement is in the Executive Department of government.) In the Dred Scott case debates, this "judicial" legislation caused Lincoln to remark that if the Supreme Court's judgment (that the slave, Scott, was property) was immediately considered to be binding on others than Scott and his "owner," our Constitutional system no longer existed.

A century ago in this country probably every state had Equity Courts, a judicial system that had developed in England when the Law Courts became so involved in rules of procedure that justice was forgotten. In Equity Courts the plaintiff's attorney merely set forth certain facts to be true and asked for justice. These courts no longer exist in the U.S. because of "the expense of two legal systems." Their functions were turned over to the still existing law court system, and forgotten.

An even greater break from equity, justice, and natural law, was in the legal profession itself. Under British Colonial government, one who felt wronged by another could ask advice of a Solicitor, an attorney, who would advise whether "to go to court," seek to settle the case, or drop it. The attorney did not benefit

by "going to court," for the case would be presented for trial by a Banister, an officer of the Court. That attorney's prime function was to aid the court in arriving at a just decision. His fee had little relation to the wealth of the client, or the value of winning. This system of justice disappeared here after the Revolutionary War, because of lack of lawyers to fill both positions. So the Solicitor also could "go to court," an enticing prospect, and even more so, when, instead of a set fee, the attorney could make his fee "contingent" on the size of victory. The courts of justice became the field for a battle of wits.

Reopening the door to Natural Law is raising the question: why was this legislative power entrusted to a small portion of a profession which was created to be the dispensers of Justice, and only in the narrow field of federally delegated power? In any other land and in any other age, has a profession designed to promote justice within a nation asserted, or been permitted to assume, such political power?

Complementarity

In the Christian culture, which recognizes both a natural and supernatural world, many live only in and for the spiritual world,—the first of the ten commandments—ignoring the problems of the world in which they live. For many others, now including the self-styled "Liberals" of the Christian church, the essence of their faith is love for "the poor" of this world, ignoring the Sovereignty of Our Lord, and the Bible as God's Law. "Our Lord" is of both worlds. Grotius said there are laws of nature and laws of God; they are complementary, and they bind nations as they do individuals. So they became the foundation of our United States of America by the Act of the government of this nation, dated July 4, 1776. It is based upon "the laws of nature and of nature's God." This law is accepted by the legislature of each of the states as their basic law, as well as that of the United States. God's natural laws complement God's laws concerning the spiritual world, both essential for an understanding of this nation-state.

The Separation of Church and State

Free Inquiry, 1991 "spokesperson" in this country for Secularists—the agnostics, atheists and free thinkers—questions whether Secularism will survive in this nation. One comment is on the historic view of Supreme Court Justice Story in his first book on constitutional law. This was his "own private Judgment," that government cannot long exist without an alliance with religion, and Christianity is "indispensable to free government." But in this new age a new Justice, Clarence Thomas does not rely for precedent upon that noted predecessor. He quotes only an anecdote of his mother, who said "when they took God out of the schools, the schools went to hell." The conclusion is that the minority class of Secularists can no longer rely on the federal courts to

legislate "rights" which will remove religion from government, as they have done in the past half century.

Conclusion

In this rapidly disappearing age of skepticism and scientific method, many theories of Natural Law have been tested in experiment and found false. It is also obvious that many, who have no understanding of Natural Law, employ the phrase to support a premise they are promoting or denouncing. The "Scientific method" has been enjoyed while ignoring the purpose of science (scientia). That purpose is to increase man's knowledge of the universe, the true Laws of Nature and their source.

JOHN W. BRABNER-SMITH October 1991

WHO IS SOVEREIGN - SCIENCE REBUKES THE LAW PROFESSION

Are Human Beings Persons?
(by Professor John W. Brabner-Smith)

Genetics is the cream of the field of biology. The elite band of Geneticists, in this popular discipline of natural science, appears to be forcing political governments to reconsider the field of Sovereignty—who is truly ruling? Who has the last word in determining definitions? For that is the one who decides the meaning of words in the law that governs each person in the land. Who a "person" is depends upon its definition. Who is this ultimate Sovereign?

