

THE SOUL AND PERSON OF THE UNBORN CHILD

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PREFACE

The original form of this essay was an address delivered on August 21 1997 to a session of the Scottish order of Christian Unity in Edinburgh - established to uphold the teaching of Jesus Christ as it bears upon all inter-personal relations between men and women and children, particularly upon marriage as a life-long partnership between one man and one woman, the training of children in the home and the school, the healing and preserving of human life, and concern for righteousness in the framework of community existence and activity. Many requests were made for its publication, not least from founders and supporters of the *Women and Children's Welfare Fund* established "To ensure the welfare of women and children through expert accurate counselling and scrupulous medical care". Earlier that year they had published a work entitled "Building Healthy Babies: The Importance of the Pre-natal Period. A symposium held at The Royal College of Obstetricians and Gynaecologists". However, before agreeing to the publication of my address, I wanted to have my arguments tested by scientists.

The opportunity came the following year at a joint session of two scientific Academies based in Brussels, *Académie Internationale de Philosophie des Sciences*, and *Académie Internationale des Sciences Religieuses*, both of which I had long been a member. They constituted together *L'Institut International des Sciences Théoretiques* which was to celebrate its jubilee year with lectures devoted to selected issues in medical science. They were scheduled to be delivered at *Instituto Scientifico H San Raffaele*, Milan, concerned with research in medical science. The Lecture I delivered there on May 22, 1998, was entitled "Medicine and the Unborn Child". It represented a longer and more technical version of the address I had given in Edinburgh. It is the Milan lecture which is now reproduced here, but I have reverted to its original title "The Soul and Person of the Unborn Child". I was happy that my presentation in Milan met with a good reception from scientists and with only a little critical reaction from theologians. It will be published in due course in the Proceedings of the *Institut Internationale des Sciences Théoretiques*, but I hope its appearance in this booklet form will reach a wider public in church and society where more consideration of the issues involved in concern for the unborn child is very much needed today.

I do not know who was the original author of the striking "Diary of an Unborn Child", which I have added as an epilogue, but I hope that s/he will feel that his or her purpose in composing it will be furthered in this way.

Edinburgh, December, 1998

THE SOUL AND THE PERSON OF THE UNBORN CHILD

We are dealing here with an area of pressing importance today: specifically at that point where concern for scientific understanding and religious attention to human need intersect with each other. There is an ancient connection between the priestly and the healing vocations, especially in the Judaeo-Christian tradition, a connection characterised by a non-dualist holistic way of thought and action. In it physical and spiritual, visible and invisible, tangible and intangible realities were regarded as bearing upon each other, and humans were understood as having their very being and distinctive existence at the meeting point of heaven and earth, that is, at the boundary conditions where they are open to a transcendent level, and its creative force bears operationally upon the distinctive personal structure of the human being. It is, I believe, at those all-important boundary conditions that we need to give fresh thought to the holistic nature and practice of medicine in a society rapidly evolving under pressure from scientific analysis and technical achievement and where the astonishing advances being made in genetic and computer technology tend to give rise to a merely myopic understanding and treatment of the human organism, with a consequent loss of the all-important openness at its boundary conditions.

The fate of medicine in a society rapidly evolving in reaction to scientific and technical achievement gives us particular concern, when we reflect that technology has a habit of developing a momentum of its own, so that it arrogates to itself control beyond our original intentions in developing it. What would become of the physician's work, his or her interest and commitment in medicine, if the function of making diagnoses were given over, to a greater or lesser degree, to an impersonal instrument or a machine? I have in mind here, of course, the computer, not only as a means of communication, or storing up and organising knowledge, but as an impersonal instrument on which, helpful though it certainly is, doctors may put too much reliance in diagnosis and prescription. This becomes an even more acute problem when, on the one hand, attempts are made to reduce our understanding of the brain to a closed mechanism, and, on the other hand, there takes place an increasing mechanisation of our social life. That is a pressing problem of medicine today in the technological society.

It is necessary for computer technology to be incorporated into the practice and teaching of medicine; but this means - does it not? - that we must give an enormous amount of careful thought to the restructuring of medical institutions to keep medicine to *the art of healing human persons*, i.e. of persons regarded as a unity of physical and spiritual realities. The training of future doctors and in fact the whole of medical and clinical care need much thought, for technical innovation must allow room for the specifically human and the personal, which defy mechanism. Upon the restructuring of all this may depend the character of future society: for it is in medicine, as also in religion, that we have a meeting point of the multivariable aspects of human being and function, and thus something central to the structure of a free and open society. Medicine functions at the all-important boundary conditions of human being where operational principles of a higher level determine its distinctive personal structure: the boundary conditions where the mechanical interaction of physical and chemical elements is determined from beyond them, and where even a biological organism is what it is, and operates as it does, by reference to some goal or purpose that is achieved by it - which is

true even of the DNA molecule. This purpose is not something deducible from the physical and chemical laws that operate beyond its parts. That is, of course, particularly the case with a human being, for the human being, as an ordered living system, depends on being open to what transcends him or her; human beings are consistent and explanatory as human beings only in so far as they are open to completion beyond themselves. Here too a form of the Gödelian incompleteness theorem applies. If a human being is confined within him or herself to constitute a static equilibrium, then s/he dies, physically and spiritually: s/he dies as a human being.

