HUMAN REPRODUCTIVE TECHNOLOGY AMENDMENT BILL 2003

Second Reading

Resumed from an earlier stage of the sitting.

HON BARBARA SCOTT (South Metropolitan) [5.04 pm]: I had just begun my comments on the amending Bill to the Human Reproductive Technology Act of Western Australia. I had suggested that, while similar legislation has been passed in other Australian States following the enactment of the federal Research Involving Human Embryos Act 2002, we do not have to, nor should we, follow suit. I cited the sympathy we have for people such as Christopher Reeve and whether we would have even thought about performing research on embryos if situations like his had not been brought to public notice. The fact that there was a large stockpile of embryos that were unwanted seemed a persuasive factor in using those small embryos to test for cures for diseases. That is the point I had reached.

We do not want cloning; there has to be a limit. In the midst of the debate, some truths have surfaced. As we have found to the amazement of some members in the other House, we are talking about live embryos. Experimentation on embryos for stem cells has produced no results. The alternative use of adult stem cells continues each day to make radical advances in finding cures for people. My colleague, Hon Kate Doust, made it very clear that research on embryonic stem cells has produced no finite scientific findings for therapeutic purposes. Unfortunately, the significance of these truths is overlooked when we are pressured to enact uniform legislation with the rest of the country. In addition to this pressure, there has been the lobbying of Sonja Jenkins and there are reports of seven assisted reproductive technology embryos being created around Australia to try to save the lives of another six siblings. One such couple has featured prominently in *The West Australian* as they try to raise enough money to have another child to address their daughter's condition. There is no doubt that the parents' intention is based on love and compassion. We can all understand that they are in a desperate situation. As a parent of four healthy children I understand their dilemma. As members of Parliament, it is our responsibility to consider all the issues in a debate and not just the emotional ones that tug at our heartstrings. Hon Peter Foss has focused our attention this evening on looking at all the issues in a holistic way. To fail to recognise the truths and the bigger picture in this debate in favour of the heart-wrenching stories would be negligent and irresponsible. It is important to stay rational and focused on the issues without being blinded by such stories.

The main argument in favour of research using human embryos is the promise of finding cures for a number of serious diseases. It was first thought that embryonic stem cells were superior to adult stem cells because adult stem cells could not be manipulated into various types of human tissue. It is now unequivocally evident that adult stem cells can form every single tissue in the human body. When Madam Deputy President (Hon Kate Doust) spoke from her seat in the House she made very clear the differentiation between adult stem cells and their availability from every part of the body and the limited success of embryonic stem cells. This has been public knowledge for over two years. It was reported in the magazine *New Scientist* on 23 January 2002 and full details were published six months later in the number one science journal, *Nature*, on 4 July 2002. I say again that research on embryonic stem cells has not produced any therapeutic benefit nor helped a single human patient even though scientists were using embryonic stem cells 18 months prior to the use of adult stem cells in 1998. The significance of the failure of embryonic stem cells to produce any benefit is magnified when coupled with the problems of rejection and malignancy that have not been overcome and the fact that the use of embryonic stem cells in animals has proved futile. In addition to these concerns, consideration must be given to what this legislation could lead to, even though the Bill outlines a number of prohibitions and penalties. Many scientists, including Professor Harvey at the University of Western Australia, question whether more embryos need to be created at all, given that, even with a few stem cells, many stem cell lines could be propagated. That was clearly outlined by Hon Kate Doust.

Another part of this debate is the failure of people to acknowledge the growing success of adult stem cells. Breakthrough treatments have been provided for quadriplegia, heart disease, Parkinson's disease, stroke, spinal cord injuries and diabetes. Adult stem cells are an ethical alternative and have not encountered the same problems as embryonic stem cells because they are usually taken from the adult or child who is being treated. This ensures that the cells are totally compatible. There is also no shortage of or problem in acquiring adult stem cells as they can be found in almost any part of the body. An example of a vital source of adult stem cells is the umbilical cord. I have been delighted to support the Rotary Foundation's push to have research into the use of umbilical cord stem cells named as its major project for the year, supported by the Inner Wheel group, comprising the wives of Rotarians. They have done a lot of work on this and it has now been accepted. In any case, every dollar allocated to embryonic stem cell research as a result of this Bill is one less dollar for ethical research on adult stem cells, which is already producing marvellous results.

