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NSW LAW REFORM COMMISSION INVITES DISCUSSION ON THE EMBRYO

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The NSW Law Reform Commission in its Artificial Conception Discussion Paper 2, has a chapter entitled "Research, Experimentation and IVF" (Chapter 8, covering pages 91-122). I restrict my comments to that chapter.

A DEBATE ABOUT RESEARCH?

At the beginning of this chapter its authors say:

"The debate today is, for all practical purposes, a debate about research" (8.1).

This is misleading. The debate in fact is only about *destructive* research. There is no debate at all about research on human embryos which is not likely to destroy them, but is aimed at the good of the embryo actually being experimented upon.

There is simply no opponent at all against whom the arguments in favour of research in general have been marshalled. The authors admit this quite openly:

we are not aware of any argument or proposition ever having been put that research aimed to benefit a particular IVF embryo, should be prohibited or restricted". (8.38)

Only after 13 pages is the issue even mentioned, thus:

prohibition of 'destructive non-therapeutic experimentation" . . . would, we believe, prevent research on IVF conceptuses of the kind described in paragraph 8.20. (8.32)

The argument is about destructive research and that alone. It is about embryo experimentation of a sort that involves the killing of the embryos.

To understand the issue correctly anyone who reads this chapter should insert the word "destructive" before the word "research" each of the 18 times the latter word occurs.

DO PEOPLE REALLY DIFFER ON WHETHER THE HUMAN EMBRYO IS A PERSON?

I do not think anyone in our context who has entered into this debate has supported destructive experimentation simply by claiming that it is not wrong to kill innocent human beings.

Even Professor Singer, who allows in some cases the killing of a baby within a few months after birth, does this by arguing that such a baby is not a human person according to his definition, and so is not claiming that killing a human person is justified.

Who, then, argue that a human embryo is not a human person? Surprisingly few, when all the dust has cleared, have directly addressed this substantial issue.

The Warnock Committee side-stepped the issue. The Waller Report contained a Dissenting Report arguing in favour of the embryo, but left these arguments unanswered.

Not one of the medical or scientific witnesses before the Tate Committee claimed in a submission that the embryo is not a human person or even not a human being, or submitted medical or scientific evidence in support of such a claim. One medical man submitted a paper by a British Anglican Theologian which came close to making this claim, and a few others, as well as one lawyer, mentioned that same paper favourably.

All the Senators were very interested in the issue, and directed many of their questions to it, and especially to data that would support a marker event other than fertilization, and to evidence for claims that implantation, or 12 days of cleavage, or the possibility of dividing into twins, might serve as a marker event.

The many pages of Hansard questioning regarding this 12 days shows that the medical witnesses are not ready to claim any significant marker event about that time. The evidence they gave is an important part of the support for the conclusions of the Tate Report. The DP makes no reference to this evidence, though arguing on this issue. Indeed, the only references that the DP makes to the Hansard oral evidence or written submissions come from an extremely limited range.

On the other hand, there is a mass of evidence, much of it taken from medical men and biological scientists, actually provided in submissions that claim that the human embryo is a distinct person. This was not denied or queried by subsequent witnesses, nor was it upset by questions from the Senators.

CONFLICTING VIEWS?

The conflict of views is claimed to be illustrated by the opposing views within the Tate Committee. The view of the majority (in Tate 3.7) is quoted, and the statement is made that the minority report strongly disagreed with this (8.14). The fact that the Dissenting Report explicitly *agreed* with the majority account of what an embryo is (D.11) is overlooked.

The conflict between the minority and the majority on the Tate Committee is *not* on whether the embryo is an individual human being, and not (explicitly, at least) on whether it is right to kill human beings, but simply on who should decide about this sort of human being. The question of what is a good decision is left open by the minority, and so the issue has not been properly resolved.

DEVELOPMENT PRESUPPOSES DEVELOPMENTAL POTENTIAL

The authors twice mention the view that the embryo is a human person,

The first [of three "lines of thought"] is that from the 'moment' of fertilisation the IVF conceptus is a human person *or has the capacity to become a person and therefore should be accorded all the rights attaching to 'personhood'. (8.10, my emphasis)*

The [Tate] Committee did not assert that the IVF conceptus is a human person. However, a majority of the committee in effect did so by recommending that, in relation to research, it should be treated as though it were a living person. The basis for recommending this degree of respect was said to be its "orientation to the future" (Tate 3.6). In the words of the majority . . . A minority report . . . strongly disagreed . . . (8.14, quoting Tate 3.7).

