



Manufacturing Humans: The Borderlands between Human and Divine Control

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Introduction

Reproductive issues are rarely seen as being central to the science-faith divide

Biomedical issues bring us face-to-face with profound theological issues

Reproductive technologies confront us with the relationship between human and divine control

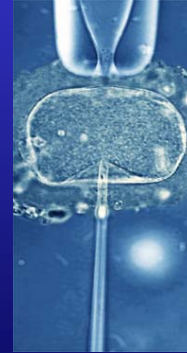
Introduction

IVF has had a seismic effect on the societies in which we live

The human embryo has ceased to be a mysterious and unfathomable entity

Control of our earliest beginnings is equated with control of our lives as human beings

PGD - power of human beings



Introduction

Widespread theological notion that the manner in which our lives commence and end lies entirely in God's hands

What becomes of efforts to overcome infertility or prolong life by technological means?

Contrasting theological challenges

Introduction

Many people are opposed to IVF, PGD, surplus embryos, embryo research etc

Some opine that scientists are 'playing God'

'Designer babies' implies that the modification or selection of embryos is taking us into forbidden territory

Theological concerns over 'meddling' in biological characteristics

Introduction

Underlying view that human embryos have a moral value equivalent to that of adults

Leads to the categorical assertion that to allow any destruction of human embryos is contrary to God's ordinances

Reproductive technologies as alien territory

The religious convictions of some are diametrically opposed to a whole area of scientific investigation and clinical practice

Reproductive technologies as alien territory

Repercussions:

1 - little way of influencing public policy; the possibility of constructive dialogue and counterbalancing more extreme secular trends has been lost

2 - allows little opportunity for ongoing debate within Christian circles, stifling any science-religion debate in this area

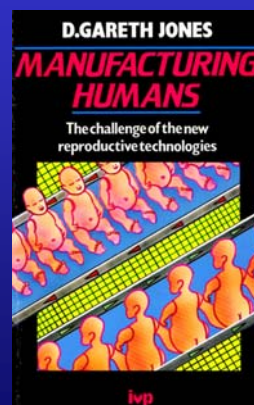
Reproductive technologies as alien territory

The subject of manufacturing humans is a particularly modern expression of the unease with which the intersection between science and religion may be viewed

It is ordinary people who encounter this as they confront infertility

A shifting universe

1987 -
*Manufacturing
Humans: The
Challenge of the
New
Reproductive
Technologies*



A shifting universe

Scientific developments continue to outstrip the ability of our ethical (and theological) systems to cope with them

Fundamental changes in our view of ourselves

What room is left for God and faith?

A shifting universe

- 1989 - > 400,000 children born via IVF
By 2009 - > 3 million
- *Technological developments*
development of intracytoplasmic sperm injection (ICSI)

A shifting universe

- 1989 - preimplantation genetic diagnosis (PGD) developed



- 1998 - embryonic stem cells first derived from human embryos

A shifting universe



- 1997 - birth of Dolly (first cloned mammal)

Dire warnings predicting the end of humanity as we know it

A shifting universe

- 1987 - therapeutic or research cloning or iPS cells unknown

By 2009 - seen as the way forward for regenerative medicine



A shifting universe

- 1987 - chimeras and hybrids part of Greek mythology or science fiction

By 2009 - serious science



A shifting universe

- 1980s - 8% of babies born at 23 weeks' gestation and 40-45% of those born at 28 weeks survived

By 2009 - 50% of babies born at 23 weeks survive and 80% of those born at 28 weeks



Responses to IVF in the mid-1980s

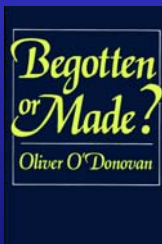
1984 - *Report of the Committee of Inquiry into Human Fertilisation and Embryology* (Warnock Report)

- Human embryos have special status, but not equal to that of actual persons;
- Research on human embryos allowed up to 14 days

Responses to IVF in the mid-1980s

- IVF is an established treatment
- Egg and embryo donation acceptable with provisos