I will make a short digression on the discovery of adult stem cells, as it may shed some light on the debate. On 4 July 2002 the world's premier science journal, *Nature*, published an article entitled "Pluripotency of mesenchymal stem cells derived from adult marrow". In layman's terms, that was the official announcement of the discovery of adult stem cells, which could form every type of human tissue. The unofficial announcement had occurred six months earlier in the *New Scientist* magazine, on 23 January 2002. In the media release presenting the official announcement, University of Minnesota Stem Cell Institute director, Dr Catherine Verfaillie, MD, said -

> "In contrast to ES cells, when we inject the bone marrow stem cells into recipient animals, the bone marrow stem cells do not form teratomas [tumors containing many different tissue types], but respond to local cues . . .
>
> According to Verfaillie, adult stem cells, cultured under specific conditions, may be suitable for treatment in vivo of genetic or degenerative disorders.

These stem cells also have the significant advantage of not being rejected by the body's immune system because they come from the person being treated. The importance of this discovery may be easier to understand if we look at it in terms of the development of a new drug. This new drug - Dr Verfaillie's adult stem cells - can do everything the old drug - embryonic stem cells - could do, without the associated nasty side effects. As parents and community members we are always conscious of new drugs on the market and whether the current drug has negative side effects, especially when we are dispensing drugs to small children. We would have to ask why all researchers do not move to the new drug. Why would anyone continue to work with an old drug? Unfortunately, companies do so because they have already committed hundreds of millions of dollars to this line of research, and their researchers and advisers have committed hundreds of thousands of work hours. They hope that the problem can be overcome and the product will be viable in the end. The other issue that has been raised by other speakers is that the public has been given misinformation, having been told that the embryonic stem cell source is the most viable. That is not correct. If we were talking about drugs here, there would not be a problem. We would be happy for the companies to go off and spend their money however they please. However, we are talking about human lives - live embryos. The old drug requires us to dissect and ultimately kill human beings in their first weeks of life. The new drug simply takes stem cells from almost any part of the body without ill effects to the person. This is an issue not of science but of ethics, which we as parliamentarians have the responsibility to decide. In my view, this legislation is anachronistic and designed merely to support companies that have over-invested in redundant technology.

Another argument used to justify this legislation is the inevitable death of the excess embryos. This argument suggests that, because the excess embryos will be discarded anyway, research on these live embryos is justified because of the potential benefits. Although it may be true that not using these human beings as part of a funded research project leaves them in an uncertain state, this uncertainty of allowing the embryos to die naturally can never be akin to intentionally killing them. I want members to imagine this scenario to make it realistic. Imagine three sailors and a cabin boy stranded in an open boat without food and water for days. Imagine that the captain orders that the cabin boy be killed and eaten in order for the sailors to stay alive. The boy's consent was not obtained. For four days after the death of the cabin boy the three sailors feast on his body. They are rescued shortly afterwards. Although the three sailors may not have survived without eating the cabin boy, does their survival justify his death?

Hon Derrick Tomlinson: How would you feel if the boy had volunteered himself?

Hon BARBARA SCOTT: That would be entirely different. People volunteer organs, but we do not kill people to use their organs. Perhaps some would say that the death of the whipping boy - the servant - is justified. Perhaps some would say that we enact legislation that said that, when these circumstances arise, the others sailors are justified in murdering one of the passengers. In 1884 a British court decided the reasonableness of the captain's action. Two of the sailors were found guilty. The third testified against the other two, who were sentenced to jail. Countless embryos will die for the sake of research if this Bill is passed. We must question whether their death justifies any possible improvement in the human condition even if some therapeutic benefit from research on embryonic stem cells could be shown. I do not think this solution accounts for the fact that the humanity that is loved and cared for in each sick and suffering human being is the very same humanity shared by that human being at its embryonic stage. Sadly, this argument tries to justify the intentional destruction of one human being for the sake of the possible survival of another. In my opinion, that is unacceptable.

I will spend a few moments now justifying my belief that the embryo is a living human being. One thing that has been almost lost completely in this debate - that is, the public debate, not necessarily the debate in this Chamber - is that the purpose of these Bills is to regulate the use of live embryos, who are part of the human race. The ethical problem with using embryonic stem cells arises from the fact that it has been so far necessary to kill the embryo in order to get the requisite stem cells. These microscopic clumps of cells are genetically

complete and unique human individuals. That is a scientific not a religious fact. That is why our children tend to look like us. They are unique and are developed from both parents.

Hon Paddy Embry interjected.

