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HUMAN GENETIC ENGINEERING AND SOCIAL JUSTICE IN SOUTH AFRICA: MOLTSMANN AND HUMAN DIGNITY¹

ABSTRACT

The realities of social injustice in the present South African context, with its great and growing gap between rich and poor and unequal distribution of wealth and resources, are also acutely visible in the health-care sector. Genetic engineering would lead to some children having the cards stacked overwhelmingly in their favour, raising the concern for the justice or fairness of this type of biotechnology. In this contribution, I argue that the notion of justice as fairness, put forward by Rawls, and the focus on human dignity in Moltmann's theology can help address the bioethical challenges of genetic engineering in the context of inequality, specifically in South Africa.

1. INTRODUCTION

Reflecting on a bioethical matter as sophisticated as human genetic engineering (GE)² from a South African perspective might not, initially, seem like an obvious stance to take. After all, being a developing country, biotechnology in South Africa is not at the forefront of biomedical technology.³ One might also ask, rightfully, whether there are not much

1 Paper presented at the Humboldt Summer School on *Imperial Religions, Theology and Indigenous Knowledge*, 10-14 June 2014, Berlin, Germany.

2 In this contribution, genetic engineering is understood as the deliberate genetic alteration of a human embryo by modifying its genetic make-up.

3 In 2001, the National Biotechnology Strategy was published. In 2007, a ten-year innovation plan was drawn up, which delineated an ambitious strategy

more pressing ethical matters to consider in a country wrought with social inequality. In this regard, Ryan (2012:974-975) indicates that, in many regions, access to basic health care, clean water, satisfactory nourishment, maternal and child care, as well as the treatment and prevention of HIV/AIDS are far more serious crises than the availability of genetic treatments.

There are a few reasons, however, why I view this as an extremely relevant and prolific origin for a theological reflection on the aspect of social justice as introduced by the GE of human beings. One reason is the prevalence of so-called genetic tourism, where couples from developed countries travel to countries in the developing world to undergo *in vitro* fertilisation (IVF) treatment as a result of the much lower costs of this treatment and the much higher availability of egg donors because of financial incentives. This, of course, also raises a variety of ethical dilemmas. There are numerous other questions and challenges raised by the utilisation of biotechnology such as genetically engineering human beings, for example, the perspectives of human beings and personhood that are upheld; the impact it could have on gender relations, people with disabilities and children born after genetic intervention; the desirability or not of creating what scholars such as Fukuyama (2002) term “posthuman”, and Young (2006) “transhuman”; eugenics, and a number of doctrinal concerns. In this paper, however, I shall only examine the aspect of social justice and offer a theological reflection thereupon.

The realities of social injustice in the present South African context, with its great and growing gap between rich and poor and unequal distribution of wealth and resources, are also acutely visible in the health-care sector. In my opinion, this makes it a productive starting point for entering into the Christian bioethical discourse. Of course, it also has extensive and far-reaching implications for the larger discussion on GE and what impact it would have on the current South African context; in other words, between those who would be able to afford GE, and those who would not have access, were this type of biotechnology to become commercially available.

to turn South Africa into one of the top ten nations in the world in terms of the pharmaceutical, nutraceutical, flavour, fragrance and biopesticide industries by 2018. [Online.] Retrieved from: http://www.aatf-africa.org/userfiles/AfricaBio_Engels.pdf [2016, 18 March]. This, however, has not happened. While genetic engineering does take place at present in South Africa, modifying the genetic make-up of human embryos is prohibited. [Online.] Retrieved from: <http://www.geneticsandsociety.org/article.php?id=304> [2016, 18 March].

Ryan (2012:977) indicates that high-demand genetic therapies such as GE

are likely to be both very costly and (as in vitro fertilization and other reproductive technologies) available only to those who are willing and able to pay for them.

Gavaghan (2007:172) also sums up the issue at hand; the fear is that unequal access to this kind of technology could cause or exacerbate pre-existing divisions. In the next section, I shall examine the possibility and ways in which biotechnology such as GE could conceivably be utilised to divide the human race.

