Lausanne Committee for World Evangelization
The Whole Church taking the Whole Gospel to the Whole World

Bioethics: Obstacle or Opportunity for the Gospel?

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"A New Vision, a New Heart, a Renewed Call"

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The content of this Occasional Paper was prepared by the whole Issue Group, with special drafting responsibilities handled by Dr. Roland Chia and Dr. Denise Cooper (with Dr. James Thobaben for Story/Commentary #7) and special editorial responsibilities handled by Dr. Andrew Fergusson and Dr. John Kilner.

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The context for the production of the Lausanne Occasional Papers

The Lausanne Movement is an international movement committed to energising **"the whole Church to take the whole gospel to the whole world."**

With roots going back to the historical conferences in Edinburgh (1910) and Berlin (1966), the Lausanne Movement was born out of the First International Congress on World Evangelization called by evangelist Billy Graham held in Lausanne, Switzerland, in July 1974. The landmark outcome of this Congress was the ***Lausanne Covenant*** supported by the 2,430 participants from 150 nations. The covenant proclaims the substance of the Christian faith as historically declared in the creeds and adds a clear missional dimension to our faith. Many activities have emerged from the Lausanne Congress and from the second congress held in Manila in 1989. The Covenant (in a number of languages), and details about the many regional events and specialised conferences which have been undertaken in the name of Lausanne, may be examined online at www.lausanne.org.

The Lausanne International Committee believed it was led by the Holy Spirit to hold another conference which would bring together Christian leaders from around the world. This time the Committee planned to have younger emerging leaders involved and sought funds to enable it to bring a significant contingent from those parts of the world where the church is rapidly growing today. It decided to call the conference a **Forum.** As a Forum its structure would allow people to come and participate if they had something to contribute to one of 31 issues (around which were formed Issue Groups). These issues were chosen through a global research programme seeking to identify the most significant issues in the world today which are of concern in our task to take the *good news* to the world.

This Lausanne Occasional Paper (LOP) is the report that has emerged from one of these Issue Groups. LOPs have been produced for each of the Issue Groups and information on these and other publications may be obtained online at www.lausanne.org.

The theme of the Forum for World Evangelization held in 2004 was **"A new vision, a new heart, a renewed call."** This Forum was held in Pattaya, Thailand from September 29 to October 5, 2004. 1,530 participants came from 130 countries to work in one of the 31 Issue Groups.

The Affirmations at the conclusion of the Forum stated:

"There has been a spirit of working together in serious dialogue and prayerful reflection. Representatives from a wide spectrum of cultures and virtually all parts of the world have come together to learn from one another and to seek new direction from the Holy Spirit for world evangelization. They committed themselves to joint action under divine guidance.

The dramatic change in the political and economic landscape in recent years has raised new challenges in evangelization for the church. The polarization between east and west makes it imperative that the church seek God's direction for the appropriate responses to the present challenges.

In the 31 Issue Groups these new realities were taken into consideration, including the HIV pandemic, terrorism, globalization, the global role of media, poverty, persecution of Christians, fragmented families, political and religious nationalism, post-modern mind set, oppression of children, urbanization, neglect of the disabled and others.

Great progress was made in these groups as they grappled for solutions to the key challenges of world evangelization. As these groups focused on making specific recommendations, larger strategic themes came to the forefront.

There was affirmation that major efforts of the church must be directed toward those who have no access to the gospel. The commitment to help establish self sustaining churches within 6,000 remaining unreached people groups remains a central priority.

Secondly, the words of our Lord call us to love our neighbour as ourselves. In this we have failed greatly. We renew our commitment to reach out in love and compassion to those who are marginalised because of disabilities or who have different lifestyles and spiritual perspectives. We commit to reach out to children and young people who constitute a majority of the world's population, many of whom are being abused, forced into slavery, armies and child labour.

A third stream of a strategic nature acknowledges that the growth of the church is now accelerating outside of the western world. Through the participants from Africa, Asia and Latin America, we recognise the dynamic nature and rapid growth of the church in the *South*. Church leaders from the *South* are increasingly providing exemplary leadership in world evangelization.

Fourthly, we acknowledge the reality that much of the world is made up of oral learners who understand best when information comes to them by means of stories. A large proportion of the world's populations are either unable to or unwilling to absorb information through written communications. Therefore, a need exists to share the "Good News" and to disciple new Christians in story form and parables.

Fifthly, we call on the church to use media to effectively engage the culture in ways that draw non-believers toward spiritual truth and to proclaim Jesus Christ in culturally relevant ways.

Finally, we affirm the priesthood of all believers and call on the church to equip, encourage and empower women, men and youth to fulfil their calling as witnesses and co-labourers in the world wide task of evangelization.

Transformation was a theme which emerged from the working groups. We acknowledge our own need to be continually transformed, to continue to open ourselves to the leading of the Holy Spirit, to the challenges of God's word and to grow in Christ together with fellow Christians in ways that result in social and economic transformation. We acknowledge that the scope of the gospel and building the Kingdom of God involves, body, mind, soul and spirit. Therefore we call for increasing integration of service to society and proclamation of the gospel.

We pray for those around the world who are being persecuted for their faith and for those who live in constant fear of their lives. We uphold our brothers and sisters who are suffering. We recognize that the reality of the persecuted church needs to be increasingly on the agenda of the whole Body of Christ. At the same time, we also acknowledge the importance of loving and doing good to our enemies while we fight for the right of freedom of conscience everywhere.

We are deeply moved by the onslaught of the HIV/AIDS pandemic – the greatest human emergency in history. The Lausanne movement calls all churches everywhere to prayer and holistic response to this plague.

"9/11," the war in Iraq, the war on terror and its reprisals compel us to state that we must not allow the gospel or the Christian faith to be captive to any one geo-political entity. We affirm that the Christian faith is above all political entities.

We are concerned and mourn the death and destruction caused by all conflicts, terrorism and war. We call for Christians to pray for peace, to be proactively involved in

reconciliation and avoid all attempts to turn any conflict into a religious war. Christian mission in this context lies in becoming peacemakers.

We pray for peace and reconciliation and God's guidance in how to bring about peace through our work of evangelization. We pray for God to work in the affairs of nations to open doors of opportunity for the gospel. We call on the church to mobilize every believer to focus specific consistent prayer for the evangelization of their communities and the world.

In this Forum we have experienced the partnership of men and women working together. We call on the church around the world to work towards full partnership of men and women in the work of world evangelism by maximising the gifts of all.

We also recognize the need for greater intentionality in developing future leaders. We call on the church to find creative ways to release emerging leaders to serve effectively."

Numerous practical recommendations for local churches to consider were offered. These will be available on the Lausanne website and in the Lausanne Occasional Papers. It is our prayer that these many case studies and action plans will be used of God to mobilise the church to share a clear and relevant message using a variety of methods to reach the most neglected or resistant groups so that everyone will have the opportunity to hear the gospel message and be able to respond to this good news in faith.

We express our gratitude to the Thai Church which has hosted us and to their welcoming presentation to the Forum. We are profoundly gratefully to God for the privilege of being able to gather here from the four corners of the earth. We have developed new partnerships, made new friends and encouraged one another in our various ministries. Not withstanding the resistance to the gospel in many places and the richness of an inherited religious and cultural tradition we here at the Forum have accepted afresh the renewed call to be obedient to the mandate of Christ. We commit ourselves to making His saving love known so that the whole world may have opportunity to accept God's gift of salvation through Christ."

These affirmations indicate the response of the participants to the Forum outcomes and their longing that the whole church may be motivated by the outcomes of the Forum to strengthen its determination to be obedient to God's calling.

May the case studies and the practical suggestions in this and the other LOPs be of great help to you and your church as you seek to find new ways and a renewed call to proclaim the saving love of Jesus Christ

David Claydon

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Introduction

Two questions faced the bioethics group at the 2004 World Evangelisation Forum. First, many were asking 'What is bioethics?' and second, 'What on earth has it got to do with evangelisation?'

The first is easier. For the purposes of this paper, **bioethics** is **the study of ethical issues relating to the provision of health care, to emerging biotechnologies and to biomedical research.** We live in an age of phenomenal advances in life sciences and their attendant technologies. From the mapping of the human genome to successful cloning of mammals and the harvesting of human stem cells, these advances present both great promise for new medical treatments and profound concerns about the harm they may do to society. Genetics, cybernetics and nanotechnology, for instance, which promise to reverse or eliminate diseases, could also be used to engineer 'better' humans, or even 'trans-humans' or 'post-humans' that render the humans of today obsolete.

The second question is the focus of this paper. How does bioethics present both obstacles and opportunities for the gospel? Bioethics certainly represents a major challenge to Christian witness. On the one hand, secular bioethics often presents a narrow biological view of health and an instrumental view of human life, such that human beings who have limited capacities are assigned a lesser value. This outlook seems to leave little space for the psychological and social dimensions of human life, let alone its spiritual dimension. In addition, especially in some Western societies, bioethics tends to be dominated by concern for individuals and their rights, while neglecting an understanding of the common good and our mutual responsibilities. However, the obstacles are not all generated from outside the community of faith. Christians are often perceived and portrayed as unreasonably conservative, and may in fact be so. They appear opposed to technological progress, and rigid, uncaring and legalistic when they speak against technologies and research that offer hope and relief to suffering people.

Bioethics also provides special opportunities for the gospel. When people encounter infertility, illness, and the fragility of their own bodies, and when they confront their own mortality as they observe or experience the dying process, the illusion of control over their lives is threatened or even shattered. Where will such people turn for help with their questions and the decisions they must make about medical treatments? If Christians become known as reliable and thoughtful sources of information and counsel about these issues, opportunities to present a Christian view of life, meaning, suffering and death will arise. The questions at the heart of bioethics are also at the heart of the gospel.

Biotechnologies relating to nonhuman life also raise profound questions about our relationship with the world around us, and as in health care, about the nature of justice. By engaging in these issues, Christians can challenge others to consider what a 'good society' looks like, and what nourishes such a society. Again, the gospel provides a radical and credible alternative to prevailing worldviews.

Finally, the way we 'do' Christian bioethics should witness to God's grace and love towards sinners. Love, acceptance and the offer of forgiveness ought to characterise our discussions, rather than laying down rules and condemning those who break them. We are called to 'live a life worthy of the gospel' as a response to God's grace, but God's grace is open to all. The gospel is good news, perhaps especially for those who have made bad decisions about their lives.

Part I of this paper examines those central themes which provide a theological framework for Christian bioethics. Part II examines bioethical decision-making in the context of Christian ministry, using eight stories. The issues involved in each are analysed briefly, specific strategies are suggested which a Christian community might use as opportunities to commend the gospel, and resources for further information are mentioned.

PART I. Theological Foundations for Bioethics

Christian bioethics is based on the self-revelation of God in Jesus Christ, witnessed to by the Old and New Testaments. The community of faith transmits the tradition of God's saving acts in history, culminating in the story of the life, death, resurrection and ascension of Jesus of Nazareth. This story provides the framework within which Christians interpret the world and their relationship to it. As the church remembers, retells and reflects on this story, she allows herself to be actively shaped by the Holy Spirit. Christians should not only look at the world differently, but also conduct themselves differently.

1. What does it mean to be human?

The creation narrative is foundational to understanding what it means to be human. Like other animals and plants, human beings are creatures, not gods or demi-gods. We are made from the dust of the earth. We are dependent on God for our very being. Yet humans are distinguished from the rest of creation in that we are charged with exercising stewardship of the earth's resources, we have the breath (or spirit) of God breathed into us and uniquely we are made in the image of God:

> *Then God said, 'Let us make humankind in our image, according to our likeness, and let them have dominion over the fish of the sea and over the birds of the air, and over the cattle, and over all the wild animals of the earth, and over every creeping thing that creeps upon the earth. So God created humankind in his own image, in the image of God he created them; male and female he created them'* (Genesis 1:26-27).
>
> *'Then the Lord God formed man from the dust of the ground, and breathed into his nostrils the breath of life, and the man became a living being'* (Genesis 2:7).

Although the concept of the image of God is widely considered definitive of human nature, it is difficult to know precisely what it means. The different interpretations broadly fall into three categories: substantial, relational and functional. The *substantial* view of the image has a long history in Christian theology while the *relational* view is perhaps more prominent now. These two categories correspond roughly to the two different kinds of 'image' one can picture. The first is the one inscribed upon an object, such as the sovereign's image on a coin. The other is the more intangible kind one sees in a mirror. A third category views the image as *functional* and holds that the image of God is found in the exercise of 'dominion' and 'stewardship' of the rest of creation (Genesis 1:28).

All three views shed light on what the Bible means and implies by the image of God in humans. If only one view is considered, our understanding of this important biblical concept is impoverished.

Understanding the image as *substantial* implies that the image of God is imprinted on the person as an image is impressed on a coin. Human beings are created in a particular way and possess a nature distinct from the other animals that gives them the capacity to reflect God. The substantial view draws attention to the species distinction between human beings and the animal kingdom, and it affirms that the image of God must be found whenever the human species is found. It is thus intrinsic to who we are. Some have wondered if the image is a particular human characteristic, such as

our personality, creativity, rationality, spirituality or something else. However, no such characteristic is identified in Scripture as defining what the image is, though such characteristics may well result from being created in God's image. If this substantial approach is taken, the image is generally connected to a strong theology of *creation*. The image is the way that God has made humanity and, by implication, it ought not to be changed. This view therefore limits any attempt to modify human nature and historically this kind of approach has been most influential.

A recent trend is to view the image as something more dynamic and intangible. The *relational* view holds that the image of God is defined by relationships. Genesis 1:27 with its reference to humanity being made as male and female is taken by some to make the image of God equivalent to being made male and female. However, as with the functional 'dominion' idea similarly linked with the image in the previous verse, so the relational idea here may well more be a result of being created in God's image rather than a definition of what the image is.

The *relational* implications of the image of God include the truth that among all God's creatures, human beings alone know God and are consciously related to Him. Further included is the emphasis that the divine intention behind the creation of humankind is fellowship and communion. But in this dynamic understanding the future dimension of the image also becomes much more important. That is, it includes the notion of *the image as a future possibility*. The image is what is *to be* formed in us; it is the goal. As Paul says in Romans 8:29 we are to be conformed to the image of the Christ Jesus.

These more relational implications of the image are grounded not so much in a theology of *creation* as in a theology of *redemption*. They suggest that the difficulty in determining which human characteristic is *the* defining aspect of the image of God in us is precisely because the image is not something to be defined in terms of any one aspect of us. The image is not a past tense but a dynamic and future element, and is formed in us in our becoming human—in being all that we are. No one specific characteristic makes us human; rather, God is found in us in the whole of our being. The image is a destiny, a direction, a destination rather than merely a statement about our origin.

Of course, the two perspectives, the *substantial and creational* on the one hand and the *dynamic and future-oriented* on the other, are not necessarily to be opposed or seen as alternatives. A conflict only arises if an emphasis on the image as dynamic, associated with a strong theology about the future, becomes an argument for looking for great changes in human nature itself as people move towards God's goal for human life. That strong a relational emphasis may well encourage people to see justification for enhancing, developing, and changing human nature in a way that more conservative, creational theology would typically not allow.

In secular bioethics, the emphasis has moved from what it means to be human to what it means to be a 'person.' The criteria for 'personhood' are variously defined, but usually relate to the capacities of the being in question, such as intellectual or decision making capacity. Using these criteria, some humans may not qualify as persons, whereas some non-human animals might. Against this, the substantial view of the image of God affirms that all humans bear the image simply as humans and independent of their individual qualities. Even the poorest functioning human being has a different status from the most intelligent animal. It is important to maintain this, since one interpretation of the relational view of the image of God may also exclude some humans from being image bearers, namely those who seem incapable of relationships: the very young, the demented, the severely intellectually disabled. It needs to be emphasized

that these humans can be known and loved by others and are so by God, so that they are indeed 'in relationship' by virtue of being human.

Another problem with the concept of personhood is that it tends to separate the 'person' from his or her body. Especially in the West, Christian theology also has for too long neglected the body in favour of the soul. The Bible presents a unitary view of the person. God created human beings as a psychosomatic unity of body and soul, and we will be resurrected as a body-soul unity. While a human cannot be simply reduced to his or her body and its functions, neither should the body be despised or neglected.

The story of the Fall brings us face to face with the stark reality that ours is a sin-marred world in need of God's salvation. It helps us not just to understand the presence of evil and suffering in our world, but also to acknowledge the nature of human rebellion, which extends into all human cultural enterprises, including science and medicine. Part of what it means to be human is to live in a fragmented world, with perverted reason, desires, and relationships.

2. The value of human life

The biblical description of human beings as created in the image of God points to the value that God accords to human life and murder is prohibited for this very reason:

> *Whoever sheds the blood of a human, by a human shall that person's blood be shed; for in his own image God created humankind* (Genesis 9:6).

The special significance God assigns to human life is often described in terms of the sanctity of human life. Life is a freely bestowed gift from God and therefore is to be welcomed with joy and thanksgiving, as a testimony to God's grace. Human life must also be cherished and protected because it is an expression of the creative love of God, who has brought us into being not merely for biological existence but for fellowship and communion with Him. Further, God values us so much that He sent His Son to die on the cross so that we might receive the gift of eternal life (Colossians 1:12; Ephesians 1:18).

That the Bible is unequivocal, that innocent human life may not be destroyed, is clearly evident in the commandment: 'You shall not murder' (Exodus 20:13; Deuteronomy 5:17) and the sanction against those who take a human life:

> *And for your own lifeblood I will surely require a reckoning: from every animal I will require it and from human beings, each one for the blood of another, I will require a reckoning for human life* (Genesis 9:5).

The value accorded to human life is also seen in the biblical portrayal of a God who protects the weak and the vulnerable. The psalmist speaks of the care God shows to unborn children in their mothers' wombs (Psalm 139:13-16). This recognition ought to inform our attitudes to the sick, the disabled, the very young and the aged.

Some human individuals, patients in a permanent vegetative state for instance, are physically alive, but cannot be said to have those qualities or experiences that are normally associated with 'being alive.' Some bioethicists argue that the value of a human life is dependent on the 'quality of life,' the condition, and the capacities of the individual and therefore varies. The life of a foetus, or someone who is demented or severely disabled is thus of lesser value and under some circumstances may be taken. Christians however maintain that all human lives are of equal worth, yet we recognise that modern medical decisions cannot avoid some 'quality of life' considerations. For example, judgments that the burden of a treatment outweighs its benefits for a particular

patient involve an evaluation of the patient's quality of life. There is no obligation to extend human life by the maximum amount of time, if the patient will die soon regardless of treatment and treatment will add burden to the dying process. Both 'sanctity of life' and 'quality of life' considerations are legitimate and important, with the proviso that for Christians, quality considerations cannot justify overriding the sanctity of human life.