Last year there came into my hands a remarkable document published by the Women and Children's Welfare Fund in Britain, *The Building of Healthy Babies: The Importance of the Pre-Natal Period. A Symposium held at the Royal College of Obstetricians and Gynaecologists*. In this report medical specialists gave advice on "Diet, Mental Development, Medicine inside the womb, Provision of necessary pain relief, Preventing disease in later life, and Stress control." This was a very illuminating and helpful report on the life and sensations of the unborn baby as a conscious being in relation to his/her mother, in which it was shown that in their own individual responses foetuses have a lot of capabilities in feeling, hearing, recognition, remembering and learning which they do not just start developing when they emerge from the womb. The Symposium also reported on research into the alleviation of foetal pain and the effect of nutrition on early embryo development, which calls for greater consideration of the effect of painful pre-natal operations and not least the effects of abortion. Altogether this is a report of supreme importance, which will deepen understanding and care of the pre-natal life of babies and have a profound effect on the attitude of doctors, nurses, and parents, to abortion. I was troubled, however, by a tendency in the report to lapse into a mild form of the naturalistic fallacy. Two supplementary papers were called for and published on psychological and neurological development in the human and animal pre-born, one of which I was asked to prepare in my concern to bring to this scientific research a further dimension, which without lapsing into naturalistic reductionism might complement what has been done, and reinforce the insights gained. The title given to my contribution by Lady Lothian, Chairman of the Women and Children's Welfare Fund which had organised the Symposium, was "When does a Personal Being Begin?"¹ That is certainly part of my concern in this discussion.

Here let me refer to an important point emphasised by the late Michael Polanyi on a number of occasions in our International Academy of Sciences. Michael Polanyi, one of the greatest scientific minds of our age, had three careers, as a physician, as a chemist, and as a philosopher of science. But it was undoubtedly his early training and orientation as a medical doctor which left its permanent impact on his thought and shaped his scientific epistemology. This is evident in the way in which he conceived empirical and theoretical elements as held inseparably together within the life and activity of a human as a personal being, embodied personal intelligence. It is only a person, he insisted, that can engage in objective operations and engage in rational judgements, such as distinguishing truth from error. In fact in his commitment to rigorous scientific activity, Michael Polanyi became convinced that our science is ultimately impossible without a controlling transcendent reference beyond the scientist, especially beyond his or her analytical thought. He regarded a human as constituting in him or herself a hierarchic system of co-ordinated levels, of increasing rightness and intangibility, which in a remarkable way correspond to the nature of the universe as it is disclosed to us under the probing of our science in various fields. Human being is an open stable structure because of its in-built reference to a transcendent spiritual reality. I have particularly in mind Polanyi's account of the multi-levelled structure of human being in which

each level while incomplete in itself is open to completion at a higher level of intelligible relations. It is through boundary conditions that the organisational principles at one level are left open to control by the operational principles of a higher level.² Thus he called for a deeper appreciation of the different levels of human existence and knowledge in which each level is open at its boundary conditions to fuller explanation in relation to a higher level with which it is co-ordinated. Not to take this into account would be to fall into a what Polanyi regarded as rationalistic and deterministic fallacy. That is to say, failure to develop understanding of the different levels of human existence in their relation to higher levels, and so to cut short their meaningful reference beyond themselves, beyond what we can determine merely by physical, neurological, and psychiatric analyses, would be to truncate what we learn in those ways, and limit the value of what we have already determined. The human being is characterised by an indefinite openness to what is beyond, and is properly to be understood in that open-structured way.

As a theologian I believe that in the last analysis we must understand our human being in relation to God the creative Source of our being, and as a Christian I believe we must understand our human being in its relation to the saving and healing activity of God in Jesus Christ, the Creator Word of God who became redemptively and healingly incarnate in space and time. In the early centuries of our era when the foundations of Christian theology were being laid, the doctrines of the Creation and Incarnation had a decisive impact upon the understanding of *soul and person*. That is why I try to think out and seek to understand theological truth in the setting of the created universe and its God-given intelligibility with which we have to do in natural science. It is to that end that we are committed in medical science and in theology.

While I am not concerned here specifically with theology, what I wish to do is to bring into consideration the unborn child, his or her *soul* and his or her *personal being*, but I shall take into account basic changes that were introduced into science and the foundations of knowledge by Christian theology; this had the effect of challenging the dualist outlook of pre-Christian understanding of human being. My particular concern here is with the notions of the *soul* and the *person* that emerged, notions with which science and philosophy are still struggling owing to the hang-over of pre-Christian impersonal causalist or necessitarian forms of thought which damage our science. But it is in respect of the soul and the person of the unborn child that we have to do with its enlightening relation to what is beyond its merely physical or biological existence.³

