

Is a 'zero population growth policy' morally justifiable in South Africa?

Stefan Alexander van Schaik, Student Number 517177

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Abstract

In this research report I address the question: Is a 'zero population growth policy' morally justifiable in South Africa?¹

My research report focuses on the relative value of two competing ethical claims: that of an individual's reproductive rights, weighed up against the claim that a limitation of freedom in choice will tend to maximise human welfare and human values.

I shall argue that the long-term welfare of the community and human development for all who have potentialities, and not as presently for a privileged few, outweighs the claim that reproductive rights are absolute.²

¹ Dictionary.com, 2011, "Zero Population Growth."

² Rene, 2007, p 53; Lee, 1979, p 67

DECLARATION

I declare that this research report is my own unaided work. It is submitted for the degree of Master of Arts, Applied Ethics for Professionals, in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination in any other university.

Stefan van Schaik

____ day of _____, 20____

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Table of Contents

ABSTRACT.....	2
DECLARATION.....	3
ACKNOWLEDGEMENTS AND DEDICATION.....	4
CONTENTS	
1. Introduction.....	6
2. Explaining the Issue.....	12
3. Authoritarian vs Cooperative vs Modified Authoritarian.....	25
4. ZPG: a morally obligatory policy from various ethical perspectives.....	41
5. Discussion of Rebuttals.....	53
6. Cultural Relativism, Racism and Feminism.....	64
7. Conclusion.....	67
Bibliography.....	68

1) Introduction

My research report will argue ‘...that the state can legitimately abridge some individual rights if it leads to the long-term welfare of the community.’³ I will show, by referring to economic and social facts, that population growth in South Africa impedes other rights such as human development for a large portion of the South African population. Human development ‘...includes both the cultural development of mankind as a whole and the development of individual potentialities.’⁴ Therefore, I claim, reproductive rights are not an absolute right and the government may use coercion to limit these rights, if population growth restricts human development for all who have potentialities and not as presently only for a privileged few.⁵ My research report will show that the government is morally justified in intervening in procreation behaviour when this right affects the rights to general welfare and human development. The modified authoritarian Zero Population Growth (ZPG) policy aims to accomplish this in that each family is entitled to two children regardless of its social and economic background.⁶

[N]o social discrimination is involved; both social justice and societal welfare are taken into consideration.⁷ Therefore, such a policy is within the acceptable bounds of the communal practice which establishes the means for developing consensus to advance the collective well-being.⁸

Throughout my research report, I will address the ethical implications of this question from a communitarian stance, which is ‘...that the survival of the community must be protected because individual members depend on it for their self-identity, the organisation of collective action, and the production of goods.’⁹ Communitarians claim that individuals forgo some individual rights and freedom for the good of the general community.¹⁰ Under the Universal Declaration of Human Rights as

³ Rene, 2007, p 53

⁴ Lee, 1979, p 67

⁵ *Ibid.*

⁶ The modified authoritarian ZPG policy encompasses aspects of both the authoritarian and cooperative methods. The approach is largely modelled on the authoritarian method as implemented in China, however citizens are empowered similar to the cooperative method, as advocated by Amartya Sen, 1995a.

⁷ Tien, quoted in Rene, 2007, p 53

⁸ Rene, 2007, p 53

⁹ *Ibid.*

¹⁰ *Ibid.*

established by the United Nations in 1948, and the 1968 Proclamation of Tehran International Conference on Human Rights, ‘...a state ha[s] a duty and responsibility to provide basic standards of living for its citizens to enjoy a minimally good life.’¹¹

‘Therefore, if unlimited individual procreation degrades the basic living standards and endangers social security for everyone in the long run, then the state has a duty to adopt and implement policies to promote essential conditions of a public good life.’¹²

I will demonstrate with empirical data by comparing Canada to South Africa that South Africa has not met these essential conditions of a minimally good life. I claim a modified ZPG policy is morally justifiable in South Africa because it would be implemented out of a duty to meet these essential conditions of a minimally good life for its citizens and stop further degradation of the community. I will show that this claim outweighs the right to unlimited procreation.

In *Explaining the Issue (Section 2)*, empirical data will be explored to support the argument for a ZPG policy to be enforced in South Africa. The data will be used to draw a comparison between Brazil, India, China and South Africa and will reflect on different population growth policies. In addition, Section 2 will address why Canada is employed as a benchmark for South Africa. Ethical perspectives in support of justifying a ZPG policy are mainly addressed in Section 4.

In *Cooperative vs Authoritarian vs Modified Authoritarian (Section 3)*, the dialogue will focus on the ethical implications of both approaches namely: an authoritarian approach versus a cooperative approach, as discussed by Amartya Sen¹³, or the modified authoritarian method that I will introduce. My research report will show that an authoritarian approach, in conjunction with a cooperative approach, is morally justified under the current circumstances faced by the South African government, as the policy will aid the government to provide an ‘adequate standard of living’ for South Africans as mandated by the Universal Declaration of Human Rights.¹⁴ I will show that population growth ‘...retards national efforts toward development, modernization, a better standard of living for the world’s poor, human welfare—in sum, insofar as the quality of human life is being burdened or threatened by the

¹¹ Rene, 2007, p 56

¹² *Ibid.*

¹³ Sen, 1995a, p 6

¹⁴ Rene, 2007, p 56

quantity.’¹⁵ The modified authoritarian ZPG policy would thus be implemented to maximise the long-term welfare of the community and human development for all who have potentialities in South Africa.

The modified authoritarian ZPG policy includes elements of China’s centralised population policy together with Brazilian and Indian components. I will show that the Chinese model is far from perfect and that policy makers should therefore learn from their blind spots. For example, China enforces a ‘One Child Policy’, but the modified authoritarian ZPG policy proposes two children per family in its policy.¹⁶ However, the Chinese model does produce the fastest results, and leaves room to add elements of the cooperative method.¹⁷ I will further show that South Africa’s time is limited. I will define the significance of a limited time frame, and will show why this is a major factor when deciding which approach to take.

Furthermore, focus will be placed on a comparison between Brazil and South Africa because of their similar economies and Brazil’s successes in lowering their fertility rate.¹⁸ By reflecting on what has taken place in Brazil over the last 52 years ‘despite the absence of an official family planning policy...’, I will show the impact of a lower fertility rate on a country and on women’s autonomy.¹⁹ The current South African population policy will be addressed and its lack of success, thus reinforcing the need for a modified authoritarian ZPG policy due to South Africa’s limited time frame.

Thereafter, in *ZPG: a morally obligatory policy from various ethical perspectives (Section 4)*, my research report will focus on various ethical perspectives aimed at justifying the implementation of a modified authoritarian ZPG policy. Garrett Hardin’s ‘space ship analogy’ and the ‘tragedy of the commons’ will be discussed to illustrate the need for a ZPG policy to be implemented by the South African government.²⁰

There are two main consequentialist principles applicable to determining when ‘...it is good to increase the population provided that the increase in value derived from

¹⁵ Berelson & Lieberman, 1979, p 582

¹⁶ Sen, 1995a, p 10

¹⁷ Sen, 1995a, p 22

¹⁸ Gauri & Lieberman, 2004

¹⁹ Tomanio & McNulty, 2011, p 103 ; Goldani, 2001, p 358

²⁰ Hardin, cited in Brzozowski, 2003, p 162; Hardin, 1968

causing people to exist with lives worth living is greater than any decrease that this might also cause in the value of pre-existing lives...'²¹ There is the other view which claims '...that we ought to maximize average value per life lived. On this view it is obligatory to increase the population only if each new life would contain more value than the average life.'²²

The 'variable value view' was first expressed by Aquinas, Leibniz and Kant and later reviewed by Thomas Hurka when he took the theory and applied it to human population growth and when increases have the most value.²³ The variable value view as expressed by Aquinas, Leibniz and Kant applies to the number of animals in a certain species, and Hurka takes this theory further by applying it to the human species.²⁴

John Rawls and his discussion of the 'Veil of Ignorance', a feature of the 'Original Position', is applicable to South Africa's citizens who do not know their place in the society i.e. rich, poor, sick, healthy, young or old.²⁵ When a 'thick veil of ignorance' is employed, these individuals can then be asked to make a 'blind choice'.²⁶ Under this approach, irrespective of one's social position in the society, no right is distributed before knowing which right people value most. I will show that under this approach the society's health care, education, gender equality and availability of social welfare to all citizens are the rights people value most.²⁷ A modified authoritarian ZPG policy aims to create such circumstances for individuals shrouded by a thick veil of ignorance, and seeks to keep population growth at the replacement level so that these citizens may enjoy a higher quality of life; whereby the aforementioned amenities are available to all its citizens, irrespective of anyone's social position in that society.

John Stuart Mill's 'Harm Principle' suggests that neither the government nor other people should interfere or prohibit people from causing physical or moral harm to

²¹ Honderich, 2005, p 741

²² *Ibid.*

²³ Aquinas, Leibniz and Kant, cited in Hurka, 1983, p 497; Hurka, 1983, p 497

²⁴ *Ibid.*

²⁵ Rawls, quoted in Honderich, 2005, p 943; Rawls, quoted in Honderich, 2005, p 672

²⁶ Freeman, cited in Craig, 2010, p 884; Rawls, quoted in Honderich, 2005, p 943

²⁷ Clark, 2005, p 8

themselves, unless these people harm others with their actions.²⁸ According to Mill, their 'self-development' would be hindered if interference took place – only in a case where their actions have 'harmful' consequences on others (in South Africa's case, if actions are harmful to other South African citizens) is interference allowed.²⁹ I will show that the actions of the South African people, and neglect on the part of the South African government, are currently harming members of the South African public. Good health care and education systems are not being provided, gender equality is lacking and there is an HIV/AIDS epidemic that requires urgent attention. I claim that, due to individual reproductive choices, the welfare of the community is being harmed and therefore the quality of life of South African citizens is greatly reduced. This is due to population growth and the lack of physical and human resources.³⁰ Under these circumstances, expanding the population of South Africa is harmful to current and future generations, thereby justifying the limitation imposed on reproductive rights, under the harm principle. I will further show that under Mill's rule utilitarianism '...it is possible to develop a set of rules that will maximise the best consequences for *everyone* in society, including those whose preferences are in the minority.'³¹

Discussion of Rebuttals (Section 5) addresses ethical perspectives opposing a centralised government implementation of a modified authoritarian ZPG policy.

Sen's cooperative approach is addressed along with Immanuel Kant's Categorical Imperative that people are never to be used as a means to an end but only as an end in themselves.³²

The 'trolley example', in which deontological philosophy holds that certain acts are not permissible irrespective of the outcome, such as lying, killing and violating various individual rights, even at the cost of the harm to others, will be discussed.³³

²⁸ Lacewing, 2008a

²⁹ Lacewing, 2008b

³⁰ By physical resources I refer to infrastructure including hospitals, schools and other such amenities and by human resources I refer to service providers such as doctors and teachers.

³¹ Mill, cited in Rene, 2007, p 55

³² Guyer, cited in Craig, 2010, p 500

³³ Alexander & Moore, 2008

The libertarian objections also form part of the debate and the amount of state interference, from their perspective, that is permissible is a rebuttal against the implementation of a modified authoritarian ZPG policy in South Africa.³⁴

Although these ethical perspectives prove to be obstacles for a modified authoritarian ZPG policy, by engaging in a dialogue, I will show that this policy is morally justified and that the policy would advance the collective well-being and the individual welfare of citizens by restricting reproductive choices. I will show that the collective rights of the community under the circumstances faced by South Africa should be given priority in relation to individual reproductive rights based on the understanding that the policy is not an end in itself but a means toward broader concerns of human welfare.³⁵ Furthermore, it is assumed throughout my research report that the government will, by limiting population growth, fulfil its own end of the bargain and will act responsibly and in a manner that will benefit the community as a whole.