The internationally publicized case of the Seven Frozen Embryos, who are residing for a short time in a laboratory in Tennessee, accepts the fact of science that unique human beings come into existence shortly after the sperm enters the ovum (egg). But such human beings are "persons" only when the sovereign political body defines it. "It is a justice question," says the Dean of Geneticists, Dr. Lejeune, "a question of definitions." Who has ultimate sovereignty in the U.S.A.? The temporary majority members of the U.S. Supreme Court? In the Dred Scott slave case, that body decided that Scott could never be a person. The Nazi Party Government similarly decided in the case of Jews. Is the ruling political party supreme? Or the United States Congress? Or the People? Or the States?

Or is it still higher authority to whom our government has appealed in the past? A sovereign specifically identified "in the Year of Our Lord"? To some men of influence, in education and government, this is a Sovereign no longer necessary. This nation has grown to self-sufficient maturity, relegating God to the dwindling "Houses of Worship."

At that moment of human creation, Genetics is resurrecting, in the study of an embryo, that Imago—the Imago Dei—the image of God. This Human Being species is distinguished from all other animal species by a supernatural concept.

Is it true that Science, in the role of Genetics, is forcing a reconstructing of the fields of Law and Politics? Let them speak for themselves and through their own agents, the President and the Congress of the U.S.A.

The United States of America as an International Political Corporation

On July 2, 1776, the American colonies, by Act of their Continental Congress, became independent of Great Britain. By Act dated July 4, 1776, those independent colonies took a place "among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them." Moreover, "these United Colonies are…Free and Independent

States…and (that) they have full Power…to do all other Acts and Things which independent states may of right do." John Hancock was then President of this new nation. George Washington was Commander-in-Chief of its military forces by Act of the Continental Congress.

I. Complementarity of Natural and Divine Law in the Law of Nations.

The law governing nations is similar to laws of human beings. It is composed of Civil Law, Divine Law and Natural Law.

(1) Civil Law is the law which a political society. makes for its government. This includes constitutional laws establishing the form of government and laws enacted by government agencies, of whatever form, whether King, Congress, or Municipal legislators.

(2) Natural Law - standards which are impressed upon each human being by one's very nature, such as not to murder or steal. The basic law of human nature is the desire to live together as a society. From this, says Hugo Grotius, the father of International Law, other natural laws derive. Such laws are also of God, since God is the Creator and Sovereign of the natural world.

(3) Divine Law, the law imposed upon individuals by God as the Sovereign Lord of the universe. From Divine Law, as from Natural Law, Unalienable Rights of individuals are derived. These are rights which no government can change. The United States of America is founded on the Declaration of 1776, which bases political existence upon "the Laws of Nature and of Nature's God." This Declaration further asserts that "all men are endowed by their Creator with certain Unalienable Rights, that among them are Life, Liberty, and the pursuit of Happiness. That to secure these Rights, governments are instituted among men…"

Civil Rights, the rights of individuals, are not necessarily unalienable. Civil Rights derived from a Constitution or government agency can be changed. They are actually privileges. One example is a "right" under the constitution of the U.S.S.R. Another example is the embryos in the recent "Frozen Embryo" case. Natural law recognizes that a distinct human being exists in the embryo shortly after conception. Civil law holds that this human being becomes a "person" at differing stages of growth, which depends on definition by a government agency—a state legislature or a Supreme Court majority, or whatever agency is sovereign—accepted by the political society as the final authority. Where Sovereign authority exists in the United States of America is a fundamental question of law. What does the law say? For this we must go beyond the Constitution of 1787, which was enacted to improve our form or government.

II. Foundation, Administration, Sovereignty of the United States of America.

This Continental Congress of 1776 was composed of delegates from the thirteen original colonies. It was succeeded by the Articles of Confederation government, which was "done at Philadelphia in the state of Pennsylvania the ninth Day of July in the Year of Our Lord one Thousand seven Hundred Seventy-Eight, and in the third year of the independence of America." The war, then in progress with England, continued until the Treaty of Peace in 1783.

"In order to form a more perfect union," and for other reasons, a third form of government, to be effective when ratified by the states, was "done in convention by the Unanimous Consent of the States present the Seventeenth Day of September in the year of our Lord one thousand seven hundred and Eighty-seven and of the Independence of the United States of America the Twelfth."

It is customary for nations to recognize the legal sovereign by reference to the date of beginning the reign, as "in the year of Caesar Augustus," or "in the reign of King George III," or "in the year of Our Lord, 1776."

