

## **MAINTAINING HUMAN DIGNITY IN EARLY LIFE** *[notes for a discussion]*

### **Background**

How should we maintain and succour human dignity at the beginning, in the middle, and at the end of life? This discussion paper seeks to challenge conventional thinking on the first of these: the period from around the time of conception until or shortly after birth.

Who are we, and what is human life? From which perspectives can these questions be addressed? We are individuals: we are families, we are society, we are the state, we are the human race. Our opinions and behaviours rely on religious doctrine; on ideas of medical ethics and practice; on a framework of law. Who should decide on the generation, preservation, and termination of human life: God, religious institutions, law courts, doctors, parents, young life itself? What is human life: when does it start; when does it become independent; when does it have rights: when does it have responsibilities?

Simplistic approaches are made to address the issues of early life. People may say that sexual congress should (or should not) be unconstrained; that young people should (or should not) be informed very early about contraception; that the morning after pill should (or should not) be made available easily to all; that all abortion is wrong (or that women have the right to choose); that artificially assisted conception is (or is not) desirable and should (or should not) be offered as part of a health service funded by the state; that prospective parents have (or do not have) a right to bear children; that parents have (or do not have) a right to choose the sex of their child; that stem cell research on embryos can (or cannot) be justified. These questions reveal considerable complexity: all these issues are tied up one with another and their answers call forth a wide variety of religious, ethical, medical, political and economic views.

### **A religious perspective**

Consider the claims of religion to be the rightful arbiter in these matters. Here I have to resort to analogies. The history of religious doctrine on matters of science, society and politics has not been consistent over the centuries. Many times over, religious authorities have pilloried, tortured, killed people who espoused views with which at the time the church (and mutatis mutandis the authorities of religions other than Christianity) disagreed. But then the church changed its mind. The view of the church has changed on, for example, whether the sun goes round the earth or the earth goes round the sun; on whether homosexual behaviour is sinful or worthy of adoption by people elevated to the higher reaches of its own authority; on whether divorce is forbidden or should be blessed; on whether sexual activity and priesthood are incompatible. There are similarly stark differences between religions and between sects. The view of the churches, for example, differ on whether communication between the individual and his God has to be mediated by a priest; on whether priests can only be men or can be women as well; on whether the concept of one god contradicts the concept of a trinity. From where have these sects and churches, and more broadly the church (and other religious authorities) taken their guidance, their instruction, their code of right behaviour? Again there are differences: some say from the Bible (or the Talmud, or the Koran, or the Gita); others say from the guidance of our conscience as informed by the Holy Spirit; and all sorts of intermediate positions are taken up. As a child of the Enlightenment forced to accommodate a religious perspective I would have to veer to the Holy Spirit end of that spectrum: we have to think these things through for ourselves. There is no immutable given moral code and there never will be. It is for us to choose and to justify our choice before God at the end of time.

## **Stages in the development of early life**

As there is no certainty about the divine will, we must make the best fist of it for ourselves. My starting point has been an attempt to understand how life begins and how one might identify recognisable stages in its development. I am grateful to my daughter Caroline for her contribution to the diagram forming the final page of this paper. The format is mine but most of its concepts and data are hers; she is responsible for its refinement and its final form. Here follows an explanation of the concepts embodied in the diagram.

### ***Natural process***

Natural development is illustrated on the left of the diagram. Fertilisation of the egg (ovum) by one sperm occurs (if it occurs at all) about midway through the menstrual cycle. The ovum is travelling down one of the fallopian tubes and millions of sperm are swimming up towards it. They take about six hours to get there. If one of the sperm is successful, the single cell of the fertilised egg begins to divide successively into what is known as a blastocyst. The blastocyst travels down the fallopian tube into the uterus (womb), and by the fifth day after fertilisation it may be successful in burrowing into the wall of the uterus, prepared by hormonal secretions to receive it. If implantation starts successfully the blastocyst will be secure by about the tenth day. Then known as an embryo, an amazing frenetic development begins. By the fourteenth day a streak of nervous tissue can be detected: this will develop into a brain and spinal cord. Successive stages of development can best be related to weeks from fertilisation approximately as follows. Irregular heart beats start in week three. Primitive circulation starts by week five. Taste buds appear by week seven. Facial characteristics can be seen by week eight. From week nine what has been called the embryo becomes known as a foetus; this distinction has emotional significance: use of these terms in common parlance may influence views about moral choices. At any rate, foetal movement is discernible by week nine, and swallowing usually starts by week ten. Respiratory movements begin to occur between weeks 14 and 16, exercising muscles that will be needed immediately following birth. Sucking starts by week 24, and sounds can be heard by week 26. By week 28 the eyes become sensitive to light. From week 34 we really have an independently viable infant.