I The Soul of the Unborn Child

In a lecture I delivered not long ago at several universities in the United States, including Princeton and Yale, about “Einstein and God”,⁴ I showed that for Einstein “God” was not just a metaphor but, in his words, a “transcendent” and “spiritual” reality which he confessed he had to take into account in the foundations of scientific discovery. I discussed his recovery of a biblical, Jewish-Christian, way of thinking of man as *body and soul*, which I like to think of as *body of his soul and soul of his body*. It was that unitary, non-dualist, way of thinking (for example of the particle and the field, of space and time) that governed his science, and determined for him the fundamental interrelation between relativity and quantum theory. I believe it is that non-dualist unitary way of thinking that we need to recover in our understanding of the conception and life of the unborn child. Jews and Christians believe that God created the universe, matter and mind alike, out of nothing - that is the all-important notion of contingent rational order upon which all our modern empirical and theoretical science rests. My concern here is with the fact that this applies in crucial ways to *human*

being. In creating human being, body and soul, out of nothing God did not give being and life to the body by itself, or to the soul by itself, but to man/woman in whom body and soul form a living unity. The human being is an integrated whole, not as soul and body, but an *embodied soul and a besouled body*, as Karl Barth once expressed it.⁵

This truth has far-reaching implications, which are very relevant for us today.

First, let us note the fact that the human being as soul of his or her body and body of his or her soul applies to the *distinction between male and female* in the very origin of their being. This means that the difference in sex is not simply a feature of the body, merely accidental to the soul, but is intrinsic to the human soul which far from being neutral is either male or female. Sexuality determines the innermost being of people, making them either male or female in themselves. This means that this basic feature of humanity, the essential human nucleus, is neither man by himself nor woman by herself, but only man and woman: man is man only in relation to woman, and woman is woman only in relation to man. That is, of course in accord with the teaching of Christ about marriage, that in God's creation, man and woman are originally and finally not two but "one flesh". Thus this difference in gender within the oneness and fullness of human being, far from being an external convention, goes back to the union of man and woman in God's original creation which must not be put asunder. This has important implications for our understanding of sex, which may not be reduced to its physical and biological aspects. Without proper attention given to the soul and the spiritual nature of male and female relations, that would lead to an animalisation of sex, which fostered by the media, gives rise to the unhappiness and disaster so very evident in modern society. Hence I believe it is extremely important, in family and medical care, to give attention to the fact that the embryonic child, male or female, is an embodied soul and a besouled body, and as such is already, not a potential, but an incipient person.

Second, let us note the fact that the human being is soul of his or her body, and body of his or her soul from the very beginning of his or her life in the womb, from the moment of conception. Although distinctive features of human being may not yet be discernible in any differentiated form, the essential nature of the unborn child is nevertheless a living human being, not just a natural or biological organism, which is the object of God's concern whether as a child or as an adult. For Christians this truth was considerably reinforced by the fact that the human life of Jesus the incarnate Son of God commenced from the moment of his conception in the womb of the Virgin Mary. It was thus that the Early Church was led to reject abortion and foeticide as well as infanticide. Thus in its teaching of the Ten Commandments it added two others: "Thou shalt not procure abortion", and "Thou shalt not commit infanticide".⁶

Full consideration of this was given by St Gregory of Nyssa,⁷ who held that since human being is one, consisting of soul and body, soul and body come into being at the same moment in the womb. And with other Greek theologians he held that each soul is created by God along with the body and grows together with the body from the moment of conception. The human being is already potentially complete as "the human germ", as Gregory expressed it, which is startlingly similar to modern scientific finding that the human being is genetically complete in the embryo from the moment of conception, which makes abortion and foeticide as morally and utterly abhorrent as infanticide. Let it be granted, however, that difficult circumstances arise in which exception is called for in the prohibition of abortion. Unfortunately, especially in a society rife with moral relativism, the exception tends to be turned into a rule, which would then be another and serious form of what Michael Polanyi called "moral inversion", one which, alas, is now very widespread.

I believe firmly that what we need to take seriously into account today, along with our scientific understanding of the pre-natal period of a baby, is that the human embryo or foetus is a *soul* as well as a body, as soul of his or her body and body of his or her soul. The human embryo is already a being with a multi-levelled structure which is properly to be understood in the co-ordination of the body and the soul, that is of the lower level with the higher level of its existence. What is learned of the embryo as a physical or biological organism, for example in respect of its sensations, may be deepened and furthered in respect of its consciousness, feeling, hearing, recognition and learning. Thus I believe that the human foetus, incomplete in itself merely as a biological organism, is open to deeper and more complete understanding as an embryonic human being, when we take into account that it is already an *embodied soul* and a *besouled body*. This will surely help our neurological and medical science to think more fully of the unborn-child in its open structure (in line with Polanyi's analysis) to what is beyond mere empirical observation, as we do elsewhere in natural science, and also help us to avoid what is called the rationalistic and deterministic fallacy.

There is another important matter here, which we must take fully into account the fact that the embryo even as a biological organism is rather more than the sum of its constituent genetically analysable parts, an all-important factor in its wholeness. This is a matter to which Michael Polanyi has drawn attention, the relationship of particulars jointly forming a whole.⁸ Thus in "topographic anatomy", the particular parts analysed, although explicitly specifiable, are found to form an unanalysable whole which is more than the constituent parts and is not specifiable in terms of them. That is a form of knowledge which an experienced surgeon possesses of the regions of the body on which he operates. This is a form of unanalysable or ineffable knowledge with which we are all very familiar, for example, in the recognition of a human face.