Cultural Relativism, Racism and Feminism (Section 6) addresses the notions of cultural relativism, racism and feminism and what effects they may have on the implementation of a modified authoritarian ZPG policy in South Africa. The discussion on cultural relativism centres around polygamy and its cultural significance in South Africa. I will show that polygamy promotes gender inequality and encourages the establishment of a patriarchal society. Therefore, polygamy is a contravention of the principle of equality and 'although the polygamist ideal is one of fairness and equality, the reality is often very different and there are still questions about whether polygamy is really compatible with the principle of equality.'³⁶

Under Racism, I will show that the ZPG policy does not discriminate as it applies to all South African citizens irrespective of race or economic background. Furthermore, it also establishes a nearly perfect procedural justice as each family is entitled to two children regardless of race, income or other social circumstances.³⁷

³⁴ Vallentyne, 2012

³⁵ Berelson & Lieberman, 1979, p 583

³⁶ Asmal-Motala, 2012, p 7

³⁷ Rene, 2007, p 53

Although there are moral objections to implementing a modified authoritarian ZPG policy in South Africa, my research report will show, by employing empirical data and different ethical perspectives, that the policy is morally justifiable and that securing the long-term survival of the community and human development outweighs the claim to unlimited procreation.³⁸

2) Explaining the issue

When examining economic and social facts in South Africa one is faced with a situation ‘...in which a failure to give due weight to the other values could result in an undermining of the possibility of freedom itself.’³⁹ By referring to economic and social facts I will show that these facts threaten other rights. Emphasis will first be placed on the relative value of two competing ethical claims: that of an individual’s reproductive rights, weighed up against the claim that a limitation of freedom in choice will tend to maximise human welfare and human values. Thereafter the economic and social facts will be discussed and their implications for the long-term welfare of the community. I will show from a communitarian perspective that the state can legitimately restrict some individual rights if such restriction leads to the long-term welfare of the community.⁴⁰

The communitarian argument is derived from Jean-Jacques Rousseau. Communitarians argue that the survival of the community must be protected because individual members depend on it for their self-identity, the organisation of collective action, and the production of public goods. This perspective reflects Rousseau’s view that humans are amoral in the state of nature because they have not yet developed the capacity to reason. Rational capacity only comes from identities established in communal arrangements. Only through a community, can we develop a common language that we define concepts, their interrelations and sequent personal, social, political and economic obligations. Therefore, we must first have a common language to establish some shared definitions before we can develop a sense of identity and rationality. The shared constitutive meanings are important because they

³⁸ Lee, 1979, p 67

³⁹ Callahan, 1972, p 489

⁴⁰ Rene, 2007, p 53

are essential to the construction of individual self-identity. Moreover, one's understanding of social concepts about 'how things are and how they ought to be' or any meaningful alternatives is also defined by the constitutive meanings within a community. A communitarian would therefore insist that individuals forgo some of their egotistical preferences or individual rights and autonomy for the good of the general community.⁴¹

As will be shown below, the current economic and social facts in South Africa threaten the long-term welfare of the community as stated by former President Thabo Mbeki:

I must state that I have prepared this lecture deeply troubled by a feeling of great unease that our beloved Motherland is losing its sense of direction, and that we are allowing ourselves to progress towards a costly disaster of a protracted and general crisis.⁴²

The general crisis South Africa is facing makes the achievement of 'security-survival (balanced nutrition, health care, steady and adequate income)' unobtainable for a large proportion of South Africans.⁴³ I will show that, without the precondition of security-survival, the basic standards of living for its citizens to enjoy a minimally good life are not met thereby threatening the long-term welfare of the community and this could exacerbate the general crisis. I will further show that without security-survival for all, human development can only be realised as presently merely for a privileged few. I argue that population growth '...retards national efforts toward development, modernization, a better standard of living for [South Africa's] poor, human welfare—in sum, insofar as the quality of human life is being burdened or threatened by the quantity.'⁴⁴ Based on these premises, I claim that one does not have the right to unlimited procreation if it threatens the very survival of the community and the development of individual potentialities.⁴⁵

⁴¹ *Ibid.*

⁴² Mbeki, quoted in Malefane, 2012

⁴³ Lee, 1979, p 67

⁴⁴ Berelson & Lieberman, 1979, p 582

⁴⁵ Lee, 1979, p 67

My research report argues that an authoritarian approach is morally justifiable due to the economic and social facts South Africa is facing. However, from an ethical perspective, a cooperative approach stimulated by strong economic growth is the preferred solution, as this approach does not call for a limitation of reproductive rights. I argue that this approach although preferred is not a realistic one for South Africa. The South African government is adopting the policy of securing the long-term welfare of the community and human development by stimulating economic growth. This approach worked well in Brazil but took 25 years to take effect.⁴⁶ Under 'the significance of a limited time frame', I will show that South Africa does not have 25 years at its disposal to implement this approach. Furthermore, I will argue that taking the economic approach without restricting reproductive rights in South Africa will not be enough to address the general crisis due to slowing economic growth, falling tax revenue and a lack of human resources which make this approach unfeasible at present. However, as shown in Brazil this approach is the preferred one from an ethical stance if successfully implemented because there is no need for a limitation of reproductive rights to secure the survival of the community. South Africa is currently trying to stimulate economic growth by planning to spend Rand 4 trillion over the next 15 to 20 years on infrastructure and Rand 844 billion over the next three years.⁴⁷ I claim 'the law of supply and demand is incontestable, as iron-like in its strength as the law of gravity...'⁴⁸ I will show that funding in the current economic environment for these projects is unlikely, nor can the supply of human and financial capital meet the demands of these projects. "Not one tender for big infrastructure project" in spite of state's grand plans.⁴⁹ 'A major and growing infrastructural backlog exists in South Africa', and in order to finance projects of this magnitude, South Africa has to raise capital on international and local markets.⁵⁰ Printing money or nationalisation are options I discard as they fall outside the scope of my research report. In October 2012 Gill Marcus, governor of the central bank said: 'the outlook at the moment is deteriorating rapidly.'⁵¹ Furthermore, Finance Minister Pravin Gordhan plans to impose curbs on soaring state costs.⁵² Gordhan

⁴⁶ Gorney, 2011, pp 108-110

⁴⁷ Mokopanele, 2012, p 1; Allix 2012, p 1

⁴⁸ Judge Willis, quoted in Gleason, 2012, p12

⁴⁹ Mokopanele, 2012, p 1

⁵⁰ *Ibid.*

⁵¹ Marcus, quoted in The Economist, 2012, "Over the rainbow", p 22

⁵² Gordhan, cited in Ensor & Isa, 2012, p 1

revised this year's budget deficit from 4.6% of GDP to 4.8% due to lower tax revenue this compares with the average of the emerging market countries which are, South Africa's peers, of 1.9%.⁵³ This means that currently South Africa is paying 3% of GDP on interest payments.⁵⁴ A further increase in this amount will result in either higher taxes or reduced spending on human resources, social grants or other departments. Put simply, if the government spends the additional funds their interest payments will have to be funded either by higher taxes or cuts in spending in other departments. Of course defaulting on this debt is also an option; however, this would lead to dire consequences and is therefore left outside the equation. I interpret the Rand 4 trillion planned spending by the government on infrastructure to validate my claim that South Africa's physical resources are too far stretched to accommodate the needs of the current population. This is further confirmed by Trevor Manuel National Planning Minister; 'Proof of how much we have done – and still must do.'⁵⁵ South Africa's human resources to implement this policy are also stretched and teaching standards are low, South Africa needs 25000 new teachers a year but only around 10000 qualify and mathematics and science teachers are in particular short supply.⁵⁶ 'Chronically poor education means that thousands of jobs go unfilled. Almost half the 95000 or so nursing jobs in the public sector are vacant, according to the South African Institute of Race Relations.'⁵⁷ This implies that the new hospitals and schools under the proposed spending would still be understaffed. I argue that a policy of economic growth should be simultaneously implemented with a modified authoritarian ZPG policy, so that the government may focus on the welfare of the current population without the burden of additional citizens. I claim that an approach incorporating rapid and strong economic growth funded by the South African government is implausible due to the current economic circumstances and a major infrastructural backlog caused by the limited supply of capital and human resources. Therefore, to rely solely on this approach is not a realistic one. I conclude that stimulating rapid and strong economic growth should be implemented in conjunction with a modified authoritarian ZPG policy. This would be similar to the Chinese 'One Child Policy', although China has the financial resources it has combined its

⁵³ *Ibid*; Harris, cited in Ensor & Isa, 2012, p 1

⁵⁴ Allix, 2012, p1

⁵⁵ Manuel, 2012, p 13

⁵⁶ The Economist, 2012, "Over the rainbow", p 23

⁵⁷ *Ibid*.

economic growth policy with the restriction of reproductive rights I conclude South Africa should learn from the Chinese model in their approach.⁵⁸

When examining South Africa's population statistics, I will show that South Africa faces a bleak future. For every ten people in South Africa, 30% are below the age of 15 years, 5% are in old age, and 65% are between the ages of 15 and 64 of whom 28.9% are aged between 15 and 34.⁵⁹ Seventeen point eight percent of the population is HIV/AIDS positive between the ages of 15 and 49 years, and this amounts to 5.6 million people.⁶⁰ Most of these 5.6 million infected people belong to the most economically active group of the population. The implications of these statistics are the following: there will be a shortage of caregivers, teachers, and individuals without the necessary maturity and experience to create a productive society and contribute to the workforce. These social facts combined with a poor education and health system, a high poverty rate, and a Gini coefficient—the best-known measure of inequality, in which 0 is the most equal and 1 the least—was 0.666 in 2008 and 0.63 in 2009, all make South Africa one of the most unequal countries in the world.⁶¹ I will cite Canada as the benchmark for a community that enjoys a higher quality of life than that of South Africa. I will show that in the Canadian community poverty, medical care, unemployment, and social problems are uncommon. This is illustrated on page 21.

'Unprecedented population growth is widely believed to be a major impediment to contemporary efforts to alleviate poverty...'⁶² The main contributor to population growth is a decline in the mortality rate.⁶³ As is happening in South Africa with the treatment of the HIV/AIDS virus with new drugs that have been developed, this has changed the virus from a death sentence against which there was no appeal to a chronic condition thereby increasing the infected person's life expectancy to one almost similar to that of a healthy person's.⁶⁴ These new developments will affect population growth numbers by decreasing the death rate. Currently it is estimated that 'in the case of black Africans, the epidemic is projected to result in 24.7 years of

⁵⁸ Short & Fengying, 1998, p 373

⁵⁹ The World Bank, 2010, "Data, South Africa.," Sapa, 2012

⁶⁰ The World Bank, 2009, "Prevalence of HIV, total (% of population ages 15-49)."

⁶¹ The Economist, 2012, "Over the rainbow", p 23; Development Indicators 2009 – The Presidency, p 25

⁶² Hernandez, 1985, p 76

⁶³ Hernandez, 1985, p 77

⁶⁴ The Economist, 2012, "Aim for victory", p 11

life lost, on average, by 2030. In the absence of AIDS, life expectancy at birth among black Africans is projected to reach 74.2 years by 2030, instead of 51.5 years.⁶⁵ South Africa's population growth rate increased from 1.1% between 2007 and 2009 to 1.4% in 2010, which I claim, is mainly due to the new HIV/AIDS policies that are being implemented and the effects of these new drugs.⁶⁶ This means that the South African population will double in numbers 50 years from now (the rule of 70, see below).

The growth rate can be used to determine a country or region or even the planet's 'doubling time', which tells us how long it will take for a country's current population to double. This length of time is determined by dividing the growth rate into 70. The number 70 comes from the natural log of 2, which is 0.70.⁶⁷

In South Africa's case: $70 \div 1.4 = 50$ years. In 50 years this country's population size will have doubled from 49 991 300 to 99 982 600 by 2062 (at the current growth rate).⁶⁸

I argue that the fertility rate should be in line with the replacement rate as per a modified authoritarian ZPG policy, so that South Africa will be able to maintain a static population while addressing poverty, the HIV/AIDS epidemic and other social problems first.⁶⁹

Viral diseases, as we know, do not all become epidemics. To become an epidemic, a niche or social context is required. In Africa, besides factors such as relatively recent urbanization, migrant labor and man-made disasters (such as war, floods and famine) and trade (sex tourism and the movement, above all, of truckers across the continent), poverty is the main aspect of this niche or social context. Poverty, with its accompanying side-effects such as prostitution (i.e., the need to sell sex for survival), poor living conditions, poor

⁶⁵ Demographics Scenario, 2010, p 6

⁶⁶ The World Bank, 2010, "Data, South Africa."

⁶⁷ About.com, 2012, "Population Growth Rates."

⁶⁸ The World Bank, 2010, "Data, South Africa."

⁶⁹ Dictionary.com, 2011, "Zero Population Growth."

education (...) and poor health care, are a major contributing factors to the current spread of HIV/AIDS.⁷⁰

Population growth is widely believed to contribute significantly to poverty and deprivation, ‘...because it has diluted and dissipated the potentially salutary effects of national and international efforts to promote economic development and alleviate poverty.’⁷¹ I claim that restricting reproductive rights is morally justifiable because it would relieve strain on our current resources thereby giving the government time to address these resources and also to improve the welfare of the current population and their well-being.

This can be seen in the case of Brazil where population growth was addressed at the same time as poverty, albeit not by means of a direct policy.⁷² This has left Brazil with a stable population, as well as having HIV/AIDS under control and achieving strong gender equality. This contrasts strongly with South Africa where HIV/AIDS is widespread amongst females aged 15-25 (13.8%), unlike Brazil, which experiences an HIV rate of only 0.3-0.6%.⁷³ This statistic limits population growth in South Africa to a large degree where, with the current implementation of a more aggressive policy, HIV/AIDS sufferers will live longer, pushing up the overall South African life expectancy and ultimately, increasing the population. I argue that this calls for an authoritarian-based form of population growth policy. The life expectancy of Brazil’s citizens increased from 44 to 68 years over a period of 62 years⁷⁴ – such an increase in life spans could not be addressed in Brazil or in South Africa without an approach to population growth, whether it be with a direct policy or not. Brazil has a crude birth rate of 16 per 1 000 versus South Africa’s 21 per 1 000 and a death rate of 6 per 1 000 compared to South Africa’s 15 per 1 000.⁷⁵ Should South Africa’s birth rate stay the same, and if it matches Brazil’s death rate, South Africa will see growth in population numbers in excess of the current 1.4%. I claim that such a situation (which will result from a more effective treatment of HIV/AIDS) emphasises the need

⁷⁰ Van Niekerk, 2001, p 146

⁷¹ Hernandez, 1985, p 76

⁷² Goldani, 2001, p 358

⁷³ The World Bank, 2010, “Data, South Africa.”; United Nations, Department of Social and Economic Affairs, 2010, “Population and HIV/AIDS.”