George Washington, elected President of the United States under the ratified constitution, gave the first Inaugural Address to the newly elected Congress, in the city of New York, on April 30, 1789, closing with these words: "I shall take my present leave; but not without resorting once more to the benign Parent of the Human Race in humble supplication that, since He has been pleased to favor the American people with opportunities for deliberating in perfect tranquility, and dispositions for deciding with unparalleled unanimity on a form of government for the security of their union and the advancement of their happiness, so His divine blessing may be equally conspicuous in the enlarged views, the temperate consultations, and the wise measures on which the success of this Government must depend."

The address of the Senate in reply referred to the brief history of the nation: "When we contemplate the coincidence of circumstances and wonderful combination of causes which gradually prepared the people of this country for independence; when we contemplate the rise, progress, and termination of the late war, which gave them a name among the nations of the earth, we are with you unavoidably led to acknowledge and adore the Great Arbiter of the Universe, by whom empires rise and fall. A review of the many single instances of divine interposition in favor of this country claims our most pious gratitude; and permit us, sir, to observe that among the great events which have led to the formation and establishment of a Federal Government we esteem your acceptance of the office of President as one of the most propitious and important."

The address of the House of Representatives contained a similar reference to a divine sovereign: "We feel with you the strongest obligations to adore the Invisible Hand which has led the American people through so many difficulties, to cherish a conscious responsibility for the destiny of republican liberty, and to

seek the only sure means of preserving and recommending the precious deposit in a system of legislation founded on the principles of an honest policy and directed by the spirit of a diffusive patriotism."

The first Presidential Proclamation under that government was issued for a National Thanksgiving:

> "Whereas it is the duty of all nations to acknowledge the providence of Almighty God, to obey His will, to be grateful for His benefits, and humbly to implore His protection and favor: and
>
> "Whereas both Houses of Congress have, by their joint committee, requested me 'to recommend to the people of the United States a day of public thanksgiving and prayer, to be observed by acknowledging with grateful hearts the many and single favors of Almighty God, especially by affording them an opportunity peaceably to establish a form of government for their safety and happiness:'
>
> "Now, therefore, I do recommend and assign Thursday, the 26th of November next, to be devoted by the people of these States to the service of that great and glorious Being who is the beneficent author of all the good that was, that is, or that will be; that we may then all unite in rendering unto Him our sincere and humble thanks for His kind care and protection of the people of this country previous to their becoming a nation; for the single and manifold mercies and the favorable interpositions of His providence in the course and conclusion of the late war; for the great degree of tranquility, union, and plenty which we have been able to establish constitutions of government for our safety and happiness, and particularly the national one now lately instituted; for the civil and religious liberty with which we are blessed, and the means we have of acquiring and diffusing useful knowledge; and, in general, for all the great and various favors which He has been pleased to confer upon us."
>
> "Given under my hand, at the city of New York, the 3rd day of October, A.D. 1789. Go.Washington." (A.D., Anno Domini is the Latin for "in the year of the *Sovereign* or Lord.)

The following year the President issued a Proclamation concerning the Treaty of Peace between the United States and the Creek Nation of Indians: "Given under my hand and the seal of the United States, in the city of New York, the 14th day of August, A.D. 1790, and in the fifteenth year of the Sovereignty and Independence of the United States. Go. Washington. By the President: Th:Jefferson."

In 1792, the President issued a Proclamation offering an award for the apprehension of any one who took part in a raid against the town of the Cherokee Indians in Georgia: "In testimony whereof I have caused the seal of the United

States to be affixed to these presents, and signed the same with my hand. Done at the city of Philadelphia, the 12th day of December A.D. 1792, and of the Independence of the United States the seventeenth. Go. Washington. By the President: Th:Jefferson." Philadelphia was now the Capital.

The first Proclamation of President Adams, was to call for a special session of Congress in Philadelphia to consider foreign relations with France, and for the safety and welfare of the United States, due to the French Revolution: "In testimony whereof I have caused the seal of the United States of America to be affixed to these presents, and signed the same with my hand. Done at the city of Philadelphia, the 25th day of March, A.D. 1797, and of the Independence of the United States of America the twenty-first. John Adams."

In President Adams' fourth annual address, November 22, 1800, he congratulated Congress on its choice of the District of Columbia as the future permanent seat of government: "May this territory be the resident of virtue and happiness! In this city may that piety and virtue, that wisdom and magnanimity, that constancy and self-government, which adorned the great character whose name it bears be forever held in veneration! Here and throughout our country may simple manners, pure morals, and true religion flourish forever!"