There is an important factor here, which I believe, we must take into account in embryology, an indeterminate whole bearing upon the formation, and upon our formulation of different levels of analysable particulars. The formation and shape of the embryo is not to be explained through genetic analysis of its anatomical particulars there is something all-important over and above that, a comprehensive unanalysable entity. This is a point to which Howard Taylor, in an unpublished work, has drawn my attention with reference to an argument of Paul Davies, the physicist, in *The Cosmic Blueprint*;⁹ "If every molecule of DNA possesses the same global plan for the whole organism, how is it that different cells implement different parts of that plan? Is there, perhaps, a "metaplan" to tell each cell which part of the plan to implement? If so, where is the "metaplan" located? In the DNA? But this is surely to fall into infinite regress." It is clear, as Taylor has pointed out, that however wonderful and complicated the DNA may be, it cannot of itself account for the enormously greater complexity of many parts of one's physical body. *Where does the information content of the genome come from?* In this connection, Michael Polanyi pointed to the role and significance of genetic fields and what he called "morphogenesis", a notion which has been taken up and developed in his own way by Rupert Sheldrake in his "new field theory" of morphogenetic fields.¹⁰

I believe we must take into account here the fact that the *order* with which we operate in all scientific research and description is not itself open to scientific proof, for order has to be assumed in any attempt at proof or disproof." Order is an ultimate belief, the absolute presupposition, on which all scientific and rational operations rely, and which derives from and directs us to a transcendent source or ultimate ground of order." It is in relation to that transcendent source or ultimate ground of order that any so-called "metaplan" in the created order is properly to be considered. The point which I wish to raise here in the light of this is

that there is and must be a *regulative force*, and indeed a *controlling source of information*, beyond the anatomical and organic structure of the embryo, something over and above its genetic constituents, which is genetically inexplicable and indescribable, to which its formation, genetic structure and information content are indebted, and which bears upon the human nature and life of the developing embryo from the moment of conception.

This is where I believe we must give attention to a factor which some geneticists and gynaecologists tend to neglect, the *holistic* nature of the body-soul relation. I refer again here to the way in which Einstein, like Spinoza, refused to deal with the soul and the body as two separate things. As a Jew Einstein resonated with Spinoza for they shared the traditional Jewish and biblical unitary concept of man as body of his soul and soul of his body, and would have nothing do either with a notion of the soul as an independent rational entity or with a Cartesian or other form of dualism in philosophy and science. However, unlike Spinoza Einstein was not a rigid determinist or atheist, and declined to rule out of account the place of a transcendent relation in his science and thus of an ultimate reason to which a unitary understanding of physical laws must go back.¹³ It is that kind of holistic, non-dualist, conception of the body and soul which I believe we must allow to govern our understanding of the unborn child, in the oneness of its body and soul, as an embodied soul and a besouled body. This means that we must regard the human embryo as already a *human life*, already *in parvo* a complete *human being*, in which the two levels of its being in body and soul, or the physical and the spiritual, while constituting a unity are co-ordinated in such a way that while the higher level of the soul is unspecifiable in terms of the lower level of the body, it is through the soul that in an ineffable way information bears upon the genetic structure of the foetus, informing it from its conception as already, not but as a distinct, viable human being in just a potential human being, which body and soul develop together within the womb of the mother.

As gynaecologists have now established, the unborn child already develops a consciousness and a self-awareness of its own, and has a “psychological” life in a two-way resonance and bonding with its mother, even an intuitive mode of communication with her, in which it is affected by the thoughts and experiences of the mother during pregnancy.¹⁴ This is very evident, we are told, in the way in which the pre-term baby as early as 20 weeks of gestation can react to the loving tones of its mother’s voice, evident in its “kick rate”, and what is more, respond to, recognise, and remember beautiful music (particularly, it appears, Mozart!). They also react to harsh sounds heard in quarrels between their parents, while videos reveal that they can suffer distress, as when stress in pregnancy of the mother can cause anxiety and pain to her unborn child.¹⁵ As the American psychiatrist Thomas Verny has shown, the embryo, even in the first weeks of life, “possesses enough self-awareness to sense rejection and enough will to act on it.”¹⁶

Some of the features I have been discussing apply to the embryos of animals. Hence we must take into account what we may speak of as animal soul”, for the embryo of an animal is also born as a living breathing being.¹⁷ With human beings, However, we have to reckon with a higher level of life beyond that of the animal organism, that is, with the rational or intelligible “human soul” transcending that of the animal soul”. This is where in theology we think of a human as specifically created by God in correspondence to himself as a living being to reflect him in a unique way, *ad imaginem dei*, and indeed as a *spirit* or a spiritual being to reflect God’s spiritual Nature. The human spirit is not to be regarded as some third entity in addition to body and soul but as the dynamic relation of the human, as body of his or her soul, and soul of his or her body, to God. This distinctive relation of the human as spirit to the Creator characterises the whole of human being in its unity of being as body and soul, as an

embodied soul and an ensouled body. We may not think of the intelligible soul as some independent existent apart from the body, but only as an embodied soul; nor correspondingly may we think of the human body except as an ensouled body. It belongs to the distinctive nature of our whole being created *ad imaginem dei*, in contrast to that of mere animal nature, to be a *subject, a self, a spirit, a personal being*. This means that we must give consideration not only to the soul of the embryo but to the personal being of the embryo which is already evident in the kind of conscious resonance we have noted between the self of the unborn child and its mother.