2. THE POSSIBILITY OF HUMAN GENETIC ENGINEERING DIVIDING THE HUMAN RACE

The first argument levelled against the use of GE is that, if the wealthy were to use GE to prevent certain diseases in their children, the possibility exists that empathy and concern for these diseases could disappear and that they could later become “low-class” diseases. Furthermore, if illness is thought of as something avoidable, social provision and care for the sick might also be reduced (Gavaghan 2007:172-175). Fukuyama (2002:16) further notes:

If wealthy parents suddenly have open to them the opportunity to increase the intelligence of their children as well as that of all their subsequent descendants, then we have the makings not just of a moral dilemma but of a full-scale class war.

This possibility, of course, also raises significant questions for theological ethics.

It should, however, also be borne in mind that the wealthy already have more access to expensive medical procedures and better health care and that those who can afford to go to private clinics and hospitals are already in a much better position than those who are forced to wait in line in state clinics and government-sponsored hospitals. Obviously, this also raises questions of social justice, but it serves to indicate that it would be improper and incorrect to accord these problems only to the use of GE in the future.

It is also true that genetic make-up is inherently unfair, even when only viewed in natural processes. Two world-renowned athletes (naturally, without making use of GE) having a baby together are very likely to pass on genes that would equip their future child for athletics and sport in ways that surpass that of the child of a couple where only one of the

parents are slightly athletic. Can we term this unfair? Perhaps. Can we do something about it? Unlikely. Genetic make-up, in every instance, is a lottery. In addition, there is no guarantee that even parents, using every type of technology available to have a particular type of child, will get that particular child. Even if they do, it would still be incumbent on that child to develop and practise the traits that s/he was given.

Sandel (2007:12) also reacts to the argument of unfairness used in cases of, for example, genetically improved athletes:

It has always been the case that some athletes are better endowed, genetically, than others. And yet we do not consider the natural inequalities of genetic endowments to undermine the fairness of competitive sport.

Sandel (2007:3) further refers to critique against choosing the attributes of children and asks why some component of unpredictability or randomness seems to make a moral difference. He also indicates that, while the often-levelled criticism that it violates the child's autonomy to be able to choose his/her life plan for him-/herself, wrongly implies that children born naturally are free to choose their own aptitudes and traits (Sandel 2007:6-7). The ethical question to be asked is, therefore, rather one of the autonomy of future children born after intervention by GE, whether it is ethically permissible to decide the characteristics of children before they are born, as opposed to letting it randomly be up to the genetic lottery.

What is true, however, is that GE would lead to some having the cards stacked in their favour, or as Gavaghan (2007:179) quite eloquently puts it, some children could be born "not only with 'silver spoons' in their mouths, but with 'golden genes' in their chromosomes". He summarises the issue at hand:

What would be unfair about a genetic supermarket is not that some people would emerge from it with unearned advantages – that, of course, happens anyway – but rather that some people had the odds stacked overwhelmingly in their favour from the beginning (Gavaghan 2007:182).

It is undeniable that those who are able to afford it and have better access to health care and other facilities are already in a superior position to those who do not, and the aspect of a divided human race is no longer something that science fiction warns us of, but reality. Daniels (2001:323) does not view this to be particularly problematic:

The rich can buy special security systems for their homes. They can buy safer cars. They can buy private schooling for their children. Why not allow them to buy supplementary health care for their families?.

Verhey (2002) also adds that genetic options may one day be socially enforced. It should also be noted that a truly pro-choice position recognises the decision to not use pre-implantation diagnoses as a valid choice and is not a promoter of this technology (Gavaghan 2007:2-3). Often, those who argue the freedom of choice⁴ in favour of biotechnologies such as GE becoming commercially available, are of the opinion that this would imply that everyone should make use of it. Gavaghan reminds one that when one makes a case for the freedom of choice, opting not to make use of available biotechnology is also a legitimate and valid choice that should be respected.

However, as Callahan (1987:228) postulates, specified choices usually make options mandatory, whether by law, economic force or simply by social custom. In the same way that keeping someone in a coma on life support where the likelihood of recovery is slim was, at some point in time, available only in extreme cases and have now become the norm, GE could walk the same road. For this reason, Gavaghan (2007:5) indicates that a genuine concern for justice or fairness

cannot be addressed by restricting access to GCTs, [germinal choice technologies] which are at worst just one manifestation of unfairness.