⁷⁴ Goldani, 2001, p 358

⁷⁵ The World Bank, 2009, “Data, Brazil.”; The World Bank, 2010, “Data, South Africa.”

for a ZPG policy in South Africa. This will lead to more strain on the country's resources and a further drop in living conditions for South Africans. Therefore, it is important that the HIV/AIDS epidemic is addressed in conjunction with a population growth policy. This would give the government more time to provide basic standards of living for its citizens to enjoy a minimally good life.⁷⁶

Aiming for a Static Population – Looking to the Replacement Rate

The Fertility Rate – total births per woman – in South Africa was reported as being 2.54 in 2008.⁷⁷ A modified authoritarian ZPG policy aims to reduce the fertility rate to two children per couple as per the replacement rate.⁷⁸ I will show that a population policy based on the replacement rate for South Africa is the preferred practical policy. By reducing the fertility rate to two children per couple, South Africa will have a static population and will thereby reduce pressure on the country's current human and physical resources and this will allow the government time to improve these resources and increase the welfare of its citizens and secure the long-term welfare of the community.

Furthermore, the modified authoritarian ZPG policy bases the control of its population growth rate on a static population rather than a population decreasing in size. Because of this, the modified ZPG policy emphasises the replacement rate, which, for South Africa, would be two children per couple. I claim that such a solution would make the occurrence of a gender bias less likely, as couples would be given the choice to have two children. Gender bias is occurring under the 'One Child Policy' as implemented in China and this has led to an unequal sex ratio between girls and boys due to the preference of couples to have sons rather than daughters. The same pattern is emerging in India under the cooperative approach, as boys are also preferred in India.⁷⁹

The deterioration of child sex ratio has run parallel in China and India over three decades with no clear sign of significant improvement during the last ten years. In both countries, fertility transition has often been accompanied by a

⁷⁶ Rene, 2007, p 53

⁷⁷ The World Bank. 2010, "Data, South Africa."

⁷⁸ Dictionary.com, 2011, "Zero Population Growth."

⁷⁹ Guilamoto & Attané, 2005, p 7

strong desire by couples to intervene on family composition by sex. While excess female mortality among girls (including cases of selective infanticide) played a role in the skewed sex distribution observed in the past, sex selective abortions are the main cause today for the rapid degradation of sex ratio, which is above 110 boys per 100 girls.⁸⁰

In addition to gender bias, the term 'little emperors' is used to describe a generation of Chinese children who grow up as only children with four grandparents and two parents and receive more attention than children with brothers or sisters.⁸¹ It has been argued that a generation of only children can lead to children who are spoilt and possibly carry more psychological baggage than the average child (although this has not been proven).⁸² A modified authoritarian ZPG policy, such as I have proposed, if implemented in South Africa, will allow two children per family and will therefore exclude the introduction of a generation of 'little emperors' to South Africa.

I conclude that a modified authoritarian ZPG policy is therefore the preferred ethical and practical approach for South Africa in restricting reproductive rights: it would reduce the current population growth, would free up more resources to combat the HIV/AIDS epidemic, would address gender bias amongst newborn children, and would prevent generations of 'little emperors'. My research report will show in Section 4 that the policy is morally justified from the various ethical perspectives. Furthermore, the modified authoritarian ZPG policy would allow South Africa to work towards a benchmark, such as Canada.

⁸⁰ Guilmo & Attané, 2005, p 1

⁸¹ Vaidya & Mitra, 1997, p 1686

⁸² Vaidya & Mitra, 1997, pp 1686-1687

Canada as a Benchmark

My research report employs Canada as the benchmark for South Africa, and will show that South Africa, along with other developing nations, is working towards the status of 'developed nation' that Canada holds. I interpret that the term 'developing nation' implies that there is development towards something – towards a better standard of living. As defined by the United Nations, a developing country 'is a country with...an undeveloped industrial base, and moderate to low Human Development Index (HDI). This index is a comparative measure of poverty, literacy, education, life expectancy, and other factors for countries worldwide.'⁸³ As shown above, as such, countries are deemed *developing* and not *developed*. The implication is that they are working towards becoming developed – this is why South Africa requires a benchmark. Former president Thabo Mbeki worked, and the current government is working, towards ensuring South Africa becomes a developed nation: this addresses the importance of the transition from a developing to developed nation, and therefore I shall employ the developed nation Canada in my research report as a benchmark for South Africa.

Since 1994, when he [Mbeki] became Deputy President under Nelson Mandela, Mbeki's office has embarked on policies and programmes directed at pulling the people of South Africa out of the morass of poverty and ensuring that the country became a stable, developed and prosperous one.⁸⁴

Canada, as illustrated below, has a higher standard of living than that of South Africa – something that South Africa, as a developing nation, with a moderate to low HDI, is aiming for.

⁸³ Educational Pathways International, 2010, "What is a developing country?"

⁸⁴ Mbola, 2008

Table 1: A Comparison Between a Developed (Canada) versus Developing (South Africa) Nation⁸⁵		
	South Africa	Canada
Population Size	48 810 427 (2012 est.)	34 300 083 (2012 est.)
Unemployment Rate	23.9% (2011 est.)	7.4% (2011 est.)
Population below poverty line	50% (2000 est.)	0.00% (Canada does not have an official poverty line, 2008)
Taxes and other revenues	24.8% of GDP (2011 est.)	38.5% (2011 est.)
GDP per capita (PPP)	USD 11 000, 00 (2011 est.)	USD 40 300, 00 (2011 est.)
Exchange rate per USD	Rand(ZAR) per \$ 7.164 (2011 est.)	CAD 0.981 (2011 est.)
GDP (official exchange rate)	\$ 422 billion (2011 est.)	\$ 1.759 trillion (2011 est.)
GDP (purchasing power parity)	\$ 554.6 billion (2011 est.)	\$ 1.389 trillion (2011 est.)
Inflation rate(consumer prices)	5% (2011 est.)	2.8% (2011 est.)
Age Structure	0-14y 28.5%; 15-64y 65.8%; 65y and over 5.7% (2011 est.)	0-14y 15.7%; 15-64y 68.5%; 65y and over 15.9% (2011 est.)
Life expectancy	49.41 years (2012 est.)	81.84 years (2012 est.)
Birth rate/1000 population	19.32 (2012 est.)	10.28 (2012 est.)
Death Rate/1000 population	17.23 (2012 est.)	8.09 (2012 est.)
Health Expenditure of GDP	8.5% (2009)	10.9% (2009)
Physicians Density/1000	0.77 (2004)	1.913 (2006)

⁸⁵ Table 1 shows a comparison between South Africa and Canada. (CIA – The World Factbook, 2012, “North America: Canada.” ; CIA – The World Factbook, 2012, “Africa: South Africa.”)

population		
Hospital bed density/1000 population	2.84 (2005)	3.4 (2008)
HIV/AIDS – adult prevalence rate	17.8% (2009 est.)	0.3% (2009 est.)
People living with HIV/AIDS	5.6 million (2009 est.)	68 000 (2009 est.)
HIV/AIDS deaths	< 310 000 (2009 est.)	< 1000 (2009 est.)
Education expenditures	5.4% of GDP (2009)	4.9% of GDP (2007)
Literacy: definition: age 15 and over who can read and write	86.4% (2003 est.)	99% (2003 est.)
School life expectancy (primary to tertiary education)	Total 13 years (2004)	Total 17 years (2004)
Unemployment, youth ages 15-24	Total 48.2% (2009)	Total 15.3% (2009)

As seen above, the Canadian GDP is 4.16 times the size of that of South Africa. The relevance of the different sizes of the South African GDP versus the Canadian GDP becomes clear when comparing both countries' expenditures on education and health in terms of percentages. Although the actual percentages vary marginally, when comparing the statistics, the amount which the Canadians budget for their spending on health and education is far larger than that of the South Africans i.e. 3.74 times the size of South Africa's spending on education and 5.149 times on health care. Furthermore, there is no poverty in Canada, on page 17 it is shown that poverty is a major contributing factor for the HIV/AIDS epidemic spreading in South Africa.⁸⁶

Nonetheless, one may argue that South African salaries are roughly a quarter of Canadian salaries and that therefore spending on health and education is comparable, in terms of percentages. I will show that this line of reasoning is

⁸⁶ Van Niekerk, 2001, p 146

incomplete because the expenditure does not only include salaries, but also includes provisions for health care and education, which will still require a sizeable proportion of the South African budget. The amount Canadians spend on subsidised medicine and equipment for hospitals and schools, as well as on the infrastructure for these government amenities is not only 5.149 times the amount South Africans spend, but is also for 70 % the number of citizens that South Africa has. Furthermore, the number of people between the ages of 0 and 14 years is significantly smaller in Canada when one takes this data into account, it makes their overall spending on education much larger than in South Africa (although the percentage of South Africa's GDP dedicated to education is higher). This data shows that Canada proves a good benchmark for South Africa, as the latter works towards becoming a developed nation. Canada has a larger GDP, and no poverty and is therefore able to provide a better functioning health care and school systems for its citizens.

In addition, Canada has no HIV/AIDS epidemic: in 2009, the estimation is that 0.3% of the population was HIV/AIDS positive. The consequence of this is that Canada, with an already much higher budget for health care, does not have a health care system that is burdened by an HIV/AIDS epidemic, like South Africa's. Furthermore, the numbers of HIV/AIDS patients and HIV/AIDS deaths in Canada are a small percentage when compared to those in South Africa. This implies that their population growth rate will remain stable as their mortality rate is sustainable unlike that of South Africa, which is declining. In addition, Canadians have an estimated life expectancy of 81.84 years, while South Africans have an estimated life expectancy of 49.41 years. These figures are an estimate by the CIA World Factbook. For the remainder of my research report, South Africa's life expectancy is referred to as 52 years as per the World Bank's most recent statistics.

I claim that Canada would not require any authoritarian intervention regarding population control policy, as it does not experience such uncertainty in its population growth rate, nor is it faced with conditions that threaten the general welfare of the community and well-being of its citizens.⁸⁷ Canada's status as a developed nation with adequate human and physical resources, low unemployment, and no poverty

⁸⁷ I interpret the term well-being as meaning adequate and equal access to health care, education, employment and a social welfare system for the unemployed and elderly (Clark, 2005, p 8).

make that country an ideal nation for the cooperative approach as advocated by Amartya Sen.

3) Authoritarian vs Cooperative vs Modified Authoritarian approach

Amartya Sen bases the term, 'authoritarian', on the writings of Thomas Malthus and applies this to the authoritarian method of population control as seen in China.

Malthus, one of the classical economists, was the first to attempt to use mathematics to illustrate his theory of population and food production. The crux of his argument was that while food production could only increase in an arithmetical progression (1, 2, 3, 4 ...), population would increase in a geometrical progression (1, 2, 4, 8, 16, 32 ...).⁸⁸

Malthus concluded that '...food supply would act to limit population growth numbers naturally.'⁸⁹ The term, 'cooperative', is based on the writings of Marie-Jean-Antoine-Nicolas Caritat, Marquis de Condorcet, and Sen applies this to the cooperative method of population control as seen in India's approach. Condorcet predicted a different solution to the theory of Malthus, namely a cooperative approach through the reasoned agency of people. 'Condorcet predicted the emergence of new norms of smaller family size based on "the progress of reason".'⁹⁰ 'This type of reasoning, buttressed by the expansion of education, especially female education (of which Condorcet was one of the earliest and most vocal advocates) would lead, Condorcet thought, to lower fertility rates and smaller families, which people would choose voluntarily...'⁹¹ I will employ these terms in the same context as Sen throughout my research report.⁹² Sen claims that the population problem should be addressed through the cooperative method. Sen states: 'The most effective forms of cooperation are those that contribute to the eradication of social injustice through more schooling, health care, and gender equality. The solution of the population problem calls for *more* responsibility and freedom – *not less*.'⁹³ Sen further argues that international assistance with strings attached relating to population growth is not

⁸⁸ Devereux, cited in Johnson & Nurick, 1995, p 549

⁸⁹ Johnson & Nurick, 1995, p 549

⁹⁰ Condorcet, cited in Sen, 1995a, p 8

⁹¹ Condorcet, cited in Sen, 1995a, pp 8-9

⁹² Sen, 1995a, pp 7-8

⁹³ Sen, 1995b, p 13

helpful, and these imposed conditions sometimes work at the expense of health care and education.⁹⁴ I interpret these strings attached to be to that developing countries must implement coercive methods in population control in order to secure international aid and this leads to withholding health care or education from citizens who are not compliant.

I will show that authoritarian methods, as introduced by the Chinese government, in conjunction with cooperative methods, as advocated by Sen, are the most effective solution for South Africa in dealing with population growth based, on a comparison between India and China. The ethical perspectives of the two approaches are addressed in Section 4.

Sen advocates a cooperative approach to be employed when addressing population growth. Within a cooperative approach, Sen shows that by enhancing women's status in the society, a reduction in fertility rate will take place without the need for coercion.⁹⁵ The enhancement of 'women's status and voice' relates to: education of women, employment for women, women's financial security, better integration of females into government posts, better health care and the promotion of women's legal rights.⁹⁶ Sen claims that coercion will make people hostile to the policies and the damage inflicted by these measures is counterproductive.⁹⁷ Sen states 'It is not needed; it does not achieve very much: and it has many terrible side effects.'⁹⁸ In view of this I will show that India, while it is a country implementing a cooperative population growth policy, is nonetheless resorting to many coercive methods.⁹⁹

⁹⁴ Sen, 1995b, p 13

⁹⁵ Sen, 1995b, p11

⁹⁶ *Ibid.*

⁹⁷ Sen, 1995b, p13

⁹⁸ *Ibid.*

⁹⁹ There are other countries implementing Cooperative Population Growth Policies. "Policies of the World."