Before we move on we must ask about a “metaplan” which regulates the formation of the embryo, animal or human, an ultimate ground and source of order, and about the information, which somehow bears upon developing organisms and regulates their formation, but which is not explicable in terms of the actual patterns of order that emerge in the developing organism. Here, it would seem to me, we must take into our consideration the kind of rethinking of classical thermodynamics which we owe to Ilya Prigogine,¹⁸ another member of our International Academy of the Philosophy of Sciences, in his account of the thermodynamics of open systems in which we discover order spontaneously arising far from states of equilibrium where, instead of random fluctuations, we find more organised, higher levels of order emerging which are not explainable in terms of previous states of affairs. Thus even when we think in terms of natural science, we are led to regard the whole universe as developing under the regulatory impact of an imperative source of information leading to maximisation of order. That seems to be what happens in the embryonic development of a foetus, animal or human, where a very complex form of order is involved, and which is not open to explanation in terms of merely random processes or by recourse to some conception of spontaneous self-organisation.¹⁹

Here, I believe, we have to reckon with a regulatory force of an ultimate ground of order and of a transcendent source of information which cannot be specified or conceptualised, far less explained in terms of the orderly arrangements or the genetic structures found within the universe that are indebted to it. In a strange way the ultimate ground of order is known only in an implicit or subsidiary way as the comprehensive presupposition for our understanding of any or all orderly formation within the universe.²⁰ Without it everything would finally be meaningless or pointless. But we have to reckon especially with a transcendent source of *information* involved in generating the incredibly complex kind of dynamic order found in the formation of living beings, such as as we find particularly in the human genome.

II *The Personal Being of the Unborn Child*

What is meant by person or personal being? Unfortunately, once the Christian concept of the person and of the personal entered the stream of ideas in history, its significance tended to be twisted, and its central importance was swamped by the resurgence of dualist and then psychological patterns of thought. The person came to be defined first in an individualist and rationalist, and then in a legal and psychological way, so that its profound relational and ontological import became submerged. That is particularly evident in the romantic and subjectivist notion of “personality”. As a result the personal became excluded from scientific investigation, so that even the personal participation of a scientist’s mind, as Schrödinger and Polanyi lamented, was excluded from scientific thought, although it is actually through the mind of the scientist as person that all scientific research takes place and scientific knowledge is achieved and verified. After all it is only a person, as Polanyi insisted, who can engage in

objective scientific operations, weigh evidence, distinguish truth from error, and make rational judgements.

There is another side to the history of the person and the personal, however, to which we must give attention in the light of the scientific activity of the mathematical physicist James Clerk Maxwell.²¹ When Clerk Maxwell was faced with the problem of explaining the behaviour of the electromagnetic field discovered by Michael Faraday, he first tried to do that in a Newtonian mechanistic way. But when he failed again and again in the three different mechanical models he constructed, he took over a way of thinking in terms of *real relations*. That had deep theological and philosophical roots in Scottish tradition, going back through Sir William Hamilton to John Duns Scotus, and indeed, as far as I can see, to the Trinitarian theology of Robert Boyd in which *relations between persons belong to what persons actually are.*" Clerk Maxwell applied that kind of dynamic onto-relation to explain how particles of light are related to one another in such a way that their relations to one another belong to what they actually and dynamically are. In doing so he developed the epoch-making concept of the continuous dynamic field, breaking with a Newtonian mechanistic explanation of nature, which Einstein claimed brought about the greatest change in the rational structure of science, upon which his own science and subsequent science rests.

Why, then, should we not think of the personal being of the unborn child in that kind of dynamic and ontological way, primarily in his or her relation to God the Creator, and secondarily in the interrelation of the child with his or her mother? If that onto-relational and inter-relational way of thinking could be so effective in the scientific account of the behaviour of light particles with one another in a continuous dynamic field, why should we not think of it as applying (*mutatis mutandis*, of course) effectively to a new and deeper understanding of the interrelation of the body and soul and personal life of the foetus, certainly in relation to God the creative Source of all personal being, but also in relation -to the mother, and indeed to the father? I believe that it is in and through relation with the mother that the embryonic being of the child begins his or her personal existence, and that it is through loving personalising relation with the mother that the tiny personal being of the foetus is nourished, and its embryonic personal response to the mother is developed, evident, for example, in recognition of and reaction to the mother's voice.