3. Suffering and death

A Christian understanding of human suffering and death has profound implications for the way we view the practice of medicine. Suffering and death are the consequences of sin – not necessarily individual *sins*, but sin. They entered the world through the disobedience of the first humans, Adam and Eve. The Fall not only affects human will and dispositions, it disrupts the very structures of reality, the fabric of the created order, so that they now appear incomprehensible and arbitrary.

The reality of suffering and indeed the presence of evil in the world, pose serious challenges to Christian theology. On the one hand God is full of mercy and compassion, and it would be incongruous to think that He would want to cause suffering. On the other, God is sovereign and nothing occurs apart from His will. To explain this apparent contradiction we may postulate a distinction between what God wills and what He desires, between what He intends and what He permits. God does not desire that a child should be born with cystic fibrosis or that a young adult should develop a malignant brain tumour. Nevertheless, God sometimes allows these things to occur as the consequence of the fallen reality to which human beings belong and for which they are responsible. God does not desire or intend that His rebellious creatures should suffer, but He *allows* it. It is only in this sense that suffering may be said to be part of the divine (permissive) will.

Human suffering must also be viewed from the perspective of the cross of Christ. God has, through the mystery of the suffering and death of His incarnate Son, reversed the effects of sin and delivered humankind from death. Of course human suffering continues to be a reality in our world even after the death and resurrection of Jesus Christ some two thousand years ago. Although these events signalled the ultimate victory of God over sin, death and evil, this victory will not be fully and universally realised until the consummation of the kingdom of God. Only then will this sin-marred world be transformed and transfigured into the new heavens and the new earth.

Yet the suffering of Christ brings a different perspective to suffering. It demonstrates that not all suffering is due to the personal sin of the individual sufferer, since Christ is without sin. We also see that on the cross, God Himself participates in human suffering. Furthermore, the New Testament introduces another dimension to human suffering when it speaks of believers sharing in Christ's suffering when they suffer (Philippians 3:10). Seen in this light, Christ's death gives meaning to human suffering, such that some Christians speak of 'redemptive suffering.' This concept must be properly understood if we are to avoid either of two false conclusions. First, to say that some suffering can be redemptive does not mean that suffering should be morbidly sought for its own sake. To do this would be to ignore the fact that God sent His Son to deliver us from sin and death, and therefore from suffering. Secondly, the concept of redemptive suffering does not imply that all suffering is redemptive. Suffering can be so intense and so dehumanising that it overwhelms sufferers with their own misery and causes them to give up on life itself.

Yet some physical and mental suffering can be 'redemptive' in that it furthers spiritual growth by forcing us to come to terms with the reality of our own sinfulness and

frailty. Suffering is an evil to be resisted, but God can use even the evil of human suffering and pain to benefit the sufferer. Suffering can help us to come to the realisation of our total dependence on the mercy of God. It can heighten our understanding of our own limitations and help us to accept that there are many aspects of life beyond our control. Suffering can purify us from the passions that corrupt our relationships with God, others and ourselves. It forces us to reconsider and reorder our priorities so that we will seek above all what is ultimately most important (Luke 10:42). Suffering also offers the possibility of a closer relationship with Jesus. Suffering and pain are inevitable in this fallen and fractured world, but we can and should look ahead to the eradication of evil and suffering in the transfigured creation. In the meantime, we are obliged sometimes to accept suffering and to seek spiritual healing through it.

We turn now to a biblical understanding of death. The Genesis account introduces the reality of death when God reminds Adam that

> *You [shall] return to the ground for out of it you were taken;*
> *you are dust, and to dust you shall return* (Genesis 3:19).

Paul also teaches that sin and death entered into the world because of the rebellion of Adam (Romans 5:12). Death is a universal human experience, the great equaliser in that it is the end of all regardless of race, status, wealth or influence (Ecclesiastes 2:15-16, 3:19-21, 5:15-16, 9:1-6). The Good News, however, is that God has sent His Son to overcome death and to grant eternal life to all who believe. Jesus offers the hope of eternal life (John 5:24; Luke 14:14; Matthew 22:31). Paul speaks about the victory over death that Jesus has made possible. Death does not have the last word because it is defeated by the sacrificial death and glorious resurrection of Christ.

> *'Where, O death, is your victory?*
> *Where, O death, is your sting?'*
> *The sting of death is sin, and the power of sin is the law. But thanks be to God! He gives us victory through our Lord Jesus Christ* (1Corinthians 15:55-57).

There is therefore now an ambiguity about death for Christians. As an enemy (1 Corinthians 15:26), it should be resisted. Aggressive life-saving or life-prolonging treatment is often justified. That is what medicine is generally about. Neither should death be invited or taken hold of (as in suicide or euthanasia). Yet as a defeated enemy, which now serves as the necessary gateway to eternal life, death need not be resisted at every turn. There comes a point for each of us when death should be accepted as inevitable, even appropriate. To discern when this point is reached is not always simple: there are cases in which the line that separates beneficial and futile treatment is not clear. However, doing everything necessary to delay death is not required when someone is unavoidably dying, since the sting of death is removed and it does not have the final word. It is not part of good medicine to prolong the dying process: 'A dying man needs to die as a sleepy man needs to sleep, and there comes a time when it is wrong, as well as useless, to resist' (Steward Alsop). As ethicist Daniel Callahan puts it:

> *Of each serious illness, especially with the elderly, a question should be asked and a possibility entertained: could it be that this illness is the one that either will be fatal, or since some disease must be fatal, should soon be allowed to be fatal? If so, then a different strategy toward it should come into play, an effort to work toward a peaceful death rather than fight for a cure*.

4. Health, healing and hope

The Christian doctrine of the resurrection of the dead means that our hope has to do with death's undoing, not with its mitigation or evasion. Further, this doctrine stresses that it is not just some essential part of the human being that survives, but that the whole person will be raised. Perhaps most significantly for bioethics, the doctrine implies that sickness and death are enemies that ultimately only God can conquer: that perfect health and healing will only be experienced in the consummated kingdom of God.

The concept of resurrection is present in the Old Testament (Isaiah 26:19; Daniel 12:2; Psalm 49:15; Psalm 17:15), but it is taught most explicitly in the New Testament, both by Jesus (Matthew 22:29-32; Mark 12:24-27; Luke 20:34-38; John 5:25, 28-29) and by Paul. The general resurrection is grounded in the resurrection of Christ (1Corinthians 15:12-14). While emphasising the discontinuities between this life and the resurrected life (1Corinthians 15:42-44), Paul also stresses the corporeal or bodily nature of the resurrection life.

Resurrection is not merely bringing dead bodies back to life, but a *new* creation, which nevertheless guarantees the identity of the individual in that it is the same person who has died who is raised. There is healing, transformation and completion (Philippians 3:21). In the resurrection everything that is bound up with the person is preserved: our whole history is present, but as healed and reconciled with God and others.

What can we conclude about our attitudes to sickness, death and medical science? On the one hand, sickness and death must be strenuously resisted since they do not represent the original divine intention for humans but its subversion. This provides a powerful justification for efforts to treat, eradicate and prevent diseases. Following the example of the healing ministry of Jesus, we see sickness as an evil to be driven out. On the other hand, since only God can bring about health and human perfection in the end, we must reject attempts to arrogate that function to ourselves, believing that our science and technology (which is another way of saying we ourselves) can achieve it.

5. Stewardship

We turn now to the question of human responsibility in medicine and biotechnology, and the boundaries beyond which we should not venture. Boundaries here refer not to technological or scientific limits but to *moral* limits to the scientific enterprise. The cultural mandate of Genesis 1:28 sanctions the scientific enterprise, and we understand that science, as made possible by the grace of God, should be directed towards the preservation and care of God's creatures, including humans. The command to fill and subdue the earth and to rule over the living creatures can be applied generally, although not exclusively, to science and technology, including biotechnology. Human beings have been given the task of superintending God's good creation and are therefore *response-able* beings before God. In the Genesis narrative God delegated this cultural task to human beings *before* the Fall, thereby emphasising that it was God's original purpose for humankind.

Although human rebelliousness and sin did not nullify the divine cultural mandate, it distorts humankind's perception and perverts its attitude towards it. Humans now assert their own resourcefulness in creating and fashioning their own lives, wanting to become their own creators. They have ceased to recognise their own creatureliness because of their refusal to acknowledge God. Because sinfulness is inextricably bound up with human nature, it is present in everything that human beings do and touches every aspect of the human cultural enterprise. The story of the tower of Babel (Genesis

11:1-9) illustrates the attempt to 'reach the heavens' and achieve a reputation through technology.

This brings us to the problematic concept of 'playing God.' This phrase might be understood simply to reflect what humans should legitimately do as God's stewards – to imitate his character (as much as we are able) and to act in the world according to his purposes. Nevertheless, the concept is more commonly understood to invoke a perspective that on the one hand renders God superfluous and on the other elevates human scientific and technological skill to a status that does not belong to it. Where the idea of God is deemed superfluous, human beings accord themselves the status of 'maker.'

> *The fundamental perspective … with which (to) contrast 'playing God' is to view the world … as if God were given….. That means, among other things, that the end of all things may be left to God. … From this perspective, our responsibilities, while great, will not be regarded as being of messianic proportion. There will be some room, then, for an ethics of means as well as the consideration of consequences, for reflection about the kind of behaviour which is worthy of human nature as created by God, as embodied and interdependent, for example*. (Allen Verhey)

The fundamental concern in the warning against 'playing God' is the fact that there are broader theological ramifications to certain actions than what is included in an ethic defined by narrow humanitarian considerations. As Christians, particularly Christian scientists, doctors and policy-makers, faithfulness to God must be our first priority, above worldly success, and even above the quest for scientific progress. While Christian stewardship compels us to work hard to alleviate the suffering of our fellow human beings, it also warns us against the self-idolatry that causes us to think that we can usurp the place of God.

> *We would do well to tackle such issues in the ways God directs, rather than developing our own strategies – perhaps following worldly techniques – in a vain attempt to improve on God's abilities or timing. It does not matter where in the lifespan a bioethical issue arises … God's way is the best way, and it is our task to learn as much about it as we can*. (John Kilner)

6. Justice

In pluralistic, post-Enlightenment cultures we tend to understand justice in a minimalist way, reduced to the protection of personal autonomy – providing the space for individuals to act according to their own preferences as long as they do not violate the autonomy of another. The strength of such a view of justice is that it can provide a basis for conversation between people of different cultures and religions. But it also has serious weaknesses.

One significant weakness is that such a notion of justice enables us only to see the constraints to exercise in seeking goods, without telling us which goods to seek. The emphasis on personal autonomy and 'rights' pushes substantive moral issues and questions to the margin. It allows for space for autonomous action, without indicating how that space is to be filled. Further, the overriding emphasis on the prohibition against violating another's autonomy tends to reduce covenantal relationships, like the doctor-

patient relationship, to matters of contract. There is no room for a genuinely mutual decision-making, a partnership with reciprocal responsibilities and mutual trust.

Christian bioethics looks to a much richer concept of justice, based on the story of God and His dealings with His people. It is a story of a God who hears the cries of His people and delivers them from the bondage of slavery in Egypt. It is a story of salvation and covenant, which culminates in Jesus Christ, the incarnate Son of God, Who not only came to announce and demonstrate the justice of God, but also to inaugurate the kingdom of God, which is His just reign. From it we come to understand the true meaning of justice and the demands it places on us.

> *Such justice tells us something of the goods to seek, life and human flourishing among them. Such justice exercises some constraints besides respect for the sometimes-arbitrary preferences of another, constraints that include the prohibition against the destruction of an embodied image of God. Such justice will nurture covenantal relations, not reduce them to contractual or instrumental relationships. It will defend the weak and advocate for the powerless against the powers that resist God's cause. Such [merciful justice will] … visit the sick* (Matthew 25:36,43)*, not abandon or eliminate them. Indeed, it will discover in 'the least of these' and in their vulnerability the very image of Christ* (Matthew 25:40,45). (Allen Verhey)

Biblical justice directs special attention to those who have less, because there is a basic equality of every human being, created alike in God's image, which requires that the basic life-sustaining needs of all alike be met (eg, 2 Corinthians 8:13-14).

7. Science, Medicine and the Christian faith

The scientific enterprise is an exercise of stewardship – a responsibility entrusted to humankind by its Creator – and should be directed towards the betterment of individuals as well as society. Medical science and practice are ways in which sickness and disease are resisted and the Christian ethic of love compels us to engage thus with the world. Throughout its history the Church has played a significant role in the establishment of hospitals and other health-care institutions. Insofar as health care sciences are directed towards compassionate healing, they must be understood as God's gift to humankind, an aspect of His common grace.

We are also profoundly aware of the gravity of sin that touches every aspect of human culture. Science in general and medical science in particular, can either be instances of divine grace or vehicles of human sinfulness. They can be employed to harm and destroy rather than to heal and restore, as is evident in history. The scientific and technological enterprise can also be tainted by sinful aspirations for glory and economic gain. When both are relentlessly pursued, science and technology can bring harm not just to individuals but also to society. Even when its goals are noble, science may be conducted in an inhumane manner when the ends of science are said to justify the means it uses. The 'greater good' argument is often used to justify ethically dubious scientific research or therapeutic procedures, but despite its strong humanitarian overtones, this argument is abstract and superficial. Christian ethics, and even conventional wisdom, insist that certain procedures must not be allowed, whatever the promise of therapeutic benefit. In the shadow of Nazism, the Nuremberg Code declared

that ‘no experiment should be conducted where there is an *a priori* reason to believe that death or disabling injury will occur.’

Regarding the goals of medicine, there has since the work of Alasdair MacIntyre been a renewed interest in virtue ethics, centred on the particular internal goods or goals of specific moral practices. The Hippocratic Oath arguably represents the most ancient medical expression of such an outlook. The writer/s of the *Oath* did not merely apply a general moral theory to a medicine conceived as morally neutral, but tried to draw out the moral significance inherent in the practice itself and ‘the standards coherent with the good of the craft.’

In another Hippocratic work, *The Art,* the proper goals of medicine are defined: doing away with the sufferings of the sick, lessening the violence of their diseases and refusing to treat those who are overmastered by their diseases, realising that in such cases medicine is powerless.

Similarly, Stanley Hauerwas claims that medicine in itself represents a sectarian commitment about how to care for the ill. The Oath did not reflect the broad consensus of society but only the convictions of a small group of physicians late in 4th Century BC. The Oath’s prohibitions were rooted in a practice, the purpose of which is to benefit the sick. Such a purpose puts limits on the use to which medical skills can be put - they cannot be used for alien ends, such as the destruction of human life or health. Hauerwas says the Oath is a form of ‘natural morality’ in which Christians rightly believe they continue to have a stake. As Leon Kass says,

> *‘(The Oath) might still be right if, as I believe, the essential activity of healing the sick is still the same, despite all the enormous changes in medical practice. That is, if to be healthy or whole still means largely what it did in ancient Greece, if the desire of the ill to be whole is no different, and if the healing relation between the physician and the one to be healed is in essence the same.’*

8. The Church

As a distinctive event, community and institution the church has its origins in God, but it exists with and in view of the world. The church is called and sent by God to the world to bear witness to God’s reconciliation, healing and transformation of the creation in Jesus Christ. In its ministry of proclamation and service and in its stewardship of the creation, the church participates in, as well as points to, the reality of the kingdom of God.

Christian witness comes out of the church’s profound solidarity with the world. The human struggles ‘outside of the church’ for justice, peace, liberation, and for healing, are not alien to the people of God: they are also the struggles of that human community we call the church. It must also be stressed that even as it serves as the instrument of divine grace, the church very much shares in the brokenness and struggles of the world.

Christian witness, however, is not just solidarity with the world. If it is an authentic application of God’s saving acts, then it is also a prophetic judgement of the world. In particular, the church must stand in opposition to the belief in self-righteousness, in humanity’s inherent natural goodness and moral perfectibility.

The profound tension between solidarity and opposition characterises the relationship between the church and the world. In order for the church to fulfil its task, it must be true to itself and to its own calling, yet it is not called to withdraw from the world

but rather is sent to the world to proclaim the messages of grace and forgiveness as well as prophetic judgment.

Worship

Worship is the central activity of the church, in which the people assemble to hear, reflect on and perhaps discuss God's word and then praise God with song and prayer. As revelation and response, worship provides a perspective that informs and shapes our perception of the world and our responsibilities. Worship forces us to confront the world as it is – fallen, fragmented, terrifying and yet beautiful and mysterious. The words of the liturgy – 'deliver us from evil,' 'help,' 'save,' 'defend us' – point to the enormity of human suffering caused either by human wickedness or the capricious forces of nature. In worship we are confronted by the stark reality of evil as we pray 'Lord, have mercy,' but worship also helps us to see the beauty of God's creation, and appreciate the sheer wonder of life.

Worship involves the deep pathos of the memory of God and the pathos of hoping that the promises of God will be fulfilled in our sin-scarred world. It therefore opens us to the reality of the eternal and enables us to recognise the future that has already dawned upon us. Christian worship comprises praise, thanksgiving, confession and prayer. Praise is focused on who God *is*, thanksgiving is a response to what God *does,* and *has done*. As we recognise the holiness of God, we are led into confession of our own sin and prayer for forgiveness. As we also acknowledge our total dependence on God, so we come to God in petition (prayer for our own needs) and intercession (prayer for the needs of others, including the suffering and the sick).

Praise, thanksgiving and confession in congregational worship rarely have much connection with bioethical challenges such as biotechnologies threatening unborn human life or the prolonged dying of elderly people, but that need not be the case. Praising God for His creativity in crafting human life in all of its genetic complexity is perfectly appropriate. So is thanking God for defeating death on the cross so that we need not fear dying. Confessing our self-centered disinterest in helping others who have chosen to keep rather than abort a disabled child is appropriate as well. By confining our attention to bioethics to educational classrooms, we miss a huge opportunity not only to educate people but also to help them connect bioethics to their life of faith in Christ.