Responses to IVF in the mid-1980s



When we start making human beings we necessarily stop loving them

We are taking the process out of the hands of God

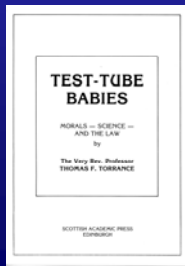
IVF child becomes the *creature* of the doctors

Oliver O'Donovan, *Begotten or Made?* (1984)

Responses to IVF in the mid-1980s

Modern reproductive technology represents a threat to the future of the human race

Medical science is challenging fundamental God-ordained boundaries



There is no room for IVF or any technological manipulation

Thomas Torrance, *Test-Tube Babies* (1984)

Responses to IVF in the mid-1980s

A number of church bodies took an **uncompromisingly negative view** of IVF:

- embryo is inviolable from fertilization
- IVF is unacceptable
- artificial production of children is dehumanizing

Responses to IVF in the mid-1980s

Roman Catholic position:

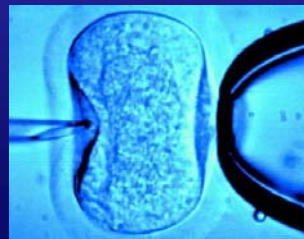
ARTs “constitute an unworthy method for the coming forth of a new life, whose beginning depends . . . in large measure on the technical action of third parties outside the couple and takes place in a context totally separated from conjugal love.”

Pontifical Academy for Life (2004)

Responses to IVF in the mid-1980s

The recent Vatican pronouncement, *Dignitas Personae*, was unable to reach a conclusion on what should be done with surplus embryos

A minority of church bodies supported the majority of the recommendations of the Warnock Report



Responses to the ARTs post-2000



The science has moved on dramatically

Is theological debate of 2009 different from that of 1987?

Responses to the ARTs post-2000

Little has changed

The theological scene of 2009 is remarkably similar to that of 1987

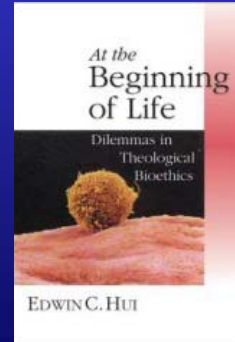
The traditional division of opinion between some Protestant and Roman Catholic groups is less clear than previously

Responses to the ARTs post-2000

Hui, *At the Beginning of Life: Dilemmas in Theological Ethics* (2002)

Evangelical, and intensely conservative

The human soul is present at conception



Responses to the ARTs post-2000

“To the extent that modernity has allowed science to replace God and modern people are left all the more disoriented, modern anthropology has allowed scientific technological reproduction to **replace divine-initiated human procreation**. Modern persons are left all the more depersonalized.”

Hui (2002)

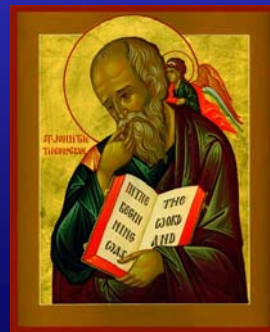
Responses to the ARTs post-2000

- opposition to any technological inroads into the reproductive process
- ARTs force God to accept the child **when he has not given that gift of life**
- human embryo research is unacceptable

Hui (2002)

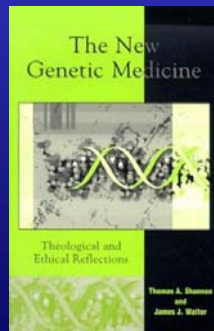
Responses to the ARTs post-2000

Science and theology are staring one another in the face



Responses to the ARTs post-2000

Shannon and Walter, *The New Genetic Medicine* (2003)



Willing to wrestle with new scientific findings

Deeply imbued with Roman Catholic teachings

Responses to the ARTs post-2000

- Individual not present until 2-3 weeks after fertilisation

“[w]hile the preimplantation embryo contains the appropriate genetic information for the organism’s development, that genetic information is not necessarily associated with a specific individual and cannot, therefore, claim moral privilege through such an association.”