I recall here the account in the Gospel of how the embryonic being of John the Baptist leaped in the womb of his mother Elizabeth at her meeting with the Virgin Mary. I believe, that through fuller understanding of the unborn child in the unity of body and soul, and in the personal relatedness of the child to the mother particularly, we can deepen and advance what we learn today from the clinical researches of medical scientists, particularly in our understanding of the personal life and behaviour of the unborn child, not least in respect of his or her sensations of joy and pain. Certainly it is God himself who is the Creative Source of all personal being and inter-personal relations - he is the personalising Person, who brings us into personal life and being through the inter-personal activity of a father and mother, which begins with our conception, develops in our pre-natal life, reaches fruition in birth and childhood, and blossoms within the inter-personal life and love of a human family. What happens to children in these personal ways after they are born goes back to the pre-natal period in the life of every one of us, in the beginning and growth of *personal being* already in the womb, through the personal and personalising relation between the unborn child and his or her mother.

Incidentally, this makes it quite clear that we cannot but reject, and reject with Christian and scientific horror, the outrageous proposal by Japanese scientists to develop

artificial wombs with artificial placentas called “womb tanks” through which babies may be born in the future. Apart from anything else, such attempts to mechanise the process of human birth would suppress or eliminate the all-important inter-personal relation between the foetus and the mother, and kill off growth in the personal being of the unborn child. But it would also amount to a very, retrograde step in science, for it would involve a lapse back into a Newtonian mechanistic explanation of events in nature. That was precisely what Clerk Maxwell set aside, as I have noted, in his adaptation of the idea he gained from real inter-personal relations, when he put forward the idea that the relations between light particles in a dynamic field belong intrinsically to what they really are. No! Gynaecological science must surely move forward in a similar way, away from rationalistic and deterministic explanations of the pre-natal life of the child, and give fuller and more understanding attention to *the personal* growth of the baby in the womb through *inter-personal relation* between the baby and his/her mother.

There came into my hands recently, recommended to me by Dr Deborah van Heusen Hunsinger, a professor of pastoral theology in Princeton,²³ a very illuminating book by Daniel Stern of Cornell University, *The Interpersonal World of the Infant. A View from Psychoanalysts and Development Psychology*.²⁴ I found of particular interest his exploration of the infant’s “subjective” experience, and what he had to say about the central role of the *self* in the life of an infant in the interpersonal relation of the infant and his or her mother. Again and again, however, he spoke of those features of the emerging self as having *innate* roots. Professor Stern’s own approach from psychoanalysis did not allow him to give attention to those innate roots of the infant’s self, or therefore to discuss the possibility of the interpersonal relations between the infant and his or her mother, as having a pre-natal origin and an embryonic development. But that is precisely what gynaecologists are now bringing into consideration in the evidence they provide not only for the experience of emotion as in distress or pain, to which I have already drawn attention, but for consciousness and self-awareness on the part of the foetus, and even for “personhood” as beginning with conception. This means that the kind of “resonance”, as I have called the bonding between an unborn child and its mother in the womb, must be regarded as *personal*. That is to say, the personal interrelation between mother and infant belongs to and is rooted in personal interrelations between mother and embryo. It is in and through those interpersonal relations of the mother and her unborn child that his or her personal being is developed.

All this calls for further rethinking of what we mean by *person*, and the realisation that each child is actually personal from the very beginning of his or her life in the oneness of body and soul in the mother’s womb, and grows in personal being, as in body and soul. This in turn leads to a clearer and more definite appreciation of the life and behaviour of the foetus as a conscious personal being with growing cognition and recognition of other personal beings, and with growing personal responses to others. And again this calls for profound changes in our appreciation and treatment of the unborn and newly born child: these are changes which philosophers, theologians and lawyers (who still seem to work with an individualist conception of the “person” as rational substance²⁵), as well as doctors, clinicians, psychologists and psychoanalysts (who often tend to think of “person” in terms of romantic psychological notion of personality), must surely accept, not least in connection with the issue of abortion, and in upholding the sanctity of human life.

What, then, do we really mean by *person*? We must not overlook the fact that the concept of “person” was not known in the ancient world, although we tend to read it back into the use of the Greek *prosopon* and the Latin *persona*, owing to the fact that our thought in the Western world has been moulded by the Christian concept of person and the relations of

persons to one another.²⁶ The concept of *person* actually derives from the Christian doctrine of God as the Holy Trinity, that is of God as an eternal communion of three hypostatic realities or Persons who are who and what they are in their eternal coinherent relations with one another. While the term “person” was originally used in this unique sense to speak of God - of the Father, the Son and the Holy Spirit in their inter-personal communion with one another - it came to be used in a secondary sense to speak of human persons who on their creaturely level exist only in such a way that the relations between them belong to what persons essentially are, and that as such bear a created reflection of the transcendent relatedness or community-ness” inherent in God. It is in the light of this personal and inter-personal nature of human beings that we may rightly think of man and woman as imaging or reflecting God the Creator.