Hon BARBARA SCOTT: A frozen embryo is a live embryo of which approximately 8 000 are stored here in Western Australia.

Hon Paddy Embry: Is it living?

Hon BARBARA SCOTT: Yes; it is a living embryo. When they are taken out of the freezer they can be used for implantation. That is why they are frozen. Parents choose to have embryos frozen so that they can use them in later in-vitro fertilisation procedures. That is the only reason they are frozen.

Hon Derrick Tomlinson: They are not allowed to be destroyed. The only way to keep them is to freeze them.

Hon BARBARA SCOTT: They are still alive. These embryos constitute no other form but the human form and will differentiate only into a human child whose features will be later recognisable and beautiful. The current size does not diminish their humanity. It smacks of the reasoning used to justify slavery to argue that these lives can be manipulated because they have no cognitive ability or reasoning. It was totally untrue in that case and it is totally irrelevant in this case. Slavery was adopted because mostly black African races were deemed as second-class citizens and not worthy of anything other than being used as slaves. All that is relevant is that these embryos are one-week old, living human beings. We must not deny them the basic human rights that we all enjoy. It is nothing short of an abomination to experiment on them.

This legislation will allow the killing of excess, live embryos and it will be seen by many Western Australians as a terrible assault on human life at its earliest and most vulnerable moment of existence. Even talking about these embryos as excess to our needs and therefore able to be exploited sends a terrible message to the community about humans who perhaps have a physical disability or other characteristics that cause them to be labelled unsuitable, unwanted or surplus to our needs. The fact that the elderly, the homeless or the handicapped may be considered unneeded and may soon die does not justify killing them or using them as commodities. That is not part of the mores of this society. If we look beyond the Australian experience on this issue, the declaration of Helsinki, first approved by the World Medical Association 1964, states its key principle as follows -

> In medical research on human subjects, consideration related to the well-being of the human subject should take precedence over the interests of science and society . . . -

Those who cannot give consent themselves.

> need special protection.

This legislation is not just about allowing testing to avoid fatal genetic diseases, allowing the selection of embryos to save the life of another sibling or even to perform research on excess live embryos to find cures for diseases; it presently also allows for the possibility of drug testing on excess embryos. We need to be honest with ourselves about this legislation. Putting aside the emotional debates, do we disagree with embryologists that life begins at the moment of fertilisation? Even if we do not think life begins then, do we also think that these embryos do not have a right to develop and not to be discriminated against and experimented upon, especially in light of scientific success with adult stem cells. This legislation goes against the most fundamental right of a human - a right that precedes all other rights, a right that we were afforded and a right that these embryos cannot defend. In conclusion, I will read from an article in *The Age* of 27 March written by Amin Abboud entitled "Embryonic stem cells: the debate we shouldn't have" which states -

> There is an ethical alternative, and it is better. We needn't and shouldn't contemplate the use of embryos for research.
>
> The editor of the journal *Stem Cells*, hidden from the gaze of a public confused about cloning and stem-cell research made a revealing admission to fellow scientists in September, 2001 issue, that "we scientists have exaggerated the immediacy of the prospects of clinical therapies using stem cells, and that this has led to public misunderstanding.

I referred earlier to a public misconception promoted by the media and people with vested interests wanting to use embryonic stem cells claiming that the use of embryonic stem cells was ethical. The article continues -

> "I continue to think that clinical application is a long way off . . . Prior to clinical use of embryonic and foetal stem cells, it will be necessary to thoroughly investigate the malignant potential of embryonic stem cells."

> Nurtured on the accepted wisdom that science is reasonable, rational and objective, the debates surrounding embryonic stem cells have weakened my confidence in science. The white coats have covered a campaign of misinformation, personal interest and financial gain.

There is an unwillingness by some people in the scientific community to allow any barrier to research. The words of ethicist Paul Ramsay could help them: the good things that men do can be complete only by the things they refuse to do. Cloning and embryonic stem cell research are things we should refuse to do. To manipulate and destroy embryos ultimately weakens the dignity of our own society. I oppose the amendment Bill.

HON DERRICK TOMLINSON (East Metropolitan) [5.30 pm]: Thank you, Madam Chairman - or Madam Deputy President, I am sorry.

Hon Paddy Embry: You are confused.

Hon DERRICK TOMLINSON: It is a very confusing debate for me.