Thomas Jefferson's first inaugural address was delivered in Washington, D.C., March 4, 1801. In it, he endeavored to unite the bitter party factions which had first arisen in this nation: "...enlightened by a benign religion, professed, indeed, and practiced in various forms, yet all of them inculcating honesty, truth, temperance, gratitude, and the love of man; acknowledging and adoring an overruling Providence…"

In 1806, Jefferson with James Madison, Secretary of State, issued a Proclamation against marauding French citizens and vessels in New York harbor and elsewhere: "Given at the city of Washington, the 3d day of May, A.D., 1806, and of the Sovereignty and Independence of the United States the thirtieth. TH:Jefferson. By the President: James Madison, Secretary of State.

James Madison succeeded Jefferson as President. His first Inaugural Address, March 4, 1809, closed with this paragraph: "But the source of which I look for the aids which alone can supply my deficiencies is in the well-tried intelligence and virtue of my fellow-citizens, and in the counsels of those representing them in the other departments associated in the care of the national interests. In these my confidence will under every difficulty be best placed, next to that which we have all been encouraged to feel in the guardianship and guidance of that Almighty Being whose power regulates the destiny of nations, whose blessings have been so conspicuously dispensed to this rising Republic, and to whom we are bound to address our devout gratitude for the past, as well as our fervent supplications and best hopes for the future."

Madison's first Proclamation was to endeavor to open American ports closed due to attacks by British ships because of depredations resulting in its war with France. This was: "Given under my hand and the seal of the United States at

Washington, the 19th day of April, A.D. 1809, and of the Independence of the United States the thirty-third. James Madison."

When the war of 1812 with Great Britain commenced, Congress requested the President to proclaim a day "to be observed by the people of the United States with religious solemnity as a day of public humiliation and prayer…" Madison set aside August 3, 1812, "for the devout purposes of rendering the Sovereign of the Universe and the Benefactor of Mankind the public homage due to His holy attributes; of acknowledging the transgressions, of seeking His merciful forgiveness and His assistance in the great duties of repentance and amendment, and especially of offering fervent supplications that in the present season of calamity and war He would take the American people under His peculiar care and protection…and, finally, that, turning the hearts of our enemies from violence and injustice which sway their councils against us, He would hasten a restoration of the blessings of peace. Given at Washington, the 9th day of July, A.D. 1812. James Madison. By the President: James Monroe, Secretary of State."

A similar Proclamation was issued July A.D. 1813 by President Madison. Meanwhile, Madison advised the Congress on May 23rd, that Emperor Alexander of Russia offered to mediate for a peace treaty with Great Britain, and to enter into an agreement to facilitate commerce with us, and that our naval forces had gained victories, and the British army had been seriously defeated at York, Pennsylvania. But a British army continued to advance on Washington, eventually capturing it and the fort protecting Alexandria, and setting fire to the Capital.

On the first day of September, 1814, President Madison issued a Proclamation that the British army was threatening further extended progress. So he exhorted all civilians as well as the military to fully defend their communities.

On December 24, 1814, a treaty of peace with Great Britain was negotiated in Ghent, Holland, which was presented by Madison to Congress on January 18, 1815, and ratified February 16. Upon request of the Congress, the President, on March 4, set aside a day of thanksgiving: "to celebrate the goodness of the Great Disposer of Events and of the Destiny of Nations…and to the same Divine Author of Every Good and Perfect Gift we are indebted for all those privileges and advantages, religious as well as civil, which are so richly enjoyed in this favored land…Given at the city of Washington on the 4th day of March, A.D. 1815, and of the Independence of the United States the thirty-ninth. James Madison."

John Quincy Adams' Inaugural Address, March 4, 1825, commenting on the prosperity of the nation as it approached the 50th anniversary, said a principal policy of his administration was "to discharge with all possible promptitude the national debt…Knowing that except the Lord keep the city the watchman waketh but in vain,' with fervent supplications for His favor, to His overruling

providence I commit with humble but fearless confidence my own fate and the future destinies of my country."

President Andrew Jackson, in his Inaugural Address, four years later, referred to "the management of public revenue," promising to observe "a strict economy …This I shall aim at the more anxiously both because it will facilitate the extinguishment of the national debt, the unnecessary duration of which is incompatible with real independence, and because it will counteract that tendency to public and private profligacy which a profuse expenditure of money by the Government is but too apt to engender." He closes the address: "And a firm reliance on the goodness of that Power whose providence mercifully protected our national infancy, and has since upheld our liberties in various vicissitudes, encourages me to offer up my ardent supplications that He will continue to make our beloved country the object of His divine care and gracious benediction." When Jackson retired, he left the nation with a surplus of 25 million dollars.