The ministry of prayer in the church is particularly vital to those who are struggling with issues related to bioethics – the childless couple considering artificial reproductive technology, the pregnant single mother considering abortion, and the terminally ill patient contemplating suicide. Although prayer may not always change their situation, it may give them the wisdom and the moral courage to choose obedience.

Music and singing are an important part of the worship tradition in many churches. From joyful and exuberant praise to awe-filled wonder, from confident declaration of God's mighty acts to the anguished cry of the desperate in the tradition of the lament psalms, songs are a powerful way of both expressing and evoking an emotional response that goes beyond words. There are numerous hymns and contemporary songs that focus on bioethically significant themes.

Teaching

In order for Christians to be God's witnesses in this age of rapid developments in biotechnology, the church must continuously strengthen its teaching ministry. Teaching is inextricably bound to the Church's mission: 'Therefore go and make disciples of all nations, baptising them in the name of the Father and of the Son and of the Holy Spirit, and *teaching* them to obey everything I have commanded you' (Matthew 28:19-20). Elders or pastors are not just required to 'oversee' but also to instruct their flock (1Timothy 3:2-3).

In the New Testament and the early church, teaching has not only to do with doctrine but also with moral instruction, that is, with practical application.

Yet the pressing demands of ministry sometimes make it difficult for clergy to keep abreast with the most recent developments in biotechnology, such as cloning or stem cell research. Church leaders and teachers will therefore often need to rely on the work of theologians and Christian bioethicists.

Leaders cannot assume that Christian health professionals and bioscientists are aware of the ethical issues in their profession, but must encourage them to be involved in Christian professional associations such as the various Christian Medical Fellowships and Christian bioethics centres which have developed teaching and training resources. Christian health professionals and bioscientists need to be challenged to a discipleship that counts the costs and to be supported in it. They are under pressure from their profession to conform; indeed their careers may be at stake. This is especially so for those working in ethically controversial areas like stem cell research or cloning.

Lay Christians should be encouraged to be examples and witnesses when confronted with bioethical decisions. Many bioethical issues, such as abortion and euthanasia, are not technically difficult to understand, but their pastoral sensitivity, or perhaps their controversial nature seems to render them too hot to handle for many preachers. Christians need thoughtful teaching on issues which profoundly impact so many lives. In most locations there are individuals in the congregation or in the larger community who can provide such teaching. Church leaders themselves should be receiving some bioethics training as part of the ongoing education and nurture they receive from their denominations or clergy associations.

Pastoral ministry

In the Christian context, pastoral ministry is part of discipleship and includes practical care, prayer, emotional support and counselling. It is the function not only of the pastor, but of the whole Christian community. We are to correct each other, to 'bear one another's burdens' (Galatians 6:2) and to admonish, encourage and pray for each other. When caring for or counselling those who are not members of the Christian community, there is an additional apologetic and evangelistic opportunity. The counsellor, pastor or social worker comes alongside those whom he or she is seeking to help and aids them in their search for meaning. But this requires sensitivity and respect. The gospel is not served through manipulating the suffering and vulnerable.

Churches need to become known as the places in the community where their members and all others can go to get the information they need in order to understand which reproductive technologies, genetic tests, stem cell treatments, or alternative medicines they can use without violating important ethical standards. Unless churches have ample information available on such bioethical challenges and counsellors to help people apply that information to their own situations, churches are missing a huge opportunity to connect with people at the very times when they are most open to the gospel. Church leaders would do well to identify, or develop if necessary, gifted and informed health care professionals, scientists, educators and others in their congregation with whom the primary counsellors can share the counselling load.

Outreach

The outreach ministry of the church is its sharing of the gospel to those outside the church. Although verbal proclamation is an essential aspect, evangelism is not confined to that because there are other ways in which the gospel can be shared. The ministry of Jesus, who came not only to proclaim the word of God but also to perform the works of God, demonstrates that the gospel must be shared in word and deed, by verbal

proclamation and visible demonstration. Proclamation and social action are inseparable, though they are not to be equated. Failure to distinguish between them often leads to neglecting proclamation, which is essential to the New Testament concept of evangelism. On the other hand, modern evangelicals, perhaps forgetting the historical emphasis of early evangelicalism on social reforms, often have a narrow focus on verbal proclamation, considering people's material and social needs of secondary or little importance. The Lausanne movement aims to hold the two elements together: 'The whole church taking the whole gospel to the whole world.'

When we care for people in need in the name of Jesus, we also open their hearts to the gospel. However, we must be careful to ensure that our social action does not become a gimmick to entice people to become Christians. Social action, as a response to the divine call, has its own integrity and vitality. At the same time, we rejoice when our genuine acts of compassion open the door to evangelism. It is with this understanding and motivation that we reach out to people encountering bioethical challenges.

Service

One way in which the church can serve society is by providing examples of sound bioethical decision-making. Individual Christians can demonstrate their commitment to the faith by refusing options that would violate the will of God as revealed in Scripture. Beyond these individual efforts, the church can also 'incarnate' its values in institutions such as hospices and crisis pregnancy counselling centres, which serve as a prophetic witness to society of the deeper meaning of human existence.

Apologetics

Another way in which the church can reach out is to challenge popular views on bioethical issues. There are important points of contact between secular and Christian bioethics, and these provide the basis for Christian apologetics. Apologetics is the defence of the truth-claims of the Christian faith. This is possible because all truth comes from God and God has created the world to bear witness to Him. There is a need in the evangelistic work of the church for responsible and serious justifications for the main themes of the Christian faith. Apologetics aims to lend intellectual integrity and depth to evangelism, ensuring that faith remains rooted in the head, as well as in the heart.

Human reason provides an important point of contact for the gospel. Christianity is not irrational, neither is the rationality of the Christian faith so discontinuous with secular rationality that there is no point of contact whatsoever between the two. Many Christian arguments about bioethical issues can be expressed in a way that resonates with the values and concerns of non-believers.

Advocacy/political engagement

Social action is part of the Church's mission simply because there is no disjunction between faith and life, belief and action. As Arthur Simon puts it, 'To take major areas of life, those having to do with social and economic decisions that vitally affect all of us, and to put them into a compartment carefully separated from faith is to turn much of life over to the devil.' The church, as Marsha Fowler puts it, is a body that acts – with voice. The church ought to speak prophetically against injustice, and on behalf of those without a voice.

The church therefore ought to be involved in bioethical decision-making not just at an individual level, but at a political and social level as well, by formulating and promoting a social ethic. According to Marsha Fowler, the process includes:

- Examining Scripture and tradition for Christian understanding and guidance
- Gaining insights from people who are directly affected by the problem or issue
- Gaining insights from experts who have studied the issue or worked in the field
- Being sensitive to the broader social context relevant to the issue
- Prayer
- Proclaiming the Christian perspective and working towards its realisation.

In democratic societies, the church has the opportunity to influence governmental policies and laws, not through coercion or manipulation or imposition of the will of the minority who may be in power, but through persuasion and enlisting the support of non-believers. Individual local congregations may lack the expertise or resources to tackle the more complex technological issues, but they can interact at a denominational level or in partnership with specialised groups such as Christian ethics centres and health care professionals' associations. As when believers draw alongside of unbelievers who are personally wrestling with bioethical challenges, so when believers draw alongside unbelievers to engage burning bioethical issues, there are ample opportunities to discuss what it is that makes sense of the life and dignity that all are striving to protect: i.e., to discuss the gospel.

PART II. Opportunities for the Gospel

Generic strategies

Before considering eight stories about specific bioethical decision-making in the context of ministry, there are some strategies for using bioethics as an opportunity for the gospel that could apply in all cases.

The church ought to provide useful information and support to people confronted by difficult bioethical choices. Christians should also present a challenging and attractive alternative to prevailing secular attitudes. There is a wide range of activities that could be conducted in order to do this, but as not every local church has the resources to conduct all these activities, each should work closely with appropriate parachurch organisations and denominational structures. Various denominations could share their resources in developing programmes and events.

Church congregations are encouraged to undertake activities, such as the following:

Worship

1. Conduct rituals such as funeral services in a way that provides opportunities to comfort those who mourn, explore the mystery of suffering, present the hope of the gospel sensitively, and challenge non-believers to consider their own mortality. Non-verbal communication through music, poetry, drama and liturgy is especially powerful.
2. Develop liturgies and worship materials for deaths through miscarriages and stillbirth.
3. Create a special service commemorating the deaths of unborn children through abortion. This could be conducted on St Luke's Day, as part of a Health Care Sunday or Sanctity of Life Sunday, or as a specially advertised mid-week service. Consider writing or using music specifically on this theme (Graham Kendrick wrote a song to commemorate the 1967 UK Abortion Act). Include prayers of confession for those who may have been involved in abortion (both men and women) and prayers for their healing.
4. Hold dedication services for graduating medical students and other health care professionals. Invite representatives from students' local churches. Use an oath/declaration such as the Christian version of the Hippocratic Oath or a version designed by the students.

Teaching

1. Encourage congregational teaching through sermons, Bible studies and courses to equip church members for discussions with friends and work mates.
2. Organise public events on topical bioethical issues. These could be seminars or talks by expert, engaging speakers (eg, invite someone from a Christian bioethics centre or ethics lecturer from a theological college) or even a series of talks/seminars. They would preferably be at a neutral public venue such as the local school, or a café. Such programmes should be widely publicised (eg, letterbox drops, posters in local shopping centres) because they are meant primarily for unbelievers. Church members should invite friends.
3. Arrange a lecture or meeting at a local university or secondary school, possibly through a student Christian group.
4. Identify congregation members (possibly health care professionals) to do further study in bioethics and act as resource people. Eg., A master's degree in bioethics can now be undertaken, without re-locating, from Trinity International University (www.tiu.edu).
5. Set up a bioethics resource centre, with:

- Resources about commonly encountered bioethics issues such as end-of-life care and reproductive technologies, which can be discussed with neighbours and friends
- Summary sheets of issues, eg, those prepared by The Center for Bioethics and Human Dignity (CBHD—www.cbhd.org)
- The international Christian bioethics journal *Ethics and Medicine*
- Newsletters and other communications from Christian bioethics centres such as those in your own area or those sponsoring the *Ethics and Medicine* journal: England's The Centre for Bioethics and Public Policy (www.cbpp.ac.uk), The Netherlands' Lindeboom Instituut (www.lindeboominstituut.nl), and The Center for Bioethics and Human Dignity (see above)
- Books in simple language specifically for a broad public, eg, CBHD's BioBasics series, which exists in multiple languages and is published in various parts of the world.

6. Publicise relevant Internet sites, for example:
    - Overtly Christian sites such as www.cbhd.org, www.pfm.org, www.cmdahome.org, www.cmf.org.uk and www.thecbc.org
    - Sites not using explicitly theological language, yet in harmony with biblical world view, such as www.bioethics.com.

Pastoral Ministry

1. Establish a pregnancy crisis/antenatal testing counselling centre.
2. Work alongside hospital chaplaincy. Chaplains who work in hospitals should be equipped to provide basic counselling on a range of bioethical issues. Chaplains should also be able to help patients and family members to get in touch with Christian counselling agencies or specialist organisations.
3. Work with hospitals to establish hospital-based support groups for patients and their families that are open to all.
4. Offer and promote counselling services to help congregational members and the community at large deal with bioethical challenges in their lives.

Outreach

Service

1. Participate on hospital/university clinical and research ethics committees.
2. Establish or be involved in a hospice to care for dying persons.
3. Establish or be involved in an AIDS orphanage.
4. Establish or be involved in a crisis pregnancy counselling centre.

Apologetics

1. Write letters to the press.
2. Make media appearances and give interviews – be available and capable.
3. Encourage health care and other professionals to attend secular professional meetings and be involved in secular organisations.

Advocacy/political engagement

1. Make written and oral submissions to governmental enquiries/hearings.
2. Be involved in public discussions held by other organizations.
3. Lobby politicians through letters and visits.
4. Write letters to the press addressing proposed laws and policies.
5. Participate in demonstrations and marches.

1. Justice in health care

An urban congregation in sub-Saharan Africa has very positive experiences with *Mercy Ships* and other short-term medical outreach programmes. They approach a mission agency staffed by Europeans, Americans and local health professionals. It is funded by Korean Christians and they plan to establish a permanent clinic. The local congregation argue this is one of their most powerful evangelistic tools.

'The government provides only the bare minimum when it comes to health care' says one of the elders. 'If someone is very sick, they may get treatment at a public hospital for a reduced fee, but often there is no opportunity to access medical services. It's not so bad here as in rural areas, but even here in the city there are not enough facilities. So people with "connections" get served in the hospital sooner, even before people who may be very sick and have waited a long time, but don't know the "right" people.' He goes on: 'Western and Asian churches who are economically strong but don't help their poorer brothers and sisters, never mind those who might be evangelised, are really no different than the rest of the world. Christians who have much have a duty to help believers who have little.'

Another influential church leader takes a different view. She claims the local congregation should instead put their efforts into expanding local services. 'Health care is a right and the government should provide it. When the church steps in all it does is supply a quick fix, like putting a plaster or band aid on a gaping wound. Both the local people and the mission agencies should try to get the laws changed to provide adequate national healthcare services.'

What issues does this story raise?

One issue concerns definitions of health and health care. Health can be defined very broadly, as by the World Health Organisation (1948): 'Health is a state of complete physical, mental and social well being, and not merely the absence of disease or infirmity.' But this definition is unhelpful as health in this sense cannot be measured and the standard is unachievable this side of heaven.

A more modest definition as 'the absence of disease' is more useful. Health care is then anything aimed at reducing or eliminating disease. Sometimes people speak of basic health care, which includes elements such as clean water, sanitation, and access to adequate nutrition. These basic and most important determinants of health are not normally seen as the responsibility of health professionals. In fact, poverty is the most powerful determinant of ill health in all societies. Similarly, health education programmes have greater impact on community health than on treating sick individuals. Regarding conventional health services, preventive measures like immunization are arguably the most strategic and cost effective.

To claim health care is a 'right' implies someone has a moral duty to provide it, but who has this duty? It is often assumed it is government, but we each belong to a community where all are vulnerable to disease or injury and therefore the community has the primary responsibility to care. For practical reasons, much of this task is assigned to government on behalf of the community, but this does not absolve the community of all responsibility. Family, home or community based care may be the most appropriate kind. If government and/or community fail to provide health care, does the church have a duty to step in? This raises the issues of the relationship between political advocacy, the church's works of service and evangelism.

Then there are questions of how much health care or exactly which services ought to be provided and whether this varies with available resources of money, technology and expertise. For example, is anything resembling comprehensive health care economically possible in nations with high HIV infection rates? Furthermore, if nations cannot fund their own health care, what responsibilities do other nations or the worldwide church have to assist? So the major issue here is justice. How should scarce health care resources be distributed within a country? On the basis of 'connections'? Ability to pay? And what about the injustice in the global distribution of health care resources?

What does the Bible say?

Distributive justice is a major issue in bioethics: not only for medical treatment and health services but also for the benefits of research. That every person ought to have access to appropriate (at least basic) health care is an assumption shared by both Christian and secular bioethics. For the Christian this is established on the premise that all humans are created in the image of God and therefore deserve equal respect and access to what is essential in order to live. Health care is not only the privilege of those able to pay, but should be accessible to everyone regardless of their financial or social status. The emergence of managed care medicine, where for-profit organizations run health care institutions, has raised legitimate concerns about the commodification of medical treatment. Will such companies choose the interests of their 'customers' (patients) when these conflict with the interests of shareholders? Although investors could choose fewer returns in exchange for the company conducting itself responsibly, this seems unlikely.

It may be argued that because rich nations have the *capacity*, both in medical knowledge and economic resources, to defend the right to a decent minimum of good health care for every citizen, we can claim this as society's *obligation*. However, while it may be possible to provide a 'decent minimum' (whatever that is) to every citizen, specialised and high technology treatments are usually expensive and not accessible to all, even in wealthy nations. Several criteria have been proposed for treatment allocation:

- *Need*. Who has the greatest need?
- *Ability to pay*. Who has the resources to buy treatment?
- *Merit*. Who because of their past contribution to society most warrants it?
- *Social value*. Who has the greatest potential to contribute to society in the future?
- *Desert*. Who is disqualified from treatment because of past actions? For example: Does a person with liver destruction through alcohol abuse *deserve* a liver transplant? Or a smoker a lung transplant?
- *Age.* In some countries patients over 65 automatically no longer qualify for certain expensive treatments.
- *Type of disease.* The state will allocate resources for the treatment of certain diseases but not others.
- *Equality.* Equal persons are to be treated equally in health care, that is, persons with similar conditions must be treated in the same way.

Though sometimes difficult to implement, *equality* best corresponds to the Christian emphasis on equal human worth. Biblical emphasis on *need* is seen in the imperative to care for the poor (Proverbs 14:31; Isaiah 58:6-7; James 2:1-4). The poor include not only the economically deprived, but the weak, sick and very vulnerable – those who

are unable to support or help themselves. As 2 Corinthians 8:13-14 makes clear, the aim of giving special attention to the poor and weak is because they fall short of the equality they ought to enjoy as created in the image of God. With regard to *desert*, the Bible teaches that those who are able to work must do so. Conversely, those who are able but unwilling to work do not merit a share in society's resources (1Thessalonians 5:12-14; 2Thessalonians 3:6-10). In theory one could also forfeit a claim on society's resources by knowingly causing one's own disease. However, to be fair, such a standard would need to be applied to all unhealthy behaviours (over-working, over-eating, etc), which seems unlikely to happen since it would both be difficult to implement and result in a culture of control and blame.

Biblical teaching on distributive justice has shaped Western health care: 'The churches took it upon themselves to provide out of their resources for their brothers and sisters in other churches who were less fortunate (Acts 2:44-45, 4:32-35, 11:27-30; 2Corinthians 8-9) and this pattern continued in much of the Western world until this century, when governments took over the responsibility of caring for the poor from the churches and forcibly redistributed society's goods from the prosperous to the poor.' (Scott Rae)

Principles of justice need to be applied not only nationally but globally, since in the global economy, a nation's responsibilities are not limited to the good of its own citizens. It is disappointing, for example, that of the billions of US dollars spent on medical research, 90% is directed towards conditions causing only 10% of global disease.

The church has a special calling to care for the sick wherever it is located and however governments fulfil their duty. Wealthy Christians should as an issue of justice contribute generously to the health care of less fortunate neighbours. But a medical clinic may not be the best way to achieve the greatest health improvement for our sub-Saharan community. Alternative models, such as community nurse practitioners and health care educators, or using funds for public health measures such as clean water, sanitation, and food supplies might be more effective.