It is then quite clear that, when examining social justice and GE from a theological-ethical perspective, it should be borne in mind that what we are, in fact, examining is the exacerbating of existing social divides, segregation and inequalities. The divided human race, as conceived in science fiction, finds just one manifestation in disparities and discrimination in the utilisation of biotechnology.

In addition, biotechnology such as GE can also be viewed as power. Deane-Drummond (1997:82) refers to the power wielded by biotechnology in agricultural practice as “becoming a means of oppressing Third World economies and [it] seems to drive a wedge between rich and poor nations”. The same can also said to be true of biotechnology where human beings are concerned. As a result, the long-term social consequences have to be considered, also confirming that the issue under discussion is much wider and more extensive than science fiction would have us believe.

The realisation that inequalities and a lack of social justice through the utilisation of GE is simply one symptom of a larger social concern also

4 Cf. also Peters 1998:15-20.

serves to include the contribution of Christian theology to this debate. If one would simply argue that the disparities that would be exacerbated through GE exist in any instance and are also, at present, part of our societies and that it, therefore, does not raise a new matter of concern, the discourse is closed. Christian theology, however, does not only address the possible matters of social injustice that could arise in the future, but also speaks out against injustice in the here and now.

3. HUMAN GENETIC ENGINEERING AND SOCIAL JUSTICE

Although there are numerous theories of justice and of social justice, I have chosen to engage with the theory devised by Rawls, given that this theory is thoroughly social from its very inception to its implementation. “Justice” is a very loaded term that can mean different things to different people. One of the most significant works in the entire field of social and political philosophy in the English-speaking world after WW II is Rawls’ *A theory of justice* (1971). Rawls’ theory is presented as a modern alternative to utilitarianism and he hopes that it is congruent to “the belief that justice must be associated with fairness and the moral equality of persons” (Shaw 2005:95). Justice is not simply a matter of social service, but it is thoroughly social. Society, in Rawls’ view, is a cooperative undertaking among its members.

Rawls’ hypothetical-contract approach and the principles of justice that he develops from this approach are particularly important. He asks: What would we choose as the fundamental principles to govern society if, hypothetically, we were to meet in the “original position”? Rawls suspects that it would be the principles of justice. In the first instance, a guarantee of certain individual liberties, and in the second instance, social and economic inequalities are only justified if they benefit the least advantaged members of society.

If people were in this “original position”, what principles would they choose? What would the basis be for deciding on principles? Rawls believes that we would select principles that we find just. People disagree on what is just and unjust and, accordingly, would make decisions based on their own preconceived ideas on what justice is. Rawls suggests that people in the “original position” should be viewed as choosing on the basis of self-interest. Choosing on the basis of mutual self-interest, the principles of justice will most likely be chosen, because people agreed to them under conditions of equality and free choice. There is no agreement if people are choosing principles based on self-interest, given the reality that

some rules would benefit some people and not others. Regardless of who they are, Rawls indicates that people want more “primary social goods” (income, but also rights, liberties, opportunities, status, self-respect, and so on). He, therefore, suspects that people in the “original position” will choose the principles that should govern society conservatively, because they are determining their own fate and that of their children. They will not choose a utilitarian standard, because the happiness of some might be sacrificed to maximise the total happiness of society. They will follow the *maximum rule* in making decisions, in order to *maximise* the *minimum* they could receive.

Ultimately, people in the “original position” will approve two principles, after which they will design their basic social and political institutions in more detail, when they have more information. These principles are, first, that each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all and, secondly, that social and economic inequalities are to satisfy two conditions, namely they are to be attached to positions and offices open to all under conditions of fair equality of opportunity and they are to be to the greatest expected benefit of the least advantaged members of society (Rawls 1985:227).

The first principle takes priority over the second. At the very centre of Rawls’ theory is what he calls the *difference principle*. This states that inequalities are only justified when they work to the advantage of those members of society who are least well off. If people lack incentive to undertake some of the more difficult work in society, one could allow for certain inequalities that work to everyone’s benefit, for example paying people more for more productive work. This would benefit the entire society, also those who earn less (Rawls 1971).