India

The Indian approach in certain provinces has been given much praise by Sen.¹⁰⁰ However, health officials in the state of Rajasthan are offering prizes to citizens who 'wish' to be sterilised. Firstly, citizens are being paid for their time (for sterilisation): males USD 25 (roughly a week's wages for a labourer), and females USD 14.¹⁰¹ In addition, the sterilised 'contestants'/ 'volunteers' are entered into a lottery where they can win prizes such as TV's, food processors, or even cars.¹⁰² The purpose of the lottery and payment for the individual's time is to enable the authorities to remedy the falling sterilisation numbers and meet their targets (i.e. the number of sterilisations).

Incentive programmes such as these have more appeal to the poor population, which makes them unfair: people on the edge of starvation have little choice, and these programmes offend human dignity by treating future children as a commodity.¹⁰³ Currently however, the Indian government favours an even more stringent approach and states are free to adopt their own policies.¹⁰⁴ Certain states are trying to deny educational benefits to third children; states are trying to implement laws mandating a two-child norm for members of village councils; and some states extend this policy to employing civil servants as well.¹⁰⁵ States are also giving incentives – pay raises, access to land or housing – to government servants who choose sterilisation after one or two children.¹⁰⁶ I claim these measures are inconsistent within a cooperative model and seem very much like the coercive approach being adopted in China. A 'pure' cooperative approach is not working in India, as the empirical data has shown. Therefore, a change in policy has been initiated to control the population growth more effectively. India knows things have to change; as things stand, 'India's birth rate goes unchecked.'¹⁰⁷

The Indian government was, in fact, the first to introduce a family planning policy sponsored by the government. This programme was initiated in 1951 as a part of the

¹⁰⁰ Sen, 1995b, p11

¹⁰¹ Kunzig, 2011, p 60

¹⁰² Satia & Rushikesh, 1986; Bedi, 2011

¹⁰³ BBC Ethics Guide, 2012

¹⁰⁴ Sen, 1995a, p 7

¹⁰⁵ Sen, 1995a, p 27

¹⁰⁶ Sen, 1995a, p 27

¹⁰⁷ Burke, 2011

first five-year plan to address the issue of population growth in India.¹⁰⁸ This five-year plan was the first of many. In 1972, the first Mass Sterilisation Camps were organised in Kerala.¹⁰⁹ In the mid 1970s, a state of emergency was declared by India's government and the administrative departments were given enormous powers regarding population growth.¹¹⁰ Government programmes such as 'Family planning' had priority so that specific quotas were met.¹¹¹ India has withdrawn from coercive polices – like China's – after the ruthless sterilisation campaign under Indira Gandhi in the late 1970's.¹¹² Over eight million sterilisations were performed between 1976 and 1977; this fell to under one million between 1977 and 1978.¹¹³ It was from 1977 onwards that India saw a strong movement to a more cooperative approach (this is reflected in the sterilisation statistics) when dealing with population growth policies. I have shown that at present India is reversing some of its cooperative approach, and is implementing what certainly appear to be coercive methods to control population growth.

This is not to argue that India's programme does not deserve admiration. India has endorsed the education and empowerment of females as well as an active population programme that is in place. However, India's fertility rate as seen in the table below still stands at 2.7 births per female versus China's 1.6 in the same year (2009).

Table 2:	Estimates of total fertility rates in China and India from various sources¹¹⁴						
	1971	1981	1991	2001	2007	2008	2009
India	5.0	4.5	3.7	3.0	2.7	2.7	2.7
China	5.4	2.7	2.3	1.8	1.6	1.6	1.6

¹⁰⁸ Guilmoto & Attané, 2005, p 2

¹⁰⁹ *Ibid.*

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*

¹¹² *Ibid.*

¹¹³ Guilmoto & Attané, 2005, p 3

¹¹⁴ Table 2 shows the Statistics for 1971-2001, Guilmoto & Attané, 2005, p 2; Statistics for 2007-2009: The World Bank, 2007-2009, "Population Growth (annual %)."

India is introducing stricter measures that aim to control population growth. As is revealed by the above, cooperative methods simply will not suffice when trying to control population growth significantly in a short space of time. Thus, India is abandoning an approach it has followed since the 1950s and has begun to introduce coercion, a feature of an authoritarian approach.¹¹⁵ Having looked at India, I conclude that the cooperative method would yield few results in the short time frame South Africa has at its disposal.

China

China implemented its 'One Child Policy' in 1978.¹¹⁶ The benefits of this policy are that the Chinese growth rate has declined rapidly and the estimation is that the Chinese population is between 250 million and 320 million smaller than it would have been.¹¹⁷ China has an estimated population of 1.3 billion citizens.¹¹⁸ 'As recently as 1965, Chinese women were bearing an average of six children per woman. Today that figure is down to 1.6 children per women due to China's "One Child Policy".'¹¹⁹ 'The "One Child Policy" applies to roughly 45% of the Chinese population. Exceptions are made to have more than one child in the countryside, where 55% of the Chinese population lives.'¹²⁰ I argue for an approach much like the Chinese model for South Africa, as this would be the quickest way to address this country's population growth rate in the time at our disposal, although most cooperative methods should be integrated into a largely authoritarian model.

The authoritarian admirers of China give it too little credit for its cooperative and supportive programmes, while falling for premature admiration of its coercive practices. This is not to deny that China has, in fact, achieved something in its birth control programme that India has not been able to do.¹²¹

¹¹⁵ Guilmoto & Attané, 2005, p 2

¹¹⁶ Guilmoto & Attané, 2005, p 4

¹¹⁷ Fitzpatrick, 2009

¹¹⁸ World Bank, 2009, "Data, China."

¹¹⁹ Guilmoto & Attané, 2005, p 2

¹²⁰ Short & Fengying, 1998, p 377

¹²¹ Sen, 1995a, p 24

Where India has faltered, China has had more success. China has successfully brought down the population growth rate to 0.5% per annum, which contrasts strongly to India's 1.3% in 2010.¹²²

In reviewing the following population growth figures, one will see that China has had the lowest population growth – it is noteworthy that China is the only country that has quickly controlled population growth and that has an authoritarian approach.

Table 3:	Population Growth Rates (%)¹²³			
Year	2007	2008	2009	2010
India	1.3	1.3	1.3	1.3
Brazil	1.0	0.9	0.9	0.9
China	0.5	0.5	0.5	0.5
South Africa	1.1	1.1	1.1	1.4

To keep people compliant with the authoritarian policy, the Chinese have implemented a 'carrot and stick' method.¹²⁴ In China, coercion is imposed on those who follow the 'One Child Policy' in the form of incentives: for example, they are awarded a 'One-Child Certificate' for compliance.¹²⁵ The incentives they receive are: longer maternity leave, interest-free loans, and other forms of social assistance and government subsidies such as better health care, state housing, and school enrolment.¹²⁶ Couples who delay their marriage and the birth of their first child are also eligible for similar benefits.¹²⁷ The National Population and Family Planning Commission of China offers free, universally accessible contraceptives.¹²⁸ These incentives relate to the 'carrot' side of the analogy.

The penalties that are involved with having more children, i.e. 'the stick', vary '...depending on specific situations as well as by province and local municipality.'¹²⁹ The main enforcement of the policy is through financial means – large fines vary by

¹²² The World Bank, 2009, "Data, China." ; The World Bank, 2010, "Data, India."

¹²³ Table 3: The World Bank, 2007-2010, "Population Growth (annual %)."

¹²⁴ McElroy & Tao Yang, 2000, p 389

¹²⁵ Short & Fengying, 1998, p 378

¹²⁶ McElroy & Tao Yang, 2000, p 390

¹²⁷ Short & Fengying, 1998, p 379

¹²⁸ Xinhua, 2012

¹²⁹ Short & Fengying, 1998, p 380

region but are mostly several times the average annual income – if the fine cannot or will not be paid, dismissal from work and the seizure of property or house can be enforced.¹³⁰ Citizens can also be punished by losing their jobs or having their ‘out of plan’ children barred from school.¹³¹ However, Sen argues that the Chinese government fails in finding an appropriate form of punishment – each way the Chinese government punishes the parents of these children not only affects the parents, but also the children.¹³² Sen argues this is a strong argument for adopting a cooperative approach. Nonetheless, as seen in the case of India, the cooperative approach does not deliver results within the time that South Africa has at its disposal.

Arguably the widely speculated about and sometimes published methods of forced sterilisation and abortion are the exception and not the rule in the present day China.¹³³ Another article disputes this: ‘Elsewhere, officials were accused of forcing pregnant women without birthing permits to have abortions and of jacking up the fines for families disobeying the law.’¹³⁴ Regardless of which source is true, forced sterilisation and abortions are not commonly reported in China: population growth is regulated by means of harsh penalties. Nonetheless an authoritarian approach does not allow for the use of forced sterilisation and abortions whether in China or South Africa.

There is no doubt that China’s policy is extremely strict. However, it has proven to be effective over a short space of time and this could prove a starting point in the dialogue for a ZPG policy in South Africa, yet South Africa should learn from China’s blind spots. India began the process of population control in 1951 – it is now 2012. I claim South Africa does not have the luxury of this amount of time as it is faced with an HIV/AIDS epidemic which, if addressed more aggressively, would decrease the country’s death rate, which would, cause a population growth rate far above the current 1.4%. This would increase the pressure on an already poor health and education system and further decrease the welfare of South African citizens. China’s methods, although harsh, have delivered results and thus, South Africa

¹³⁰ Short & Fengying, 1998, p 383

¹³¹ Short & Fengying, 1998, p 379

¹³² Sen, 1995a, p 22

¹³³ Short & Fengying, 1998, pp 373-374

¹³⁴ Fitzpatrick, 2009

should consider the Chinese model when formulating a population growth policy because South Africa has time restraints in addressing population growth.

The Significance of a Limited Time Frame

I will show that an authoritarian approach is morally justifiable when addressing reproductive rights; one of the reasons for this is the limited time frame with which South Africa is faced. In South Africa, 5.6 million people are HIV/AIDS infected and of that number 310 000 die per year.¹³⁵ South Africa faces an epidemic: ‘...17% of the population is HIV-positive, more than triple the rate for the whole of Sub-Saharan Africa... [and] 900 South Africans continue to contract the virus every day...’¹³⁶ I argue that to combat the virus there is a need for a greater availability of resources and that these would be more widely available if population growth rate were to be limited. By doing so South Africa would decrease its death rate and the already strained resources would have to cope with a much higher population growth rate. The population growth rate could then be as high as in the 1980s i.e. 3.2% before the HIV/AIDS virus became an epidemic.¹³⁷

According to the World Population Facts in the 1980s, it is estimated that one half billion people were starving or malnourished; an additional one billion people lacked access to basic conditions for human subsistence such as clean water and medical care. Moreover, one-third of the world’s labor force was unemployed. From 1950 to 1975, population in Third World countries increased from 1.7 billion to 3.0 billion. This rapid growth is widely understood as the chief factor contributing to poverty and backward economic conditions.¹³⁸

Therefore, I claim that, if reproductive rights are limited, poverty and backward economic conditions can be addressed more efficiently, and as poverty is arguably the main cause of the spread of HIV/AIDS, the epidemic will as a result receive more

¹³⁵ CIA – The World Factbook, 2012, “Africa: South Africa.”

¹³⁶ The Economist, 2012, “Just cap It”, p 42

¹³⁷ Van Niekerk, 2001, p 145

¹³⁸ Hernandez, cited in Rene, 2007, pp 51-52

efficient attention.¹³⁹ The policy would be implemented done not as an end in itself but as a means towards improving the well-being of the South African population. Under the current circumstances, I further claim that the long-term welfare of the community and human development for all who have potentialities, and not as presently for a privileged few, outweighs the claim that reproductive rights are absolute.¹⁴⁰

In less than ten years, fertility was halved – from an average 5.7 children per woman in 1970 to 2.8 in 1979. This was the steepest decline ever recorded in the world in so short a time span.¹⁴¹

I conclude that, should South Africa want to address the, poor health care and education systems, poverty and unemployment – it is unsustainable to allow the population to continue growing from 1.1% between 2007 and 2009 to 1.4% in 2010. This growth rate will further increase when the HIV/AIDS epidemic is more effectively addressed, thereby causing the death rate to decline. My research report assumes that the state will fulfil its own end of the bargain i.e., the state does improve existing human and physical resources, thereby placing the community's well-being above certain individual rights. This would justify the policy by increasing the collective and individual welfare by restricting individual reproductive choices, and this is in sharp contrast to the Brazilian approach.

¹³⁹ Van Niekerk, 2001, p 146

¹⁴⁰ Rene, 2007, p 53; Lee, 1979, p 67

¹⁴¹ Guilmoto & Attané, 2005, p 4

Brazil

While India and China have both had set structures outlining their population growth policies, Brazil has had none. However, Brazil has had great success in reducing its population levels, but Brazil has also had a great deal of time.