When this Bill was debated late last week, I listened with considerable interest to Hon Ed Dermer, and I commend him on that delivery. I do not agree with everything the honourable member said; nor, I expect, would he expect me to. However, his presentation was carefully and logically argued and well illustrated, and it brought us along to his conclusions. However, my mind was galloping ahead of some of the argument, as my mind is wont to do. I have never had trouble accepting the first proposition that human life begins at the moment of conception. Thereafter the magical moment when a human sperm cell and a human ovum unite, a human life has begun. A cell multiplies according to a geometric progression and after nine months and a day emerges from the womb and takes a new form as a baby. The changes of state between conception and the reality of a child no longer in utero but up here in the atmosphere with all of us are no more profound and no more mysterious than the changes that occur from the moment of birth to the moment of death. Consider the infant newly emerged from the womb - a helpless, mewling, puking, stinking, squirming, totally dependent human being. Within a short time it masters language, moves on four limbs and crawls around a room. A short time after that it moves on two limbs, its language becomes much more sophisticated and it masters abstract notions of number. It continues to grow and change and moves through time in a constant process of growth and change. It continues until it walks on three limbs - two legs and a stick - and eventually succumbs. The life of a human being is that period from conception to death; I have never had any difficulty understanding that.

I have listened to arguments about zygotes, "thisots", "thatots", Hottentots and whatever other "ots" there are, but I think they are specious arguments about when human life begins. Human life begins at that moment of fusion of the ovum and the sperm. It is unique. Each of us is unique. In an analysis of DNA and RNA - deoxyribonucleic acid and ribonucleic acid - Hon Ed Dermer gave us a biological explanation of our uniqueness. He did not delve into our spiritual quality, our mystery, that makes us unique. I am not simply the product of DNA and RNA; nor am I merely the product of nurture. There is something else mystical that makes me and every member of this Chamber unique.

I listened to the argument that if we use so-called excess IVF embryos for research, we will terminate a human life and commit an act of human interference in the development of life and the process of time through which we all progress and change, and that nobody has the right to intrude in that way into the life of another. At that point my concentration was diverted along another trail. Hon Peter Foss talked about misgivings. I have long had personal misgivings about organ implantation. Do not ask me to explain why that is something I feel uncertain about. Having said that, I tell the House that my driver's licence is marked "organ donor".

Hon Barbara Scott: That is great.

Hon DERRICK TOMLINSON: No, it is not great, because I suspect that my organs will not be acceptable.

Hon Barbara Scott: Of course they will.

Hon DERRICK TOMLINSON: No, they will not, for the very same reason that the Red Cross will not accept my blood. About 23 years ago I had a malignant and invasive melanoma removed from my body. I was told that I would be regarded as statistically cured if I lived five years. I have had four and I am approaching my fifth lifetime; four to go if I am a pussy! The Red Cross will not accept my blood because there is no guarantee that there is not a rogue melanoma cell in my tissue. I therefore suspect that my tissues will not be acceptable for transplantation. That is a personal issue. Somebody might be relieved to know that they will not get my tissues. However, I have that misgiving. I do not have any misgiving about getting a titanium - or whatever metal is used these days - artificial knee or artificial hip. However, I have a little concern about carrying somebody else's knee or hip or perhaps a pig bone. I have some misgivings about that. In fact, I have two artificial inter-ocular lenses. Cataracts damaged the lenses in both my eyes. I had them removed and I have two plastic lenses, so I have no problem with that at all. However, I do have a very real problem with taking a human heart - the tissue of one human - which is unique - not because it is a heart, it is just muscle - and implanting that tissue into

another person. In some respects, that argument is along the lines used by Hon Ed Dermer when he talked about embryo experimentation; that is, we are making an empirical decision about human life and all the tissue in which the human life exists. So interested was I as I listened to Hon Ed Dermer, I tried to recall when it was that Christiaan Barnard performed the first heart transplant at the Groote Schuur Hospital in Johannesburg -

Hon Ed Dermer: In the late 1960s?

Hon DERRICK TOMLINSON: It was on 3 December 1967. I used the wonder of the Internet - an interesting discovery, the result of human experimentation - to follow up on Christiaan Barnard and I came across this information on one of the web sites -

Scientific & Technological Advances

1960 Laser made by Charles H. Towns
1961 Soviets put Yuru Gagarin into space
1961 Contraceptive Pill on Sale -

A bit too late for me -

1961 Telegraph signals bounce off the Moon
1962 American John Glenn orbits the earth -

That happened before some of the members in this place were born.