Harry Truman, January 20, 1949, included a phrase for the 1990's in his inauguration: "We believe that all men are created equal because they are created in the image of God." Today, Science, under the leadership of the Geneticist Dr. Jerome Lejeune, is recognizing the Imago Dei in the birth of the human embryo.

Facing danger from the U.S.S.R. and communism, President Truman warned of the threat to "a material well-being, human dignity, and the fight to believe in and worship God…We are moving to build an even stronger structure of international order and justice. Steadfast in our faith in the Almighty, we will advance toward a world where man's freedom is secure…With God's help, the future of mankind will be assured in a world of justice, harmony, and peace."

Dwight Eisenhower's inaugural address, January 20, 1953, started "with a little private prayer of my own…give us, we pray, its power to discern right from wrong so that all my work will be for the good of our beloved country and Thy glory. Amen."

"This faith defines…beyond debate, those gifts of the Creator that are man's inalienable rights, and that make all men equal in His sight…This political change expresses a renewal of faith in the watchfulness of Divine Providence. The enemies of this faith know no god but force…We feel this moral strength because we know that we are not helpless prisoners of history. We are free men…The one capital offense against freedom is a lack of staunch faith. Before all else, we seek…the blessings of Almighty God," he concluded. In his second Inaugural Address, on January 21, 1957, President Eisenhower refers to the people of Russia, "We honor, no less in this divided world…the people of Russia. We do not dread, rather do we welcome, the progress in education and industry. We wish them success in their demands for more intellectual freedom, greater security before their own laws, fuller enjoyment of the rewards of their own toil. For such things come to pass, the more certain will be the coming of

that day when our peoples may freely meet in friendship…And so the prayer of our people carries far beyond our own frontiers, to the wide world of our duty and our destiny."

President Ford, sworn in as the 38th President in 1974, reminded us that we have "a government of law and not of men" yet the people rule "under a higher power, by whatever name we honor Him, who ordains not only righteousness, but love; not only justice but mercy."

In the Thanksgiving Day Proclamation of 1983, President Reagan referred to the remarks of President Lincoln's Gettysburg Address and Proclamation, that we are a nation "under God." He further quotes from the Civil War Proclamation—"no human counsel hath devised nor hath any mortal hand worked out these great things. They are gracious gifts of the Most High God."

In his 1982 Thanksgiving Proclamation, President Reagan expressed his belief that "a divine plan" had set apart "this anointed nation."

The annual National Presidential Prayer Breakfasts, with political leaders from many nations as guests, continue the emphasis on the Sovereignty of "Our Lord" in this political life of the nation, expressed not only by each President, but also by Congressional and military leaders.

In recent acts of Congress and Presidential Proclamations, we continue to find affirmations of a Creator and Guardian Sovereign of the nation. "Throughout our nation's history, Americans have been seeking His help and guidance in preserving them." This is the opening paragraph of a 1989 Proclamation of President George Bush. From the beginning of our nation "the Founding Fathers…believed that all men are created equal, endowed by the Creator with certain unalienable rights," said the President. He quoted Benjamin Franklin at the Constitutional Convention, "if a sparrow cannot fall to the ground without His notice, is it probable that an empire can arise without His aid'?" This appeal of Franklin also contained this often quoted phrase: "except the Lord build the house, they labor in vain who build it."

President Bush concludes, "Since the approval of a joint resolution of Congress each President has continued a tradition that actually dates back to the Continental Congress, which issued the first official Proclamation for a National Day of Prayer on July 17, 1775…" He then follows this precedent.

"In witness whereof, I have hereunto set my hand this seventeenth day of March, in the year of our Lord nineteen hundred and eighty-nine, and of the Independence of the United States of America the two hundred and twentieth."

Recent decisions of a majority of the U.S. Supreme Court Justices have been interpreted as legislative in nature, binding all citizens of our nation, rather than judicial judgments that bind only the parties to the case. ne definition of "person" in abortion cases has arisen in federal courts, as it did in the Dred Scott slave case which preceded the Civil War. Is that tribunal the ultimate governmental authority—the final political sovereign in defining political terms?

