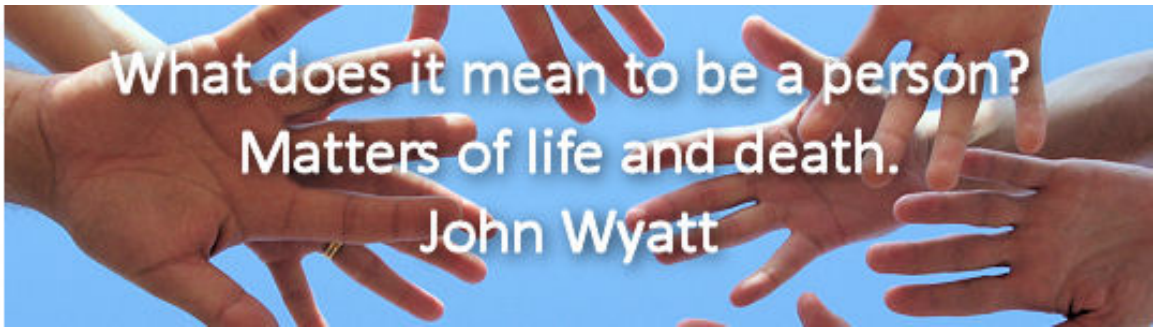

Overview

Professor John Wyatt delivered the lecture "What does it mean to be a person? Matters of life and death" on 21 February 2008 at the Howard Building, Downing College, Cambridge. A transcript of the lecture can be viewed at:

http://www.st-edmunds.cam.ac.uk/faraday/CIS/Wyatt/

The lecture was followed by questions from the audience and later a dinner/discussion at St Edmunds College. A transcript of the discussion follows. It was chaired by Dr Denis Alexander (Babraham Institute, Cambridge) with introductory remarks from Prof Hill Gaston. The other contributors are described at the end of the discussion.

Wyatt Post-dinner Discussion – 21 February 2008

Denis Alexander: As promised, this is the time when we come to our work part of the evening and I do hope that everyone will feel free to discuss and chip in. It doesn't matter if you're not a paediatrician or a medic, though I'm glad to say we have got quite a few medics round the table (which I'm not, by the way). We normally ask someone who has been to the lecture to start us off with a few thoughts just to get the discussion rolling and Hill Gaston has very kindly agreed to do that this evening.

Hill Gaston: This is not another lecture! I'm only going to kick things off. I'm not entirely sure why a rheumatologist has been chosen because we hardly ever seem to do anything which raises major ethical questions – we seem not to get into those situations!

I enjoyed the talk very much, John. I thought the demolition, if it's fair to put it that way, of the Singer position was well done – in some ways that's relatively straightforward to do because I think he does end up in a position which is pretty absurd and is certainly seen to be so. I also then enjoyed, and thought helpful, the idea of just saying that personhood was

fundamental stuff that we didn't have to justify, and we didn't have to have particular properties to get there.

Then I think, if I have remembered it right, that you basically said humans are persons and this is what they are endowed with. But that seemed to me then simply to move the question across to then say "What are humans?" You then gave the nice historical view, emphasising the continuity between me as an adult today all the way back to, I think, my first eight cells (but presumably you would be happy to go to one). I wondered if it was worth exploring this evening the different question of what makes a human, since once you have decided someone is human then they are endowed with personhood and the ability to be in a relationship – to be someone who is loved and cared for and valued. I wonder to what extent, or how, you would look at the very beginnings of humanness. Does humanness then basically become a nuclear property? It's topical given the interest in putting human nuclei into eggs that have come from another species: but is a human nucleus enough to define humanness? Is it a certain number of chromosomes? That's perhaps a rather mechanistic approach, but I would be interested in your thoughts in that direction.

Denis Alexander: I think what we'll try to do is to accumulate a number of comments and thoughts from around the table and then come back to John – which means that he'll have to store up at least five different points!

Roger Barker: I was interested in the last point that Hill made which was the discussion about when human life actually begins and/or the potentiality for it to become so, especially with regard to stem cells. The problem with embryonic stem cells is that they involve destroying embryos at eight to sixteen cell blastocyst stage, a stage at which they have the potential for life – so are these embryos truly human? If we accept that they are by virtue of their potential to give rise to a person, what should our position be with the recent work generating inducible pluripotential stem cells (iPS)? These cells involve a re-programming of a skin cell to one that has embryonic stem cell properties and as such presumably this cell also has potential to become a person, so is that cell in some sense a human?

Geoff Cook: You touched on the question of the soul at the end of life but I wondered if you would like to mention something about the beginning of life. I know that people have different thoughts about that and Norman Ford, the Australian priest, has suggested maybe it's the primitive streak. I would be interested to know what your thoughts are.

Rodney Holder: Regarding the soul, John was very anti-dualist in his talk. At the same time he said, 'I believe there's an afterlife'. I agree that we are psychosomatic unities and, as Christians, we believe in the resurrection of the body. However, there is still the issue of continuity between this life and the next life. What is it, as it were, that continues so that it is the same 'I' living now who is resurrected? That's my question. Whenever I hear someone

who takes the view John does, which I've got a lot of sympathy with, that question is always the one that leaves me in doubt.