Our African church leaders who want health care partnership with an overseas church are right about the duty of wealthy Christians to help in this way. They are right about the connection with evangelism. Can Christians evangelise with integrity in nations enduring major health care crises such as AIDS without acting to help the sick and their families? Words and action go together. The gospel must be shown as well as spoken.

Nevertheless, the church leader who wants to lobby and change the law is right too. Political engagement and advocacy for the poor and powerless are also part of mission. It is not 'either-or' as implied in this story. It is unlikely that any one church or agency has the financial resources to meet the broad health needs of any African nation!

What opportunities for the gospel are there?

[*See also 'Generic Strategies' before the 8 stories*]

When the church meets human need, we encounter people at a time when they have been sensitised to their lack of control and perhaps to their need for God. So this creates an opportunity for evangelism, though it should be handled respecting people's vulnerability. Equally, the church engaging politically and in advocacy speaks powerfully to the world of God's love for it.

This story offers a more personal opportunity for the gospel to be proclaimed. How will these two groups of leaders resolve their disagreement? Will they show respectful listening and a willingness to submit to the other? Will they demonstrate grace and forbearance? Will there be forgiveness for harsh or hurtful words? Will they be able to move forward working together, learning from each other, and recognizing

each has different but necessary contributions to make to the church and its work? Will there be reconciliation despite differences? What a testimony that would be!

Further resources

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2. Caregiver-patient relationships

Señor Gomez visits his local doctor because he has lost a lot of weight over the last five months. The doctor orders an X-ray that shows a shadow and he suspects lung cancer because his patient smokes heavily. He sends him to the regional hospital without much explanation, but with a letter for the specialist.

A month later, Señor Gomez returns to his local doctor, who asks him: 'What did the other place say?'
'They didn't say much because they were too busy' he answers. But he hands over a letter from the specialist:
Dear Dr
Señor Gomez has lung cancer.
Suggest pain relief.
Yours etc
The local doctor provides some pain-relieving medicine and sends Señor Gomez home. Three months later, the family bring him back unconscious. The emergency doctor on duty breaks the bad news to the family, and advises them to take him home, call a priest and allow him to die in peace.

What issues does this story raise?

The issues cluster around two broad areas. The first is the nature of the relationship between caregiver and patient and the role and responsibility of each. The second is how we deal with approaching death and how we care for dying people and their families. In addition, there is the issue of justice, since it seems treatments for lung cancer that would generally be available in wealthy countries were either unavailable or not offered to Señor Gomez. This might be due to inadequate resources, unfair discrimination against him, or simply his inability to pay.

The first area includes such questions as how caregivers treat their patients, whether they accord them dignity and respect, what information they should convey to them, and how they do this. There are also the questions of involving the patient in the medical decision-making process, and the further possible role of family or community in this. Neither Señor Gomez nor his family were given any information about his condition, or what the future might hold, or any opportunity to be involved in decisions.

The first two doctors seemed distant and uncaring. They are classic examples of 'paternalism' (where doctors treat patients like children, making important decisions on their behalf) except that paternalism implies a certain benevolence, with the doctor acting in the perceived best interests of the patient. Yet these doctors seemed to care very little for their patient's interests at all. Indeed, it seems odd even to speak of the doctor-patient 'relationship' in this case since it barely seems to exist. (The final doctor appears to show more concern, at least telling the family what is going on.) A poor doctor-patient relationship is a serious problem, since the quality of this relationship is known to be very important for the outcome of treatment.

Paternalism was the dominant model of the doctor-patient relationship until the modern discipline of bioethics introduced the principle of respect for patient autonomy. Autonomy is the freedom to exercise self-determination, without external restraint. In the medical context, it means that doctors recognise the patient's body is his or her own and that medical procedures cannot be conducted without the patient's consent. This is important because doctors exercise considerable power and authority over their patients. But for patient consent to be meaningful, the patient must be well informed about risks and benefits, possible alternatives and so on. Even if there are no treatment decisions to be made, the principle of respect for autonomy requires disclosure of health information because it is of vital interest to the patient. We might say Señor Gomez had a 'right' to know he had an illness that would kill him. This knowledge was essential to his life plans, relationships, self-understanding and possibly to his spiritual well-being. Whether Señor Gomez himself would make the health care and other decisions that would depend upon such information - or those decisions would be more of a communal process involving family members and others - would depend on his particular cultural setting. But complete information would be needed in any case.

We might ask whether the doctors fulfilled their obligations as doctors to Señor Gomez, whether or not he was content to be treated like this? Were they able to realize the goals of medical practice in their dealings with him? Did they demonstrate the kind of character traits (virtues) that we associate with being a good doctor? Or would Señor Gomez and his family rightly have felt let down by them, even if they provided the 'correct' treatment?

The second cluster of issues deals with how we treat those who are dying. In spite of all the advances of modern medicine, every one of us will die, and likely spend some time in a health care system before we do. It used to be considered a necessary skill for doctors to keep from patients the knowledge that they were seriously ill or likely to die. Today, at least in Western cultures, the trend is to keep the patient fully informed. However, apart from the specialist discipline of palliative care, medicine often seems focused on avoiding death and many doctors are uncomfortable talking about death. Señor Gomez's doctors may have wanted to avoid a painful scene and distressing questions. Breaking bad news is difficult; it reminds us only too painfully of our own mortality. Perhaps they simply wanted to avoid admitting they could not cure him. He may have represented a failure to them.

Probably Señor Gomez knew the truth or guessed it. But because he was not given permission to speak of it, he was left to deal with it utterly alone. He was deprived of the opportunity to ask questions about his future, to share his fears and to prepare for death. The suffering associated with facing death is often intense and many people today think of the ideal death as one that is sudden — one that they are unaware of and unprepared for, such as dying in their sleep. But previous generations of Christians used to pray to be delivered from such a sudden death. The *ars moriendi* (art of dying) meant a careful working through of emotional, relational and especially spiritual issues

as one prepared for death. The need to prepare for death spiritually is recognised by our last doctor when he advises the family to call a priest, but by then it is too late for the patient.

Two important goals of healthcare are healing and the alleviation of suffering. Señor Gomez was apparently beyond a cure and although his physical pain was addressed through medication, it seems his suffering was not fully addressed. Further discussion of death and dying issues and biblical counsel related to them, will be saved until the next story about end-of-life care.

What does the Bible say?

Respect for persons

The Christian ethic of care includes treating each patient with dignity and respect as one created in the image of God. This entails honouring patients as individuals by including them as far as possible in the decision-making process, and acknowledging their individual preferences and values. Speaking theologically, only God has an absolute prerogative over the life of the patient, not the health care professional. Any decisions the physician makes regarding the invasion or hurting of the patient must be made in light of this exclusively divine prerogative. Just as God permits each of us to make our own decisions, even foolish ones, so we need to give people the freedom to make their own choices, in consultation with whomever they wish. We can advise, we can try to persuade, but we ought not and usually cannot force them to agree. We are not free to act paternalistically in the sense of doing good to competent people against their expressed will.

Autonomy

Yet the Christian faith also introduces significant qualifications to the concept of human autonomy. For instance, we cannot affirm certain secular understandings of autonomy that give little weight to claims of relationships and responsibility to other human beings. The liberal ideal of the unencumbered freely choosing individual who acts solely in accord with his or her own life plans is not only unrealistic, it is contrary to the biblical picture of humans created for interdependent relationship with others, and a dependent submission to the authority of God. Insistence on being in charge of one's own life is not consistent with looking to the interests of others (Philippians 2:3-4), or the many New Testament 'one another' exhortations (e.g. 1Corinthians 12:25; Galatians 5:13; Ephesians 5:21; Colossians 3:16; 1Thessalonians 5:11). Being fully human does not consist of being utterly independent and setting one's own course, as we see from the fully human Christ, who gave His life for others and submitted to the will of His heavenly Father. Yet He freely chose to do this, so that His autonomy was not compromised. The principle of autonomy should not be used in a way that ignores people's connections and relationships or implies complete freedom from responsibility to others.

The Caregiver-Patient Relationship

The caregiver-patient relationship cannot be abstracted from the social and cultural context in which health care is actually practised. In many places and often with older patients, paternalism is still accepted, even expected, by patients. They are happy to hand over decisions about their future because 'doctor knows best.' In some cultures, individual autonomy gives way to the patient's family making medical decisions on their behalf. The family may direct the doctor not to tell the patient details, especially of a terminal illness, in order to avoid distressing him or her. At the other extreme, in Western cultures consumerism and materialism have elevated autonomy to the point where patients may be understood not only to have the right to refuse treatment, but even to demand the treatment of their choice. Patients become *customers*, or health

care consumers. *Patient* from the Latin simply means 'the one who suffers.' Patients are people who are sick and often in pain, vulnerable and fearful. They often do not have the understanding, the training, and perhaps even the energy to take complete control of crucial medical decisions. The image of a customer when applied to many patients fails truly to reflect their condition, especially in emergencies and with severely ill or intellectually or psychologically compromised patients.

Looking at the doctor-patient relationship as a commercial contract is supposed to empower the patient by turning the doctor into a service provider (like a vending machine) who carries out the patient's will, but the reality of the inequality of knowledge and power between the parties actually leaves most patients more vulnerable to exploitation. In a contractual relationship, responsibility is limited to what is specified. The doctor's responsibility to exercise beneficence (to act for the patient's good) and to be trustworthy in caring for the patient beyond what is specified in the contract, is minimized or eliminated. This has led some writers to suggest that a better model for the doctor-patient relationship is a covenant. Indeed, the earliest record of a code of medical ethics, the Hippocratic Oath, takes such a form.

The biblical notion of covenant centres on God's covenants with individuals and with His people, but covenants are also made between people (e.g., Jonathan and David). By comparing the marriage relationship to that between Christ and the church, Paul implies that this also is a covenant relationship. A covenant is characterised by several elements: a gift, a promise, commitment, a comprehensive fidelity that extends beyond particulars to unforeseen and unforeseeable contingencies, and a set of specific moral obligations. Contracts are designed to protect the self-interest of each party, but a covenant involves commitment to look out for the interests of the other, and thus protects the more vulnerable partner. Yet a covenant also recognizes that the gift element of the relationship is not purely one-sided or philanthropic: caregivers receive from their patients as well as give.

Compared to a contract, which is of limited duration and imposes only external obligations, a covenant effects internal changes which apply to all of life. Covenantal obligations may even be inconsistent with entering certain contracts, such as a 'marriage' contract that stipulates freedom for one or both partners to have sexual relationships with others. An example of covenant medicine would be the surgeon who refuses to perform disfiguring or unnecessary surgery even when this is what a competent patient, exercising his or her autonomy, asks for. The covenantal model of the caregiver–patient relationship implies that doctors (and other health care professionals) have moral obligations simply as doctors, which arise from the nature of their practice and which are particular to their role. In order to practise well, they need to cultivate certain virtues to achieve the goals of their profession.

Professional virtues

The concept of virtue pervades the scriptures, and is especially seen in the New Testament emphasis on the heart as of primary importance and the internal source of external behaviour (Matthew 15:10-20, 23:25-26) and the need for transformation of the inner being by the Holy Spirit (Romans 12:2; Galatians 5:22-23; Ephesians 4: 23-24). Virtues are acquired human qualities which when practised enable us to flourish as human beings. In the Christian context, this means becoming more Christ-like in our character and behaviour.

However, certain roles and relationships also entail particular responsibilities and virtues. When we think of someone as a good mother, a good husband, a good teacher, or a good politician, we acknowledge that they have the qualities to do that job well, in a moral as well as a technical sense. Health care professionals also require certain moral

virtues to do their job well. Conversely, certain vices prevent this. Aristotle envisaged the virtues as means between two extremes (vices) and this is well illustrated by certain medical virtues. On the one hand, doctors need to have compassion, they need to be moved to action by suffering; on the other, they need to be able to remain detached enough from human suffering to make careful reasoned decisions. They need to be empathetic in order to understand patients' concerns, but not so identified with them that they lose the capacity for independent judgment. In other words, they need to appreciate the patient's helplessness and hopelessness without sharing it or being overwhelmed by it. Doctors need to be open and honest in breaking bad news, and yet they also need to be sensitive and responsive to how much the patient can take in, not 'brutally' honest. They need to have courage both in attempting difficult procedures and talking about difficult issues, without being reckless or unthinking. They need to be confident and assertive, without being arrogant or aggressive. Above all, health care professionals need what we all need, the wisdom to see situations as they really are, and to apply ethical principles to that particular context. Such wisdom cannot simply be taught in text books, but also requires experience, reflection and role models, and the work of the Holy Spirit.

What opportunities for the gospel are there?

[*See also 'Generic Strategies' before the 8 stories*]

The character and quality of health care Christians provide ought to commend the gospel through demonstrating the love of Christ. Birth and death are particular times when a window is opened to the transcendent, and patients and their families may be more open then to thinking about spiritual issues. Many patients also seek forgiveness for past wrongs and reconciliation with estranged family members or friends. Christian health professionals, chaplains and hospital visitors have the opportunity to raise these issues and share the gospel when appropriate in their care of those who are dying. And Christian patients can witness to their caregivers in the grace, acceptance, hope and peace they display.

The church can minister to dying people and their families through services for healing and reconciliation, through hospital and home visiting, and through hospice care. Christians have no need to participate in the denial of suffering and death which characterises secular culture. Over the centuries, Christians have developed rich resources to help them through times of darkness or even despair. The gospel provides a way to understand death which robs it of its terror and absurdity. Funerals ought not to be the only time we talk about dying!

Further resources

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3. End-of-life care

Mrs Milowicz is a 60 year old widow who had a severe stroke eight months ago, which left her bed bound and unable to swallow. She has gone into a nursing (caring) home, but her only daughter, Anna, is not satisfied with the conditions there. It is understaffed and those who are there seem poorly trained. Anna visits her mother every day, carrying out many of the nursing tasks herself, but this is difficult for her as she lives on the other side of town, with her husband who is unemployed and two children who are at school. She relies on the bus service and the trip to the nursing home takes up to two hours.

Mrs Milowicz has now been sent to the hospital, because her nasogastric feeding tube (a tube inserted through the nose which goes into the stomach) has come out, and the staff are unable to replace it. Anna arrives with her, and explains the situation in the nursing home. She also tells the doctor that her mother has progressively deteriorated over the months and no longer communicates.

The doctor notes the daughter's good care for her mother, since there are no bed sores. But Anna admits she is finding the daily visits very tiring and she is upset because her mother doesn't even talk to her any more. 'It's such a strain, doctor' she says, 'I don't know how much longer I can keep doing it. I've had to give up my job, and we can't keep up with the bills.'

The doctor tells her that putting the feeding tube back would not benefit her mother who is in the process of dying. The doctor also tells her 'I see the love you have for your mother, but it looks like it is now time for God to take care of her.'

'Do you mean we will just let her starve to death?' Anna asks. Then after a moment's reflection she adds: 'Isn't there anything else you could do to make it easier?'

What issues does this story raise?

The first is the difficult question of knowing when it is time to stop efforts to fight disease and stop interventions that prolong life, recognising that the time has come for the patient to die. This is often referred to as 'letting nature take its course,' but how do we know when this time has come? In the secular context, this is generally through assessments that continuing treatment would be futile, or that it would impose an unreasonable burden on the patient relative to the benefit to be gained.

Futility is a notion frequently invoked but much contested. A task is futile if the goals at which it is aimed cannot be achieved whatever efforts are made. Whether a particular treatment is futile will depend on how the goals of treatment are defined. When a patient is severely and permanently brain damaged, treatment such as artificial ventilation will not be deemed futile if the goal is simply to keep the patient alive - this may be done for many years. However, if the goal is restoration of consciousness or the ability to communicate, it will be deemed futile. Artificial feeding also may keep an unconscious person alive for many years, but it will be judged futile if the goal is to restore consciousness. What is the goal of the feeding in this case? Quality of life considerations are commonly included here. Mrs Milowicz is not unconscious; she has awareness but is unable to do anything for herself and now appears unable to communicate (though her lack of communication may be due to a treatable cause such as depression).

The role of quality-of-life assessment is at least as controversial as futility considerations, whether carried out by the patient, the patient's family or the medical team. Because such assessment involves weighing up the benefits of a particular treatment against the burden it imposes, it begs the question of whether a life not

considered to be particularly 'beneficial' should therefore not continue. Benefits include both prolonging life and improving how the patient feels and/or functions. What sort of benefit to the patient, or to anyone else, is unconscious life on a life support system with only a tiny chance of recovery? The burdens of the treatment include possible side effects, pain and discomfort. This is not an issue for unconscious patients, but may be for Mrs Milowicz; some patients pull their nasogastric tubes out because they are uncomfortable. Burdens also include the cost of the treatment, including financial cost, to the patient and the family. In this case Anna and her family are bearing a large burden.

In the case of artificial feeding, there is an added issue. Most people would see artificial respiration (being on a ventilator, which generally requires being in an intensive care unit) as a high technology intervention that is clearly medical treatment. As such, it may be refused by patients or by someone acting as their decision-maker if they are incompetent to decide, or the medical team may withdraw it if they consider it inappropriate. However, is feeding by a nasogastric tube or else by a PEG-tube inserted surgically into the patient's stomach, a medical treatment, or is it simply an alternative way of providing food and water, part of the basic care we owe all people? Legally, it has been deemed the former by courts in the UK, USA and Australia. But Christians continue to be divided over the question and in 2004 the Pope declared at a conference that it is ordinary care that is required to be given to patients in the 'persistent vegetative state.' He said withdrawing artificial feeding is equivalent to euthanasia, it is 'euthanasia by omission.'

Mrs Milowicz, however, is neither comatose nor in a persistent vegetative state, so we might ask whether, apart from the nasogastric feeding, there is other treatment or rehabilitation which she might receive which would offer real hope for improvement in her condition. It seems she is not receiving any physiotherapy, occupational therapy, or specialised nursing care. At 60 years of age, she might have a good chance of recovering some function and many years of life ahead of her. This raises the issue, one of justice, about the allocation of funding to programmes and therapies for disabled persons and may reflect discrimination against people with disability. But possibly Mrs Milowicz would have received much better care if she had lived elsewhere, particularly if she had private health insurance.

