

Life and Death

In general life is something we relish and death is something we dread. We see them as being poles apart: one an ongoing, vibrant, positive activity, the other an unproductive, negative destroyer of life; one cheerful and brightly coloured, the other dark and gloomy; one a friend, the other a foe. Oh, to be rid of that Grim Reaper so that we may enjoy life eternal!

However, looking more closely at this relationship between life and death – throughout our life, not just at the end of life – offers, I suggest, a very different picture for us to contemplate. It is, indeed, a topsy-turvy picture in which some deaths are seen to be desirable, in which it becomes evident that there is no life without death, and in which we realise that we constantly live with and because of death. It could even lead to the exclamation ‘Thank God for death!’

For this closer scrutiny of the subject we can conveniently make use of the commonly held time-line of human life which commences with conception, followed by nine months of life in the womb, then life in the world (short or long; with its ups and downs), and ends in death. A life sentence ending with a full-stop!

Death when life begins

Let’s look at the beginning of life, at conception. Your life and mine started with one egg, from mum, and one sperm, from dad, combining to make one expanded cell from which we have grown. Mum had a quarter of a million cells in her ovary ready to mature into eggs, and mature they did, but only at the rate of one a month, say, 4 or 5 hundred in her lifetime: all the rest, more than 200,000 ultimately went to waste, died; just like all those acorns dropped from the oak tree in your street. The same for the sperm. One sperm was successful in fertilising the egg; only one gained entry out of 20 or so which knocked on the door of the egg; only one of an estimated 500 million or so that would have been in the one ejaculation of semen. One sperm was able to get on with its life work, while millions of its brothers died in the attempt. So, our lives began with death all around, in a very, very big way,. And when later we came to be born, our umbilical lifeline shrivelled and died and the placenta which was our life-support in utero was discarded to die: somewhat like a skydiver discarding a parachute after landing.

Death to sustain life

The fertilised egg cell went on to live, multiply, and gradually produce about 200 different types of cells to make the various organs of the body, and the baby grew bigger and bigger. An adult body is made up of about 100 million million cells—which is many more than there are people in the whole world—all of them in this one body descendants of our original Adam sperm and Eve ovum. But this growth is only possible because of death, because to live and grow we have to eat and what nourishes us is other forms of life. We have evolved as part of a food chain. These days we are not cannibals but we kill chickens and cows and carrots and cauliflowers and crabs and all sorts of other living things, animal and vegetable, and eat them. It’s murder; death; so that we may live. There is no life for me or you without death of them. We can’t live and grow by eating lifeless stuff like charcoal and gravel and sand.

Death during life

And while all this living with its growth and development is going on we are dying; our cells are dying. There is death during life. Much of the dust we wipe off shelves at home comes from dead skin cells. Skin cells only live for about three weeks before they are replaced by new ones. You are not quite who you were three weeks ago; you are being reborn as it were, again and again. That’s the outside lining of the body. It is even more drastic for the inner lining of the body, the digestive tract, the intestines; there the cells only live 3 to 6 days. And if we turn to the blood rushing continuously round the body we find that some elements, the platelets, live for a few days, red cells for about three

months and some of the white cells for years. The cells in some other organs of the body – brain, heart and muscles – are said not to die, that is, not till we die and stop feeding them. Cells that do die are replaced and the extent of this loss and replenishment is tremendous. Measurements are most easily made of the turnover of red blood cells and the finding is that 2 million of them die, and are replaced, every second; yes, every second; that amounts to the death of 100 million million of these precious parts of our body every year.

Death in balance

As cells die they need to be replaced by fresh new ones, otherwise we would get out of shape and not function properly. It would not be nice if deaths exceeded replacement; in the blood system this would lead to anaemia and too few circulating red cells to transport the oxygen all cells need to survive and do their jobs. But, it is equally unhealthy, upsetting to life, if multiplication exceeds the loss. This is cancer territory. Cells are programmed to die, to commit suicide after their allotted span of life. If the programme gets disrupted by, for example, the equivalent of a virus in a computer programme, and cells lose the inbuilt command to die, then we have a cancer, a malignancy (that is, cells with malign or evil intent), which grows and grows, refusing to die, and which becomes a spanner in the collaborative working of cells in other parts of the bodily system. What must we do about this? Well, prevention is better than cure, of course, and we would be wise to do, well ahead of time, whatever might help to prevent our cells from losing their timely ability to die. But if the balance has already tipped towards too much growth and too little death, then we might decide to take action: to forcibly remove the misbehaving tissue by surgery; to kill the cells with liquid nitrogen, or radiation, or chemo; or in some clever way get them to repent and start suiciding again, to resume the practice of euthanasia. We need death to be able to live. Thank God for those deaths!

Ubiquitous death

I have led you along the pathway of life, and death. From the very beginning of our life, at conception, which occurs in the midst of death; through birth, where supporting tissues were discarded to die; to see our dependence on death for the food we need to sustain life; to appreciate what is not usually realised, that parts of our body are dying daily, massive numbers of cells; that for healthy existence there is a necessary continuous balancing act between life and death; and that trouble arises if death during life does not happen when it should, which is cancer, and we then set about causing death of the offending parts so that life elsewhere can proceed. I suggest, however, that we can look beyond that linear span of human life to see that life and death are built into the whole universal scheme of things. Right down the tree of evolution you see death and life sprinkled together like salt and pepper; it is from the slow dying of the sun that we get our life-supporting radiation; and, we are told, that it was from the death of stars that stardust came and provided the initial building blocks for life on earth. All through the whole cosmic system life and death are intertwined like warp and weft in a massive, variegated tapestry. Whether we like it or not, life and death are travelling companions, so we may as well accept the situation, encourage them to talk to each other, and become friends, not enemies.

Contemplating death itself

What is this death, these many deaths we have been considering? In general we could say that death marks the end of a tour of duty, whether of a cell or any more complicated form of life – mission accomplished. Death may reduce overpopulation, in some part of the body, or of rabbits in the wild, or of people on earth. Or it may make way for fresh replacements. Or it may provide nourishment and stimulation for other living things, thinking of salmon as food for bears or humans, or of the sun for all life on earth. Or it may result in the material of life being reduced to its elemental particles, back to stardust, fit for recycling. Some will say there is more to it than these materialistic prospects; but what? Who knows? At any rate the deaths that I have been talking about seem to be but broken threads of life, leaving in the overall tapestry nothing more than little holes, or knots where one broken thread gets tied to another, scattered all across the overall tapestry; and there is life before, after and all

around these little knots; and, indeed, the knots are an integral part of the pattern of the tapestry which we call life.

Appreciating death in this way offers no promise of helping us if our hope and expectation is to be able to eliminate death, or delay death, or enable us to cope better with death but it may, in fact, do so indirectly by familiarising us with death, allaying the anxiety and fear commonly associated with the thought of death, and decreasing associated stress, depression and grief. Naturally, it is intriguing to wonder about all this in relation to what seems to be the really big D ahead of all of us, the D which gets all the big black headlines and obituaries and headstones. In the meantime, however, it is important, and I dare say more fruitful, to get on with living life to the full while we have it.

[This was the basis for a talk in the Autumn Cancer Forum '07 of the Cancer Council ACT]