Denis Alexander: We seem to be accumulating points about the beginning of life and where it all begins.

John Wyatt: Yes, thanks, although I think it would be a pity if we fixated totally on blastocysts because I think that's often the way that the debate goes. Yet I do think there are very profound issues elsewhere in society and in human life, and perhaps because it is such a controversial area one shouldn't therefore assume it's the only or necessarily the single most important issue. But one can't avoid these questions

By way of background, the perspective I have come to is that the embryo is *sui generis*, it is a unique being. It is neither "a blob of jelly, a bundle of cells" nor is it a miniature baby, it is the thing in itself, it is a unique being and ultimately it seems to me in the Christian perspective, it is also a mystery. There's a verse in Ecclesiastes that says, "As you do not know how the body is formed in a mother's womb, so you cannot understand the work of God, the maker of all things." It is seen as the ultimate mystery in a way; the ultimate mystery of existence is how a new person comes into being. I think all of us who are parents and who've had that amazing experience where once there were two people in the room and now there are three people in the room – and how did *that* happen – we have a sense of mystery and wonder which I think we mustn't lose.

But it seems to me that there are two things that we have to hold together when we think about the embryo. The first is we have to hold together what in theological terms is sometimes called the "already" and the "not yet". The way I try to put it is that we are becoming what we are. It seems to me that the whole of human existence, the whole of the human narrative, is a process of becoming what we already are. In Christian terms you could say we are becoming by grace what we already are by creation, and that is as true of me and of all of us – that we are in the process of becoming – as it is true of a blastocyst of eight cells that is destined to become an adult. The embryo is in the process of becoming what it already in a sense is, in the stuff of its being. So we have to keep this sense of the human narrative, this sense of continuity. It does seem to me that the language of personhood helps to hold these things together. Otherwise from a naturalistic point of view, what is the continuity in human development?

Since the amount of turnover that is taking place at a cellular level is so extraordinary, what is there of you which is the same that was true at that eight cell stage: in terms of molecules presumably there is nothing. And yet this intuition that there *is* something that holds us together, a sense of continuity, is a very profound thing.

The other concept that we have to hold together, and this is where the "soul" language comes in, is the material and the immaterial, or if you like the physical and the

immaterial. At one level the embryo is merely a cell, it merely has a bilipid membrane, a nucleus, and a set of cytoplasmic structures like ribosomes and so on. I have a great deal of sympathy with the embryologist who looks at this entity under his microscope and says "What's the big deal, why are people getting so excited about this particular cell as opposed to any other cell that has a bilipid membrane and a nucleus and all the rest. Clearly at one level the embryo is just a cell and what is happening in the embryo is a purely mechanical process, one cell click, two cells click, four cells click, eight cells click and so on. This level of explanation is entirely consistent.

But at the same time it seems that something bizarre and amazing is happening, and that is that as the embryo divides a unique being is being called into existence, a being that has an identity, a name, a history, a being that has a father and a mother and that has a future. It is a unique being that will never again be repeated in the history of the planet which is being called into existence; and from a Christian perspective, God is calling into existence a God-like being, a being who reflects his character in some kind of way. So the question is how do you hold those two entirely disparate levels of explanation, levels of understanding together? My answer is that I haven't a clue, but I believe they're both right and that therefore they are in some way indissolubly linked.

At one point there is merely "cellular machinery" and at another point there is the origin of a unique and irreproducible individual. What we must not do is veer onto one or the other levels of explanation. We either go the route of naturalism which says that the embryo is *really* just a cell, it's *really* just apparatus, and all this other bit is some kind of emergent property, but what it really *is* is material. Or we go the other way, the route of idealism, and we say in the end we are all ideas in the mind of God, all that really matters is the spirit and the physical machinery is of no account.

But it seems to me that both of those routes are inappropriate, we need to hold them both together, to affirm the physicality of the cellular machinery of which we are composed, while at the same time saying that is indissolubly linked with this other sense of personal identity. It seems to me that it's a philosophical mistake to look at the cellular level, to find the cellular counterpart of this unique person who is being called into existence, as though by molecular biology you could identify a person. It seems to me that you don't discover persons through molecular biology, you discover persons in relation. So we reach out to the embryo, to the developing human in the hope that their humanity, that their personhood, would be revealed to us. We discover persons in interaction.

There is an illustration of this given by Oliver O'Donovan which I have found quite helpful. There is a film by Ingmar Bergman which has a scene on a beach with a silhouette of a person looking out to sea. The hero moves towards this person and puts a hand on their shoulder; then the camera spins round and you realise that it's a corpse. It's a *coups de*

theatre. This is an analogy, you reach out to this being in the hope that their humanity will be revealed. In fact it turns out to be a corpse, it turns out that there isn't a human person there. In the same way we reach out to the embryo in the hope that its humanity would be revealed to us, whilst recognising that many embryos will similarly turn out to be a corpse - they don't reflect this unique human potential.