Despite the absence of an official family planning policy, demographic changes in Brazil occurred at an unprecedented pace in the second half of the twentieth century, ushering in an era with total fertility rates near the replacement level.¹⁴²

Gender equality, particularly the empowerment of women, played a large role in a lowering of the fertility rate in Brazil.¹⁴³ Beyond that, coercion has also played a role, albeit to a lesser extent than in India. *Soft* coercion is a practice throughout Brazil where doctors perform caesareans (for which they receive double pay) in private hospitals associated with public health grants.¹⁴⁴ In these hospitals, women are also offered a discreet way to be sterilised or have ‘the factory...closed.’¹⁴⁵

Sterilisation is a commonly accepted and the preferred method of birth control in Brazil.¹⁴⁶ In the Northeast of Brazil, local officials will pay for sterilisation processes in order to gain votes.¹⁴⁷ In 70% of the Northeast region, subsidised sterilisations in private hospitals that are affiliated with the social security system, are paid for by politicians and doctors.¹⁴⁸ Empirical evidence shows that the Brazilian population is not averse to these forms of soft coercion.¹⁴⁹

¹⁴² Goldani, 2001, p 358

¹⁴³ Gorney, 2011, p 102

¹⁴⁴ Goldani, 2001, p 359

¹⁴⁵ Gorney, 2011, p 102

¹⁴⁶ As an unexpected consequence of these policies there was a growing demand for fertility regulation among women, which was met mostly by the market and less so by non-governmental family planning agencies. The number of oral pills purchased annually increased from a 1.7 million cycles in 1960 to 61.2 million in 1980. The absence free governmental family planning services and the high cost, high failure rate and collateral effects of pills led to a general disrepute of reversible contraceptive methods. Along with the risks from illegal abortion, this opened the way for sterilization to become the preferred method of contraception in Brazil (Corrêa et al., quoted in Goldani, 2001, p 373).

¹⁴⁷ Goldani, 2001, p 359

¹⁴⁸ *Ibid.*

¹⁴⁹ Corrêa et al., quoted in Goldani, 2001, p 373

In addition, the change in society – i.e. the economic collapse, small grants by the government for food and other services – the social protection programmes started to falter and disintegrate in the 1980s.¹⁵⁰ This led to ‘...the pattern of urban industrial growth with social exclusion generat[ing] a Brazilian mass and consumer society.’¹⁵¹ Consequently, government policies began regulating direct consumer credit, telecommunications, social security benefits and health care that led to a ‘real or symbolic integration of the population in a consumer market’, thereby changing individual behaviour, resulting in an increased demand for marital fertility regulation.¹⁵² The consumer credit explosion throughout Brazil changed the perceptions of females – the first priority for young females is education, and then their profession and only thereafter children and a stable relationship.¹⁵³ The considerable expense of private schooling and health care in a consumer driven society, as well as the time constraints imposed on working females have also contributed to the lower fertility rate Brazil now experiences.¹⁵⁴ The empowerment of women, as advocated by Sen’s cooperative approach, is the solution to bringing down the fertility rate as well as the other social changes referred to below.

The table below shows the results Brazil has achieved in 42 years. The decline in population growth rate to 0.9% corresponded with an increase in life expectancy to 73 years in 2009 from 52.7 years in 1970.¹⁵⁵ This growth in higher life expectancy and the population growth decline both deserve a great deal of admiration. South Africa, with the rolling out of a more aggressive HIV/AIDS programme, will be able to increase its citizens’ life expectancy from the current 52 years.¹⁵⁶ I have shown this improvement will result in a current population growth rate of 1.4% increasing, unless addressed.¹⁵⁷ I claim such reasons make this debate all the more urgent and this is why South Africa should consider a modified authoritarian approach in dealing with population growth.

¹⁵⁰ Goldani, 2001, p 358

¹⁵¹ Faria, quoted in Goldani, 2001, p 358

¹⁵² *Ibid.*

¹⁵³ Gorney, 2011, p 116

¹⁵⁴ *Ibid.*

¹⁵⁵ The World Bank, 2009, “Data, Brazil.”; See table 4 referenced from Goldani, 2001, p 360

¹⁵⁶ The World Bank, 2010, “Data, South Africa.”

¹⁵⁷ *Ibid.*

Table 4: DEMOGRAPHIC INDICATORS FOR BRAZIL AS ESTABLISHED AND PROJECTED BY THE GOVERNMENT OF BRAZIL, 1970-2050¹⁵⁸

<i>Censuses Projections</i>						
<i>Indicators</i>	<i>1970</i>	<i>1980</i>	<i>1991</i>	<i>2000</i>	<i>2025</i>	<i>2050</i>
Total Fertility Rate (%)	5.76	4.35	2.61	2.20	2.06	2.06
Infant Mortality	116.9	69.1	44.1	33.8	24.2	15.1
Life Expectancy at Birth	52.7	61.8	65.9	68.6	71.0	73.6
% Less than Age 20	53.1	49.7	45.0	39.1	29.9	25.7
% More than Age 65	3.1	4.0	4.8	5.0	9.6	16.2
Population in 1000s	93140	119003	146825	170143	216952	238162

Sterilisation in Brazil and low fertility numbers are not confined to specific classes of Brazilians, and the declining fertility rate can be seen across every class and region in Brazil.¹⁵⁹ The public school system in Brazil and the nationwide health system are, according to many Brazilians, a disaster.¹⁶⁰ The poor public health care and education systems have proven to contribute towards controlling population growth due to the cost associated with the private alternative.

¹⁵⁸ Table 4 shows the Demographic indicators for Brazil. Goldani, 2001, p 360

¹⁵⁹ Gorney, 2011, p 101

¹⁶⁰ Gorney, 2011, p 116

Brazilians state: 'contemporary Brazilian life is too expensive to accommodate more than two kids.'¹⁶¹ Sen asserts that, under the cooperative approach: 'there is also the possibility of reducing the gap between private and social costs through correcting the imperfections of the market and making prices faced by individuals reflect the social impact of their decisions more fully.'¹⁶² Although this approach works well in reducing family size, as shown in Brazil, I claim that this method is ethically flawed because it involves social discrimination based on wealth and would therefore be in contravention of the concept of equality. Sen states that the most effective solution in reducing fertility rates is through cooperation and eradicating social injustices by means of more schooling, better health care and gender equality.¹⁶³ In South Africa with an unemployment rate of 23.8%, and a 50% poverty rate, I claim controlling population growth through the correction of market imperfections i.e. paying for reproductive choices by penalising the parents by withholding free public medical care or education and forcing them to seek the private alternative is economic discrimination. In a developed nation such as Canada, this approach seems plausible, since there is no poverty, low unemployment and a good welfare system. However, in South Africa due to poverty, unemployment and a poor social welfare system such measures would lead to social injustice and would favour wealthy citizens, thus economic discrimination would be involved. I therefore advocate a modified authoritarian ZPG policy as each family would be entitled to two children regardless of their social or economic background.

Brazil is experiencing a scenario that, when addressing South Africa's population growth rate, should be taken in consideration. The Brazilian model took 50 years to develop and South Africa will have doubled its population size in that amount of time, if not sooner. I have shown if our life expectancy increases, South Africa's limited human resources will become even more strained as things stand. Although the empowerment of women is the most important contributing factor to Brazil's drop in fertility rate, there are other factors and these are presented below.

¹⁶¹ Gorney, 2011, p 116

¹⁶² Sen, 1995a, p 5

¹⁶³ Sen, 1995b, p 13

- 1) Industrialize dramatically, urgently and late, causing your nation to hurtle through in 25 years what economists used to think of as a century's worth of internal rural-to-urban relocation of its citizens...
- 2) Keep your medications mostly unregulated and your pharmacy system over-the-counter, so...woman of all classes can get their hands on them [birth control pills], even without a doctor's prescription...
- 3) Improve your infant and child mortality statistics until families no longer feel compelled to have extra, just-in-case babies on the supposition that a few will die young. Compound that reassurance with a national pension program, relieving working-class parents of the conviction that a big family will be [there] only when they grow old.
- 4) Distort your public health system's financial incentives for a generation or two, so that doctors learn they can count on higher pay and more predictable work schedules when they perform cesareans rather than waiting for natural deliveries. Then spread the word, woman to woman, that a public health doctor who has already begun the surgery for a cesarean can probably be persuaded to throw in a discreet tubal ligation, thus ensuring a thriving, decades-long publicly supported gray market for this permanent method of contraception...
- 5) Introduce electricity and television at the same time in much of the nation's interior, a double disruption of traditional family living patterns, and then flood the airways with a singular, vivid, aspirational image of the modern Brazilian family: affluent, light skinned, and small...
- 6) Make all your women Brazilians... [I will discuss this point further in Section Six].¹⁶⁴

While Brazil has seen success in lowering its fertility rate over a period of 52 years, I have shown that the methods by which Brazil has accomplished this are unconventional. Soft coercive practices exist in Brazil, as well as the empowerment

¹⁶⁴ Gorney, 2011, pp 108-110

of women, yet Brazil has no formal population policy. Although this may be somewhat unorthodox, it has been successful. I conclude that Brazil's methods have required time and that therefore such a method is not feasible for South Africa. As South Africa faces a decreasing mortality rate, high poverty and unemployment rates, poor public education and inadequate health care services, there is a limited time frame in which population growth must be addressed. Because of this, it is necessary for South Africa to implement an authoritarian based approach.

South Africa – A Modified Authoritarian Method

In learning from China, India and Brazil, I advocate an authoritarian approach in conjunction with cooperative methods for South Africa until such a time as a stable population growth rate is established and the HIV/AIDS epidemic, health care system, unemployment rate, education system and gender equality have been addressed. In South Africa, the HIV/AIDS rate is currently the highest in the world (17.8%) – the world average is 1% – until South Africa can begin to gain control over this epidemic, South Africa cannot afford the time of a cooperative approach.¹⁶⁵ With a life expectancy of 52 years, a high unemployment rate, poor education system and inadequate health care facilities – South African citizens live short lives, are in poor health, and are without jobs, good education or adequate pensions. I have shown that there are insufficient resources to provide for South Africa's current citizens and it is highly unlikely that there will be enough to provide for an increased population in years to come.

African problems call for special attention, aimed at making social and economic development possible; the population problem has to be viewed in the light of that general challenge.¹⁶⁶

Sen's quote relates to population growth and food supply. The article was written in 1994 and the HIV/AIDS epidemic was not a part of this work. However, there are many other social injustices in Sub-Saharan Africa, for instance poor economies and authoritarian governments. In light of these matters, the current changes in Sub-

¹⁶⁵ The World Bank, 2010, "Data, South Africa."; The World Bank, 2009, "Prevalence of HIV, total (% of population ages 15-49)."

¹⁶⁶ Sen, 1995a, p 12

Saharan Africa and the new empirical data on India, I question what Sen's solution would be at present, particularly in view of the social and demographic changes and, specifically, the HIV/AIDS epidemic.

My research report argues for a limitation in reproductive rights to free up resources for the current generation, and improve existing facilities without their development being burdened by additional citizens. Furthermore the government must also provide better pension plans so that the need for extra children, either because of a high mortality rate, or so that parents and grandparents may be looked after in their old age, becomes obsolete. What has happened in Brazil is a scenario that is the most preferable outcome for reducing the population growth that South Africa is facing. While the Brazilian model took 50 years to develop, South Africa's population will have doubled in that amount of time. This is the main reason, I claim a modified authoritarian method should be implemented in South Africa. The Chinese model, although strongly criticised, will bring about the earliest results.¹⁶⁷ I argue one can learn from the Chinese and Brazilian models and implement aspects from both where possible. The policy will allow the government to address poverty, unemployment, the HIV/AIDS epidemic and upgrade the education and health systems without the burden of additional citizens. Only thereafter does it allow for adding to the population, thereby justifying the restriction of reproductive rights, because this is done as a means of advancing the collective well-being.

¹⁶⁷ Sen, 1995a, p 24

4) ZPG: a morally obligatory policy from various ethical perspectives

My research report will discuss various ethical perspectives supporting a modified authoritarian ZPG policy. The ideas of Garrett Hardin, Thomas Hurka, John Rawls, and John Stuart Mill, together with the communitarian approach are addressed.

John Stuart Mill

Under John Stuart Mill's rule utilitarianism, a variant of utilitarianism, Mill claims:

...that when following rule utilitarianism people no longer do things out of their immediate self-interest; they are more inclined to produce a set of rules to maximize the best consequences for everyone as guided by individuals' self-interest to pursue their own goals most effectively.¹⁶⁸

Under this approach, South African citizens would surrender reproductive freedom in order to put less strain on the physical and human resources, so that these resources could be improved thus ultimately improving living conditions for all South Africans. 'Mill's approach rests on the belief that everyone has an incentive to create more freedom in the community.'¹⁶⁹ I interpret this as good public education, health care for all, little or no poverty with ample employment opportunities, so that basic standards of living for South Africans are accessible to all and thus citizens may enjoy a minimally good life as mandated by the Universal Declaration of Human Rights.¹⁷⁰ If South Africans count preferences this way, '...the result is no longer an aggregation of hedonistic preferences because individuals—still motivated by self-interest—pursue the greatest interest of society as a whole.'¹⁷¹ The modified ZPG would count preferences this way and implement the policy to maximise the best consequences for everyone in the community so that a minimally good life would be accessible to all citizens.¹⁷²

¹⁶⁸ Mill, cited in Rene, 2007, p 55

¹⁶⁹ *Ibid.*

¹⁷⁰ Rene, 2007, p 56

¹⁷¹ Rene, 2007, p 55

¹⁷² Rene, 2007, p 54

I will present a further ethical perspective for justifying the ZPG policy by employing the 'harm principle' as expressed by Mill for the South African community.