Their only arguments directed against this view are those contained in these passages, as their later discussion concentrates on something which is clearly not a person but only "has the capacity to become" one.

They are wrong to call "orientation to the future" *the* basis for the Tate view. There are other important elements in their definition of the embryo which help to indicate something "already" (see Tate 2.18) possessing all that is required to be a human person. All these elements (*including* a phrase equivalent to "orientation to the future") are contained in the following passage from the *Dissenting* Report:

the Report . . . draws the conclusion (in paragraph 2.6) that the fertilised ovum has 'life', that it is genetically human, that it is an entity — a centrally organised unit with purposeful independent function — and that it has developmental potential. We agree with this conclusion (Tate, D.11).

It is clear that Senators Crowley and Zakharov did not dissent from the majority on the full humanity of the embryo. Their dissent on experimentation was based on the question "who shall decide?" (mentioned in 31 of their numbered sections), as if this question somehow lessened the importance of questions on what they are deciding about or what facts are relevant to their decision.

The error of the dissenting senators is shown by their confusion between achievement of potential (or actual development) on the one hand and the developmental potential itself on the other. They are right in speaking of

the necessity of implantation for the developmental potential of an embryo to be achieved (D.27)

and saying that

without implantation in a uterus, there is no [further] development of an embryo (D.28).

But they are wrong in concluding from these and similar statements that

developmental potential *is dependent on successful implantation (D.26 my emphasis).*

The authors of this Discussion Paper are clearly caught in the same erroneous logic.

The uncertainty of further development, of course, applies to *any* stage in an embryo's growth. Without food, without warmth, without protection, there is no further development. Briefly, there is no age at which an embryo or fetus could not easily be killed. And that has nothing to do with the question of whether the embryo (or fetus) has developmental potential. This concerns what it has within it, not what it depends on from outside.

As for the lack of a nervous system in the early embryo (8.9), this does not show a lack of genuine human capacities unless there is some indication of a source other than the embryo itself from which a nervous system might develop. No such source has been indicated or even suggested. The capacity for the sort of human mental activity that requires a nervous system is already, from the one-cell stage, written into the tiny but extraordinarily complex structure of the DNA within the zygote.

HUMAN PERSON

This error is compounded by their failure to define a human person, or to examine the concepts of a person which were offered to the Tate Committee. This would seem to be an important component of any discussion on this issue. Without it they cannot argue clearly against the claim that an embryo is an human person.

Defining "human person" is not at all as difficult as some writers on our topic would suggest. We have declared ourselves ready to agree with, and argue from, a definition given by Professor Peter Singer:

A human being is a being possessing, at least at a minimal level, the capacities distinctive of our species, which include consciousness, the ability to be aware of one's surroundings, the ability to relate to others, perhaps even rationality and self-consciousness. (Tate, Hansard, p. 190).

The question that Singer, and those who are confused by talk about potential, have not yet answered is: How did an adult acquire these capacities if he did not already have them basically when a zygote? The options available are food, miracle, and magic. Abundant food over the centuries has never given individual dogs or grocer shops these human abilities. Not everyone believes in miracles. Without saying so, Singer seems to assume the operation of magic.

Apart from magic, he cannot deny that "The embryo is a human being possessing at least at a minimal level the capacities distinctive of our species." (Modifying his syllogism in Tate, Hansard, p. 484). And so he, too, should conclude that "The embryo has a right to life".

The embryo's "developmental potential" is, as the Tate Report says, "of great significance" (Tate, 2.6, see also 3.6 & p. xiii). But so also is the source of that potential.

ORGANISATION

While this "developmental potential" which is written in the genome of the embryo is of great importance, it is not the only important element in the Tate definition of an embryo as

genetically new human life organised as a distinct entity oriented towards further development. (Tate 2.21, also 2.6, 3.5 and D.11-15).

The fact that it must be organised is also important, especially in so far as it is "a centrally organised unit with purposeful independent function" (D.11). This whole notion is frequently missed by people who talk about life, or about persons, or about embryos, and that seems to be the case with this Discussion Paper too, and its advisers.

Organisation involves a complex variety of parts which all serve a single intelligible function, such as the preservation and development of the life of a single individual; and a variety of processes, events and functions which also make sense as coordinated in such a way.