Denis Alexander: Does anyone want to come back on this?

Roger Barker: This is fine but what would you say if *you* are faced with the situation of having to work with embryonic stem cells – you could say that there is this mystery to it on the one hand, but alternatively you can take a purely mechanistic, developmental-biology approach on the other; or we can say that it has a "spirit" within it that we don't understand but must respect. I'm not quite clear in my own mind what you are saying. It seems to me if you take the mechanistic view then embryonic stem cells are just a bunch of cells, then why just not use them like any other cell. But if you say, the quality of that cell has the potential to be a person and therefore has personhood, I don't really understand what this means scientifically, but it does mean that we shouldn't be working on those cells at all.

I think the situation gets more complicated when you start looking at these new iPS cells because that cell would to me still seem to have the potential to become a person, yet most people would say the generation of it has bypassed the ethical problem of embryonic stem cells; but as far as I see it, it's just created the same problem, it hasn't got around anything.

John Wyatt: I can see difficulties and complexities and problems in both, both the embryo that is created from gametes, from a sperm and an ovum, and which is then used as a source of embryonic stem cells and the inducible pluripotent cell. And yet there is a difference, and the difference is that the being created from a sperm and a gamete is in some way in the human lineage: to put it at its crudest it has a father and a mother. It is what you and I were at some stage and to that extent it is locked into human relations in a unique way. Whereas it seems to me that a skin cell that has been reprogrammed to have novel properties is a different kind of being. Again this may be like angels dancing on the head of a pin, but it is different because it doesn't have a "Mummy" and a "Daddy". To put it at its crudest, the inducible pluripotent stem cell it is much closer to this strange being a *clone*. All our cells carry our own genetic markers and this particular cell has now developed unusual properties. So I would think they were *different* though that doesn't mean to say they were necessarily any less troubling.

I'm less troubled by retrograde reprogramming of cells into a more primitive state than I am by deliberately creating embryonic humans, or human embryos, depending on the language, for instrumental purposes. If it was possible, as it surely must be, to find a way to

generate cells with many of the properties of embryos, with pluripotent properties, without the whole scale creation and destruction of embryonic humans, then I would be much happier.

Denis Alexander: Would anyone like to come in on that point?

Paul Luzio: I don't know Singer's work at all but I think you did an excellent job of destroying what he seems to have said and so on. I don't want to speak up for him because I understand what he was saying, but it does seem to me that there is an interesting point which is that in some ways there are problem with saying – and you can say it's just reductionist – at what point does one become a person, but it is a very important issue for us, legally and actually morally in several areas, some of which have just been touched on.

I wonder whether it doesn't become a sort of copout to argue that everything is a continuum even though I thought that your point about dependency was really important, so there's no doubt that it would seem to me to be very explanatory of things which happen to an adult in the latter part of life. That seems to be a wonderful explanation which I can completely buy into, but it still seems to me to be quite difficult in these very early stages, to judge at what point you decide that something is a sentient being, as it were. You mentioned things like pain; you talked about it of course in terms of pain of adults and so on, the parents' almost emotional pain. Of course there's the second issue of *actual* pain – at what stage does a group of cells really feel pain – which has always been quite a challenging issue in terms of at what stage one should take the tissue or whatever. But I think that there's still an important issue about at what stage you could accept any manipulations which does have to be addressed, whether it's in the legal sense or in the ethical sense, which is still quite difficult.

John Wyatt: No, I agree. I think it's a very important issue which we can't duck and an issue which has all kinds of ramifications. The issue of pain is difficult, of course. How can we know what the experience of a developing human is? Ultimately you bang your head against this kind of philosophical conundrum. It has become extremely controversial, particularly in the field of foetal pain and issues such as abortion and foetal medical procedures. One of the fascinating things that we do as neonatologists is care for what are effectively exteriorised foetuses at an extremely immature stage. What strikes us is the way that even a baby at twenty-four weeks appears to have very competent pain-sensing and responding mechanisms even though, according to the neuroscientific orthodoxy, there are virtually no connections between the body, the thalamus and the sensory cortex. Yet we see babies screwing up their faces, we see many physiological responses, we see endocrine responses. So it makes us rather dubious of the neuroscientific orthodoxy. And if that's true of a twenty-four week foetus then maybe it's true of a younger foetus as well. It may be that the thalamus and other central parts of the brain may well be involved in pain processing and in awareness. If we take this view, that the developing organism is not a miniature adult but

actually a different kind of being with its own sensory apparatus, its own way of processing, then I certainly think that on both clinical and scientific grounds we should give developing humans the benefit of the doubt and we should treat them as though they were sensorily competent, as though they were able to feel pain. Part of our respect, part of our concern, is to protect them from injury.