The first articles of the federal constitution says that "all legislative power… is in the Congress." Lincoln's first inaugural address raised this question. If the Dred Scott and similar decisions of a court are immediately interpreted as legislature in nature, we have subverted the Constitution, which places that power in the elected representatives of the people, said Lincoln. And he continued this political issue in the Lincoln/Douglas debates. Senator Douglas supported the Supreme Court decision. But Lincoln won the Presidency, due to those debates. The Civil War intervened before the reversal of the decision which Lincoln expected. The Fourteenth Amendment, in Lincoln's view, was not necessary. It merely brought the Constitution, our National By-Laws, in conformity with the Charter of 1776.

Returning to history and the incorporation of the nation, in 1776, we find the Congress and the President of the United States of America, continually, through the two centuries of our existence, assert the reality of "our Lord" as Sovereign Creator, Heavenly Father, Provider, and Law-Giver.

This nation was incorporated on July 4, 1776, as an international state, a separate and equal state among other powers." The validity of this action was based upon "the laws of nature and of nature's God." This was the only basis for international recognition at that time. "We hold existence by charter from the great God," the Speaker of the House, John Randolph, explained during a controversy concerning the War of 1812 with England. The government was succeeded by that under the Articles of Confederation, and then by that of the constitution of 1776. Not only the thirteen original states, all other of the United States, explicitly or implicitly, accepted that Act of July 4, 1776, as their legal basis, thus making both natural and divine laws the positive laws of those political bodies.

"The laws of nature and of nature's God" are best revealed in the Bible. Blackstone's Commentaries, which sets forth the philosophy of government and international statehood of the United States, sums up the basis of political existence of a society. He concludes that God gave to human beings reason, in order to discover His laws of nature and His divine law, but experience shows that our reason is untrustworthy. So He reveals, "the laws of nature and of nature's God" to us in the Scriptures. The first treatise on legal education in the United States considers the Bible as the most important secular law book, "recording a form of government and law originating in the Great Legislator of the universe." (David Hoffman, Course of Legal Education, first edition, 1817.)

As recently as 1983, the Congress and the President, by Proclamation, declared the Bible as the most important and influential book of this nation and declared 1983 as The Year of the Bible. This year, 1990, the Congress unanimously requested the President to proclaim this year as "the International Year of Bible Reading, 1990." This Proclamation asserts: "it was a biblical view of man—one affirming the dignity and worth of the human person, made in the image of our Creator—that inspired the principles upon which the United

States is founded." Quoting Presidents Lincoln and Wilson, the Proclamation asserts that the Bible contains "revelations of God's intervention in human history" and that it "transcends the boundaries between nations and languages because it contains a universal message." Here the President refers to "the human person" as the image of God.

In this same year 1990, the President and Congress have followed a custom "that dates back to the Continental Congress which issued the first official proclamation for a National Day of Prayer on July 12, 1776." President Bush followed Public Law 100-307, setting aside the first Thursday in May as "a National Day of Prayer," to "dedicate this nation once more to the protection of Divine Providence…"

In view of this constant reaffirmation of the Congress and the President concerning the Sovereignty of God and the wisdom and political basis of "the laws of nature and of nature's God" being complementary, decision of the judicial system which appear to separate public school education from Biblical literature and divine worship could have the same fate as the Dred Scott case. Is a Civil War and a Fourteenth Amendment to the Constitution again necessary? Dissatisfaction with public school education is not a sectional divided issue. Those who prefer that ultimate sovereignty should reside in the Supreme Court of this nation should realize that such a supremacy depends upon popularity. Thrusting itself into highly controversial public issues is an unnecessary hazard for any political agency which has not the executive power of enforcement. That power our Constitution places in the President. The President takes an oath to support the Constitution, not the decision of that divided judicial body, if it subverts the legislative power of the Congress or of an authorized state legislature. It is true that a faction of the Senate repudiated the President's nomination of Judge Robert Bork to the Supreme Court on this same issue. The Bork case is still alive. Nor is a Civil War or amendment to the Constitution any more necessary to define "person," when the question of Sovereignty is settled.

In conclusion, the people of the United States, through its elected President and Congress, ever since incorporation as an international state under the Charter of July 4, 1776, have recognized both secular and divine sovereignty in God as law-giver, "the laws of nature's God." Therefore, the ultimate definition of "person" is revealed in His book of law, the Scriptures.

John W. Brabner-Smith
Washington, D.C.

"A *Symphony of the Preborn Child* is the best piece of (pro-life) anti-abortion material I have ever read (second only to the Bible)."

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