Before ovulation "The ripening ovum" (8.36), while admittedly "genetically new", is still part of the ovary and of the mother, developing under their organisation. Later, it becomes free from this and then possesses its own organisation which can operate to preserve it in life for up to about 24 hours. It is not, however, of itself oriented to further development until the head of a sperm enters it, or it is otherwise "stimulated" in some special way.

The merging of the cell membranes of the sperm head and of the ovum, the sudden functioning of the cortical granules, the production and operation of organelles for the transport of the genetic material and the formation of new membranes around the pronuclei, are some of the many processes that show that a new and distinct single individual has emerged.

The argument, therefore, that

the majority report's definition of "embryo" is defective (8.35)

has no force when the only element of the definition that is considered is the uniqueness of the genome.

As for the "unfertilized human ovum that has been stimulated parthenogenetically", and is said to be "neither an embryo nor a fertilized ovum in any normally understood sense" (8.36), it would seem that at present we know very little about parthenogenesis in humans, or even mammals. But if a "human ovum that has been stimulated parthogenetically" is in fact covered by the "majority report's definition of an embryo", then experiments on it can rightly be prohibited, granted the extent to which such experiments have succeeded in lower animals, and even among mice.

As for those human tissues such as

terato-carcinoma cells [whose] further development involves a disorganised differentiation into types of human somatic cells such as teeth, muscle and skin, but cannot form a human person (8.36)

they are disorganised in their proliferation, and so show that any embryo from which they may have sprung is now dead. Thus they simply do *not*, as the Discussion Paper claims:

answer the description "genetically new human life organised as a distinct entity oriented towards further development" (8.36).

ORGANS

When the notion of organisation is not well understood we can expect problems with organs too. The authors, while referring to a medical authority, seem to be putting things in their own words when they say that the outer cell layer of the morula gives rise to the trophoblast (whose function is not further mentioned), while it is the

inner cell mass which may subsequently give rise to placental membranes and the embryo, properly so-called (8.5).

Moore, in another book, puts it differently:

As the fluid increases, it separates these cells [of the morula] into two parts; (1) an outer cell mass called

*the **trophoblast** . . . [which] later forms the major part of the placenta) and (2) a group of centrally located cells known as the **inner cell mass** (embryoblast). The inner cell mass subsequently differentiates into the **embryo**.* By the fourth day . . ." (Keith L. Moore, Before We Are Born, *Philadelphia: Saunders,[2] 1983, p. 27)*

So the *whole* of the morula is a centrally organised unit which is growing into the still centrally organised unit made up of organs which will survive birth and are sometimes thereby defined as the "embryo proper", along with other organs, the placenta and the membranes, which are just as much part of the single unity, since it is precisely to serve the total unity as its organs that they have to develop rapidly at this very early stage.

That the products of the trophoblast are genuine organs is, of course, standard knowledge:

Before birth, the placenta and fetal membranes perform the following functions and activities: protection, nutrition, respiration, excretion *and* hormone production *(Moore,* Ibid., *p. 82).*

Profesor Roger Short clarifies the terminological issue:

An embryologist would define an embryo as the future *individual, the future person if it is a human,* not the placenta. *(Tate, Hansard, p. 2163, my emphasis).*

While this distinction may be convenient for purposes of anatomical description, it completely ignores the unified coordination of function that was central to the life of the embryo (even so defined) throughout its time in the womb, in the fallopian tube, or in the petri dish. Drawing a definition from the future has distracted attention from the actual *present* of the human individual at any of those times, and from the unity of the components of that individual both in their functioning and in their origin.

Dr. James Cummins avoided this confusion when he spoke of

differentiation into the embryo proper and its placental components *(Tate, Hansard, p. 2048, my emphasis).*

But people who have not reflected sufficiently on the unit of organisation that is so central in the life of every individual living thing are often misled by phrases like "the embryo, properly so-called" (8.5, and, more, pointedly, 8.7) into thinking that the early morula was not a genuine human individual.

INDIVIDUALITY AND TWINS

Those who have not thought much about organisation are puzzled also by the notion of individuality. Hence the authors of this Discussion Paper seem very confident in using this notion (along with their misunderstanding of "capacity" that we have already examined) as a significant part of their definitive statement denying human status to the embryo:

Prior to implantation, the conceptus lacks even the rudementary structures of a nervous system. It has no capacity to think or feel. It is not yet individual *(see para 8.7). It follows that the proposition that the pre-implantation conceptus should be accorded all or some measure of the respect that we accord to human persons, must be based upon considerations other than biological status. (8.9, my emphasis).*

The American lawyer, Robertson, whom they give as their reference is clearer later:

Prior to this point, the pre-embyro is not individual since twinning, which produces two individuals, or mosaicism, which produces less than one, could still occur. (SCLR, 1986, p. 970).