So it is not altogether clear that it is time to 'hand over her care to God,' as advocated by the doctor. Whose decision should this be? If, as in the case of Mrs Milowicz, the patient is unable to participate in the process, should it be the health care team, the family, or a joint decision? Conflicts between these two groups, or within families, are legal minefields that in some countries often end up in court. It is frequently recommended patients make their wishes known in writing in advance through so-called 'advance directives,' in case they end up in such a situation. However, if they do not, how should the family members decide on their behalf? Will a sense of guilt on Anna's part that she is failing to do her duty to her mother affect her decision? Or her weariness and love for her own family? Can she disentangle her mother's interests from her own? Should she?

Finally, there is the issue of euthanasia. Instead of removing the feeding tube and allowing the patient to die – which might take weeks, and in a conscious patient be distressing for the patient and those who care for her – some might prefer an alternative. They might think it more compassionate, having decided that it is time for Mrs Milowicz to die, to end her life quickly and painlessly. This seems to be what Anna is hinting at. The American Medical Association's Council on Ethical and Judicial Affairs defines euthanasia as 'the act of bringing about the death of a hopelessly ill and suffering person

in a relatively quick and painless way for reasons of mercy.' Sometimes medical involvement is assumed, as in John Keown's definition: 'doctors making decisions which have the effect of shortening a patient's life (that) are based on the belief that the patient would be better off dead.' If Mrs Milowicz's doctor had given her a lethal injection, it would have been a case of *non-voluntary* euthanasia: the provision of euthanasia to an incompetent person without the explicit consent of the patient. *Voluntary* euthanasia is euthanasia that is provided for a competent person with his or her informed consent. If the person is able to cause the death (eg, by swallowing pills), albeit with help, then it is also commonly called assisted suicide. *Involuntary* euthanasia is euthanasia performed without a competent person's consent.

Advocates of euthanasia present three main moral justifications for it. The first is respect for autonomy. In voluntary euthanasia, the patient exercises his or her right to self-determination, in this case the 'right-to-die' (which is really a claimed right to be killed). However, euthanasia supporters usually limit this right to people who are suffering greatly. Logically, if the right to self-determination applies to all, then why should the 'right-to-die' be limited only to those who are terminally ill and/or in great pain? What about others (assuming they are of sound mind) who find their lives meaningless or intolerable? Yet most people object to the thought of a healthy young person being killed simply because they freely choose it.

The second justification will perhaps appear more acceptable to Christians. It is argued that euthanasia provides compassionate relief from suffering. Isn't the alleviation of human suffering surely part of what the love of one's neighbour entails? It is certainly one of the goals of health care. In certain circumstances, could the obligation to relieve suffering outweigh the general prohibition against killing? One of the problems with this argument is that it would apply equally to non-voluntary as to voluntary euthanasia. As a matter of justice, why should not the suffering of incompetent patients be relieved as well as that of competent patients? Both the autonomy and the compassion arguments prove too much, unless one envisages a broader programme of euthanasia than is generally advocated by its supporters (at least in public).

The third justification, like the second, is particularly appealing to those with a utilitarian perspective, for whom the only morally relevant factor in assessing an action is whether its consequences are good. They argue that there is nothing morally significant in the bare difference between 'killing' and 'letting die'; these are simply different ways of achieving a certain outcome and whether they are right or not depends on whether the outcome is desirable or not. We already permit letting die under certain circumstances, they note, so logically we should permit euthanasia under the same circumstances. In fact, a painless injection might be preferable to being 'starved to death.'

Others, including most Christians, argue that there is a difference between these, because while letting die may be right under some circumstances, killing the innocent is always wrong. Usually the difference is expressed in terms of the intention of the action (or omission) and of causality. If the intention of withdrawing treatment is to remove unreasonable or futile treatment, for instance, then it is permissible or even obligatory. Death may be foreseen as a likely outcome (though not absolutely inevitable) without being intended or aimed at and will essentially be caused by the disease. If the intention of removing treatment is to end the patient's life, it is morally equivalent to killing by an act such as a lethal injection.

What does the Bible say?

When is it right to stop fighting death and let go of life?

The Bible does not explicitly address the array of technology which can be used today to prolong life in the face of injury or disease which would once have been

uniformly fatal; but it relevantly gives us some broad principles about the value of human life, and an understanding of disease and death.

We saw in Part 1 that it is appropriate to promote health and healing, as suffering and death are evils to be opposed. Nevertheless, Christians understand death as an inevitable end to life, and for the believer, the gateway to resurrected life, so that it need not and should not be resisted at all costs. It is an enemy, but a defeated enemy. Christians may use carefully-defined criteria of futility and the weighing up of burdens and benefit, in prayer, to discern when God is calling a person home. What ought to be avoided, though, are decisions based on an assessment that someone's life is worth less than another's (because they function at a lower level or have pain or suffering). We may decide that a treatment is not worthwhile, but not that a person's life is not worthwhile, since all humans are made in the image of God and share the same value.

In deciding whether a treatment is appropriate, it is reasonable to take into account the cost of the treatment — again if rightly considered. Some treatments such as artificial feeding which are readily available in wealthy Western countries are simply not available, or would be prohibitively expensive, in many other places. It is hardly life-affirming to use all of a family's resources to extend the life of one member, at the cost of subjecting all other family members to life-threatening poverty. On the other hand, no patients should be deprived of the opportunity to take food by mouth if they can (in many conditions, the inability to swallow does indicate that a person is dying).

There is no indication in the Bible of an obligation to prolong every life as long as possible. Once a person is dying and nothing will change this, it seems better to allow this to happen as naturally though comfortably as possible. Fighting death to the very end does not allow the patient or family to prepare spiritually for death and may actually add burden to the dying process.

Since disease is a universal human problem, the responsibility of caring for the sick ought to be shared by the whole community (see 'Justice' in Part I above). It is often anxiety about being a burden to loved ones that prompts requests for euthanasia, but if this burden were shared it would be much easier for all to bear. Here the church can and should provide help.

Euthanasia

A biblical understanding of the exercise of autonomy does not mean that people are morally free to do whatever they choose. Certain choices represent disobedience to God's moral law, which protects innocent human life. This protection even extends to suicide and to giving someone else permission to kill you. Life should be received moment by moment as a gift from the Creator and never be seen as one's own possession that can be disposed of as one wishes. Suicide is basically a contradiction of our nature as creatures because it expresses our unwillingness to see life as God's gift. It is true that emotionally ill persons and those suffering from depression can irrationally resort to taking their own lives. In such cases, the person cannot be seen as a responsible or culpable agent. There are cases when suicide is the deliberate decision of a morally responsible agent. If suicide must be rejected, both physician-assisted-suicide and euthanasia must also be rejected because no human being (including a doctor) has authority over the life of another human being.

Suffering is of course to be resisted, but this resistance is informed by the understanding that its final eradication lies in the hands of God. In the area of medical ethics the principle that governs Christian compassion is 'maximise care', not 'minimise suffering.' If it is the latter, then there is a sense in which the elimination of *sufferers* can be justified, but the duty of the doctor is 'always to care, and never to kill.' This has been embedded in the tradition of Western medicine for over two millennia and is given clear

expression in the Hippocratic Oath's injunction not to 'give a deadly drug to anybody if asked for it, nor … make suggestion to this effect.' Even human beings with the poorest quality life in terms of disfigurement, loss of function or pain are made in the image of God and therefore the sanctity of their life cannot be overridden by quality of life considerations.

In fact, modern palliative medicine can deal with almost all physical pain and many other distressing symptoms at the end of life, such as nausea and breathlessness. Yet the most profound suffering at the end of life is existential, which is not amenable to purely medical treatment. That is why palliative care is multidisciplinary and includes pastoral care and why it deals not just with patients as individuals but in the context of their family and other close relationships. Inducing a hasty death denies the patient and their family the opportunity to do the work of dying, which can ultimately be deeply satisfying. There is something profoundly inappropriate about providing a medical 'solution' to suffering which is not basically a medical problem.

What opportunities for the gospel are there?

[*See also 'Generic Strategies' before the 8 stories*]

Decisions about stopping life-prolonging treatment bring patients and their families face to face with mortality and questions regarding the meaning of life and death. Discussions about 'letting nature take its course' may lead to an exploration of the spiritual realities and forces which govern life and are ultimately beyond human control. Christian health care workers, counsellors, chaplains and hospital visitors may contribute to these discussions, both with patients and families, and in health care team meetings.

A request for euthanasia from a patient is often an opportunity to discuss the underlying sources of the patient's pain and hopelessness. Especially for lonely patients without close family or friends, the church may provide the caring community which reconnects the patient in relationships and provides the meaning their lives seem to lack. Of course this is also a powerful witness to the love of Jesus, and may provide an opening for talking about the hope for life beyond death.

Euthanasia is a topic of general interest both within and outside the church. Ministers should ensure members of their congregation are equipped to discuss it intelligently with neighbours and work colleagues. Public seminars, debates or panel discussions create apologetic opportunities since the Christian arguments against euthanasia often resonate with people who have no faith commitment.

The church can play a special role in affirming the lives of disabled people, or of anyone with a supposedly low quality of life, through providing or participating in programmes of respite care, through welcoming such people at services and events, and through advocating for government services and facilities for them. Opposing the legalization of assisted suicide or euthanasia is itself a wonderful affirmation of those typically judged to be lowest on the 'quality of life scale.' Such affirmations can readily lead to opportunities to explain the reasons underlying them - i.e., the gospel.

Further resources

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4. Abortion

Katia is a 17 year old Russian student who lives with her divorced mother. Her mother has to work two jobs to pay for ballet lessons for Katia, who has won many competitions and dreams of becoming an international star. One of her fellow dancers is Ivan and through spending time with him, they have grown closer, to the point where they have begun to sleep together. They have talked about getting married one day, but both have many goals to achieve before then.

Just a few months before the national competitions, Katia misses her menstrual period. At first she thinks this might be due to stress or her strenuous training regime, but after another month, she starts to panic, and visits her doctor. She is stunned to learn she is pregnant and rings up Ivan in tears. He is also shocked and asks her what she is going to do about it. He says 'Neither of us is ready for a baby now. Why don't you visit one of those clinics?'

Katia doesn't know what to do. She is too ashamed to tell her mother, so she makes an appointment at a pregnancy counselling service. Here she is told by a very kind nurse she should not worry and that a simple procedure will solve her problem for her. So, even though she is upset about what she is doing, she makes an appointment for a termination of pregnancy and this is performed the following week.

Ten years later, Katia has moved to the USA to pursue her ballet career and has started to attend a church. There she meets Todd, a committed Christian who is active in the pro-life movement. He strongly believes that abortion under any circumstances is wrong. They begin dating and things progress rapidly. Todd thanks God for sending him this wonderful woman as a friend and potential wife. He thinks about Katia constantly and daydreams about their future together as missionaries in Russia.

When Todd asks Katia to marry him, she begins to cry. 'Oh, Todd' she sobs, 'I love you so much. But there's something I have to tell you.' When she tells him about her abortion, Todd feels as if his whole world has fallen apart. How could he ever forgive her? Why has God allowed him to fall in love with a woman who has killed her own baby?

Over time and with counselling from their pastor, Todd is able to forgive Katia and they get married the next year. They are thrilled when two years later Katia discovers she is pregnant. But, on antenatal testing, the foetus is discovered to have Down syndrome. Their doctor encourages them to consider aborting.

What issues does this story raise?

In considering abortion, many Christian writers focus exclusively on the moral status of the foetus. But though very important this is only one of several issues raised

by this story in particular and abortion more generally. The language used by various people in this story indicates what kind of being they think the unborn child is - to Ivan it is not yet a baby, the clinic nurse talks about termination of pregnancy, Todd thinks Katia has killed her baby and to the doctor who does the antenatal test, it is a foetus.

Not all women who have abortions are single, but the trend for greater numbers of young people to be sexually active, and at an earlier age, has greatly increased the number of unplanned and often unwanted pregnancies. This is associated in the West with the decline of Christian and other traditional moral values, the promotion through global media of recreational and casual sexual experience and a decreasing emphasis on marriage and child rearing. Sex education, as early as primary school and the easy availability of contraception in many places have not prevented many teenage pregnancies.

Pregnancy is often presented as a woman's responsibility, an individual choice. But at least one other person is involved. In fact all of society bears some responsibility for our sex-saturated culture and the difficulties single women face bringing up children. Although two people are involved in conceiving a child, the biological facts mean that an unfair burden of responsibility falls on the woman compared to the man. It is she who experiences bodily changes, sickness and the risks of pregnancy and childbirth. Generally, if she keeps the child, she will bear a greater share of the nurturing task, perhaps all of it if her partner abandons her. Ironically, the emphasis that has been placed on abortion being a woman's choice has meant women must bear alone a burden they ought to be able to share. If she chooses not to abort, she may be held solely responsible for the resulting child simply because she made a choice to keep it. A man may feel that offering to pay for an abortion is the beginning and end of his responsibility.

Despite having a 'choice' many women feel coerced into decisions they would rather not make; they in fact feel they have 'no choice.' This helplessness may be exacerbated in the case of young women who are minors and may not be considered competent to make other major medical decisions, but who are generally held to be able to make this decision alone. It is at least open to doubt whether they, and indeed other women, always receive and understand sufficient information about the nature of the procedure, the nature of the foetus (eg, looking at ultrasound pictures) or the possible negative consequences of the procedure, in order to give fully informed consent.

The other important factor in the social context of abortion today is the changed role of women. In many societies, women expect to participate in work or careers alongside men. Childbearing, if it figures in their life plans at all, is only one part of it. The community's expectations reinforce this view. While much of the social stigma of bearing a child out of wedlock has gone (at least outside the Christian and some other religious communities), women may be made to feel guilty for not fulfilling their academic or earning potential, or for bringing a child into a less than ideal situation. Motherhood is accorded relatively little value in many communities today. Many women need a great deal of courage, as well as emotional and practical support, if they are to continue with an 'unwanted' pregnancy in the face of all these social pressures.

In contrast to the general acceptance of abortion in secular society, abortion is singled out in some sections of the church as a particularly heinous sin. Todd illustrates this attitude. Yet is having or procuring an abortion so much worse than other sins and is it an unforgivable sin?

Todd and Katia's dilemma also raises the issue of the quality of life of people with disabilities. Do some conditions mean that a child would be better off never being born? Would this be the case with Down syndrome? Is it reasonable to take into account the burden on the parents, other family members and the community of caring for such a

child? Or is aborting children with disabilities fundamentally unjust since it discriminates against them solely on the basis of their disability and deprives them of opportunities, in this case life itself, which would not be lawful or condoned once the child was born? A further issue is that of the purpose of antenatal testing and whether the results can or should be used to pressure a woman into an abortion.

Finally, this case confronts us with the mystery and uncertainty of our lives. Both Katia and Todd, for different reasons, may have wondered why their child had Down syndrome. Was it a punishment for a previous abortion, or for marrying a woman who had had an abortion? What was God doing in all of this?

What does the Bible say?

Neither Old nor New Testament directly addresses the question of the morality of abortion. Yet it was practised in the ancient world, including the Graeco-Roman culture of New Testament times. There were many folk remedies and physical techniques of varying effectiveness, but without anaesthetics, antibiotics or blood transfusion, the more effective methods were also riskier to the life of the mother. The Hippocratic Oath prohibited medical abortion, but the Bible is silent. One passage is sometimes cited, by both supporters and opponents of abortion, namely, Exodus 21:22-25, which deals with spontaneous abortion (miscarriage) as a result of accidental injury to a pregnant woman during a fight. There is difficulty with the translation of this passage. The NRSV translation indicates that if the woman is killed or injured, then *lex talionis* applies, ie, the penalty matches the injury to the woman, but if the only mishap is miscarriage, the penalty is a fine. Nevertheless, the NIV translation indicates that if as a result of the injury the child is born prematurely but otherwise unharmed, a fine applies. If, however, either the mother or child suffers serious injury or death, *lex talionis* applies. The first translation implies that the life of the foetus does not have the same status as a woman, the second that it does. Both translations have scholarly support and which is preferred will probably depend on the presuppositions of the reader.

However, as we have seen, the Bible does teach that each human being is created in the image of God and his or her life therefore should not be violated. (This applies to the life of abortionists too, as extremists who attempt to kill them need to remember). But is human life before birth such a human being and so entitled to this protection?

The Bible does not explicitly tell us when the life of a human individual begins, but it certainly speaks of life in the womb as continuous with and equivalent to life after birth in respect of relationship to God. Psalm 139 brings this out clearly:

> '*You* … created *my* inmost self, and put *me* together … *You* know *me* through and through, from having watched *my* bones take shape when *I* was being formed in secret'.

In the womb, the foetus is already an *I* who is addressed by God and according to Christian tradition, the incarnation did not take place when the baby Jesus was born, but in the virgin's womb. Mary was in the earliest stage of pregnancy when Jesus was recognized by his cousin John, himself a six month foetus (Luke 1: 39-45). Therefore it seems that abortion is the wilful killing of an innocent human being. This view of the foetus profoundly shaped the early Church's attitude towards abortion. For instance, the mid-second century document the *Didache* declares 'do not murder a child by abortion' (2:2) and this has generally been the position of the church ever since. There have been some exceptions, such as life-saving surgery that removes a pregnant woman's uterus (say for cancer) and may result in the death of the foetus, other cases of

pregnancy–related danger to the mother's life, and more controversially, cases of rape or incest.

Most abortions these days, however, are for social or emotional reasons, which do not seem to provide sufficient moral justification for such a serious action. Nevertheless, the church needs to do more than simply prohibit or condemn abortion in these circumstances. It also needs to challenge the assumptions that undergird its justification by society and the law, as exemplified by the US Supreme Court's 1973 *Roe v Wade* decision. The argument based on privacy and autonomy is expressed as 'I can do with my body as I wish.' It assumes that we only have obligations to others if we choose to and neglects the real bonds that exist between people, especially the parent-child bond.

Humans are made for relationships and find their identity in relationships with God and with each other (Genesis 1, 2). We have obligations to our neighbours, even to strangers and enemies as shown in the parable of the Good Samaritan. How much more ought parents to protect and care for their children and especially vulnerable children, such as those who are disabled and who call for special care and protection. However, the trend towards antenatal testing and abortion of foetuses with any disability, or even undesirable characteristics, represents a quite different attitude to one's children: they are seen as commodities, objects of quality control. Abortion is the means by which the inferior or disappointing product is rejected (see the next story's consideration of procreation versus reproduction).