We should note that more than half of eggs surrounded by sperm are never fertilised; that more than half of fertilised eggs never successfully implant; and that more than half of implanted embryos fail to come to term. Failed fertilisation or implantation is not discernible by the mother, although if desiring pregnancy she may feel frustration and disappointment at not conceiving a child.

The woman's body may reject an implanted embryo or foetus at any time. Between weeks two and twenty-four this rejection is called spontaneous abortion. In the early weeks this probably occurs without the woman believing anything other than that she has apparently 'missed a period' and then had a rather heavy one a month or so later. Spontaneous abortion later on is experienced as a miscarriage and usually gives the pregnant woman considerable concern and much distress. Later rejection, up to the time of normal birth, is called stillbirth as what is rejected is clearly a dead baby: an even more painful and distressing experience for the mother denied her living child.

## ***Human reactions and medical interventions***

Possible interventions and outcomes are illustrated on the right hand side of the diagram. The timescale here is (perhaps confusingly) two weeks greater than that on the left, simply because the woman naturally relates to the time of her last menstrual period.

Four or five weeks after her last period she will typically wonder if she has become pregnant and may self-diagnose with a proprietary test: powerful hormones released from the time of implantation can be detected in the urine. If she does become pregnant, then normal birth occurs around week 39, and if delayed beyond week 40 is usually medically induced to avoid difficulty in giving birth to an over-large baby. Before birth various interventions are practical and allowed by current legislation, as follows.

First of all, a woman who realises she may become pregnant has the option of taking emergency contraception — the ‘morning after pill’ — which can be effective up to three days after insemination (the regretted unprotected sex) by preventing fertilisation (if taken straight away) or interfering with the development of the fertilised egg, the blastocyst (if taken more than six hours later). For a further three or four days a doctor can insert a coil (Inter-Uterine Device, or IUD). This works by preventing implantation, so is effective at avoiding an unwanted pregnancy until about a week after intercourse (three weeks from the last period). An IUD already fitted as part of a planned contraceptive scheme works in exactly the same way: by preventing implantation.

A woman who finds she is pregnant later on will have missed those chances either to take the morning after pill or to avail herself of a coil implant. She is then able to consider having an abortion; that is, seeking from her GP or a private regulated clinic a medically induced pregnancy termination. Methods of termination vary according to the estimated time from the last menstrual period: early intervention can be chemical; later on some sort of physical or even surgical intervention is necessary, with attendant risk to the mother. Current legislation (November 2008) allows termination with certain safeguards but without stringent conditions until 24 weeks from the last menstrual period. This is equivalent to 22 weeks from fertilisation. After that, late termination is permitted in special circumstances.

Meanwhile, assuming the pregnancy is set to continue, an ultrasound scan is normally offered at 12 weeks to confirm the forecast date of normal birth by foetal measurement. A further scan is usually given at week 20 to check for obvious anomalies in the developing foetus. If the woman is in a high risk category, she may opt for a diagnostic amniocentesis or chorionic villus sampling to see whether she is carrying a foetus likely to develop Downs Syndrome. Such tests normally take place between weeks 14 and 17. Either of these diagnostic procedures may give rise to a request by the mother, under advice, to opt for an elective termination of pregnancy.