Utilitarianism, in Rawls’ view, treats the pain and pleasure experienced by people as interchangeable. It can also lead to the unfair distribution of burdens and benefits in maximising the total well-being of a society. In response to Nozick’s entitlement theory (libertarianism), he also states that the primary subject of justice should be the basic structure and arranging it into one scheme with the fundamental social institutions.

The subject of justice should be the basic structure of society, because this shapes the wants, desires, hopes, and ambitions of individuals. Rawls indicates that there will always be natural differences between people, but the weight given to these distinctions is not natural. One’s characteristics are simply a genetic lottery. One can, therefore, not claim credit for one’s attributes, not even for one’s virtues. Consequently, one cannot claim credit on the economic rewards of one’s characteristics (Shaw 2005:100-105).

Rawls (1985:223) himself calls his theory “justice as fairness”. He further indicates that what he set out in *A theory of justice* is a political conception of justice, which is “a moral conception worked out for a specific kind of subject, namely, for political, social, and economic institutions” (Rawls 1985:224). The notion of fairness should, therefore, be built into the most basic structures of society, although Rawls (1985:225) is also quick to point out that this does not mean that a general moral conception should be applied to all structures.

Viewing justice as fairness tries to arbitrate between the opposing traditions of Locke⁵ and Rousseau⁶ in two ways, namely by stressing the values of freedom and equality and

by specifying a point of view from which these principles can be seen as more appropriate than other familiar principles of justice to the nature of democratic citizens viewed as free and equal persons (Rawls 1985:227).

Rawls then states that the aims of justice as fairness are practical rather than epistemological or metaphysical. It presents itself as a notion that can serve as the basis of an “informed and willing political agreement between citizens” (Rawls 1985:230).

Naturally, this has extensive implications for the discussion of social justice in terms of GE. Blackford (2014:34) refers to Allhof’s statement that GE is in itself morally acceptable if and only if it enhances, whether directly or indirectly, Rawlsian primary good, the kinds of things one should rationally want to have, including talents and aptitudes. In terms of justice as fairness, one could say that, from an ethical perspective, the utilisation of GE would need to be implemented according to the principle of fairness in order to be, according to Rawls’ theory, just.

The most problematic issue raised in the discourse on social justice, in my opinion, is the number of scholars who seem to find some kind of inequality not only desirable, but ideal. Using GE to enhance the Rawlsian primary goods of our children is considered redundant, if everyone is able to do so. In this line of thinking, Buchanan *et al.* (2000:185) refer to this as an advantageous, but collectively self-defeating intervention. Singer (2009:282-283) and Fukuyama (2002:95) employ the same argument; the latter uses intelligence as an example.

5 Locke gives “greater weight to what Constant called ‘the liberties of the moderns’, freedom of thought and conscience, certain basic rights of the person and of property, and the rule of law” (Rawls 1985:227).

6 Rousseau “gives greater weight to what Constant called ‘the liberties of the ancients’, equal political liberties and the values of public life” (Rawls 1985:227).

If everyone has children that are more intelligent, there is no gain, except a possible rise in economic productivity. In other words, without inequality also on this level and the large gap between the rich and the poor, those who are able to afford and access biotechnology and those who remain on the margins, these scholars do not perceive the benefit of this technology at all. This notion contradicts Rawls' concepts of justice as fairness, however, as the desired inequality, for which these scholars argue, is at its very core about unfairness and *injustice*.

This, however, does not yet answer the question as to how theology can contribute in a unique and valuable manner to the ethical discussion and, in particular, to the notion of inequality and social justice this raises. In the following section, I shall discuss German theologian Moltmann's viewpoint on humanity dignity as one possible theological contribution.