If we reject the individualism that makes abortion a woman's personal choice, we also need to reject the individualism that it makes it her sole responsibility. There is solidarity in sin, and whole communities may be held responsible for the sins of individuals, as seen when Israel was punished collectively as a nation. As has been said, many people contribute to abortion decisions apart from the woman herself: the woman's partner, her family, friends, abortion counsellors and health care workers, society itself. The church can demonstrate its acknowledgement of this communal responsibility by offering practical assistance and support to women during pregnancy and in raising their children. 'Unwanted' children, or the children of mothers without the resources to care for them, ought to be welcomed and cared for by the church community.

In the case of a foetus diagnosed with a disability, this community responsibility to share the burden is especially important. It must be acknowledged that the care of such children is often too much for a single individual or family to cope with alone. We have seen that disabilities, even if profound, do not change the worth of an individual's life or mean that they can therefore be killed, either before or after birth, as they too are made in God's image. We have seen that God's justice is especially concerned with the most vulnerable and needy in our midst. But justice also demands that we share the burden of care.

Todd's dilemma raises the issue of whether some sins are worse than others. Perhaps he secretly wondered whether Katia could really be forgiven by God for doing such a thing. Perhaps Katia also wondered, especially when their child was diagnosed with Down syndrome. We need to make clear that God's forgiveness won through the death of Christ and accepted through faith extends to all sins. We are told to be similarly gracious and forgiving, as we have experienced the grace and forgiveness of God ourselves and know ourselves to be sinners too (Matthew 6:9-15, 18:21-35). Disease and disability are a result of living in a sinful, fallen world. To assume automatically that they are a punishment for sin in a particular situation is wrong. When Jesus was asked whose sin was responsible for a man being born blind, he replied '*Neither this man nor*

his parents sinned, he was born blind so that God's works might be revealed in him' (John 9:1ff).

What opportunities for the gospel are there?

[*See also 'Generic Strategies' before the 8 stories*]

The church has the opportunity to bring the message of grace to people before, during and after decisions about abortion.

Before such situations arise, the church has a role in sex education – both in providing it directly and, even better, in teaching families to educate their children. Such education should promote abstinence as God's design for unmarried people, to avoid unwanted pregnancy and sexually transmitted disease. Premarital counselling can help couples explore their attitudes to the value of human life and their attitudes to children, especially disabled ones, and how they might respond to unplanned pregnancy.

During the period right after a woman learns she is pregnant, the church can provide crisis pregnancy counselling, and in particular offer resources to enable people to continue with pregnancy. The church should also demonstrate grace to those who choose to abort. Church members can offer adoption, especially for disabled children, as an alternative to abortion.

After abortion decisions, the church can offer counselling to both women and men who experience guilt through the establishment of post-abortion syndrome groups and the public proclamation of forgiveness of sins for those who repent. The church can also present an alternative to abortion of disabled children in offering practical support to parents. This could include provision of respite care, and running programmes for disabled people which affirm their dignity as children of God. Such programmes may attract unbelievers with disabled children to the church.

When Christians engage in political action against abortion, it is important they are consistent in affirming the value of human life. There is no place for violence or hatred, even against those who promote abortions and perform them. In all its activities and liturgy, the church should aim to celebrate human life in all its diversity.

Further resources

Randy Alcorn. Pro-Life Answers to Pro-Choice Arguments. Sisters, OR: Multnomah, 1992.
Frank Beckwith. Politically Correct Death. Grand Rapids, MI: Baker Book House, 1994.
Crisis pregnancy information: www.care-net.org, www.cpworld.org, http://covenantnews.com/pregnant
Scott Klusendorf. Pro-Life 101. Signal Hill, CA: Stand to Reason, 2002.
Norma McCorvey and Gary Thomas. Won By Love. Nashville, TN: Thomas Nelson, 1998.
Paul Stallsworth (ed), *The Church and Abortion* (Nashville, TN, USA: Abingdon, 1993)

5. Reproductive technologies

Evening is falling when Suzanne finds William. The doctor has just told her she is not pregnant and, indeed, could not become pregnant. Something is wrong with her body. She has been told her womb is fine, but she has no eggs that could live. A tear is in her eye as she says to William having children is natural. It is what all couples should do. It is what God wanted when he said 'Be fruitful and multiply.' William says 'I love you no matter what. We'll see what options there are.'

After three weeks, at the recommendation of their family doctor, William and Suzanne visit a specialist at a city clinic. The specialist offers several options. 'You can, of course, go home and accept this is nature's way. Or you could adopt. Though this would not be your child genetically, no doubt you would grow to love the baby. Or we could try an assisted reproductive technique. We'd take eggs from a donor and fertilize them with William's sperm. At that stage you could choose the sex of your child too, if you want. We would then pick the best few embryos and insert them into Suzanne. The ones that grow best will be kept in the womb.'

On the ride home, the couple decide they should go ahead. Suzanne says 'At least our baby will have part of our genes and I will be able to feel him grow in me. That way he is part of both of us.' 'Let's pray about it, but I think this is a good idea', William responds 'and if you want, we can talk it over with the pastor.' 'No, not yet, let's keep this to ourselves, at least for now' she replies.

After eight months, though still not pregnant, the couple have an argument about who should know what. William says 'Sweetheart, this is simply how some people have children nowadays. Of course we can tell your parents and mine...and, of course, we will tell the baby when he – and the doctor said he could select the sperm so our child should be male – when he is old enough.' Suzanne replies 'There is no way we are going to tell anyone about this. It is between us and the doctor.'

It is two years later, driving home from the specialist having been told once again that the procedure has failed, that William asks Suzanne if this is not God telling them the whole thing is wrong. They have spent a lot of money and have even been told by the doctor that he could allow them only one more try. Once again Suzanne is crying. 'Should we adopt? There are babies in our country and throughout the world who need parents. We could love a baby, I know.' They drive home in silence.

What issues does this story raise?

Infertility affects at least one in ten couples, and any discussion of it must acknowledge the pain it involves. As having children is seen to be normal and 'natural', the inability to have them may cause profound grief, and raise the question 'Why me?' Sometimes women's inability to conceive may be associated with past induced abortions, or with sexually transmitted pelvic inflammatory disease, but often there is no obvious medical cause. Infertility may threaten one's sense of identity as a woman if femininity is identified with motherhood, or as a man if fertility is confused with sexual potency.

There are several different medical techniques, often called forms of assisted reproductive technology (ART), designed to overcome infertility. *In vitro fertilisation* (IVF) uses a combination of fertility drugs and egg transfer techniques. *In vitro* is Latin for 'in glass,' referring to the glass dish used in the lab. First, a woman takes hormonal drugs to hyperstimulate her ovaries to produce a large number of eggs. These are then removed from her ovaries using a laparoscope (a tube inserted through a small opening in the abdominal wall) and mixed with sperm in a culture dish. At the appropriate stage of growth - usually 36 to 48 hours after fusion (fertilisation), when 8 to 16 cells have resulted from cell growth and division - the resulting embryo or several embryos are transferred into a woman's uterus. (The term 'embryo' will be used here, as it most commonly is, to refer to a human during the first eight weeks after 'conception' takes place through fertilisation, cloning, etc.) A more technically complex form of IVF is *intra-cytoplasmic sperm injection* (ICSI), in which a single sperm is injected into the cytoplasm of the egg, to fertilise it.

In *gamete intra-fallopian transfer* (GIFT), eggs are retrieved and placed into a catheter with an air bubble and sperm, then inserted into the fallopian tube (which must be functioning properly) where fertilisation is expected to take place. The average success rate of ART in terms of live births is somewhat less than 20% per treatment cycle. There are also risks, especially to women from whom eggs are harvested. The hormones used to hyperstimulate the ovary may cause it to rupture and the anaesthetic has its own risks. The procedure may accidentally result in an ectopic pregnancy (in the fallopian tube rather than the uterus), which is not viable and threatens the life of the mother through rupture of the tube. Women may accept these risks for the sake of becoming pregnant themselves, but it becomes more problematic when eggs are donated to a third party. If donors are paid, could poor women become 'human hens'? Another concern is whether women participating in ART will feel pressured to donate 'spare eggs' to another couple?

The possibility of using ART raises big questions about the nature of the family and childbearing. Is inability to have a child a disease? Do people have a 'right' to children genetically related to them? Who should be allowed to use ART – unmarried couples, singles, homosexual couples? Should William and Suzanne accept that it is God's will for them not to have their 'own' children, or should they see ART as God's provision for them? There are also questions regarding the relationship between marriage and childbearing. In some ART, a third party is involved in the process, as when the sperm or eggs come from donors. Will Suzanne fully think of herself as the mother, if the child results from a donor egg? Could William be committing the reproductive equivalent of adultery with the egg donor? Further, the woman who has the embryo implanted may not be the biological mother (source of the eggs) but a surrogate. Who then will the child think is his or her 'real' mother? Partly for these reasons, particularly if donor sperm or eggs are involved, ART is often perceived as crossing a moral boundary, as 'tinkering with nature', or 'playing God.'

In addition, the actual techniques may be morally problematic. Because of the low success rate of the procedure and the difficulties in harvesting eggs, many embryos are often created at a time and those not transferred to the uterus are stored (frozen) for repeated attempts. At the conclusion of the treatment, any unwanted embryos may be donated to other couples, destroyed, or used for research and this raises the issue of the moral status of the embryo. Furthermore, to increase the chance of a viable pregnancy, usually several embryos are implanted, which may result in multiple pregnancy. Selective abortion, where one or more of the foetuses are removed, may then be considered.

Then there are questions about whether donors of sperm or eggs should remain anonymous. How much should children born as a result of ART be told about their parentage? The story also raises justice issues. First, these technologies are expensive, either to the user or the taxpayer. Some would argue that their limited success rates mean they are not cost effective, or a good choice relative to other health expenditures. Secondly, it could be argued it would be more just for childless couples to adopt embryos, or orphaned or unwanted children • especially from poorer countries • than to put scarce resources into having children of their own. Should we have children to meet our own needs and fulfil our expectations, or to demonstrate God's unconditional love?

This last question raises the issue of discrimination. In choosing to select a male child, William and Suzanne are being sexist. They may also reject adoption for racist reasons, or may be discriminating against persons with disabilities, as babies available for adoption often are either from ethnic minorities or have a disability.

Finally what is the role of the church in these decisions? Are reproductive issues simply the concern of the couple involved, or should these difficult questions be shared with their pastor and wise Christian friends?

What does the Bible say?

Procreation and reproduction

There is a subtle but significant change in perspective when the language for having children shifts from procreation to reproduction. The Nicene Creed's reference to Jesus being *begotten*, not *made*, may indicate a difference that is also morally relevant for ART. 'Reproduction' evokes the concepts of commodities, the production line, quality control and rejection of inferior products. The shift from 'procreation' to 'reproduction' in the wake of ART points to the basic desire of human beings to master the world by exercising their freedom.

The biblical idea of procreation (or begetting) is quite different. In begetting, the life resulting is the outcome of the mutual love of husband and wife. Procreation cannot be the sole aim of their love because love is not utilitarian. Neither should procreation be separated from the love relationship between husband and wife. The child is not the product of the will of a husband and wife, but God's gift to their mutual self-giving, the embodiment of the union of his or her parents (cf Genesis 33:5; Joshua 24:3-4; Psalm 127:3; Isaiah 8:18). The biological facts of conception and birth as the result of the sexual union between a man and a woman must not detract from the 'given-ness' of the child.

ART potentially allows a complete separation of procreation from its proper context of marriage. This is evident in the move to change the definition of infertility from the inability of a specific couple to conceive, to the inability of a woman to conceive for any reason, including that she does not have a male partner ('social infertility'). Procreation is taken out of the family into the laboratory, whereas according to the Christian tradition, God is the Creator and parents are the only legitimate '*pro*creators.' ART also opens the door to the commodification of human bodies and bodily products, as when direct or indirect payments are made to egg or sperm donors or to surrogate mothers. This is an affront to the dignity of a human being made in the image of God. As Edwin Hui has observed, *'[A] person is first constituted by the loving relationship of God whose love is marked by its gratuitousness in creation, providence and in redemption, all gratis.*' Much is lost if all this becomes reduced to merchandise for sale.

Procreation is neither the exercise of a right nor merely a means of self-fulfilment. While children are clearly a blessing from God, the ability to have them must be seen in light of the mystery of God's providence. This outlook does not rule out all medical assistance in cases of infertility, but indicates the need for caution.

Infertility

Infertility is but one of the many results of the Fall, although Genesis 3:16 seems to single out difficulties in childbearing for women. Throughout the Old Testament, barrenness is regarded as a curse, or punishment from God, often seen in terms of God closing the womb (eg, Genesis 16:2, 30:2; 2 Samuel 6:23). In a world where women's most important role was bearing sons to continue the family name, childless women despaired, even those such as Rachel and Hannah who were greatly loved by their husbands. Their stories demonstrate two possible responses. One is to take matters into one's own hands – the earliest forms of 'assisted reproduction' involved surrogacy, with Sarah and later Rachel using their maidservants to bear their husbands' children for them. Although not explicitly condemned in the text, it is clear from the way things turn out that the better response is prayer and continued faith in God, as demonstrated by Hannah (1 Samuel 1).

The New Testament introduces a very different understanding of family. Instead of being based on blood relationships, it is based on faith in God as heavenly Father and we are adopted into a new family (John 1:12, Galatians 4:5, Ephesians 1:5). So singleness and celibacy are now an option, as demonstrated by Jesus and Paul. Children are still to be welcomed, but there is no duty to have them. As with illness, infertility is no longer seen as attributable to an individual's sin. Infertile couples must not consider themselves second-class and infertility must not be seen as God's disfavour. Although even for Christians, infertility is often full of anguish, the infertile couple may trust that God will fulfil His purposes through their union in other ways and they may seek to be available for tasks not open to those with children.

Destruction of embryos and foetuses

Although it is a natural human desire to have children, the desire to have them at all costs is idolatrous. Such costs are financial and emotional, but also the cost of the lives of human embryos. Some Christians argue that even in the 'natural' process of procreation, there is wastage of embryos who either fail to implant or are spontaneously aborted and therefore a similar level of wastage is acceptable in ART. However, almost all would agree there are significant moral problems with techniques which deliberately create far more embryos than will be required, so that they will likely be destroyed or used for research. Understanding the magnitude of these problems requires a clear view of the humanity of early embryos — a matter to be considered in the next story. We have already considered, in relation to the abortion story, the significant moral problems with selective abortion • also called foetal reduction when multiple pregnancy results from ART. A good consequence, such as having a child, cannot justify wrong means to accomplish it (the 'greater good' argument is considered in the next story).

Choosing the attributes of our offspring

Because children are a gift from God and not the direct result of human willing, it seems incongruous to demand certain attributes, such as gender. Genetic screening before birth and allowing only the best to live will be discussed in Story 8 below. Children are also treated as commodities rather than gifts when potential sperm or egg donors are selected on the basis of intelligence, race, height and other characteristics.

Donor sperm and eggs

There are strong reasons why Christians might reject ART involving sperm and eggs from a third party. Such an approach breaks the connection between marriage, sexual intercourse and procreation; instead efforts are made to ensure a 'product.' Lines of kinship are blurred and confused and a third party intrudes into the procreative relationship. This applies to creating a child through sperm or egg donation or insemination and surrogacy arrangements (whether commercial or altruistic). These practices also present difficulties to the resulting children in terms of 'genetic bewilderment.'

What opportunities for the gospel are there?

[*See also 'Generic Strategies' before the 8 stories*]

The pain of infertility and/or the stress of ART may well bring people into contact with the church for counselling and prayer. The church could be more intentional about this by running support groups for childless couples to which non-believers are welcome. Couples could be encouraged to trust God for the future, assured that their problems are not a punishment for sin and helped to find the meaning and value of their lives in God rather than merely in human achievement. The gospel can free people to be confident

of their identity in Christ and their place in His family and this may be especially important for women.

The church has a role to play in education about ART and its implications, so that people understand the deeper issues involved and are helped to explore all their options. In particular, Christians who adopt children, especially disabled children or those of a different race, offer a tangible witness to a just alternative to ART and to God's unconditional love and acceptance. The church needs to provide them every support possible, ranging from a welcoming attitude to respite care as needed.

Further resources

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Edwin Hui. At the Beginning of Life. Downers Grove, IL: InterVarsity, 2002.
John Kilner, et al., eds. The Reproduction Revolution. Grand Rapids, MI: William B. Eerdmans, 2000.
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Gary Stewart, et al. Basic Questions on Reproductive Technologies. Grand Rapids, MI: Kregel, 1998.

6. Stem cell research

Mary and Theng Huat have been undergoing treatment for infertility for over a year. Recently, they went through a round of in vitro fertilization (IVF). Mary's fertility doctor retrieved 12 eggs and fertilised them with Theng Huat's sperm, which resulted in ten embryos. Three were transferred to Mary's uterus: the other seven were frozen in the clinic for later use.

None of the first three embryos implanted resulted in a pregnancy, but on the second cycle of treatment Mary became pregnant with twins. A year or so after the birth of a healthy girl and boy, Mary's gynaecologist sent a letter asking whether or not she and her husband had decided what they wanted to do with their four frozen embryos. The letter indicated that if they no longer wanted them stored, they should call Mr Tan at the clinic.

'What do you think?' Mary asks Theng Huat after opening the letter. They haven't made up their minds whether they want any more children, but they are also unsure about what happens to the embryos if they say they don't want them. So Mary calls Mr Tan and asks him about this. 'If you remember, we discussed this when you signed the consent form for the treatment' he replies. 'Of course, you can simply have us throw the frozen embryos away, if you no longer need them, but it would be much more sensible for you to donate them for embryonic stem cell research.' 'What's that?' Mary asks. Mr Tan explains, 'It is research that uses embryos to develop new medical treatments. We think this research holds tremendous promise for treating conditions like diabetes, heart disease, Alzheimer's and Parkinson's.'

That evening Mary discusses donation with her husband over dinner. Theng Huat observes that his father has already benefited from experimental stem cell treatment for his heart disease, so donating their embryos for further stem cell research would probably be a good idea. 'I would agree with you' says Mary 'but I seem to recall

they used your father's own cells to develop the treatment for his heart condition. We would be letting them use embryos instead. Is that really the same thing?'

What issues does this story raise?

The issues of the moral status of human embryos and what we do with them come to the fore here. Parents may no longer need embryos frozen for them during the course of IVF. By law in many countries they must be defrosted and so die, after a certain period of time. Or they may be donated to other childless couples (an option sometimes offered) or, as often suggested, used for research since 'they are going to die anyway.' One of the research uses they may be put to is as a source of embryonic stem cells, which were first isolated and grown in 1998.