As you then go right back to the embryo some have argued therefore that the most important point when a person starts to develop is when the primitive streak appears. That's when the first part of the central nervous system is identifiable. But I worry about this, because again it seems to me that this is a category mistake. It is saying that part of the physical apparatus is the same thing as the metaphysics and I think that that's confusing. Ultimately this is a metaphysical question, it's a question of how we treat the immaterial aspect of the embryo. Because morals are fundamentally about immaterial things; they are not a purely naturalistic phenomenon. So if we, as moral agents, say that we have duties to this embryo, whatever it is, then it seems to me that our duties can't be primarily based on the presence or absence of a particular piece of apparatus, of a primitive streak.

So I would say therefore because of this mystery, because of this uncertainty, we should treat this being with respect, we should treat this being with protection if it is possible. Yes, we recognise the enormous potential for science, for therapy, for benefit, from embryo research but we must retain a concern about instrumentalism. There seems to me to be a possibility that human life in all its forms is at risk of being instrumentalised and that is true at the embryonic stage, but it is also true at many other stages of human life. Personally I think that's something which is of concern – I don't want to say let's have a complete moratorium on stem cell research, that we don't want anything at all to do with embryos – but I want to say that if we can find ways, if we can find alternatives, if we can find more ethically, less troubling routes for developing stem cells then we should go for them.

Denis Alexander: Is there anything else while we are discussing the beginning of life, and then we might shift to the end of life in a minute. This definition of personhood – does anyone want to pick that up in particular, how we grapple with this difficult dilemma?

Bob White: I think that the Christian view seems to be that we do treat humans differently through their becoming. We had the Chief Rabbi here at a discussion and he said that in the Jewish religion, if you die within thirty days of birth you are not accorded the full funeral rites that you are accorded after that because you are not a fully developed person in some way. The writers of the Bible take the view that living to a ripe old age and then dying, that's good. In other words, the dying itself is not bad, if it follows a life well lived. The tragedy is when you live a short life and die before your allotted time, then that is a tragedy and that's very sad. So there does seem to be a picture in the Bible of a sort of coming of age and of a right time to live and a right time to die. Because humans, and especially scientists, like to

categorise everything, we are trying to get a binary view saying that at this point an embryo is fully human and we've got to accord it all the rights of humanity and then it dies and we'll move on to something else; whereas there seems to be a much more nuanced view as far as I can tell, from the scriptural perspective, that there are right times to sacrifice your life for the sake of others, there are right times to live and a right time to die.

I don't know how that affects the way we look at these issues, but it seems that it ought to have some bearing on it: it's a good thing to lay down our life for others – Christ himself did that supremely – and in smaller ways it's a good thing for us to forgo some of our rights for the sakes of others. I think it's helpful to explore nuances of a more complex area than the simple binary system.

John Wyatt: Can I respond to that? I suppose I would resist the epithet "binary" if that means it's a simplistic, a crude "all or nothing", because I don't want to say that, but it does seem to me that the essence of a Christian understanding of laying down one's life for others is that it's voluntary. The essence of Jesus as the supreme example is that he *chose* to lay down his life, and the forcing of others to donate their lives for the good of mankind has never been seen as part of the good life, as part of a way that a society should be. In fact it does seem to me that Christianity, actually going back to the Torah, the Old Testament, has always protected the most vulnerable. In the Old Testament it was the widows, the orphans, it was those who didn't have might, power and right on their side, who were regarded as those to be protected from abuse. There is a very strong tradition both in Christian and Jewish thinking that it is the most vulnerable who are worthy of the most protection. So it's the strong who lay down their life for the weak and not vice versa.

Rob Ross Russell: For some of the others here who don't know, I am a paediatrician who works in children's intensive care so, if you like, whilst I'm not at the beginning of life I am early in life and I deal with a lot of children who die and I deal with a lot of handling of death.

I thoroughly enjoyed your talk. I enjoyed the first half more than the second half, and part of the reason for that I felt was that from my perspective your discussion in the early stages was wonderful, it was balanced, it promoted a view, it discussed the arguments against. I felt that the second half of your talk was a personal view, it was a very Judaeo Christian view of how you felt things should be and I felt it wasn't perhaps open to the same criticism that you afforded the first half.

But the points I want to make are that my difficulty with the second half was that I didn't come out of the talk feeling that I had learnt something that I would be able to apply to my job in ethical terms on a day-to-day basis. I didn't feel that there were insights that I would want to take away with me and I have been trying to reflect upon why it was that that was so. One of the difficulties I have with the discussion is this. To my mind, ethics – if one is talking about the management of life and death and when one should withdraw care or not

institute care or all the rest of it – is not a static process, it is a very dynamic process. I was reflecting a little earlier that even when I started my career when I was working at the Brompton Hospital 20-25 years ago, we were the only children's hospital in the UK that was doing cardiac surgery on children with Down's Syndrome, because it was felt inappropriate at that stage in the UK to operate on children with Down's Syndrome. It was not felt that necessary or worthy or somehow worthwhile. Yet now it would be completely *unethical* not to operate, *not* to operate, on such children. So over a very short space of time within the UK our ethics, our view of what is appropriate in terms of survival, has changed very considerably. First of all it changes with time; second, as I was discussing with you some of you here, it is resource dependent.