In *On Liberty*, Mill argues for 'one very simple principle, as entitled to govern absolutely the dealings of society with the individual in the way of compulsion and control'. That principle is that 'the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant.' We may still argue, entreat, and remonstrate with people who seem bent on doing themselves harm [as we judge it] or are simply acting in a way we don't like. But we should not use either the law or moral condemnation to alter their behaviour, unless they are causing harm to other people.¹⁷³

The harm principle relates to controlling population growth in that, to drive in a car while smoking cigarettes is permissible, seeing the only person one would hurt is oneself. However, when smoking starts to cause health problems one might learn and stop smoking. Harming oneself is a 'necessary' lesson and brings 'growth' to the individual through experience.¹⁷⁴ Most of us gain experience by demonstrating bad judgement, and thereafter learning a lesson and growing as individuals (the cost to the society i.e. hospitals and insurance, in this case, is a separate issue). On the other hand, smoking in the car with children in the back seat would not be permissible because the individual's behaviour would inflict harm on others.¹⁷⁵

When applying this analogy to South African society, I will show that producing more children than the replacement rate would harm members of current and future generations of South Africans. By letting South Africa's population numbers grow, South Africans are stretching the already scarce resources and thus harming basic living standards. 'Therefore if unlimited individual procreation degrades basic living standards and endangers social security for everyone in the long run, then the state has a duty to adopt and implement policies to promote essential conditions of a public good life.'¹⁷⁶ In addition, South Africans will be harming future generations by

¹⁷³ Lacewing, 2008b

¹⁷⁴ Lacewing, 2008a

¹⁷⁵ Brian Penrose in lectures, 2011

¹⁷⁶ Rene, 2007, p 56

providing an inadequate social structure. Therefore, I claim a centralised government policy that restricts reproductive choices is morally justifiable under Mill's harm principle as it is done to prevent a harm to others.

The only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant.¹⁷⁷

I conclude that under Mill's rule utilitarianism and the harm principle a modified authoritarian ZPG policy is morally justifiable because harm to the society and its members is prevented and that this policy would maximise the best consequences for everyone in the society.¹⁷⁸ However, this claim rests on the assumption that the government would provide a basic standard of living for its citizens by limiting reproductive choices.

The consequentialist principles on population increases

The two consequentialist principles, which are most commonly applied to the question when population increases are permitted, namely, the total and the average principle, have unattractive consequences at certain population levels.¹⁷⁹ For this reason, I place the main focus, when discussing the question regarding when population increases are permitted, with Thomas Hurka and his variable value view as this view is not captured by either of the two consequentialist principles. This is illustrated below.

According to traditional consequentialism, which holds that we ought to do what maximizes value, it is good to increase the population provided that the increase in value derived from causing people to exist with lives worth living is greater than any decrease that this might also cause in the value of pre-existing lives; and we ought to increase the population provided that there is no alternative that offers a greater increase in overall value [total principle].

¹⁷⁷ Mill, quoted in Honderich, 2005, p 602

¹⁷⁸ Rene, 2007, p 55

¹⁷⁹ Hurka, 1983, p 498

Most moral theorists reject this view, since it seems to make procreation often obligatory and, in particular, implies that it can be obligatory to cause more and more people to exist, even if this continually lowers the overall quality of life, provided that the total amount of good in the world continues to increase. Some consequentialists contend, alternatively, that we ought to maximize average value per life lived. On this view [average principle], it is obligatory to increase the population only if each new life would contain more value than the average life. But this view also implies, implausibly, that it is wrong to cause a person to exist if his life would contain less than the average value, even if his life would be well worth living.¹⁸⁰

Thomas Hurka states that the total principle has unattractive consequences at high levels of population.¹⁸¹ At these levels, Hurka claims the total principle attributes far too much weight to population increases and the average principle is unattractive because it gives too little weight to population increases at low levels.¹⁸² Hurka further states that the average principle accords no value to population increases at low levels ‘...if they are not accompanied by an increase in the average well-being per person and a negative value if they are accompanied by even the smallest decrease in the average well-being per person.’¹⁸³ At high population levels the average principle is not nearly as unattractive, but to give no value to population increases is going a bit far.¹⁸⁴ According to Hurka, the total principle has its most unattractive consequences at high levels of population.¹⁸⁵ ‘At these levels it gives far too much weight to population increases, and it continues to require these increases far beyond the point where most of us think they have ceased to be morally important.’¹⁸⁶ Under the variable value view ‘the value human beings contribute to the world need not, of course, be a function only of their well-being. If that were the case, the variable value view would be ruled from the start.’¹⁸⁷ My research report argues that the government is morally justified in restricting reproductive right because such a social policy establishes the means for developing consensus to

¹⁸⁰ Honderich, 2005, p 741

¹⁸¹ Hurka, 1983, p 498

¹⁸² *Ibid.*

¹⁸³ *Ibid.*

¹⁸⁴ *Ibid.*

¹⁸⁵ *Ibid.*

¹⁸⁶ *Ibid.*

¹⁸⁷ *Ibid.*

advance the collective well-being.¹⁸⁸ This policy would relieve the strain on the human and physical resources by reducing population growth so that the government could be given the appropriate means to 'recognize the right of everyone to adequate standard of living for himself and his family, including food, clothing and housing, and to the continuous improvement of living conditions.'¹⁸⁹ I will address the question as to when adding to the population has the most value with the variable value view because this view approaches the question from a different ethical perspective. Unlike the two consequentialist principles or communitarianism, because it does not measure the value human beings contribute to the world only in terms of their well-being or the long-term survival of the community.

The variable value view applied to when population growth has the most value

Hurka claims that the value an individual contributes to the world depends on population size; this view will be employed to show that increases in population size add little value to a population numbering 49 million, as in South Africa, even if the total or average principle would make population growth obligatory. Hurka argues that increases in a large-sized population add little value and that increases in a small population add the most value.¹⁹⁰ Under the 'variable value view', Hurka applies these values to the number of humans in the species – each individual contributes a certain amount of value to the species.¹⁹¹ This value varies, depending on the population size.¹⁹² I will show that under this view, adding to a population as large as that of South Africa adds little value, unlike the total principle. Hurka further argues that, if the human population is endangered, the total value a human contributes is high relative to the number of individuals in the species, and therefore, there is a need to procreate, and he claims this view is not captured by the average principle.¹⁹³ Thus, when the number of individuals is high (as is the case with the South African population), the value a member contributes is little relative to

¹⁸⁸ Rene, 2007, p 53

¹⁸⁹ Gregory quoted in Rene, 2007, p 56

¹⁹⁰ Hurka, 1983, p 498

¹⁹¹ Hurka, 1983, pp 496-497

¹⁹² *Ibid.*

¹⁹³ *Ibid.*

the numbers of the total population.¹⁹⁴ Hurka argues that the total view places too much importance on increasing population levels at high levels. As a result, according to Hurka, the variable value view is particularly attractive, as it does not factor in all the variables of the consequentialist arguments: the major contributing factor to an individual's value is the relative size of the population of its species.¹⁹⁵

Originally the 'variable value view' was expressed by Aquinas, Leibniz and Kant.¹⁹⁶ This variable value view applies to the number of animals in a species, and it pertains to the '...view that there is a special value in the existence of animal species or in the existence of a wide variety of animal species.'¹⁹⁷ However, the view goes deeper than this; they argue that a species is made up of the individual animals in that species and that these individual animals are a contributing factor to the value of the species in the world. Aquinas, Leibniz and Kant then take this view another step further by applying the variable view to the value that this animal contributes to its own species and the world by the number of animals of its species that are in existence. 'At the deepest level, what the view expresse[s]...is that the value which an individual animal contributes to the world is not constant but varies with the number of other animals in his species.'¹⁹⁸ For example, if the animal is only one of two lions, the total value of his existence is great, but if there are five million lions in existence '...the issue of his existing or not existing is not nearly so significant.'¹⁹⁹ This analogy relates to increasing South Africa's current population of 49 million and to the fact that an increase at these levels would be of little value.

...the same view can also be applied to human populations. It will then hold that the value which an individual human being contributes to the world is not constant but varies with the number of other human beings in the world, being much larger when that number is small than when that number is large. (...).
...I think it is also one that many of us already make in our thinking about human population increase.²⁰⁰

¹⁹⁴ *Ibid.*

¹⁹⁵ Hurka, 1983, p 498

¹⁹⁶ Hurka, 1983, p 497

¹⁹⁷ Hurka, 1983, p 496

¹⁹⁸ *Ibid.*

¹⁹⁹ Hurka, 1983, p 497

²⁰⁰ *Ibid.*

I have developed the following comparison from Hurka's work: suppose there are 49 million people in South Africa and one could add an extra two million who would be as well-off as the existing 49 million, and these extra two million would not make the other 49 million any worse-off – then it certainly would not be a bad thing. Hurka goes on to say, we might consider the additional '...people as a good thing. But we would surely not regard it as a very good thing; and we would surely not think that any serious very serious wrong had been done if the addition was not made.'²⁰¹ At a certain population level, Hurka claims that, the more individuals there are in a species, the lower the total individual value, and the fewer individuals there are in a species, the higher the total individual value.²⁰²

The modified authoritarian ZPG policy acknowledges this by limiting the fertility rate to the replacement rate and, in doing so, producing a static population at a large population number. This does not mean to say that future generations would not have any value however; adding more individuals to an already large population is of little significance according to the variable value view. This supports the modified authoritarian ZPG policy from a different perspective in that it keeps the population at a static level.

Garrett Hardin

Garrett James Hardin (April 21, 1915 – September 14, 2003) was an American ecologist who warned of the dangers of overpopulation and whose concept of the *tragedy of the commons* brought attention to 'the damage that innocent actions by individuals can inflict on the environment'.²⁰³

Environmental issues such as pollution and the environment are relevant but do not form part of my research report and I will apply 'the tragedy of the commons' and the 'space ship analogy' to reproductive choices and their effects on South Africa's commons (i.e. physical and human resources) and demographics.²⁰⁴

²⁰¹ Hurka, 1983, pp 497-498

²⁰² *Ibid.*

²⁰³ Lavietes, 2003

²⁰⁴ Hardin, 1968; Hardin, cited in Brzozowski, 2003, p 162; Demographics Scenario, 2010

I will demonstrate that the tragedy of the commons when applied to South Africa will give moral justification for population control as under the ZPG policy. The tragedy of the commons relates to a commons that can only accommodate a limited amount of herders and livestock, for example ten herders with ten cows. Collectively, these herders are aware that by adding additional cattle the commons cannot sustain itself – when the herders each take on additional cows, the commons becomes overgrazed and the resources are depleted.²⁰⁵ These are known as the ‘Free riders’²⁰⁶, within the tragedy of the commons, they are herders who take on more cattle – they depend on the fact that they will benefit from the increase in their herd size: collectively they know what the right thing is but, individually, they opt for personal gain. If this is related to members of South Africa’s population, this would pertain to having more children to look after one when one is old due to a lack of care for the elderly, compared to the Canadian welfare system. The question of ‘free riders’, in the case of South Africa, relates to couples producing more than the two children as per the replacement rate advocated by the modified authoritarian ZPG policy. ‘In [Hardin’s] view, it is in the personal interest of each individual to exploit the world’s common resources as fully as possible, because while that individual derives all the benefits, many of these costs are shared in common.’²⁰⁷

I claim, as more citizens are added to the South African commons, the medical facilities for the sick members as well as other human and physical resources for both sick and healthy members become further strained and this leads to a commons that cannot sustain itself. Although Canada is undergoing positive population growth, I have shown that their commons can sustain this as they have adequate physical and human resources to provide for all current and future members of their population, unlike South Africa.

Hardin provides another ethical perspective for morally justifying the ZPG policy by drawing an analogy between the earth and a spaceship: the spaceship is a unit with limited resources; unlike the earth, which, in the analogy, Hardin claims ‘the earth is not a space ship in which everyone must share and play fair.’²⁰⁸ The spaceship is

²⁰⁵ Hardin in Van De Veer & Pierce, 2003, p 367

²⁰⁶ Jasay, quoted in Honderich, 2005, p 316

²⁰⁷ Hardin, cited in Hernandez, 1985, p 77

²⁰⁸ Hardin, quoted in Brzozowski, 2003, p 162

under the command of a captain, but the earth has no such authority figure to make difficult decisions.²⁰⁹ Hardin's metaphor is used as an illustration to highlight the limited resources humanity has at its disposal in the world and, more specifically, in South Africa. I argue that South Africa's spaceship has a young, inexperienced and uneducated crew – due to low life expectancy, and this has created a void of older crewmembers. I will show South Africa's demographics are out of proportion when compared to those of a developed nation.²¹⁰ A contributing factor to the growing number of youth is a high fertility rate amongst the South African population aged between 15 and 19, of 53.9 births per 1000 compared to Canada's 14 births per 1000 in 2010.²¹¹ I argue this is a result of shortcomings in the present South African society. The need to produce more children than the replacement level in the South African society may apply to the impoverished – government grants given to households earning less than Rand 4600 or to single parents earning less than Rand 2300 per month and assists parents with the costs of having children. In these instances the Rand 230 (on average, per child) grant can account for up to 40% of the household income due to high levels of unemployment, and thus provide motivation to sustain livelihoods off grants by having more children.²¹² I further argue that both a high death rate amongst infants and the lack of an adequate government pension when one is old and unable to work, lead to a higher reproduction rate and therefore, to people having more children and living off these grants as a means to an end.²¹³

I claim the government is morally justified in fulfilling the role of a 'Captain' and in restricting reproductive rights to stop a further distortion of the demographics of the current crew and prevent 'free riders' from optimising their own personal gain at the expense of the South African community. By limiting population growth, the strained commons and the demographic distortion can be addressed simultaneously.