Stem cells (SCs) are cells that produce other cells, tissues and organs, somewhat like the way that the stem of a plant is the source from which branches, leaves and flowers develop. They may be derived from a number of sources. Adult SCs are commonly confused or conflated with embryonic SCs, as in our story. Up until the 16-cell stage, all the cells of an embryo are *totipotent*: they have the ability to give rise to every cell type in the body, as well as to a new individual. During the first week of development, the embryo forms a cluster of cells called an 'inner cell mass' and these cells — called embryonic SCs — are *pluripotent*: they can give rise to every cell type but not a new individual. They are obtained for research purposes by removing them from the embryo, causing the death of the embryo in the process. Pluripotent SCs can also be derived from five to ten week foetuses, obtained from either spontaneous or induced abortions, or the surgical removal of an ectopic pregnancy. SCs taken from the bodies of adults or children, or from umbilical cord blood, are less versatile (less plastic) and can therefore give rise to only a limited number of cells and tissues: they are *multipotent*.

SCs, other than embryonic SCs, are generally referred to under the single heading of 'adult' SCs since, unlike in the case of embryonic SCs, they do not require destroying the source from which they are taken and they most often come from adults. While a term like 'non-embryonic' would be more accurate, the familiar term 'adult' SCs will be used here. There is still scientific disagreement as to whether adult SCs of one type (eg, blood, muscle, or nerve SCs) can produce cells of a different type. Early studies, which indicated they could, have not been replicated. However, if it turns out that they can, or they can stimulate other cells to develop through some other mechanism, then all the therapeutic benefits of stem cell research may be achievable without embryonic SCs. As of this writing, all 60 or so of the medical conditions helped by SC treatments in human beings have involved adult SCs rather than embryonic SCs.

Every SC has the capacity to produce millions of cells, but only embryonic SCs have been successfully propagated and maintained in the laboratory. Moreover, adult SCs in tissue are in limited supply and sometimes difficult to locate, except in bone marrow and blood. Nevertheless, at present they appear to be safer to use, in that embryonic SCs are more likely to produce tumors. A major challenge in all SC research is delivering SCs to the target location in the body. Nevertheless it is considered to have enormous potential in treating conditions such as Parkinson's Disease, insulin dependent diabetes, spinal cord damage, autoimmune diseases and some genetic disorders. Adult SC therapies have been used for some time, with bone marrow transplants being the best-known example.

To prevent the recipient from rejecting donor cells, those cells probably must either be genetically 'matched' to the recipient or come from the recipient (as happens now with bone marrow taken from a patient before chemotherapy, which is then returned to the patient to replenish marrow damaged by the chemotherapy). In the case of

embryonic SCs, probably the surest way to achieve the best genetic match with the recipient would be through a cloning process. In cloning, which was used to produce Dolly the sheep, an ordinary cell would be taken, say from the skin of the patient and its nucleus placed into a human egg cell whose nucleus had been removed. After stimulation this cell would start dividing like a regular embryo, though one virtually identical genetically to the patient, like an identical twin. This technique would therefore create a source of tailor-made SCs for the patient that could potentially become any tissue type and would cause no problems with rejection. One common name for this technique, 'therapeutic cloning,' is misleading because the process is fatal rather than therapeutic (healing) for a subject involved in the research, the embryo. 'Research cloning' is a better term, sometimes used to distinguish it from 'reproductive cloning' where a clone implanted in the uterus leads to the birth of a new individual who is genetically identical to another. Both are forms of cloning —it's just that the intention for how the embryo is to be treated after the cloning (nuclear transfer) has been completed is different. Many people feel that research cloning is an inevitable consequence of embryonic SC research.

Even some who do not object to destroying existing embryos find it morally problematic to create embryos deliberately in order to destroy them for their SCs. They also argue that once research cloning is performed, it is only a matter of time before reproductive cloning will occur. It is hard to imagine prohibiting only reproductive cloning and therefore *forcing* anyone pregnant with a cloned child to abort. There are many misgivings about reproductive cloning, especially about the uses it might be put to, about physical and psychological risks for the child and about the impact on the family. One potential use would be the creation of 'saviour siblings' as sources of tissue donation for diseased children. This raises questions about whether such children are being used as a means to an end, rather than valued in their own right.

What does the Bible say?

The moral status of the human embryo

In considering research involving human embryonic SCs, much depends on the moral status of the human embryo. If this embryo is nothing more than human tissue, then even research which destroys embryos does not pose any insurmountable ethical problems. If, however, even the early embryo has the full moral status of a human person, made in the image of God, then the destruction of embryos in research should never be allowed. Discussing the status of the embryo brings us back to the debate on when human life begins (see story 4 on abortion).

Although, as we have seen, the Bible does not explicitly tell us when the life of a new human individual begins, it is reasonable to argue from both philosophical and scientific perspectives that this is at conception. Neither scientists nor philosophers are agreed on when human life begins, in the sense of when the embryo or foetus acquires significant moral status and thus a 'right to life' with protection from being killed. So-called 'scientific' conclusions about the emergence of human life are typically also informed by philosophical presuppositions about what it means to be human, or to be a 'person' who, as such, ought to be protected.

Some take the view that a human person does not exist until the baby is metabolically independent from the mother, at birth. This was Plato's position, but generally it is held to be too arbitrary a point to have moral significance. Peter Singer's position is even more radical: he claims that even a human infant has no right to protection from being killed until it attains the capacity for self awareness and preference formation and thus becomes a 'person,' around the age of two.

Another view is that before the foetus is sentient – i.e., able to experience sensations, particularly pain - it does not have full moral status. Sentience is certainly present around 26 weeks of pregnancy, but may occur earlier. However, using this criterion would also exclude even temporarily unconscious adults from the right not to be killed.

A third view, related to developments in neuroscience, is that moral status is acquired when the human-specific electroencephalogram (E.E.G., or 'brain waves') is detected at around six weeks. Proponents of this view argue that since the discontinuation of brain waves is a definition of death, so the beginning of brain waves must be an indication of the beginning of a human life. Nevertheless, there is a profound difference between a dead person who permanently lacks brain activity and a foetus who lacks it only temporarily until it develops later in the process of normal growth.

Another view is that personhood emerges with individuation, at the decisive moment when the embryo is implanted into the womb. Proponents of this view distinguish between the embryo (after implantation) and the pre-embryo (before implantation) and offer two main reasons. The first is that 20-50% of embryos spontaneously miscarry before implantation and they consider it obvious that so many human beings are not dying. But such a view does not sufficiently appreciate the tragedy of the Fall, which has wreaked havoc with the natural order, including human reproduction (see Genesis 3:16; cf Romans 8:22). While it would be wonderful to be able to prevent these embryonic deaths, we have a much greater ability and obligation to avoid actually killing embryos and especially to avoid creating them with the intention of destroying them.

The second reason is the phenomenon of 'twinning', which only occurs before implantation. If a new human individual begins at conception, how can one then become two? It seems strange to think that scientists have the ability to control or confer personhood since they can delay implantation and can also induce twinning. But if personhood begins at conception, then there are at least two possibilities. There may be more than one person present at conception, or there may be one person present at that time, with another person coming into being when twinning occurs. In either case, there is not *less than* one person present at conception.

Finally, the 'genetic' hypothesis maintains that a new human individual begins at conception. In normal reproduction, that means at fertilisation when the egg and sperm nuclei fuse. As Ronan O'Rahilly and Fabiola Muller explain in their embryology textbook, '*Fertilisation is a critical landmark because, under ordinary circumstances, a new genetically human organism is thereby formed…. The embryo now exists as a genetic unity*.' The argument for personhood at conception is philosophically very compelling indeed. At this point, the early embryo, called a zygote, is endowed with a unique genetic code enabling this new human being to develop and mature into a complete human adult. The argument of some, that the zygote is not a human being because the zygote does not look like one, is very weak. A zygote is exactly what you looked like at that stage of development, along with everyone else alive today. The philosophical argument (like the theological one) is based on the nature of the object in question. A zygote of human parentage cannot become a dog or a cat. Just as the zygote of a horse bears the nature of its parents, so the zygote of human parentage shares the parents' nature.

Fertilisation represents a distinct point where the new individual is formed. Implantation on the other hand merely changes the source of the individual's nurture, rather than the essence of the individual's nature. The distinction between 'pre-embryo' and (implanted) embryo, while made by many members of the scientific community,

appears to be an arbitrary one from this perspective. Implantation relates to *where* the embryo is, not *what* the embryo is.

Doubt and disagreement will likely continue among Christians regarding the moral status of the early human embryo, but in the face of such doubt, we should err on the side of caution, because what is at stake, the image of God, is so important. Even if we concluded there were only a small chance that the early embryo has full moral status and the right to protection, we ought to act as if such is the case. No one reverses a car who recognizes there is even a small chance a child is behind it on the driveway.

The greater good argument

The most powerful argument in favour of human embryonic SC research is the 'greater good argument.' Scientists and policy makers base their advocacy of this research on its enormous therapeutic potential. The argument is compelling and emotive simply because the motivation is to alleviate or eradicate the suffering of so many people. So those who express caution or think that embryonic SC research should not be allowed are sometimes viewed not only as being anti-progress or anti-science, but lacking in compassion. A Christian response must take into consideration the therapeutic promise of this research. Healing and the alleviation of suffering have always been an integral part of the Christian tradition. Yet we must consider the means as well as the ends. Good ends should never be achieved by evil means. The argument that the end justifies the means is based on *utilitarianism*. This form of philosophy, whose most famous contemporary advocate is Peter Singer, holds that no acts are intrinsically wrong, but that their morality is determined solely by their consequences. Sufficiently good consequences (or the promise of them) can justify any action. Christian ethics, however, maintains that certain acts are wrong in themselves and cannot be justified even by wonderful consequences. The use and subsequent destruction of any bearer of God's image, regardless of how old or well-formed, should never be permitted, even in the name of scientific research and for the benefit of the common good. In the shadow of Nazism, the Nuremberg Code declared that 'no experiment should be conducted where there is an *a priori* reason to believe that death or disabling injury will occur.' Similarly the 1975 Helsinki Declaration of the World Medical Association asserts that 'concern for the interests of the subject must always prevail over the interest of science and society.'

Nevertheless, we may welcome medical or scientific research – including SC research – that promises therapeutic applications but does not harm or destroy human beings in the process. We ought to support and encourage research conducted on non-embryonic SCs such as those obtained from adult tissue or umbilical cord blood. This research holds great therapeutic potential, as studies are already documenting.

What opportunities for the gospel are there?

[*See also 'Generic Strategies' before the 8 stories*]

The church has a role to play in informing its members and the community at large about the nature and implications of SC research. This issue opens up the question 'Is there anything you wouldn't do (to find a cure for a disease that affects you or someone you love)?' This leads on to the more general discussion about reasons for ethical judgments. Considering the value and meaning of human life can lead to thinking about the source of that value and meaning.

Christians who are well informed can take opportunities to serve on research ethics committees and commend a Christian approach to these and similar issues. Christian researchers can witness to their beliefs through refusing to participate in unethical research projects. If in the future therapies become available based on

embryonic SCs, believers may be called to demonstrate their obedience to God and their faith in him by refusing such treatments, even at great personal cost. Caring for other believers therefore joins the list of reasons to advocate actively now for the funding of adult SC research. As with any bioethical issue, Christians should be as well known for what they support as for what they oppose.

Further resources

Linda Bevington, et al. Basic Questions on Genetics, Stem Cell Research, and Cloning. Grand Rapids, MI: Kregel, 2004.
The Center for Bioethics and Human Dignity, two-sided Q/A flier on "Therapeutic Cloning and Stem Cell Research." Bannockburn, IL: www.cbhd.org, 2005.
Henk Jochemsen, ed. Human Stem Cells: Source of Hope and of Controversy. Ede, The Netherlands: The Prof dr G A Lindeboom Institute; and Jerusalem, Israel: Business Ethics Centre of Jerusalem, 2003.
John Kilner and C. Ben Mitchell. Does God Need Our Help? Wheaton, IL: Tyndale, 2003.
www.stemcellresearch.org.

7. Genetic modification in agriculture

A Western laboratory has been working to develop a plant resistant to an insect that periodically devastates regions in certain tropical developing nations. The insects impact the population in two ways: first, locals are deprived of an important food source, and secondly, they lose a primary source of income. As a farmer says 'Because of these insects and what they did to my crop last year, I can hardly feed my kids, let alone afford to send them to high school.' The corporation working on this new plant, or genetically modified organism (GMO), claims to be acting charitably, since the crop is not frequently grown for use in the West.

Some local leaders are attempting to work with the Western corporation to bring this GMO into production. They claim the GMO will allow people using traditional agricultural techniques to overcome the continuing problem with the insects. The plants will have higher resistance and higher yield. A corporation representative claims 'In the future, we will also be able to make this variety more nutritious and taste better.' Local leaders who support the project argue the choice should be in the hands of local producers, not paternalistic 'green' politicians overseas: 'This will help feed our families and raise our standard of living. And if we're healthier and better off, we won't need to move into the overcrowded cities.'

Yet not everyone is happy. 'This is no more than a new form of colonialism' says a spokesperson for locals opposed to genetically modified crops. 'They're really just experimenting – economically, biologically, socially – on vulnerable people like us. Our farmers will depend on the multinational company for seed. There may be great damage to our fragile ecosystem if the GMO becomes a weed or hybridises local plants.' He also points out the slight possibility that farmers and their families will become ill from eating or growing the plant and notes that their concept of traditional farming will be irrevocably damaged. Those opposed to GMOs are taking the 'precautionary' approach.

The situation is further complicated because various environmental groups in the West are protesting against GMOs and rightly or wrongly this corporation has been branded as greedy, callous and short-sighted. Local church leaders have been drawn into the debate too because some local farmers and some local politicians are

Christians. To make matters worse, two mission representatives, one from the USA and one from Germany, take exactly opposite positions. The American claims this is simply a matter of justice: people need to be fed. The German suggests precaution does make sense and further states that Christians should not support any research that might later be used to alter human beings.

What issues does this story raise?

First, the fact is that humans have been altering plants and animals for agricultural purposes for millennia. This has been done by selective breeding, producing hybrid plants and transporting species into new ecosystems. Corn, wheat, horses and cattle are a few examples. But biotechnology has brought new issues.

To understand them, we need to consider the motivations of the various groups. A corporation wanting to introduce a GMO may be acting in a colonialist manner. Their executives may genuinely believe they are 'helping,' but if they have not involved the people of the communities where the technology will be applied, they are using their power inappropriately. Similarly, environmentalists from the West will frequently use their interpretive framework without proper consideration or involvement of the people. In this case the locals may be more concerned with food than hypothetical and perhaps even unlikely environmental consequences. It is an abuse of power to ignore what the local communities are actually saying, or even worse to dismiss them as 'ignorant,' just to appeal to political constituencies back in the West.

Who may benefit and who may be hurt by specific decisions should be considered. Groups involved in genetic modification (GM) include:

- Scientists and other supportive academics with technical knowledge.
- Processors/seed companies with economic clout.
- Farmers who control the planting of GMOs and raising of animal GMOs.
- Consumers who have choices in the market.
- Governments who are supposed to protect members of 'social contracts.'
- Advocacy groups (especially environmental, anti-globalisation, and community development groups) and international organisations like the United Nations, who see themselves, rightly or wrongly, as protectors of the commons.
- Local inhabitants, including those who have developed particular plant and animal lines over centuries.

Issues of potential danger can be classified in a variety of ways. Simply for convenience here they are listed by the dangers (and later benefits) to humans and to nature. While humans are distinct from the rest of nature, they are simultaneously a part of nature. So this distinction in the lists is for analysis only, as humans are ecologically connected with whatever happens to the rest of the created order. These lists do not include weighting or probability of occurrence.

Dangers to Humans

- Excessive use of pesticides may occur, since some GMOs are not affected by them.
- GMOs could create health problems in individuals allergic to inserted genes.
- A genetic modification that causes disease may accidentally occur.
- Developing the technology makes it possible for those with terrorist intentions to mount bio-warfare.

- Governments may currently be developing bio-warfare technologies using the skills developed in GM research.
- As with other modern forms of agriculture, a ‘monoculture’ (a plant or animal with very little genetic variation, which is not the normal state in nature) will produce very well, but may then be vulnerable to a disease that will wipe out the entire crop.
- Corporations that produce GMOs may attempt ‘vertical integration’ – they will try to have a monopoly by controlling planting, growth (including which fertilisers and pesticides are used), harvesting, storage, and value addition through processing, marketing, and distribution – thus depriving growers and others of access to markets.
- Corporations may attempt to ‘own’ the genetic information, and thus control distribution of plant and animal lines that have been developed over centuries (a form of economic colonialism).
- GM products may accidentally contaminate other products, thus lowering their value.

Dangers to nature

- A GMO might become an invasive species with no natural predators or other controls, and force out native species.
- Unpredictable changes might occur that cannot be stopped, since introducing GMOs into nature will be irreversible.
- Especially in crossing species lines, humans are violating the integrity of species.
- Genetic modifications may ‘jump’ (outcross) to related species in the ecosystem.
- GMOs may control pests but also unintentionally hurt beneficial species.
- Pests will grow that are resistant to genetic modifications and then attack all similar crops.
- Animal genetic modification, as with much industrial farming, can be cruel to the animals by creating animals fit only to sit in growing facilities until slaughtered.

Potential benefits include:

Benefits to Humans

- More reliable yields for farmers through control of the impact of insects, disease, drought, frost, etc.
- Less damage to farmers’ health through less use of pesticide since GMs will control pests.
- Possibly less hard work for farmers.
- Ability to add nutrients to plants to improve nutrition in a population.
- Higher production/yield for farmers.
- Easier and more reliable processing.
- Value can be added to products.

Benefits to nature

- Less use of pesticides, thus killing fewer harmless and beneficial species living in the same fields as the pests.
- Possible genetic ‘banking’ and subsequent protection of endangered species.
- More reliable crops leading to less acreage in production, thus protecting ecosystems.
- Development of pollution-controlling microbes.

Of course, simple lists do not adequately present the relative weight that should be given to these various benefits and risks, nor the probability of something occurring. The best that we can do is turn to experts for information, seeking the least biased among them and using at least two or three different sources of information.