This argument had captured the interest of the Tate Committee, whose members persistently questioned their witness about is and eventually concluded that

No marker event advanced carried such weight that different principles should apply to distinguish the fertilised ovum from that which all would agree is a human subject. (3.5, see also 3.9, 3.19).

In answer to such questions, Professor Singer has said:

I think, in the end, I would not really place weight on the argument about twinning (Tate, Hansard, p. 508).

In fact, the argument that an embryo could not be an individual before it forms into twins has no weight at all. If it did have any, there could never be an individual amoeba, or an individual rose bush, since each of these can give rise to a new individual of the same sort. And a mouse would have to be declared a non-individual retrospectively if an experiment to take a clone from it should prove successful.

HISTORY

The authors of this discussion paper, ignoring the strong opposition to destructive embryo experimentation expressed by the General Synod of the Anglican Church of Australia and by the Australian Episcopal Conference of the Catholic Church (both supported by submissions to the Tate Committee, Hansard p. 891-998 and 2266-2276 respectively), refers to the views of some British theologians on "the moral and theological Judaeo-Christian tradition" (8.46), which the Tate Committee saw fit to do no more than note (Tate, 2.38, see also D.94).

They ignore the evidence showing that this tradition, in so far as it allowed some distinction between the degrees of disapproval assigned to attacks on the embryo and the fetus, was explicitly based on gross errors of ancient biological science which were not seriously questioned before the seventeenth century, but which since then have been completely overturned (Tate, Hansard, p. 183-5). The distinction became untenable once the theories of the maternal contribution to conception simply through (cell-free) menstrual blood and of spontaneous generation had been disproved.

A RADICAL DIFFERENCE BETWEEN EMBRYOS?

The authors' supposed trump card is the argument that the IVF embryo differs from the natural embryo, and that this difference completely changes the way it may be treated.

The ovum fertilized in vitro, while outside the human body, differs *profoundly from the naturally-fertilized ovum or conceptus (8.3).*

nowhere (in the Tate Report) is there any reference to the differences *between an ovum fertilised by the IVF process and one fertilised by sexual intercourse (8.33).*

The fulfilment of outside conditions is said to be of no help:

The IVF embryo could never become a human person. If given nourishment, the best available environment and no interference to impede its development, it will still wither and perish within a few days. (8.44)

This is simply not true. If it were, embryo transfer would never produce a single pregnancy. The whole long negative argument of the Discussion Paper is completely false, as it is based on this patently untrue proposition, which is proved false by every successful case of IVF and ET.

When it all boils down, the differences between IVF embryos and other embryos which are so central to the argument of the DP, are not differences between capacities that one possesses and the other does not. They are simply differences in the ease with which these two types of embryos can be killed.

Negative aspects of the future of an embryo are determined by forces outside of itself (such as fires, poisons, earthquakes), including decisions by others about it (such as decisions to kill it). But these do *not*

determine its positive future. Neither the forces of nature nor the decisions of others can enable a rock to develop as an embryo, nor a mouse embryo to develop as a human one. The difference is precisely in the different developmental potentials possessed from the beginning by each of these three.

CONCLUSION

We must, of course, discuss this paper. But we cannot recommend it as a paper for opening up discussion among people who have no ready access to previous documentation, or who lack the skills or time to uncover the fallacies of subtle advocacy.

Because:

(1) it misrepresents the topic of the debate,
(2) it exaggerates the degree of conflict on the central issue of whether the embryo is an individual human being,
(3) it treats an actual human being with developmental potential as though it were something not yet a human being with some vague potential to develop into one,
(4) it pretends that a difference in the situations in which a thing happens to be is really an intrinsic difference in the thing itself,

this chapter does not indicate a balanced discussion paper but simply an attempt to divert attention from the conclusions of the Senate Select Committee on Embryo Experimentation, and from the evidence before the Committee.

It is most easily understood if looked on as a protest on behalf of the MREC of the NHMRC against the Senate Select Committee for investigating the matter so fully and coming to a different conclusion.

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