If Hill Gaston or I – or any of us – were working in Africa, our approach to what is appropriate and ethical to do for a patient would be completely different, even though those resources were in theory available in the sense that there were planes that could take a patient from anywhere to anywhere to provide care. It would not be considered appropriate to do that, so our ethics are resource-dependent. Finally, our ethics are social-dependent and social and religion is obviously linked and the example I gave there was that the Japanese – and I assume this is related to Shintoism though I do not know this – do not believe in the concept of brain stem death. So a Japanese child who dies on my unit, and who dies in the sense of fulfilling what we would consider to be the criteria for brain stem death but in whom the heart is still beating, would be taken by the family back to Japan where full intensive care would be provided for that child because their heart is still beating. So it is socially dependent as well. I think that adds a sort of dynamic to it that makes it very difficult to get into the minutiae of whether things are specific, at what stage life starts at a cellular level, because actually one has to reflect upon the fact that over a relatively short period of time our view of what is appropriate and ethical changes rapidly.

Denis Alexander: Before John comes in on that, Hill – did you want to come in again; is it related?

Hill Gaston: I would be back tracking, I think we should move on.

Denis Alexander: Does anyone want to come in on the same theme?

Katie Townsend: It's also from the GP perspective. You see the impact of a very sick, very premature baby on not just the parents, but also the wider family and then of the impact on the marriage as they deal long term with the consequences of a sick child. Whilst there may be lots of resources available in the early dramatic days, those resources seem to slip slide away. Coping then with the child who becomes an older child and then a young adult, if the child is struggling as a result of disease or problems as a result of prematurity where they seem to grow rather than shrink, is very difficult. I have found myself wrestling over and over

and asking myself is it worth it, is it worth it. Marriages seem to struggle as well, obviously siblings are affected, and these are my questions.

Derek Fraser: I want to come back in and follow your comments, broadly in the sense that when I hear some of what you're saying I suppose part of the kind of ethical issues are always going to change. I suppose I'm very conscious that an element of what John was saying provides a steer and a spectacle of interpretation for the kind of ethical dilemmas that we face and not just at a critical phase – which I know you face – is it this or is it that.

Part of my world is about following on from some of that and providing ongoing interpretation and meaning and context. I think sometimes that's where we need to see it also as part of the continuing narrative that people need to have, or are helped sometimes by a greater understanding. We recognise them going through grief and the pain of that and that can be quite wild in terms of their emotional perspective, but to continue the interpretation and for them to find meaning within the decisions is equally important I suppose. Sometimes I feel as though we debate about the ethics – but why do we need them? I would say for the regaining of their life and I'm not sure as a society that we're very good at actually articulating our world view and interpreting that as an ongoing part of the story.

I'm quite worried when I see patients and families six months afterwards and they're still wrestling and we try say to them how do we make this, how do we find meaning here to continue living.

Amanda Ogilvy-Stuart: My question has been partly answered, but during your talk, John, you mentioned that we shouldn't continue [intensive care] at all cost. It is not just economic costs but there are other costs involved here – but whose decision is it to make a judgement on cost?

Different countries, different religions, different social groups even, would have different value judgements on what is the cost and when we should continue and when we should not continue treatment or intensive care. Even in this country there are different neonatal units that would have different views on which baby should be resuscitated and when and for how long we should continue intensive care and what injuries or problems constitute reasons to "not continue at all cost". The importance of these costs may vary between individuals within one neonatal unit I: not only the doctors but also the families. This brings in to the equation some of the things that you said earlier about the later costs.

John Wyatt: Yes, thanks – there are a lot of very profound and complex issues there. I suppose I'm conscious that a lot of what I was talking about earlier on is not directly relevant to the sort of agonising dilemmas that you face: should we switch the machine off, when and why and so on, and I recognise that. I think in my current incarnation I am spending more time debating with philosophers and with the people in the ivory towers than I am necessarily

on the coal face. What troubles me is the sort of stuff – the Singer perspective – which really doesn't bite at all in the clinical world – it seems like madness to clinicians – but it is profoundly influential in other parts of our society. In Philosophy 101 courses this is mainstream teaching. It is taught in ethics courses at high schools. You may discover that your children know all about these philosophical ideas. These ideas are, I think, much more influential in our society than we think, bubbling away under the surface. My son comes home after having these seminars at schools and regurgitates it back to me completely uncritically: this is what he's told and "It seems jolly good sense to me, Dad". So I think it's important for us as clinicians to be aware of these currents in our society.

One of the interesting things about the philosophical discipline of bioethics is that the role of clinicians has been almost entirely marginalised. We've nothing to say in bioethics as it's been largely taken over by a group of moral philosophers and people from other disciplines, which I think is troubling.