From week 22 the foetus will have developed far enough for life outside the womb to be just about supportable, given a very high degree of intensive care. So some mothers who have difficulty carrying a baby to full term for any reason, and who have a very strong desire for a child, may ask for their baby to be delivered with specialist help (either vaginally or by Caesarean section) and then cared for in high intensity conditions. Between 22 and 24 weeks the chances of survival and (if surviving) of normal development, are not good. Medical counselling and proper informed consent by parents is essential before this course of action is pursued, since there is high risk of saddling the parents with a lifetime of care for a severely disabled dependent person.

Babies can be born prematurely between weeks 25 and 36 yet require special care and support. They have progressively greater ability to lead independent lives with increasing time in the womb. Beyond week 37 birth can occur with expectation of normal life.

This discussion paper does not attempt to explore the wide field of medically assisted pregnancy: in-vitro fertilisation, intra-cytoplasmic sperm injection, use of donor sperm and eggs, ovary transplant, surrogacy, and so forth. But I do note the practical time limits for stem cell extraction. From fertilisation until fourteen days later it is practical to take stem cells from the developing blastocyst or embryo when grown in the laboratory, usually available as surplus to requirement during in-vitro fertilisation process. It is usual to describe this procedure as embryonic stem cell harvesting, if allowed by the ethics and legislation for a variety of purposes including fundamental research and a variety of gene therapy for patients.

### **Questions for discussion**

- When can we say that an individual human life begins? With the production of egg or sperm? With fertilisation? With implantation? With early signs of life, like heartbeat or breathing? With birth?
- Should we have absolute rules about *the woman's right to choose* or about *the sanctity of early human life*?
- If we admit the possibility under the law of abortion, should we make rules about when that may be allowed: before 28, 24, 22 or 20 weeks, for example. If so, what is the rationale for choosing one of those as a watershed?
- If abortion is allowed, what safeguards should be in place (a) for the blastocyst / embryo / foetus / baby and (b) for the pregnant woman / mother?
- Should there be special circumstances under which abortion might be permitted when abortion would not be permitted were those circumstances absent? I mean, for example, in a case of pregnancy following rape would it be right to permit abortion at (say) 25 weeks, if abortion at 25 weeks were generally disallowed?
- If we accept that idea (that special circumstances adjust the rules for permitting abortion) then what might those circumstances be: for example (a) rape; (b) predicted abnormality such as Downs syndrome or spina bifida or cystic fibrosis?
- If such choices are to be permitted, then who should be allowed to make them? For example: the mother alone, the mother and father together, the parent(s) with medical advice, the law courts?
- Should prevention of implantation of a possible blastocyst be regarded similarly to abortion of an implanted foetus?
- Should the morning after pill be available over the counter?
- Should counselling be available (or always offered, or mandatory) for a woman contemplating or seeking an abortion?
- Should the putative father have any influence (even rights) in any decision about abortion?
- Is abortion (at any stage before birth) fundamentally different from infanticide?
- Should infanticide be regarded in *exactly* the same way as the murder of anyone else?

## A CALENDAR OF EARLY HUMAN LIFE

natural development		timelines		interventions & outcomes	
last menstrual period [LMP]					
successful fertilisation results from insemination occurring about two weeks after last menstrual period [LMP]		time from fertilisation	weeks from LMP [used in maternity settings]		
insemination		-6	2	emergency contraception can be successful using the 'morning after' pill	
		-5			
sperm travels towards egg in fallopian tube		-4			
		-3			
fertilisation		0	3	IUD (if fitted) prevents implantation	stem cell extraction practical
implantation may fail	blastocyst stage	12			
		24			
		40			
		66			
		implantation [generally starting 5-6 days from fertilisation, and complete by day 10]			
		3	4		
		4			
		5			
		6			
spontaneous abortion may happen	embryo stage	10	5	elective termination permitted under current legislation (November 2008)	
		14			
		neural streak appears			
		irregular heart beats start			
		primitive circulation starts			
		taste buds appear			
		facial characteristics form			
		foetal movement discerned			
		swallowing starts			
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infant may be considered independently viable		37	late termination permitted in special circumstances	babies require special care and support, with progressively greater ability to lead independent lives	
stillbirth may occur	foetus stage	38			
		39			
		40			
		41			
		42			
		42			

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