²⁰⁹ Hardin in Van De Veer & Pierce, 2003, p 402

²¹⁰ By the term, 'demographics' I refer to the ages of the South African population in correct representation to their overall percentage of the population (Little et al., 1970, p 479).

²¹¹ The World Bank, 2010, "Adolescent fertility rate (is the number of births per 1,000 women ages 15-19)."

²¹² Khumalo, 2009

²¹³ South Africa Government Services, 2012, "Older Persons Grant."

John Rawls

In 'A Theory of Justice', John Rawls introduces the 'original position', which is 'an imaginary situation in which principles of justice are to be chosen.'²¹⁴ The original position asks that citizens '...agree in advance on principles for evaluating social institutions under a "veil of ignorance" as if these citizens didn't know what place they would occupy in the society.'²¹⁵ This is a hypothetical social contract or mind experiment, as they have no idea what position they occupy in the society and therefore, this would establish rules and principles that would be fair to all. An individual's position would be hidden behind a thick 'veil of ignorance' resulting in their not knowing what social position (i.e. rich, poor, sick unemployed) they would find themselves in a given society.²¹⁶ Thus, the principles or social justice system must work fairly for all citizens, regardless of the social position in which they find themselves.²¹⁷ 'Under this approach, no right is distributed before knowing which right[s] people value most.'²¹⁸ Considering the hypothetical comparisons, they would want to find themselves in a situation where these rights are available to all people irrespective of their place in the society.²¹⁹ '...the most frequently mentioned aspects of a good life in South Africa were jobs, housing, education, income, family and friends, religion, health, food, good clothes, recreations and relaxation, safety, and economic security, *inter alia* (a result that is not inconsistent with the findings of most participatory poverty assessments).'²²⁰ Therefore, if the 'veil of ignorance' is applied to South African citizens and people are not sure of their position in the society, the rights to education, good public health care, free medicine, pensions, employment and gender equality are the rights these citizens value most.²²¹ I have shown that, in order to work towards an equal distribution of these rights, South Africa would need to reduce the fertility rate to the replacement rate. By employing the empirical data, the question of the ever-growing population becomes more pressing when the mortality rate decreases. South Africa is limited for time as has been shown, and the population growth rate of 1.4 % per annum will further increase, and put additional strain on the distribution of these rights. I claim that, before the South African

²¹⁴ Rawls, quoted in Honderich, 2005, p 673

²¹⁵ *Ibid.*

²¹⁶ Rawls, cited in Honderich, 2005, p 943

²¹⁷ *Ibid*

²¹⁸ Rene, 2007, p 58

²¹⁹ Clark, 2005, p 8

²²⁰ *Ibid.*

²²¹ Rene, 2007, p 56; Clark, 2005, p 8

population expands, the government should first address the distribution of these rights. A modified ZPG policy should thus be implemented to ensure an equal distribution of these rights to all the members of South African society irrespective of their social position.

Communitarianism

My research report has shown, with the aid of empirical data, that a general crisis to the South African society will emerge by maintaining the current population growth rate and by addressing the HIV/AIDS epidemic more aggressively. This will lead to a decrease in mortality rate and growth in population rate as shown from 1.1% in 2009 to 1.4% in 2010. Furthermore, I have shown the South African infrastructure cannot provide minimum standards of living for all its citizens, and much less so if this number increases. I therefore claim that a ZPG policy should be implemented as such a policy would stop population growth and this would establish the means for developing the collective well-being.²²² I have demonstrated under the aforementioned ethical perspectives that reproductive rights may be violated if the community's social structure is endangered by unemployment, poverty, an epidemic, and other shortcomings that the South African community is experiencing, and restricting population growth establishes the means for securing the long-term survival of the community. As the mortality rate decreases, additional pressure will mount and 'this rapid growth in population is widely understood as the chief factor contributing to poverty and backward economic conditions.'²²³ Therefore, I claim a ZPG policy is morally justified under the current circumstances in South Africa assuming the government will, by controlling population growth, fulfil its own end of the bargain.

...so that the community may enjoy a higher quality of life—one in which starvation and severe malnutrition, with attendant medical ills and economic and social problems are uncommon. Assuming that the collective's survival and the general good life are indeed dependant on individual reproductive choices...²²⁴

²²² Rene, 2007, p 53

²²³ Hernandez, cited in Rene, 2007, p 52

²²⁴ Rene, 2007, p 52

In addition, future generations will consist of people to whom we, as a present generation, have a moral obligation not to harm i.e. to share resources in a way that is just, be those physical or human resources.²²⁵ For the present generation not to cause undue harm to future generations I will show that there is a need for the implementation of a population growth policy. This policy would improve the government's ability to maintain and make available functioning resources, thereby fulfilling our moral obligation and leaving them a society in which social and economic advancement would be available to all its members. I claim due to the scarcity of human and physical resources in South Africa at present and, with population growth on the rise, that a modified ZPG policy is justified from a communitarian perspective for current and future generations. Such a policy would affect the distribution of benefits and therefore increase the total average good in the community and '...will maximize the best consequences for *everyone* in society, including those whose preferences are in the minority.'²²⁶ 'A communitarian would therefore insist that individuals forgo some of their egotistical preferences or individual rights and autonomy for the good of the general community.'²²⁷

²²⁵ Honderich, 2005, p 325

²²⁶ Mill, cited in Rene, 2007, p 55

²²⁷ Rene, 2007, p 53

5) Discussion of Rebuttals

Sen's ethical perspective on the Cooperative Approach

Sen provides a counterargument to the use of an authoritarian method: by addressing social shortcomings, particularly by addressing gender equality, Sen argues the fertility rate will decrease without the need for coercion.²²⁸ I claim in the case of South African society a different approach in lowering the fertility rate should be applied. I have shown that South Africa has a limited time frame due to the HIV/AIDS epidemic, poverty and high unemployment. By comparing India to China in their successes in lowering fertility rates. I claim that Sen's approach would take too long in the case of South Africa, and the right to human development for all by providing basic living standards outweighs the right to unlimited reproductive choices.²²⁹

Sen advocates the cooperative approach for a number of reasons. In Kerala, on the Southwest coast of India, investment in health care and education has helped Kerala's fertility rate fall to 1.7 without coercion, compared to India's average fertility rate of 2.7.²³⁰ The key to this low fertility rate, according to demographers, is the female literacy rate which is at around 90% and is the highest in India.²³¹ More gender equality is seen in Kerala where women's property rights play a major role in the community.²³² Reasons for the low fertility rate in Kerala are attributed to girls who go to school and have children later than those who do not go to school, and thus understand their options better and are also more educated about the use of contraceptives.²³³ However, Kerala seems to be more the exception than the rule in India: 'India's birth rate grows unchecked.'²³⁴

²²⁸ Sen, 1995a, p 24

²²⁹ Lee, 1979, p 67

²³⁰ Sen, 1995a, p 25 ; The World Bank, 2010, "Data, India."

²³¹ Kunzig, 2011, p 60

²³² Sen, 1995a, p 21

²³³ Kunzig, 2011, p 60

²³⁴ Burke, 2011

In Sen's cooperative approach the central theme is:

...the route to rational family planning lies in supporting and empowering those whose lives and responsible agency are most directly involved, and reflecting to them more fully the social consequences of their own decisions.²³⁵

Sen states that family planning is an intensely private matter, and furthermore, argues that '...family planning consists of actions and decisions that are by their nature deeply intimate, and involve choices in others that need not be given *prima facie* say.'²³⁶

Reproductive behaviour, Sen argues, is a matter that: '...immediately and decisively forms part of the personal lives of the family members...' specifically of the mother – or potential mother.²³⁷ Sen states this is not a reason to 'ignore all else' but other reasons to motivate the implementation of a modified ZPG policy would have to be very strong, because it interferes with personal freedoms and private family matters.²³⁸ It should be noted, though, that my research report has very carefully considered South Africa's circumstances, namely poverty, the HIV/AIDS epidemic, poor health care, gender equality, poor education systems and high unemployment. I identify these as being strong and substantiated reasons to limit population growth so these factors can be addressed without the additional strain of having to provide for a larger population.

Sen further argues one should address the population issue '...within the powers of reasoned agency of the people, rather than opting prematurely for a bureaucratic and authoritarian "solution".'²³⁹ It is here that it should be pointed out that Sen's paper was written in 1995 and his argument looks at issues of poverty, particularly in relation to women, and the choices they are faced with regarding the number of children they produce in relation to their autonomy and education. The HIV/AIDS

²³⁵ Sen, 1995a, p 6

²³⁶ Drèze, quoted in Sen, 1995a, p 14

²³⁷ Sen, 1995a, p 14

²³⁸ Sen, 1995a, p 14

²³⁹ Sen, 1995a, p 12

epidemic South Africa is faced with is not noted in Sen's paper. Sen does argue that, by having more than a certain amount of children (Sen does not specify a number), individuals may be expected to contribute more to the economy financially relative to the number of children they have i.e. the government may intervene through other means than limiting reproductive choices.²⁴⁰

...through correcting the imperfections of the market and making the prices faced by individuals reflect the social impact of their decisions more fully the social consequences of their own decisions.²⁴¹

This could be construed as a soft form of coercion or a form of social justice by spreading the financial burden, and Sen argues '[It] ... would still leave much of the decision-making to the people themselves.'²⁴² I will show such measures would lead to discrimination among the South African population due to the high unemployment and poverty levels. The unemployed and poor would not be able to meet the additional financial burden. I claim that wealthy citizens could therefore have more children and poorer ones would effectively pass the social impact of their decisions on to their additional children by not being able to provide schooling and health care for them. Under the ZPG policy, no economic or social discrimination would occur as it applies to all citizens irrespective of their social status.²⁴³ Furthermore, the policy would be implemented as a means to an end namely to provide the rights to general welfare and human development for all who have potentialities, and not as presently only for a privileged few.²⁴⁴

In his paper, Sen is not precise about the urgency or time governments are limited to in order to address the population growth issue.²⁴⁵ This is something that needs to be defined, in the case of South Africa. I have shown that there a limited time frame and a modified authoritarian ZPG policy needs to be implemented urgently: the pressing urgency is due to the widespread HIV/AIDS epidemic. As South Africa has a limited time frame, it should look to China where the authoritarian method has

²⁴⁰ Sen, 1995a, p 5

²⁴¹ *Ibid.*

²⁴² Sen, 1995a, p 6

²⁴³ Rene, 2007, p 53

²⁴⁴ Lee, 1979, p 67

²⁴⁵ Sen, 1995a, p 15

delivered quick results – far more quickly than the Sen approach, seen to be in place in India. Nonetheless, I maintain that the Sen approach, in theory, is the better one. Where such a solution might work for a developed nation like Canada, South Africa simply does not have either the resources or the time frame to implement a cooperative approach. Sen's approach explores notions such as gender equality, women's liberation and a good education often encouraging the use of contraceptives, the finding of employment and, ultimately, empowerment. With time, I agree the Sen approach would lead to people having fewer children later in life and this is why I have chosen to integrate elements of it into the modified authoritarian ZPG policy. Sen notes that there is peer pressure and pressure from older members of the society to produce children²⁴⁶, where education is lacking even though contraceptives are freely available, I question the ability of young females to employ autonomy in their decision-making. I claim this is where the Sen approach is deficient in South Africa.

Although the Sen approach encourages personal freedoms more, the practicality and actual implementation of the approach without a moderate authoritarian ZPG policy would take too long to take effect, in the case of South Africa (as is seen with India). South Africa will have doubled its population in 50 years or less, depending on life expectancy. By that time, unless the issues at hand are addressed now, the '...national efforts toward development, modernisation , a better standard of living for [South Africa's] poor, human welfare—in sum, the quality of human life is being burdened or threatened by the quantity.'²⁴⁷

While the collaborative approach, in general, through the empowerment of the persons directly involved and through increasing their effective freedom, the coercive strategy works through ordering them around and through reducing their freedom to decide.²⁴⁸

I claim a modified authoritarian policy, as it includes aspects of the Sen approach, would promote gender equality, as women are educated and given more autonomy

²⁴⁶ Sen, 1995a, p 6

²⁴⁷ Berelson & Lieberman, 1979, p 582

²⁴⁸ Sen, 1995a, p 7

within society, would alleviate strain on both physical and human resources and is proven to deliver results in a short period of time. I therefore conclude that the authoritarian approach has more merit than the ethically preferred cooperative approach for South Africa.