I do of course recognise the things you say, that moral views change with time and with different social contexts. It is very, very interesting, though, that the Down Syndrome baby, who previously was seen as someone whose life was not worth struggling for, is now someone who you mustn't "discriminate" against because this would now be seen as politically unacceptable. Where has that come from, why have these views changed? I think the change in attitudes towards people with Down Syndrome has come from a legal human rights perspective and also from an awareness of disability rights perspective. But when it is diagnosed antenatally I think the percentage of the number of foetuses with Down syndrome that are aborted has actually increased. It certainly is around 90%+. So there is a curious "double-think" and "double-stories" we tell about Downs Syndrome. What people are told antenatally following a diagnosis is really very different from what we as paediatricians would say to parents following a diagnosis after birth. So I think this curious double-think goes on. Yes, it's true that different societies have different perspectives but ultimately our morality enshrines what our society believes is a good life, what is a life of full humanity, what is the life of human flourishing in one philosophical tradition.

We don't believe that keeping a baby going on a ventilator month after month, year after year, because the heart is still beating, is part of a form of human flourishing, and surely it's right to try and work out why that is so. What is it about our common values that we wish to enshrine in society which says keeping corpses ventilated for month after month is an inappropriate way of acting. Even if we had the resources, we would not feel it was a right and good thing to do. So we do need to think about what are our values, where do they come from, and how can we root them in a way to defend them against attack.

As a neonatologist of course I am deeply troubled about when neonatology can become almost abusive and almost destructive in its consequences. I think that's something

all neonatologists are aware of. All kinds of powerful technology, medical technology, can become abusive in some form. Yet I want to resist the idea that we as doctors can ultimately be held responsible for the long term "downstream" consequences of our actions. It seems to me that that is to take on some kind of God-like responsibility which is inappropriate. Every time you give Penicillin to someone with pneumonia you are interfering with the long-term consequences. What's going to happen to this person, what are the consequences going to be? Every time we pick up someone off the road who has had a head injury and we start resuscitation, we are opening up all sorts of potential tragedies, disasters, unexpected consequences, families that break down and so on. Does that mean that we must never intervene? It seems to me that we act in good faith to try to combat suffering, we try to minimise adverse consequences as much as we can, but we recognise that actually downstream, on into the future, ultimately we can't control or predict what is going to happen, nor do I feel ultimately that doctors can be held responsible for the long term consequences of saving lives.

Rob Ross Russell: Yes, but John we can't stand at the side of the road and not contemplate the consequences of resuscitating a patient who has been in cardiac arrest for 15-20 minutes, for example. So whilst we cannot be held responsible for the downstream actions, actions at the time must take into account the potential downstream accounts and as long as that has been done then I fully accept what you're saying.

Maggie Meeks: But it's the potential to the individual, isn't it? That's what we can't take into account, the potential for the parents of this child, our responsibility is to that individual and what's best for them.

Rob Ross Russell: That's an interesting one**.** I disagree with that. My prime responsibility in a children-setting is to the child in front of me, I've got no question about that whatsoever, that is my prime responsibility. If that conflicts with other responsibilities then I have to contemplate my responsibilities to the child, but I think I would be wrong if my sole intention was to work for the child without contemplation of the impact on siblings, on families, on other aspects of it.

Maggie Meeks: It depends on your definition of contemplation. I think we all contemplate it because in neonatalogy that's our whole role, this speaking to the families. Our neonates are *potential* children, going back to the *potential*, so that's a big part of our role. When we make decisions about stopping intensive care, things like that, in my experience I do it because I think that's best for the child, not because I think I don't want to burden the parents.

Rob Ross Russell: I'm sorry, I don't want to hog this at all, but I have a teaching scenario that I use quite often, it's part of an ethical debate and discussion – Derek's been there and he knows what's coming. In that discussion we put forward a series of ethical positions and

there are two of us who do this together. We fight our case and we get the audience to vote. One of the particular scenarios we run – and there are a number – includes hospital chaplains as a group, including medical students, including nurses, resuscitation officers and medics, and I have done them all separately, is to have a situation where a child is in the middle of a resuscitation following a near drowning, for example. And one says OK, at any point in time during the resuscitation if there is no response and you have a child who has still not responded, there is a risk that if you carry on and the child were to survive, they will be profoundly handicapped. Now if I could tell you what that risk was at any moment in time, how would you feel about carrying on? If there is a 90% chance that if I carry on resuscitating now this child would have a good outcome, and a 10% chance that if they survive they will be handicapped, would you carry on? There is genuine agreement that if the answer is yes, you should carry on because that is appropriate. But actually at the bottom end it gets very difficult and we've done this in a number of areas. The fiercest, I have to say, are the medical students. If the odds drop below 50-50 then they are not interested. The majority of the audiences talk about 90-95 per cent. If there is a 5% chance that you'll get a good outcome, that's on the borderline. When the outcome is 95% likely that this is going to be a bad outcome then they would stop. I have to say that the hospital chaplains are slightly different as they went down to 99%. They were a noble lot and pressed on further.

There's lot of interesting information from that. What we are saying is we would be willing to produce nineteen profoundly handicapped children for one good survivor and we feel that that's a worthwhile thing. That's an interesting point.