Hon Sue Ellery: I was born then.

Hon DERRICK TOMLINSON: Oh well, there is another miracle! I can remember the awe as a 21-year-old in 1962 of John Glenn circling the earth. I can remember the awe of sputnik circling the earth. I can remember people standing in their front yards watching the sky and the excitement when the first person said, "There it is", like it was just a little while ago. The web site continues -

1962 American John Glenn orbits the earth -

And Hon Sue Ellery arrives on earth -

1962 First satellite communication from Europe to US
1965 Containers revolutionize bulk transport -

And perhaps the most important discovery of all -

1967 Researchers find beer stops tooth decay
1967 Concorde's first flight
1967 First heart transplant in the US by Dr Christian Barnard.
1968 Silicon chip produced by Micro-Computer Inc. (US)
1969 Man first sets foot on the moon - US Astronaut Neil Armstrong.

All those things happened in the 1960s.

Hon Bruce Donaldson: It was a very poor season in 1969 -

Hon DERRICK TOMLINSON: It might have been a very poor season in 1969, but I am sure we can blame that on Neil Armstrong being on the moon. However, having looked at that information, I thought to myself, "Golly, think of the applications that we have had for laser in that time." Earlier I said that I have inter-ocular lenses. Two years after an inter-ocular lens was placed in one of my eyes, it clouded over - a natural response of the plastic to the vitreous humour of the eye. I was subjected to cold laser treatment - zap, zap, zap! That is how long it took, and my vision has been perfect since. Members should think of the number of applications for the laser.

The Soviets put Yuri Gagarin into space. Right now, members should think of what is happening on Mars. Think of the progress we have made in space exploration. Even though there is a hiatus in launching humans into space, I think there are still a couple of astronauts in orbit. We cannot even imagine where we will be in 30 years time.

Concorde's first flight occurred in 1967. Concorde has now had its last flight. However, Concorde is being replaced by the ramjet - Roger Ramjet! It promises to provide a flight from New York to London in two hours - I think that is the time. That means we will fly from London to Perth in two and a half or three hours - the first journey from Plymouth to Sydney Cove took eight months, two weeks and two days. Where will we be in 30 years time?

I think the first heart transplant recipient was Mr Washkansky, who survived for 18 days. I tried to find out how many heart transplants are conducted in Australia annually. Unfortunately, I found data relating only to the United States of America. The web site I found states -

- There were 2,154 heart transplants performed in the United States in 2002 and 2,199 in 2001.

. . .

- In the United States, about 77 percent of heart transplant patients are male; 74 percent are white; 50 percent are ages 50-64 and 19 percent are ages 35-49.
- In 2002 the one-year survival rate was 86 percent; the three-year survival rate was about 77 percent; and the five-year survival rate was 71 percent.

Mr Washkansky survived 18 days and it was regarded as a miracle. Some said it would never work. Washkansky died of complications caused by rejection - I think he succumbed to pneumonia. Rejection of tissue has now been mastered. As a matter of fact, so well has tissue been rejected, that in my Internet search - that wonderful piece of human technology - I found that a brain implant is about two years off. The web site I found states -

> **Brain Prosthesis Ready For Testing**
>
> The world's first brain prosthesis - an artificial hippocampus - is about to be tested in California. Unlike devices like cochlear implants, which merely stimulate brain activity, this silicon chip implant will perform the same processes as the damaged part of the brain it is replacing.

I wonder how long it will be before we contemplate a brain transplant. Can members imagine my brain in Hon Ed Dermer's body?

Hon Graham Giffard: Awesome!

Hon DERRICK TOMLINSON: It certainly would be awesome. My brain in anybody else's body would be awesome.

Hon Ed Dermer: Would they be transplanting the brain or the body?

Hon DERRICK TOMLINSON: That is a very good question, because we are talking about the sum total of human existence, which is stored in electrical processes in the brain.

Hon Ed Dermer: We suspect.

Hon DERRICK TOMLINSON: Yes. When my brain is transplanted in Hon Ed Dermer's body, will it reactivate the memory of Hon Ed Dermer and will he think that he is me? We will not contemplate that for a very simple reason: we think that there is something mysterious about the brain. We would never contemplate that. I never say "never", because never means not ever. There is a very real moral concern about that sort of transplant. I have that concern about heart transplants.