Shannon and Walter (2003)

Responses to the ARTs post-2000

- Early embryo cannot claim absolute protection

“There is a time period of about **three weeks** during which it is biologically unrealistic to speak of a physical individual. This means that the reality of a person . . . is not present at least until individualization has occurred. Individuality is an absolute . . . condition for personhood”

Shannon and Walter (2003)

Responses to the ARTs post-2000

- The early embryo is valuable due to its human genetic code and genetic uniqueness
- The preimplantation embryo has *pre-moral value*
- This value must be judged in the light of other moral goods, such as the **benefits** of embryo research
- Allow embryo research

Shannon and Walter (2003)

Responses to the ARTs post-2000

- A determined effort to reinterpret traditional theological viewpoints in the light of contemporary scientific understanding
- Their approach does not weaken the religious tradition, but reaffirms it in contemporary terms

Shannon and Walter (2003)

Responses to the ARTs post-2000

- Can a theological position be completely independent of scientific input?
- What role does science play?
- Do different theological positions reflect differences in scientific understanding?

Responses to the ARTs post-2000

Is it legitimate to change one's stance theologically?

If our theological viewpoints are dependent upon scientific concepts, changes in a theological perspective should follow major changes in scientific notions

Responses to the ARTs post-2000

Church of Scotland 2006 report, *Embryo Research, Human Stem Cells and Cloned Embryos*.

Majority of working group held to a more gradual view of moral status of the embryo

Opposition to creation of human embryos for research

Responses to the ARTs post-2000

Contrasts with the 1996 report which took a far more conservative view of the embryo and therefore opposed embryo research

Why the change?

The passage of time allows for further reflection on the science and its theological implications



How compelling is the Christian input into ethical debate?

Christians of similar theological persuasions do not always adopt similar stances on ethical issues

How compelling is the Christian input into ethical debate?

Boomsma (*PSCF* 2004;56:38-48)

Reformed worldview: creation-fall-redemption, stewardship, human worth, the kingdom of God, social justice and God's sovereignty.

Cures from embryonic stem cells would help redeem brokenness of creation

How compelling is the Christian input into ethical debate?

Gradualist position on worth of embryo



Can justify use of surplus IVF embryos for research, but not the creation of embryos for research purposes

Boomsma (2004)

How compelling is the Christian input into ethical debate?

Teo & Calbreath (*PSCF* 2006;58:179-88)

Reformed worldview: worth and value of human life from fertilization onwards

God sees every human being as valuable, as designed for his purposes, and as bearing his image

Reject the use of surplus IVF embryos

How compelling is the Christian input into ethical debate?

Both stances cannot represent *the* Reformed Christian position on human embryos

But can either do so? Is there such a position?



How compelling is the Christian input into ethical debate?

1. Each emphasized different facets of the Reformed tradition - choices have been made
2. There is theological murkiness in this area. Christian understanding is limited and humility is needed



How compelling is the Christian input into ethical debate?

3. There is no exclusive, unerring Christian bioethical position on contemporary issues like these

Importance of commitment to flourishing of personal life

How compelling is the Christian input into ethical debate?

Christian contributions to bioethical debate are restricted, but significant

Christian voice should stress human dignity and flourishing at all stages of human existence and in all countries and societies

Exploring the borderlands

Technology intrudes into every facet of our existence. We cannot escape from the effects of technological innovation and application.



Technological intervention at premature birth has elicited little theological opposition



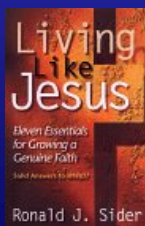
Need to distinguish between the various forces at work

Exploring the borderlands

“Following Christ means living like Jesus . . .
Jesus modelled servanthood, self-sacrifice and
special concern for the poor and neglected. . . .

All that sounds foreign to our modern ears

. . . Instant gratification is at the core
of modern life. Costly self-denial is at
the center of Jesus’ Way.”



Sider, *Living Like Jesus* (1999)

Exploring the borderlands

The development of ARTs is scientifically
driven and their application is community
driven

A Christian commitment should be directed at
arguing for ways in which the technologies
should be applied rather than in whether the
technologies should or should not exist

Exploring the borderlands

Christians should be working hard on deciding the pastoral dimensions of the ARTs

The interrelationships between what we perceive to be human and divine control will become increasingly delicate as the science behind the ARTs advances