Those who oppose GMOs often invoke the precautionary principle, that the application of a technology should be prohibited when the outcomes are both unpredictable and catastrophic. This is helpful, but not if it leads to stopping all applications of technologies because there is 'some' chance something might go wrong. Risk is a comparative concept and the risk of doing something must be compared to the risks of alternatives, including not doing anything.

Those who favour technologies sometimes choose to minimise risk, or not take into account the catastrophic nature of a possible incident because the probability seems relatively low. There is a long tradition of corporations, Western nations and indigenous political leaders not taking into account 'externalities' - costs to the environment and community that are ignored by the people who create them because those costs are not readily observed or are rapidly diffused. Air pollution is an example of an externality; it is a real cost for those who get sick, but the polluters rarely pay. Also, those with a strong bent toward finding technical solutions to problems may disregard other options. For instance, sometimes returning to traditional farming methods or traditional crops rather than cash crops might be as effective as any GMO.

The implications of genetic modification remain uncertain, even though some risks once associated with the technologies seem to have been addressed. Precaution is important when outcomes are unknown, but precaution is not the same as a technological freeze. Genetic modification in agriculture is a technology about which Christian believers may honestly disagree. It is reasonable and consistent with Scripture either to proceed cautiously with some GMOs or to ask for a few more years of strictly controlled research.

What does the Bible say?

Stewardship

Christians believe and must proclaim that humans are a genuinely distinct species, created by God in His image and as His servants. As such, humans have both the stewardship opportunity to use the earth for their needs and the stewardship obligation to protect the earth that does not belong to them, but to God. The remaining two-fold question is 'How shall we be stewards of nature and how shall we take care of humans in desperate need?'

Christians must reject any radical environmental argument that declares humans to be of no more significance than any other creature or even (the most extreme view) that humans are weeds that should be allowed to die out. Jesus asked, *'Are not five sparrows sold for two pennies? Yet not one of them is forgotten in God's sight. But even the hairs of your head are all counted. Do not be afraid; you are of more value than many sparrows*' (Luke 12:6-7). Genetic modification is one possible means of addressing the need for justice for the oppressed and mercy for the hungry. It is far too easy for those in so-called developed countries to dismiss desperate needs. Though environmentalism is fundamentally a concern for all peoples, the comfort of the 'developed' often allows them to make pronouncements that sound, at best, like one more extension of paternalism.

Yet those who are faithful to the Creator must recognize that humans are stewards who may use, but not abuse, that which God has created. Nature is the Lord's and praises His name (Psalm 66, 69, 89, 103, 104, 145, and in particular 148). Nature and the individual 'members' of the natural world have intrinsic value, for the Lord declared they

were ‘good’ at their creation. Each person is loved by the Lord and of special concern to him, yet this does not mean that the sparrows (or the lions or the frogs or the grasses or the trees) are of no concern to the Lord God who made them all and declared them good. In addition, protecting nature sometimes directly serves the needs of human beings, such as when vulnerable communities confront the unjust, abusive appropriation of natural resources or their use as ‘test sites’. Christians must recognise who has power and what kind of power (political, military, economic, etc) and who is vulnerable and to what extent. Power is not intrinsically evil, but unrecognised power is readily abused.

Why does God allow suffering?

In this case, some people are blaming the insect infestations on sin. Certainly, all suffering is finally attributable to sin – but not always to the specific sins of those who actually are faced with tragedy. Certainly, if a people “build their house on the sand” they should not be surprised when the floods rise and sweep the building away (Matthew 7:24 ff). Yet, the Scripture is clear – from Job through the teachings of Christ – that the suffering of individuals or people groups cannot always be attributed to their own sin. To the contrary, sometimes people suffer at the hands of others, sometimes simply because they/we live in a fallen world.

Are the people of the community doing whatever they can to prevent infestations, including altering agricultural techniques? Have the problems been made worse by trade systems that shift agriculture away from holistic, balanced rotations to planting for a world market? Is the developed world responsible for helping peoples in the developing world, or is such assistance viewed as ‘charity’ from the greater to the lesser? Then, beyond the question of blame lies a more basic question for the faithful: how can and how should the believers help needy humans – especially fellow believers (Galatians 6:10) – while also being respectful of God’s creation?

What opportunities for the gospel are there?

[*See also ‘Generic Strategies’ before the 8 stories*]

It is more in understanding the tragedy and being willing to help, rather than in the specific technology applied, that the greatest evangelistic opportunity exists. Christians can use service to others as a means of declaring the reality of God’s service to us in Jesus Christ. Indeed, God understands human need and human suffering because He took upon himself the mantle of human frailty (Hebrews 4:14 ff). Of course, this has no evangelistic significance unless the faithful do something to demonstrate that God’s redemption of the lost allows those who follow Him to also serve those who stand in need – be the need spiritual or physical (James 2:16).

It is reasonable and moral that the missionaries, in humble conversation with the local people, respond to the need with immediate assistance and long term agricultural assistance, whether using GMOs or not. It may be that using genetically modified plants and animals is deemed beneficial or it may be that it is seen as being too risky, both to ecosystems and to the social and economic well-being of local communities. While the GMO decision is an important one and one that remains open to reasonable debate, the commitment on the part of the faithful to do *something* significant for other believers in need, for unbelievers in need and for nature itself is undeniable.

Further resources

These sources represent material from across the spectrum on genetic modification of non-human life, since there is not a lot of up-to-date biblical-Christian analysis available.

The web sites in particular will make it easier to stay current on rapidly changing technology.

Committee on Environmental Impacts Associated with Commercialization of Transgenic Plants, Board on Agriculture and Natural Resources, National Research Council, Environmental Effects of Transgenic Plants: The Scope and Adequacy of Regulation. Washington, DC: National Academies Press, 2002.
Gary Comstock. Vexing Nature: On the Ethical Case Against Agricultural Biotechnology. Boston, MA: Kluwer Academic Publishers, 2000.
David Evans, et al., eds. Biblical Holism and Agriculture. Pasadena, CA: William Carey Library, 2003.
Vandana Shiva. Stolen Harvest: The Hijacking of the Global Food Supply. Cambridge MA: South End Press, 2000.
Web sites:

AgBioForum: www.agbioforum.org
AgBioTech website: www.biotech-info.net/index.html

Glossary of biotechnology terms: www.biotechterms.org

Intellectual property and genetic ownership:
www.intelliwareint.com/RELATED%20BIOLINKS.htm#INTELLECTUAL%20PROPERTY
Transgenic Plants and World Agriculture. Report prepared under the auspices of the Royal Society of London, the US National Academy of Sciences, the Brazilian Academy of Sciences, the Chinese Academy of Sciences, the Indian National Science Academy, the Mexican Academy of Sciences and the Third World Academy of Sciences. (July 2000): www.nap.edu/html/transgenic
US government website with numerous links, including international:
www.nal.usda.gov/bic/Education_res
Wingspread Declaration:
http://www.johnsonfdn.org/whatsnew/conferences'99/july19_21'99.html

8. Human Enhancement

It is the year 2020. Darren and Kylie are a young couple married for two years. Darren works for a large insurance company in Sydney, Australia and Kylie is a kindergarten teacher. They attend an independent evangelical community church, where they lead a Bible study and fellowship group.

Kylie and Darren have decided it is time to start a family, so they visit their local Reproductive Clinic for the preliminary tests, which routinely include genetic testing. At their interview with the doctor, she tells them that if any genetically transmitted disease is found in either of them, pre-implantation genetic diagnosis (PGD) will enable them to make sure they do not pass the disease on to their children. This technique involves producing a number of embryos in the laboratory using their own sperm and eggs. The embryos are then tested to identify whether or not they carry the disease gene and only disease-free ones are implanted.

The doctor also mentions that if they wish, they can select either male or female embryos for implantation. In addition (since they have private health insurance) they could use gene modification on their selected embryo to enhance qualities such as intelligence or athletic ability. 'For instance' she says, 'I couldn't help noticing both of

you are on the short side and a bit overweight. Why not help your children avoid these challenges?'

Darren and Kylie go home with lots of thoughts and questions, as well as some worries about what they might be doing. The next evening Kylie raises the topic of sex selection and genetic enhancement at her book club group. Most are very enthusiastic and encourage them to 'do the best for your children.'

But they are still confused and doubtful whether this is the sort of thing Christians should do. They visit their pastor, but when they explain the situation, he admits it is not an issue he knows anything about and he has no idea where they can get any material from a Christian perspective. 'Why doesn't the church have any resources about this?' they ask.

What issues does this story raise?

In this futuristic but by no means fantastic scenario, we see some consequences of current trends in biotechnology. First, comprehensive screening of prospective parents to see if they carry genetic disease has become routine, as has pre-implantation diagnosis. Embryos are created using IVF technology, with cells removed from each for analysis. Only one or two embryos free of disease and perhaps also with desirable characteristics will be implanted, the rest discarded.

There are serious questions here about consent to such procedures, what information is provided before people give this consent, and whether they have real choices once the results are known. If Darren or Kylie were diagnosed with a genetic disease, or perhaps simply a genetic predisposition to a disease, would they be able to choose not to use IVF technology and PGD if they had moral problems with the techniques, or if they were simply prepared to take the risk? If they did go for PGD, who would make the decisions about which genetic conditions would disqualify embryos? Should they take the opportunity to select the sex of their child when it is offered? How would they decide which sex? This last issue indicates that more than healing treatment (therapy) is involved here. Also in view is human enhancement – 'improving' human beings beyond what medical need requires.

Currently most genetic screening before birth involves testing the foetus in the womb. In amniocentesis some of the fluid surrounding the foetus is removed, cultured, and then tested. Other technologies include chorionic villus sampling (CVS), alpha-fetoprotein testing (AFT) and fluorescent *in situ* hybridisation (FISH). Such tests are performed more and more frequently, yet the old questions remain: What are we to do with the knowledge we have attained? What does the genetic anomaly mean? Is it possible to predict its consequences? Is a cure available?

A problem confronting genetic screening of any kind is that we can diagnose more than we can interpret. We do not know the implications of the genetic variations we are able to detect. Further, we can diagnose more anomalies than we can cure or ameliorate. If Darren or Kylie is discovered to be a disease carrier, they are confronted with very difficult choices. They can:

- Avoid pregnancy completely
- Use IVF and PGD
- Use IVF with a donor sperm or egg to replace the one carrying the disease
- Risk a natural pregnancy and either have antenatal screening or not
- If antenatal screening reveals the foetus has the disease, either abort the foetus or continue with the pregnancy.

Choosing this last option and continuing the pregnancy would mean giving birth to a baby with the genetic disease, which in turn may mean expensive long-term therapy and possibly poor quality of life. Parents may feel guilty whatever they choose. They may find it especially difficult to deal with an ambiguous diagnosis or when the consequences of a genetic anomaly are uncertain.

Then there is the use of gene technology to alter human genes, whether to treat genetic disease, or as in this case, to 'enhance' certain desirable qualities. Many people feel that as long as genes are altered for therapeutic purposes and not to 'design' individuals by altering their traits, the technology is acceptable. Yet further reflection shows that therapy and enhancement cannot always be clearly distinguished. On the one hand the technology can be intended to correct a defective gene that would cause a fatal disease. On the other, that same technology can potentially be used to 'correct' a physical trait such as hair or eye colour that is perceived as a 'defect,' though associated with psychological rather than physical problems. 'Correcting' such a gene would then be therapeutic psychologically and any distinction between therapy and enhancement becomes ambiguous. For many physical characteristics, such as height, the distinction between normal and abnormal is arbitrary and largely defined socially. How short (or tall) do people have to be before they could be said to have a condition requiring therapy?

Engaging in genetic therapy with an adult who can assess and consent to the risks involved is one thing, but subjecting endless future generations to such risks without their consent is another. Some people are very averse to risk and it simply is not honest to assume that all people would willingly accept genetic alterations that would significantly affect them — whether intended for therapy or enhancement — until the procedure is demonstrably safe. Not only individuals but also the future of the human race is on the line and it is not clear how the first experiments genetically shaping future generations could ethically take place, in light of the dangers involved. In particular, it would seem presumptuous to engage in such experiments without having the ability to reverse any genetic problems created rather than discarding the human 'mistakes.'

The problem only becomes worse when the intention is not therapy but enhancement. This again raises the issue of the commodification of children — producing them as means to suit the priorities and preferences of others. Moreover, the widespread use of genetic enhancement techniques would eventually change the characteristics of the whole population, raising the spectre of eugenics.

The concept of designer babies also raises the question of how realistic expectations are that gene technology will produce a perfect child. Genetic determinism is the view that every aspect of human beings is determined by their genes. Yet clearly environmental factors and human choices are extremely important.

Some argue that to single out genetic enhancement for disapproval is inconsistent, because humans constantly use all sorts of means to enhance their appearance and performance, such as diet, exercise, hairdressing, cosmetics, drugs and surgery. However, the difference between making such decisions for oneself and making them for future generations must not be forgotten here. Even where people are making decisions for themselves, a number of other questions arise. People are already living longer, partly through medical intervention, so why not delay aging and death by decades using gene therapy? What of other new technologies which promise human enhancement, such as artificial organs or robotic limbs? What about the possibility of human-computer hybrids? Could we be heading toward a radical transformation of our species – a post-human future?

We must consider the justice implications of these technologies. Most likely, those who have access to them will be those already privileged economically and socially, thus increasing the gap between them and the less privileged. Then there is the question of whether genetic enhancement of, say, athletic ability represents an unfair advantage, similar to performance-enhancing drugs. Large corporations are investing in these technologies, expecting to reap huge financial rewards. Should they be available equally to all, or not at all? Should public funding be allocated to gene therapies or enhancement, and is this the best use of health money?

What does the Bible say?

Pre-birth screening and PGD

As discussed in Story 6, reproductive technologies distance parents from their offspring. Rather than being seen as a gift of grace, children are increasingly seen as commodities, objects of quality control. Thinkers like law professor John Robertson have employed terms like 'procreative liberty' to speak of the right of parents to decide their 'reproductive goals.' Pre-birth screening keeps open the possibility of the woman 'walking away' from the pregnancy and the child, up until birth, and encourages the outlook that a close relationship or 'bonding' does not begin until the child is born. As Gilbert Meilaender puts it:

> *… we deceive ourselves if we suppose that, as a routine feature of medical practice, it [screening] can simply assist a couple to prepare themselves for their child's birth. It does exactly the opposite. It sets our foot on a path that is difficult to exit. We may tell ourselves that we only want health for the foetus, that abortion is not a possible end in view, but for the most part I think, we thereby deceive ourselves. The technology carries its own momentum, which, if not irresistible, is nevertheless very powerful. It prepares us not for the kind of commitment that parenthood requires, an unconditional commitment, but a kind of responsibility that finite beings ought to reject. The time of pregnancy will be better spent learning to love the child we have been given before we begin to evaluate and assess that child's capacities. Christians could do the world a considerable favour and could bear substantial witness to the meaning of God's own love for the world if they would simply say 'no' to routinised prenatal screening – thereby saying to their children and, by implication to others: 'It's good that you exist.'*

Peter Singer and other bioethicists consider it appropriate to deem the lives of severely disabled unborn infants 'not worth living.' But we have seen that all humans bear the image of God, they are not possessions to be disposed of because they do not meet our criteria of normalcy.

Genetic enhancement

As a result of the ambiguity between genetic therapy and enhancement, we might think genetic intervention is an activity where science should not venture at all, that it is 'playing God.' But there are at least two theological reasons why Christians should support gene therapy for already-existing individuals. First, like all medical technology, genetic technology can be seen as a gift from God to be used to alleviate human suffering — part of the exercise of human dominion. Second, genetic technology is a means by which humankind can combat the consequences of sin. Scripture clearly establishes the relationship between sin and the disruption of nature (which includes genetic disorder). As noted previously, therapeutic interventions focused on changing

the genetics of all future generations is ethically problematic because of the potential harms and lack of consent involved. But in such cases the problem is not with the therapeutic intent itself.

When using genetic technology for enhancement, however, even the therapeutic intent is missing. Behind the use of genetic technology for physical enhancement is the view that certain traits (like black hair or dark skin) are inferior to other traits (like blond hair and fair skin), and that people who possess these traits are less valued by society. Such a view is not Christian; indeed it would imply God made a mistake by including such diverse traits in the human race.

Therefore, we ought to affirm the work of geneticists whose aim is to treat genetic disease in those who have it, but we should resist the lure of a secular utopianism based on genetic modification. There is much more to humans than their genes. While genetic science may be able to correct certain genetic disorders that are the consequence of sin, it has no power entirely to remove sin itself or its consequences. Humanity's dilemma is much more profound than can be solved with any medical therapy, no matter how sophisticated. A society made up of 'designed' genetic disease-free individuals would have its own problems, particularly related to the commodification of humans, the marginalisation of the disabled or different, and the emotional disconnection between parents and their children.

What opportunities for the gospel are there?

[*See also 'Generic Strategies' before the 8 stories*]

Kylie's book club gives her a wonderful opportunity to talk about several important matters: what it really means to do the best for your children, the value of human life, the meaning of procreation, and unconditional love. She can then be ready to give the reasons for her views, which will likely resonate with some members of the group.

Christians may witness to their faith in God's goodness and care and their commitment to biblical values by refusing to participate in antenatal screening or PGD, or at least making it clear that abortion and discarding embryos are not options for them. Similarly they may reject opportunities for enhancing their offspring, which may well become a sacrificial act as more and more people pursue enhancement and those who do not become disadvantaged.

Meanwhile, church leaders need to have at hand the resources that can help people understand and address these immensely important issues!

Further resources

Linda Bevington, et al. Genetics, Stem Cell Research, and Cloning. Grand Rapids, MI: Kregel, 2004.

Charles Colson and Nigel Cameron. Human Dignity in the Biotech Century. Downers Grove, IL: InterVarsity, 2004.

Timothy Demy and Gary Stewart, eds. Genetic Engineering. Grand Rapids, MI: Kregel, 1999.

Films and Plays: Bicentennial Man, Frankenstein, Gattaca, I Robot, RUR.

John Kilner, et al., eds. Cutting-Edge Bioethics. Grand Rapids, MI: William B. Eerdmans, 2002.

_____. Genetic Ethics. Grand Rapids, MI: William B. Eerdmans and Cambridge, UK: Paternoster; 1997.

C Ben Mitchell, et al., eds. Aging, Death, and the Quest for Immortality. Grand Rapids, MI: William B. Eerdmans, 2004.

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