I would never put my name down for a heart transplant; I would choose death if it were the only option. It is a choice that I will make. I have those misgivings about the question of heart transplants. I would not deny other people the choice of that. They have the right to choose. Let them resolve with their own God their own consciences. Whatever means they resolve it with, let them resolve it for themselves, because they have been given the capacity to choose and I as another human being with an equally divine - if members wish to put it that way - right to choose, will not deny their right to choose, whether it be a heart transplant, lung transplant or whatever transplant they might want to have. I will not act as God. It is their right to choose.

I have real misgivings about this. I think of the cost of every heart transplant at Royal Perth Hospital and the cardiac unit at Fremantle Hospital. I think how many other important surgical procedures could have been performed for exactly the same cost. Would we have such a long waiting list for semi-elective surgery if we were not putting all those resources into heart transplants, lung transplants and liver transplants, when by that very process of transplanting we are making an intrusion into two human bodies, one of which must die? Preferably the body is not dead before the organ is removed; it is kept alive artificially. I have some misgivings about that also. A life must be terminated for it to occur. So be it; people make the choice to donate their organs and people make the choice to receive those organs. That is a choice about life and death. I will not legislate to deny them that right of choice.

I will not argue against the value of research. Yes, stem cell research using adult stem cells has made tremendous progress. Yes, stem cell research using embryonic stem cells has not made the same progress. Scientists have not yet discovered how to control the multiplication of embryonic stem cells, so multiplication is uncontrolled. We cannot allow the implantation of uncontrolled stem cells or stem cells that are growing in an uncontrolled manner. That is the nature of cancer. We just cannot do it. Until some genius masters the control of the growth of the multiplication of embryonic stem cells, the same progress will not be made in their application as has been made in the application of adult stem cells, but it will happen. Every scientists knows of the great eureka phenomenon. When Archimedes discovered the buoyancy principle, he is supposed to have

jumped out of his bath and screamed, "Eureka! Eureka! I have found." Every researcher lives for the eureka moment. Sometimes it happens once in a lifetime. People work hard towards that eureka moment. I have had a couple of eureka moments in research. It is the most exciting moment when one says, "I have found it." We have not yet had the eureka moment with embryonic stem cells, but we will have it and it will happen.

I will put this to members: just as they cannot contemplate the future of technology such as the laser or technology such as this, the people who built the atom bomb invented a computer. The computers used in the development of the hydrogen bomb occupied spaces that were probably as large as this Chamber. They were not as powerful as my laptop computer. Members might contemplate where we will be in 30 years time, because the period we are talking about is about 30 years. Where will we be? Do not be frightened of it.

Hon Ed Dermer: Surely the results of the eureka moment are at least as likely with adult stem cells as with embryonic stem cells.

Hon DERRICK TOMLINSON: Yes, without doubt, but I think the member would accept that there was the eureka moment with uranium before the explosion of the Little Boy bomb in New Mexico. As for the consequences of that moment, Robert Oppenheimer said of the test code named Trinity that the Little Boy bomb had a force that was the equivalent of 18 000 tons of TNT.

Sitting suspended from 6.00 to 7.30 pm

Hon DERRICK TOMLINSON: Before I was interrupted by the dinner suspension I was about to -

Hon Paddy Embry: And a lovely dinner it was, too.

Hon DERRICK TOMLINSON: It was an excellent dinner. I commend the Leader of the House on that soiree. I sincerely hope that before 22 May 2005 we are able to enjoy another one.

Before I was interrupted by that soiree, I was about to look at Robert Oppenheimer's response to the explosion or the detonation of Little Boy. Before I do that I want to revert to the eureka moment, because the eureka moment, while, for the individual, it involved quite an exciting time, it was not always a positive moment for the human experience. There have certainly been some moments of momentous discovery, which have been moments of great tragedy for the human experience, and I suspect that that was one of the things that Robert Oppenheimer experienced as he watched the detonation at Los Alomos. I refer to a print-out from a web site at www.pbs.org with the headline "The American Experience: Race for the Superbomb: J. Robert Oppenheimer," which states -

> Recalling the scene, Oppenheimer said: "A few people laughed, a few people cried, most people were silent. There floated through my mind a line from the "Bhagavad-Gita" in which Krishna is trying to persuade the Prince that he should do his duty: "I am become death: the destroyer of worlds."