My concern here is with the essential nature of the person and of the inter-personal structure of human beings, for it bears upon the distinctive nature of their being, and with the fact that their personal being begins with their conception and is nourished through interpersonal relations with the mother. The human embryo as an embodied soul and a besouled body, is already *in parvo* a personal being, begotten to reflect the Personal Being of God, and indeed as a creaturely spirit to resonate with the Holy Spirit of God. By spirit is not meant that man was created as body, soul, and spirit, but rather that *as spirit*, man as body of his soul and soul of his body, is given a transcendental determination of his human condition before God.²⁷

As Holy Spirit God is here to be thought of as transcendent personalising Being, and the human creature as spirit is to be thought of as personalised being. Through the creative power and personal presence of his Spirit God realises the relation of the creature to himself, constituting him a spiritual being capable of meeting God and of enjoying personal relation with him. Whereas in classical Hellenic thought spirit was regarded as impersonal, it was otherwise in the Judaeo-Christian tradition in which spirit was regarded as intensely personal in the transcendental determination of his being as body and soul in personal relation to the Creator.

Let me repeat: we must think of the human person as transcendently determined in his or her existence as soul and body, which not only constitutes him or her as a personal human being before God, but maintains him or her in relation to him as the ultimate Ground and Source of his or her creaturely order. That is how, I believe, we may think here of some ultimate “metaplan” or transcendent informational imprint as tacitly and ineffably bearing regulatively and personalisingly upon the human embryo in its oneness of body and soul from its conception and throughout its life in the mother’s womb, not just potentially but as already a *personal human being*.

At the beginning of this booklet I recalled the age-old connection between the healing and priestly vocations, especially in the Judaeo-Christian tradition characterised by a non-dualist holistic way of thought and action, in which physical and spiritual, visible and invisible, tangible and intangible realities were regarded as bearing upon each other, and in which the human was understood as having his or her very being and distinctive existence at the meeting point of heaven and earth, at the boundary conditions of our existence where there bears creatively and formatively upon it a transcendent personalising force. I claimed that it is at those boundary conditions that we need to give fresh thought today to the holistic nature and practice oh with particular reference to the medical care of the unborn child. My special concern, in view of the crucial issues raised for modern medicine through the impersonal pressure of scientific technology, has been to give central importance to the soul

and personal being of the embryo as already a living human being. From the very beginning of his or her life in conception, the human embryo is to be understood with reference to the regulative and informational force of an ultimate ground of order, and thus to the transcendental determination of his or her existence as an embodied soul and besouled body, and as a personal being brought into inter-personal relations with others. The human embryo is fully *human being, personal being* in the sight and love of his or her Creator, and must be recognised, accepted, and cherished as such, not only by his or her mother and father, but by science and medicine.

Epilogue

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DIARY OF AN UNBORN CHILD

October 5

Today my life began,
My parents do not know it yet,
I am as small as a seed of an apple,
but it is I already. And I am able to be a girl.
I shall have blonde hair and blue eyes.
Just about everything is settled though,
even the fact that I shall love flowers.

October 19

Some say that I am not a real person yet,
that only my mother exists. But I am a real person,
just as a small crumb of bread is yet truly bread.
My mother is, and I am.

October 25

My heart began to beat today all by itself.
From now on it shall gently beat for the rest of my life
without ever stopping to rest! And after many years it will tire. It will
stop, and then I shall die.

November 2

I am growing a bit every day.
My arms and legs are beginning to take shape.
But I have to wait a long time yet before those
little legs will raise me to my to my mother's arms, before these little arms
will be able to gather flowers and embrace my father.

November 12

Tiny fingers are beginning to form on my hands.
Funny how small they are!
I'll be able to stroke my mother's hair with them.

November 20

It wasn't until today that the doctor told mum that I am living here
under her heart. Oh how happy she must be! Are you happy, mum?

November 25

My mum and dad are probably thinking about a name for me.
But they don't even know that I am a little girl.
I want to be called Kathy. I am getting so big already.

December 10

My hair is growing,.
It is smooth and bright and shiny.
I wonder what kind of hair mum has?

December 13

I am just about able to see. It is dark around me.
When mum brings me into the world
it will be full of sunshine and flowers.
But what I want more than anything is, to see my mum.
How do you look, mum?

December 24

I wonder if mum hears the whisperings of my heart?
Some children come into the world a little sick. But my heart
is strong and healthy. It beats evenly: tup-tup, tup, tup.
You have a healthy little daughter mum!

December 28

Today my mother killed me.

NOTES

¹ *Supplementary Papers*, W&CWF, 1997, p. 13-18.

² See, for example, *The Study of Man*, 1959, chapter two, pp.41ff.

³ Refer to my discussion, 'The Soul and the Person, in Theological Perspective', contributed to *Religion, Reason and the Self, Essays in Honour of Hywel D. Lewis*, Cardiff, 1989, pp.103-118.

⁴ 'The Witherspoon Lecture', published by Center of Theological Inquiry, Princeton, 1998.

⁵ Karl Barth, *Church Dogmatics*, III.2, pp. 325ff & 344f.

⁶ Thus *The Didache of the Apostles*, 2.2, and *The Epistle of Barnabas*, 19.5 - also Clement, *Paedagogos*, 2.96. See Michael J. Gorman, *Abortion and the Early Church. Christian, Jewish and Pagan Attitudes in the Greco-Roman World*, Illinois, 1982, p.47ff.