Secondly, the reality is if we really, really believed these statistics then we wouldn't resuscitate anybody, because by the time they get to cardiac arrest your chances of good survival are already less than 5%. But we don't do that, and I don't do that. So there's a sort of "Can you stop" issue personally, but there's also a "What number of handicapped children are you prepared to produce in order to have the chance of a good survivor".

Polly Stanton: From whose perspective are you assessing the life?

Rob Ross Russell: It's very interesting and you can't do that and I can't in any detail but all I can say is handicapped in the sense of being fully dependent on care from another person. That is, unable to communicate, feed themselves, unable to move independently in broad terms.

Roger Barker: But you don't know that, when you resuscitate them – you don't know if they are one of the nineteen or the one, so your obligation is to do the best for the patient as you see it in front of you. In all probability they're not going to do well, but actually your responsibility, it seems to me, is to try initially to resuscitate that individual irrespective of the odds of survival.

Rob Ross Russell: But often the difficulty is – the reason we say 95% and we don't say 99.99% – that I will carry on as long as I possibly can, even if I know that it's likely that there'll be .. because we know that the life of a profoundly handicapped child has a huge impact on other people around him. We say 95%, not 99%, because we feel beyond that, that's an awful lot of handicapped children to be producing for the very small chance of a good survival. We don't like the idea of producing handicapped children, not actually because it's a question of value about the child, certainly from my perspective I think, it's about the value of the impact that has on absolutely everybody around them.

Alasdair Coles: On a slightly changed subject, if that's acceptable, can I come back at you, John, on your definition of personhood? If I can summarise, as I understood it, in a few sentences: you replaced the Singer position that autonomy and capacity are the defining features of the person with the concept that personhood is derived from being societal in many relationships, and in being loved. You added at the end, in response to a question, that what makes humans special is in being loved by God and being chosen by God to be different from animals.

I felt dissatisfied by that. I'm wondering why that is, and I think it's because do you not have to add into that equation that a person is someone who can respond to these things, that a person has the capacity to respond to God's love, to respond to societal relationships, to respond to the love of others? When I see, in my work, someone who is an adult, whose brain is destroyed by that process and there is no prospect of recovery, I say to myself this is no longer a person, they no longer have the capacity to respond to God's love and to the love of those around them, and their status has now changed.

John Wyatt: Could you give an example of what you mean – are we talking Meningitis, huge strokes ..

Alasdair Coles: Someone who, for those and other reasons, is in a state approaching brain death; this is a routine event on our neurocritical care. We allow people to die who are not brain stem dead, people who we judge to no longer have the capacity for neurological recovery. That is going on and I am now working how I can justify it. I think if I just use your criteria, it's very difficult. If they are still a member of society, if they have loved ones around who are still caring for them and paying attention to them – a great deal of attention, a great deal of expressed love – they are still flawed images of God just as they always were and so what has changed? And this is where I think the capacity to respond to these elements is important. For me this is no longer a person and it changes the way we approach their treatment, the way we talk about them to relatives.

John Wyatt: Well, you see, I think there are two separate issues there. Firstly, there is the question "Is this being a person", this being with profound brain injury; is this being still part of a human community, a being to whom we have some form of responsibilities to love, to care

for, to protect. Secondly, what is the right way of treating this being? You have argued, and certainly Singer would argue, that this is not a person and therefore it's OK to allow them to die because they are not able to respond in any sort of way, they are no longer part of a moral community.

I think I would want to say that yes, this is a person still, but a profoundly damaged and flawed person, someone to whom we can no longer bring any benefit. Someone we can no longer heal, cure or even care for, because the process of destruction within their body has advanced to such a stage that we are now powerless. In that situation, allowing this flawed and damaged person to die by switching off a ventilator might well be the right thing to do and certainly in our neonatal unit we quite frequently would switch off a ventilator and allow a baby to die who still has some kind of cerebral function. But I would say that's still a person.

Alasdair Coles: So let's not argue about words; let's leave it aside whether they are a person or not a person. What practical difference does my position begin to take that your position would not allow?

John Wyatt: Well I think because this being I still see as a person is still someone I should love, even while switching off the ventilator. I name them, I love them, I protect them, I respect them, they are still a unique individual. Whereas, conversely, if you say this is no longer a person, this is just a thing, this is just a vegetable, this is just an organic body, no longer part of our community. So I think it does, I think it makes a difference.

Alasdair Coles: So can I ask you one more question. If you have a cold, dead corpse, if you don't mind me being graphic, are they still a person in all of those senses?

John Wyatt: No, but they still deserve to be treated with respect. We still treat the body with respect because of what it represents, it is more than a lump of flesh.

Alasdair Coles: So could I put it to you that lump of flesh isn't helping you very much. If your definition doesn't discriminate between a live and heart-beating individual that you have to deal with, or a cold corpse, if you can't tell me the difference – it's not helping me on the front door.