4. A THEOLOGICAL RESPONSE TO GENETIC ENGINEERING AND SOCIAL JUSTICE: MOLTSMANN AND HUMAN DIGNITY

De Villiers (1993:101) indicates that, for over one and a half centuries, mainstream churches and Christian theology were completely opposed to the notion of fundamental human rights. He further states, however, that fundamental human rights are theologically justified, "particularly health care as a human right", given that a wide spectrum of Christian beliefs, such as, for example, *imago Dei*, played a role in the historical development of human rights. These beliefs also suggest that Christians should propagate the recognition of human rights.

That health is one of the basic needs of human beings as image bearers of God and that fellow human beings have the obligation to provide adequate health care to those who fall ill, is something about which the Bible leaves us in no doubt (De Villiers 1993:103).

The conviction that all human beings have inherent value and dignity, simply on the basis that they are human, is in Christian theology grounded in the confession that human beings are created *imago Dei*, in the image of God. This also features very prominently in the work of Moltmann, quite extensively already in the first chapter of his publication *On human dignity* (Moltmann 1984:11-17). Bauckham (1995:115) points out that Moltmann grounds the human dignity of all of humanity in their creation by God. This precedes all forms of society and government, leaving no doubt as to the common humanity of all people and the God-given dignity of every person. It also makes the fulfilment of this dignity a task to which every human

being is called. Although not the focus of this contribution, all human beings being made in the image of God also implies equality, a notion that can also be tied closely to Rawls' concept of fairness. If all people are equal, it follows that they should be treated as such.

Moltmann (1999:120; 2011:611) further clarifies that human dignity is not the elevation of human beings above other living things, and he continually emphasises that it cannot be upheld at the expense of nature (Bauckham 1995:17). He explains it as follows:

The fact that all human beings are made in the image of God is the foundation of human dignity. Human beings are intended to live in this relation to God. That gives their existence its inalienable, transcendent depth dimension. In their relationship to the transcendent God, human beings become persons whose dignity must not be infringed (Moltmann 1999:122).

Moltmann (1984:169) further describes human beings as made in the image of God as pertaining to all of the human being's "Lebensbezügen", in other words,

the economic, social, political and personal dimensions are all meant to reflect the confession that we are created in God's image (Kotzé 2015:210).

Human beings are intended to live in this relation to God, and it is this factor that gives human existence its "inalienable, transcendent depth dimension" (Moltmann 1999:122). It is in their relationship to the triune God that human beings become beings whose dignity must not be violated.

Human dignity, Moltmann (2012:87) states, is already defined in the Old Testament:

The Abrahamic religions – Judaism, Christianity and Islam – are responsible for the religious background of Western civilizations, and they have always seen this dignity as belonging to the human being as the image of God.

This dignity was regarded as something that exists in the human soul, not in the body, for a long time. As a result of this view, the body came to be viewed as something that does not form part of the likeness to God and that the soul could simply make use of. Later still, the image to God came to be viewed as "the conscious subjectivity of will and perception" (Moltmann 2012:87). Moltmann (2012:87) indicates, however, that the whole of the human being is the image of God, his/her body included. For the discussion of human dignity as relating to the examination of social

justice and inequality in the larger Christian bioethical debate on GE, the repercussions for this assertion are that human dignity and human rights also refer to bodily dignity.

Moltmann (1993:49) also indicates that the crucified Christ has always been the Christ of the poor:

They find in him the brother who put off his divine form and took on the form of a slave (Phil. 2), to be with them and to love them. They [see] in him a God who does not torture them, as their masters do, but becomes their brother and companion. Where their own lives have been deprived of freedom, dignity and humanity, they find in fellowship with him respect, recognition, human dignity and hope.

Christian theology, therefore, cannot but take seriously the plight of the poor and the suffering. Within the context of the right to health and health care, Christ's "preferential option for the poor", as confessed in the *Confession of Belhar*, adds another very important notion to the discussion, one that will also be of note for exploring GE in terms of human rights and human dignity. In the context of GE, the preferential option for the poor should also be respected in health care and the utilisation of biotechnology. This means that one cannot argue, like Buchanan *et al.* (2000), Singer (2009) and Fukuyama (2002), and advocate in favour of inequality and social injustice, purely on the basis that, in order to have some primary goods, it infers that others must do without. This is also directly opposed to the theory of justice, as developed by Rawls, where the benefits of his model are clearly stated to be for the least well-off in society: the poor, the suffering, and the marginalised.