I think for Oppenheimer the eureka moment was a negative one - certainly Hiroshima and Nagasaki were negative moments of the human experience. I interpose that sober judgment in spite of the excellent soiree we have just experienced, because, while I have great enthusiasm for research, I also recognise that research can lead us into paths of considerable danger. For that reason I listened carefully to the arguments such as those presented by Hon Ed Dermer about gene cell research and in particular embryonic research, because, yes, it can, it may and it will lead to moments of great breakthrough in medical science and the treatment of disease. I am not interested in Superman, I am not interested in Christopher Reeve; I have great sympathy for the man. I wish he could walk again, just as I wish the same for all of the quadriplegics and paraplegics at the paraquad centre that I see every day in their electric chairs or on their walking frames exercising around Shenton Park as I come to this place. I do wish we could make that medical breakthrough - I am confident it will happen - and for that reason I will not countenance denying the opportunity for medical research. I am conscious that, in all of that research, there is the opportunity, the possibility, of going down dark paths. People will go down dark paths and people will exploit the commercial opportunities that Hon Ed Dermer warned us against. I am certain of that, just as I am certain that there will be great progress for the benefit of humankind from that sort of research. What will prevent that? Firstly, the ethics of the researchers, but money speaks louder than ethics for some people; and, secondly, the regulation of the research. I do not believe in absolute freedom; it is a nonsense. My freedom ends when it intrudes upon others' freedom. My rights end when they intrude upon others' rights. My privileges end when they intrude upon others' privileges. Therefore, I accept that there are some moral, societal and legal constraints upon what each of us does. However, I am a realist. Some people will be immoral and unethical. Some people will pursue commercial profits regardless of ethics. Some people will break the law despite the penalties, because the profits are greater than the penalties. However, I am not prepared to say that, because some people will act in that way, we must deny all people the opportunity to take part in the great discoveries that are available to us. Therefore, I am a supporter of research. However, I am also a supporter of regulation and self-regulation in that research. I am a great supporter of the advancement of ethical principles

within the research community and of regulatory structures to ensure that there is an embodiment of those ethical principles.

This is what this Bill is about. This Bill is not about the moral principles that attach to in-vitro fertilisation. That argument was held in 1991. Out of the debate in 1991 came the legislation and regulatory regime that we are now amending. The reason we are amending that regulatory regime is that the circumstances of human knowledge have changed exponentially since 1991, and we are seeking to bring that regulatory regime into line with the current scientific endeavour. One thing that has not changed in this debate is the choices that are available. The first choice is whether to participate in IVF procedures. I will tell members my views on IVF procedures. I will not tell members my personal reasons for my views on IVF procedures, but I will tell members that just as I have misgivings about heart and organ transplantation, I also have serious misgivings about IVF. However, just because I have serious misgivings about IVF, I will not play the role of God and deny other people that choice. I would say to the archbishop, who has written to me a couple of times, that God also forbade Adam from eating the fruit of the tree of knowledge. However, he did so, and God had to expel him from the Garden of Eden. I suggest to the archbishop that it would be just as futile for him to tell me as it was for God to tell Adam. However, let us not digress down that line. I will not be making that decision; I will let other people make their decision.

The first choice is whether to participate in an IVF process. I am very attached to the natural process. For me it was too damned easy; it was as easy as falling off a log. However, for my daughter it is a different story. The second choice is what to do with the so-called excess embryos. One option is to allow the embryos to succumb. They are not killed. They are not taken out of the Petri dish and hit with a hammer until they die. They are taken out of the Petri dish and put into a hostile environment - that is, one in which we as human beings live very comfortably - and they succumb. The second option is to donate the embryos for implantation in the womb of a woman who is not the biological parent of the embryo. Those are the two options.

Hon Graham Giffard: There are three options.

Hon DERRICK TOMLINSON: Yes - and also to use them, of course. I am talking about the excess embryos. Certainly the whole purpose of doing it is to implant the embryo in the womb of a woman who wants to have a baby. I accept that. I would love to have grandchildren. I can understand why people want to have babies, and I cannot deny people that choice. That is the whole reason for having the IVF choice in the first place. The two options are to allow the embryos to succumb or to allow them to be implanted in the womb. We are now proposing to allow a third option; that is, for the embryos to be used for the purpose of experimentation. I will not make a judgment about that. Just as I will not make a judgment about whether a woman should have the right to choose to use the technology that is now available, I will not make a judgment about whether a woman should have the right to choose experimentation so that others may have a successful implantation, pregnancy and delivery for their family. Therefore, I will support the Bill.

Debate adjourned, on motion by Hon Bruce Donaldson.