John Wyatt: I think that isn't fair. I'm certainly not saying there isn't a difference between a corpse – that's a person who has gone, versus a profoundly brain damaged but still a live individual. One is a profoundly damaged person and the other is a dead corpse. So yes, we treat them differently but it does seem to me that the discussion between us is more than a semantic difference. If you say there is no longer anybody there, then this being which is still alive is no longer to be treated with respect because they are no longer a person. I think that is different from saying that the person is still there. I think intuitively people respond to that, certainly at a cognitive level. Going back to my mother – at a cognitive level my mother had virtually no ability to respond and yet it was desperately important to me how she was cared

for, it was desperately important to me that she wasn't left in her faeces, it was desperately important to me that she wasn't just treated like a vegetable, because she was my mother. As doctors, I think we need to recognise that, we need to recognise that the person is still there in some terribly flawed state and this person carries on until the moment of death. That's where I think it does make a difference, whilst recognising biologically the very profound effects of brain damage.

Denis Alexander: Well I think we are drawing to a close. I always think when a dinner conversation turns to corpses it's probably time to gradually draw to a close! It's been a very educational and fascinating discussion we've had and I'm glad in a way that we have focused on one area because I always think that's a more useful discussion than trying to gather everything together. I want to thank John very much indeed for our wonderful evening.

Who's Who

Prof John Wyatt is Professor of Neonatal Paediatrics at University College London and a Consultant Neonatologist at University College London Hospitals NHS Foundation Trust, an internationally-recognised tertiary centre for the care of the newborn.

Dr Denis Alexander, Director of the Faraday Institute and Fellow of St. Edmund's College, cancer and immunology research, The Babraham Institute; Editor of the journal *Science & Christian Belief*; author of *Rebuilding the Matrix* (2001, Lion) and (with Bob White) of 'Beyond Belief - Science, Faith and Ethical Challenges' (2004, Lion).

Dr Roger A Barker is the University Reader in Clinical Neuroscience and Honorary Consultant in neurology. He works on Parkinson's' and Huntington's disease and repair strategies for these disorders, including stem cells.

Prof Derek Burke, Honorary Fellow of St Edmund's, a former Vice-Chancellor of the University of East Anglia, a former Chairman of the Advisory Committee on Novel Foods and Processes, a former Specialist Adviser to the House of Commons Science and Technology Committee and a member of the Societal Issues Panel of the EPSRC.

Alasdair Coles, University lecturer in neuroimmunology; consultant neurologist, Addenbrooke's Hospital; and C.o.E ordinand. Co-Editor of Advances in Clinical Neuroscience and Rehabilitation.

Revd Dr Geoffrey Cook, Vice-Master, St Edmund's College and Affiliated Lecturer, Department of Physiology, Development and Neuroscience, where his research is in developmental neurobiology. Ordained as a deacon of the Catholic Church, he chairs the Diocesan Commission for Dialogue & Unity, RC Diocese of East Anglia.

Revd Dr Derek Fraser, Lead Chaplain of Addenbrooke's Hospital, Cambridge and Chair of the chaplaincy academic and accreditation board (CAAB).

Prof Hill Gaston is the foundation professor of rheumatology in Cambridge. His research interests are in immunological mechanisms in rheumatic disease, and interactions between infection and the immune system. The focus is cellular immunology, particularly T cell cloning.

Revd Dr Rodney Holder, Course Director of the Faraday Institute, former Priest in Charge of the Parish of the Claydons, Diocese of Oxford; author of *God, the Multiverse, and Everything: Modern Cosmology and the Argument from Design* (Ashgate, 2004).

Mrs Shirley Holder, Licensed Lay Minister; career in teaching; member of Downing College Chapel Choir and the New Cambridge Singers.

Prof Paul Luzio FMedSci, Master of St Edmund's College; Professor of Molecular Membrane Biology, Department of Clinical Biochemistry and Director of the Cambridge Institute for Medical Research (CIMR); cell biology, protein localisation and function in cells; molecular mechanisms of disease.

Dr Maggie Meeks, Consultant Neonatologist, University Hospitals Leicester. My doctorate involved molecular genetic studies and my sub specialist interest is in education, the generic principles as well as specific strategies. I have a personal interest in the relationship between science and religion.

Dr Amanda Ogilvy-Stuart, Consultant Neonatologist at Cambridge University Hospitals NHS Trust.

Dr Rob Ross Russell MD, Consultant paediatrician at Addenbrooke's Hospital, and Director of Studies in Medicine at Peterhouse. Works in Paediatric Intensive Care and Respiratory Medicine. Research interests: respiratory muscle function, medical ethics.

Mrs Polly Stanton, Administrator, The Faraday Institute. Maths teacher before taking a long career break to raise a family. Long serving governor of two local schools, PCC member, All Saints, Little Shelford.

Dr Katie Townsend, in general practice in Cambridge and dealing many of these issues as they affect patients.

Prof Bob White FRS, Associate Director of the Faraday Institute and Fellow of St. Edmund's College; Dept of Earth Sciences; volcanoes, earthquakes, climate change and other catastrophes; co-author of *Beyond Belief – Science, Faith and Ethical Challenges* (Lion, 2004) and *Christianity, Climate Change and Sustainable Living* (SPCK, 2007).