⁷ Gregory of Nyssa, *De anima et resurrectione*, MPG 45, 125-8; and *De opificio hominis*, 28-9.

⁸ Michael Polanyi, *Personal Knowledge, Toward a Post-Critical Philosophy*, London, 1958, p. 88f. Cf. here also David Bohm, *Causality and Chance in Modern Physics*, 1957, in which he points to aspects of reality that are beyond analysis, and calls for 'holographic' modes of thought.

⁹ Paul Davies, *The Cosmic Blueprint*, p. 103. Howard Taylor, a former student of mine, is a scientist and a theologian in Glasgow.

¹⁰ Rupert Sheldrake, *A New Science of Life, The Hypothesis of Formative Causation*, 1987. See also, John P. Briggs and F. David Peat, *Looking Glass Universe, The Emerging Science of Wholeness*, 1984; and C. B. Thaxton, W. L. Bradley, Roger L. Olsen, *The Mystery of Life's Origins: Reassessing Current Theories*, 1984.

¹¹ See Alastair McKinnon, *Falsification and Belief*, The Hague, 1970, and my discussion, *The Christian Frame of Mind. Reason, order and openness in theology and natural science*, Colorado, 1989, p. 17f.

¹² Refer to 'Ultimate Beliefs and the Scientific Revolution', in *Transformation and Convergence in the Frame of Knowledge*, Belfast, 1984, pp. 191ff., and *Senso del divino e scienza moderna*, Rome, 1992, pp. 284ff.

¹³ See Einstein's Lecture 'Über den Gegenwärtigen Stand der Feldtheorie' - Prof Dr. A. Stodola *Überreicht*, Zurich, Füssli, 1929, pp. 126-132. This is a point which I took up in a lecture on 'Einstein and God' now being published by the *Center of Theological Inquiry* in Princeton.

¹⁴ See Landrum Shettles and David Rorvik, *Rites of Life. The Scientific Evidence for Life before Birth*, 1983, ch. 6, pp. 85ff.

¹⁵ Refer to *Building Healthy Babies: The Importance of the Pre-Natal Period*, pp. 81-95, and the reports of scientists from Keele and Bath Universities in *Sunday Telegraph*, London, March 29, 1998.

¹⁶ Thomas Verny, *The Secret Life of the Unborn Child*, New York, 1981, p. 19. This is cited by Landrum Shettles and David Rorvik, op.cit. p. 87f.

¹⁷ I have in mind here the Biblical Hebrew *nephesh hayyah*, "living soul", where "soul" is not to be understood in the traditional Greek or Latin sense. See G.A.F. Knight, *A Christian Theology of the Old Testament*, 1959, p. 34f, & A.R. Johnson, *The Vitality of the Individual in the Thought of Ancient Israel*, 1949, p. 23.

¹⁸ I have in mind here particularly his contribution 'The Rediscovery of Time', in *Zygon*, Winter Park, Florida, December 1984, vol. 19, Number 4, pp.433-447.

¹⁹ See Dean L. Overman, *A Case Against Accident and Self-Organization* (New York & London, 1997), who shows that the concept of order involved in 'self-organization scenarios' operates with a deficient sense of information content. Cf. his critical reference to Prigogine in this respect, pp.75f & 185f.

²⁰ I discuss this in 'The Transcendental Role of Wisdom in Science', *Science et Sagesse, Entretiens de l'Académie Internationale de Philosophie des Sciences*, edit. by Evandro Agazzi, Fribourg, 1991, especially pp. 63-68.

²¹ Refer to my edition of Clerk Maxwell, *A Dynamical Theory of the Electromagnetic Field*, Edinburgh, 1982, and Eugene, Oregon, 1996. And also my discussion in *Transformation and Convergence in the Frame of Knowledge*, Belfast, 1984, pp. 215-242; and *Senso del divino e scienza moderna*, pp. 318-353, edit. by Giuseppe Del Re, Città del Vaticano, 1992.

²² This is what, I believe, he found particularly in the work of Robert Boyd, *In Epistolam Pauli Apostoli Ad Ephesios Praelectiones*, Geneva, 1661, particularly cc 486.2-487.1. Refer to my account of this in *Scottish Theology*, Edinburgh, 1996, pp. 70-74.

²³ See her book, *Theology and Pastoral Councelling. A New Interdisciplinary Approach*, Michigan, 1995.

²⁴ Daniel Stern, *The Interpersonal World of the Infant*, New York, 1973.

²⁵ In my view, the ideas of Richard of St Victor and John Duns Scotus are preferable to those of Boethius and St Thomas about the person as *individua substantia rationalis naturae*, which has had such a detrimental effect in western philosophy and theology.

²⁶ Thus A. Seth Pringle-Pattison, *The Idea of God in the Light of Recent Philosophy*, Oxford, 1920; and cf. C.C.J. Webb, *God and Personality*, London, 1919.

²⁷ I have in mind here the impressive account Karl Barth gave of the human spirit as the basic relation of man's soul and body to God. *Church Dogmatics*, III.2, p. 344ff.