

Chapter 8

Genomics and Genetic Engineering: Playing God?

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ABSTACT

The hurricane growth of genomics and genetic engineering poses challenging ethical questions pertaining to the technological application in human life. Many secular and religious bioethicists observe that the new proposals of genetic engineering are described as “playing God.” The metaphor has evoked both optimistic and pessimistic perspectives among the scholars in bioethics. The American President’s Advisory Commission for Bioethics describes the ethical arguments in relation with this metaphor in many volumes. The negative renditions of “playing God” conclude that even though human beings are God’s creation they might still be able to play God, which could lead human beings and the entire cosmos to disaster. This perceptive proposes that modern genetic technologies and the researches in genomics could lead humanity into such a disaster. Contrary to this urging, some other bioethicists endorse that as an image of God, humans are called to play God. This chapter critically analyse the rationality of these arguments and its milieu in the context of Christian theology and verify its universal relevance in the context of bioethics.

THE NEW DEVELOPMENTS IN GENETICS

The dawn of the new millennium has witnessed the announcements of two major scientific breakthroughs. One is that the researchers have assembled the entire genome (gene map) of liv-

ing organism, a bacterium, which they consider to be the second step in a three-step process to create the first synthetic organism, which would possess an artificial life (Borman, 2008a, 2008a; Dragnea, 2008; Pennisi, 2008). The second amazing news is that British scientists have created human embryos with the DNA from three people (Cree et al., 2008; Krishnan et al., 2008). Academic literature and media recurrently draw

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our attention to the new discoveries in the field of human genetics and medical technology, and its proposed benefits to humanity. The ethical problems related to genetic engineering are great subjects of concern for bioethicists. 'Playing God' is one of the very popular metaphors, which is used by many in relation with ethics, medicine and genetic engineering. Surprisingly, both secular and religious bioethicists quite often describe the discoveries, inventions and technological applications in genetics using the metaphor 'playing God.' The American President's Advisory Commission for Bioethics reports about different genetic technologies and interventions, where it describes the ethical arguments in relation with this metaphor in many volumes (National Bioethics Advisory Commission, 2003, 1997; President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, 1982). In bioethics literature almost all genetic technologies like gene therapy (Sullivan and Salliday, 2007), pre-implantation genetic diagnosis (Kalfoglou et al., 2005), modern tissue engineering and germline interventions (Peters, 1995), gender selection (Dahl et al., 2004; O'Keefe, 2004), genetic nanotechnologies (Ebbesen and Jensen, 2006), genetic screening (Mallia and ten Have, 2005), synthesizing a minimal genome (Cho et al., 1999), human-animal hybrids (Robert and Baylis, 2005), stem cell research, and cloning (Maienschein, 2003, pp. 129-236; Winston, 2003) are attributed to as 'playing God.' It has been discussed as a 'state of ethical principle' and as 'invoking perspective' (Verhey, 1995).

The repercussions of new medical interventions and discoveries are subjected to humanity and people of faith. They influence the relationships between God, humans and nature. Most of the religions believe that human beings are created by God, principally Christianity. Both the Bible and patristic literature affirm that God is the Almighty Sovereign and that human beings are created in the image and likeness of God, but they are not God. Both Eastern and Western theologians concretely

characterize and distinguish the limitations of being human from the ultimate and boundless power of Almighty God. The believers acknowledge the domains of life, birth and biological make-up to be under the unsurpassable authority of the Creator. Hence any human attempt to control or regulate life functions within the above domains is interpreted to be 'playing God.' This paper aspires to analyse the meaning and implications of the phrase 'playing God' attributed to genetic discoveries and interventions, in the light of Oriental Christian theology.

PLAYING GOD: THE MEANING

Generally, the metaphor 'playing God' refers to criticise any action undertaken by human beings, outside of the 'traditional' definition of what human beings ought to do. Recently it has also been used to cover a range of human actions, which aspires to create radical changes in the scientific or medical world. In 1982, President's Commission for Study of Ethical Problems in Medicine and Biomedical and Behavioural Research Report portrayed 'playing God' as an expression of 1) a sense of awe and concern 2) an arrogant interference with nature and 3) an opposition to create new form of life (President's Commission, 1982, pp. 53-57). In order to work through this reading of human action or hubris, theologian Ted Peters attempts to locate three overlapping meanings for 'playing God' (Peters, 2003, p. 11). Firstly, human action is undertaken in order to learn God's awesome secrets. Some secrets regarding the existence of life or of the world are not revealed to humans, and they remain 'enigmatic.' This means that when human beings are trying to learn the secrets which only God knows, then it is as though we are "playing God." Secondly, "playing God has to do with the actual wielding of power over life and death" (Peters, 2003, p. 11). Thus any action or decision-making which touches the aspects of human life or death is 'playing God.' The third

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