Although another ethical question would, of course, be whether these enhancements of human qualities are desirable and something that should be supported and aspired to, addressing these questions is beyond the scope of this paper. Suffice it to say that one should also take note of the issue of social justice in discussing the genetic enhancement of human beings.

The right to lead a life of dignity is also an inherent part of human dignity. Therefore, the bigger issue of economic injustice should also be addressed as a closely related aspect to the wider view of social justice in terms of health care. For this reason, I raise the larger issue of socio-economic justice and not simply the issues with which the conversation on social justice directly confronts GE, such as the inequality that would exist in access and affordability. Given the large discrepancies that exist in the health-care sector at present, these concerns can very easily be argued away as subsisting with or without biotechnology. In this regard,

as indicated earlier, one can simply state that the social injustices to which they refer are present in any case and that it does not, in a unique way, contribute to the Christian bioethical discussion on GE. Arguing in this way, without taking the broader socio-economic context into account, could lead one to make the case that, because the inequalities and these forms of biotechnologies could exacerbate what already exists, it does not add something original to the bioethical discourse. Consequently, this should be regarded as less important than other ethical issues that emerge in the utilisation of biotechnology.

5. CONCLUSION

In Moltmann's theology,

God is a God of promises, promises that open up a future into which the people may enter in obedience ... Something which yet is not and thus opens the future (Rasmussen 1995:62).

Rasmussen (1995:62) also states that "the promises of God have their ground not in history itself, but in God and in God's faithfulness". This means that the future that is promised cannot be deduced from the present reality; God's promise is something that is not yet; therefore, it stands in contradiction with the present. It is not a rigid scheme; there is room for surprises, promises that transcend historical fulfilment and point to fulfilment in the future, creating a history of promise. In Moltmann's words: "Discipleship, which concerns life here and now, exists in the horizon of the coming kingdom. It criticizes what is in terms of what is promised" (Rasmussen 1995:64).

In light of this perspective, this contribution explores the present South African reality as part of the life that exists here and now, standing in contradiction to the eagerly awaited promised future. Taking its cue from Moltmann's view on Christian discipleship, this article serves to criticise the present reality, with its inequalities, especially in this context, relating to health and health-care services as part of the greater debate surrounding GE.

The ethos of learning to live with brokenness, imperfection and vulnerability that Moltmann propagates, also be referring to the suffering of and vulnerability of God, is of immense value to the discourse of GE (Kotzé 2015:213).

Moltmann particularly referred to the reality that God is perceived most clearly in God's broken and vulnerable humanity. In understanding the whole of creation through the event of the cross, this notion also becomes

especially applicable. Moltmann's trinitarian doctrine of creation helps the Christian bioethical discussion on GE in explicitly campaigning for the utilisation of available biotechnologies to heal and cure, thereby enhancing human dignity, justice and fairness as part of the bioethical discourse. Furthermore, Moltmann's theology also helps Christian bioethical dialogue by resisting a culture or ethos that cannot live with vulnerability. Moltmann examines creation and human beings through the lens of God who suffers in and through Jesus Christ. Although I derive a theological mandate in favour of GE from his theology (Moltmann 2012:79, 80, 110, 127), I by no means infer from him a flight from vulnerability, brokenness and suffering that aims to become "transhuman". I do not gather from his position an idealisation and even idolisation of medical technology. His theological perspectives do indeed encourage one to support medical, scientific and technological progress. It not only supports the quest for health and health care, but also acknowledges the limitations in the best that one can achieve as human beings.

The focus on human dignity in Moltmann's theology and the notion of justice as fairness put forward by Rawls can help one address bioethical challenges in the context of inequality, specifically in a country such as South Africa. Furthermore, it can help us build a life of dignity for the socially excluded ones in society and, therefore, work for socio-economic conditions that speak of justice, fairness and dignity and that make this technology accessible to all.

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Keywords

Genetic engineering

Human dignity

Justice

Moltmann

Trefwoorde

Genetiese manipulasie

Geregtigheid

Menswaardigheid

Moltmann