Immanuel Kant

[The] Categorical Imperative. The formal moral law in Kantian ethics, based on reason. [The Categorical Imperative] is opposed to hypothetical imperatives, which depend on upon desires, e.g. 'Catch the 9.15—if you want to arrive by noon'.²⁴⁹

The formal form of the Categorical Imperative states 'that I can also will that my maxim should become a universal law.'²⁵⁰ Kant states that if, and only *if*, the circumstances faced by South Africa were to apply to the rest of the world, a maxim, i.e. implementing a modified ZPG policy throughout the world, would be the correct action, and therefore, could will this policy to become a universal law, thus being in line with the Kantian Categorical Imperative. However, under Kant, the circumstances faced by South Africa do not apply to the rest of the world and are only applicable in South Africa; therefore, as it cannot be applied universally, it could not become a maxim, and ultimately could not become a universal law, thus a ZPG policy is not permissible under Kantian ethics. Kant discusses the concept of, '*...rational agents*, that is, free agents capable of making their own decisions, setting their own goals, and guiding their conduct by reason.'²⁵¹ I will show that the concepts of guiding one's conduct by reason, and the free agents referred to under the ideal Kantian sense do not always apply in South Africa. Due to peer and social pressures, the 'free' agent, such as young unemployed women, can be coerced into having children at a young age to appease other members of the group. Doing this will have a severe impact on her personal freedom. I will show that by having a modified authoritarian ZPG policy based on China's 'One Child Policy', women's personal freedom is increased by having fewer children and having them later in life. By having fewer children later in life, 'mothers also have greater freedom to work

²⁴⁹ Paton, quoted in Honderich, 2005, p 130

²⁵⁰ Kant, quoted in Craig, 2010, p 500

²⁵¹ Rachels, 2010, p 137

outside the home and to acquire skills and training.²⁵² I argue that limiting reproductive choices under the modified authoritarian ZPG policy, leads to greater personal freedom for females since they would first be able to acquire an education and skills, thereby understanding their options better, similar to what Sen has shown is happening in Kerala. Therefore, I claim that rational agents under the ideal Kantian sense would be more applicable in South Africa by implementing a ZPG policy, and thus being able to guide their conduct by reason, in line with the Kantian perspective.

The alternative form of the Categorical Imperative states that one must:

Act in such a way that you always treat humanity, whether in your own person or in the person of any other, never simply as a means, but always at the same time as an end.²⁵³

As seen in the alternative form of the Categorical Imperative, the modified authoritarian ZPG policy advocates that the government implement a policy to restrict the number of children so that the community may enjoy a higher quality of life. A modified ZPG policy would thus be impermissible in South Africa as it would be implemented as a means to an end. Arguably there could be an exception to this rule, 'since freedom is Kant's chief value, coercion is permitted only where it is both necessary to preserve freedom and possible for it to do so.'²⁵⁴ Namely, 'if population growth does lead to drastic decreased quality of life in which "welfare, security, survival, and freedom" are undermined, then the [ZPG] policy seems justified if implemented in acceptable and lawful manner.'²⁵⁵ I claim the policy would be instituted to preserve freedom by limiting reproductive choices. The policy's implementation is to secure the survival of the South African community and allow citizens to achieve some form of human perfection under Kantian ethics.²⁵⁶ This would be accomplished by allowing their rationality and capacity to reason to develop fully by providing everyone the right to pursue available choices to reach their full potential i.e. having fewer children and later in life as advocated under the

²⁵² Hesketh & Zhu, 1997, p 1686

²⁵³ Kant, quoted in Craig, 2010, p 500

²⁵⁴ Guyer, quoted in Craig, 2005, p 501

²⁵⁵ Hernandez, cited in Rene, 2007, p 60

²⁵⁶ Hurka, 1983, p 505

ZPG policy. The ZPG policy would be implemented to preserve freedom in line with Kant's rule, and based on this premise, some form of coercion would be permitted under Kantian rules.

Deontological Ethics

Deontology, much like Kantian ethics, does not address the consequences or results of an act when assessing its 'wrongness' or 'rightness'. Deontologists claim that, if consequences are taken into account, almost any act could be justified.²⁵⁷

Deontologists are more concerned with keeping their own moral house in order: they argue that their own inherent moral values cannot be jeopardised.²⁵⁸ Deontologists claim '...that sometimes doing what is morally right will have tragic results but that allowing such tragic results to occur is still the right thing to do. Complying with moral norms will surely be difficult on those occasions, but the moral norms apply nonetheless with full force, overriding all other considerations.'²⁵⁹ Deontologists are not alone in this line of thought: this can be seen in the Kantian statement "better the whole people should perish" than that injustice is done.²⁶⁰ I argue that it is hard to accept the idea of valuing moral rightness or wrongness by setting a violating against various individual rights above the well-being of the South African society, which is faced with an HIV/AIDS epidemic, poor health care facilities, a poor education system, a high unemployment rate and an expanding population. Nevertheless, this is line with the views expressed by the deontologists.

Deontology consists of 'moral theories according to which certain acts must be done or must not be done...'²⁶¹ 'According to deontology, certain acts are right or wrong *in themselves*.'²⁶²

²⁵⁷ Alexander & Moore, 2008

²⁵⁸ *Ibid.*

²⁵⁹ *Ibid.*

²⁶⁰ Kant, quoted in Alexander & Moore, 2008

²⁶¹ Broome & Scheffler, quoted in Honderich, 2005, p 201

²⁶² *Ibid.*

Nagel's representation of which acts are wrong, namely those that violate any of the deontological constraints appears below.

Common moral intuition recognizes several types of deontological reasons – limits on what one may do to people or how one may treat them. There are special obligations created by promises and agreements; the restrictions against lying and betrayal; the prohibitions against violating various individual rights, rights not to be killed, injured, imprisoned, threatened, tortured, coerced, robbed; the restrictions against imposing certain sacrifices on someone simply as a means to an end; and perhaps the special claim of immediacy, which makes distress at a distance so different from distress in the same room. There may also be a deontological requirement of fairness, of even-handedness or equality in one's treatment of people.²⁶³

Kantianism and deontology both find the implementation of a moderate authoritarian ZPG policy impermissible. The ZPG policy would violate the rights of individuals through coercion and by using individuals as a means to an end; nonetheless I will show that a modified authoritarian ZPG policy would increase an individual's autonomy in the process of this violation and should be implemented out of self-defence, and therefore under the doctrine of double effect would be permitted.

I argue that by applying 'the doctrine of double effect [that] maintains that it may be permissible to perform a good act with the knowledge that bad consequences will ensue, but that it is always wrong intentionally to do a bad act for the sake of good consequences that will ensue.'²⁶⁴ Under the doctrine of double effect (DDE), if it is assumed as shown prior that population growth is the main contributor to poverty and poor economic conditions, it then follows that by controlling population growth the state would advance the collective well-being of South Africans. This would lead to a community in which starvation and severe malnutrition, with attendant medical ills and economic and social problems are uncommon.²⁶⁵ Alternatively, as shown

²⁶³ Nagel, quoted in Davis in Singer, 2006, p 211

²⁶⁴ Honderich, 2005, p 219

²⁶⁵ Rene, 2007, p 52

under communitarianism ‘...the survival of the community must be protected because individual members depend on it for their self-identity, the organisation of collective action, and the production of public goods.’²⁶⁶ I claim this allows a ZPG policy to be implemented in spite of deontological ethics because it is done out of self-defence. The following analogy applies under the DDE: if attacked, under deontological ethics one is allowed to defend oneself even if bad consequences ensue to the attacker. I conclude that the South African community is under attack by such evils as poverty, unemployment and inadequate physical and human resources, and can therefore implement a policy that controls population growth under the DDE, if restricting reproductive rights is classified as an act performed to defend the community.

Libertarianism

Libertarians claim that the implementation of a modified authoritarian ZPG policy restricts the right to full self-ownership and that, in addition, libertarians have no obligation to help other members in the society.²⁶⁷ Furthermore, libertarians claim ‘...that individuals are normatively separate and their person may not be used non-consensually for the benefit of others.’²⁶⁸ I will show that it is almost impossible for a state to function well by applying strict libertarian principles. For example a minimal state under strict libertarian principles, where services such as education and health care are outsourced to private companies so that they can sustain themselves rather than being subsidised by non-consensual taxes, would leave the poor, and unemployed in South Africa unattended and without public education or public medical care for themselves and their children. I argue that the South African government has a moral duty to the unemployed and the sick to provide health care and education that is ‘...to provide basic standards of living for its citizens to enjoy a minimally good life.’²⁶⁹ Furthermore, ‘... the International Covenant on Economic, Social and Cultural Rights asserts that a state may decide the appropriate means to “recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions”’.²⁷⁰ I claim that by applying strict libertarian

²⁶⁶ Rene, 2007, p 53

²⁶⁷ Vallentyne, 2012

²⁶⁸ *Ibid.*

²⁶⁹ Rene, 2007, p 56

²⁷⁰ Gregory, quoted in Rene, 2007, p 56

principles, the rights of the population to an adequate standard of living for themselves and their families cannot be met.

Libertarians claim that self-ownership is fundamental: 'Libertarianism... is the moral view that agents initially fully own themselves and have certain moral powers to acquire property rights in external things.'²⁷¹ Therefore, agents of the state are acting outside their mandates by imposing restrictions on citizens, be it through the taxing of roads or restricting of certain sexual behaviours between two consenting adults, for instance extra-marital sex, or as in the case of my research report, the government limiting reproductive rights and thus restricting full self-ownership.

Libertarians endorse the free market and unfettered free exchange, and oppose paternalistic or moralistic legislation (for example, laws regulating sexual behaviour or the consumption of alcohol or drugs). Liberty, on such a view, is identified with the absence of interference by the state or others. The legitimate state exists purely to guard individual rights, protecting people and their property from force, theft and fraud. This is the 'minimal state' or 'night-watchman state' of classical liberalism. The state has no authority to engage in the redistribution of property (except to rectify the effects of theft, and so on) or, in certain versions at least, to pursue policies designed to further the common good. Such activities are viewed by the libertarian as illegitimate interferences with an individual's right to do what they wish with their own person or property.²⁷²

However, Sen states that, even with a cooperative ZPG policy, the autonomy of the self-ownership can be transgressed. Social costs versus private costs play a role and, thus, he is not averse to government intervention.

It is reasonable to accept the possibility that there must be some kind of a threshold of influence on other people's interests beyond which state intervention in personal lives might well be plausible. Only a

²⁷¹ Vallentyne, 2012

²⁷² Wolff, quoted in Craig, 2010, pp 576-577

drastic libertarian would reject that possibility without further examination, and we need not embrace that position.²⁷³

I have shown that keeping full self-ownership intact in a society such as South Africa is unattainable and ignores our duty to our fellow man. However, under strict libertarianism a duty only exists if it is voluntarily chosen therefore this duty to our fellow South African citizens does not apply.²⁷⁴ My research report argues '...that the state can legitimately abridge some individual rights if it leads to the long-term welfare of the community.'²⁷⁵ From this perspective, I claim that the South African government is morally justified in limiting reproductive rights as it is faced with poverty, high unemployment and an epidemic. South Africa as a developing country must provide minimum standards of living for all its citizens and under these circumstances, I claim reproductive rights are not absolutes.²⁷⁶ I conclude, in conjunction with Sen, that the drastic libertarian position is one 'we need not embrace'.²⁷⁷

²⁷³ Sen, 1995a, pp 14-15

²⁷⁴ Vallentyne, 2012

²⁷⁵ Rene, 2007, p 53

²⁷⁶ Rene, 2007, p 61

²⁷⁷ Sen, 1995a, p 15

6) Cultural Relativism²⁷⁸, Racism²⁷⁹ and Feminism²⁸⁰

Cultural relativism reviews the moral codes that different cultures are implementing, but there can be no objective standard to judge which particular societal code is better than the next.²⁸¹ The following excerpt will illustrate the conflicting values that face the 'rainbow nation', South Africa.²⁸²

ANC president Jacob Zuma married his fourth wife, Nompumelelo Ntuli, in a closely guarded, traditional Zulu ceremony in the rural village of Nkandla, in northern KwaZulu-Natal, yesterday. At his KwaNxamala homestead behind green security gates local police barred the media and daring wedding crashers while bodyguards monitored the premises as Zuma, 65—an unashamed traditionalist, appeased his ancestors...²⁸³

Cultural relativism is something South Africa is faced with on an ongoing basis because not one but several moral codes exist within its borders. The statement 'polygamy is discriminatory' highlights the differences between these moral codes.²⁸⁴ In such a multi-cultural country, the challenge is to maintain the principle of equality and yet '...to give primacy to indigenous laws and policies even when such laws and policies violate the principle of gender equality.'²⁸⁵

The inclusion or exclusion of cultural rights in the constitution will directly affect the status of women and children. Patriarchy is an established feature of all the southern African systems of customary law, and to a lesser extent of Islamic and Hindu law.²⁸⁶

²⁷⁸ The term cultural relativism relates to the view that different groups of people have different moral standards equipping them to judge acts as being right or wrong (Lander University, 2005, "Cultural Relativism").

²⁷⁹ Racism refers the belief that all members of a race possess traits and abilities specific to that particular race; these traits and characteristics are usually used to distinguish certain races as either inferior or superior than another race, depending on who is doing the judging. Racism is directly associated with antagonism, discrimination or prejudice directed towards a race believed to be inferior (Oxford Dictionary, 2012, "Racism").

²⁸⁰ Feminism is the 'belief and aim that women should have the same rights and opportunities as men.' Feminism is the struggle to achieve this aim (Oxford Dictionary, 2012, "Feminism").

²⁸¹ Rachels, 2010, p 18

²⁸² A 'rainbow nation' is a South African epithet that refers to a multicultural population. The term was originally coined by Nelson Mandela (The Free Dictionary, 2003, "Rainbow Nation").

²⁸³ Langanparsad & Naidoo, quoted in Andrews, 2009, p 351

²⁸⁴ Andrews, 2009, p 369

²⁸⁵ Howard, quoted in Andrews, 2009, p 357

²⁸⁶ Bennett, 1993, p 30

Prior to the new Constitution and Bill of Rights, in terms of apartheid and indigenous law, most South African black women were treated like children or minors.²⁸⁷ The new South African constitution shows its commitment to full citizenship for South African women in the form of gender equality and the recognition of property rights, and a woman's right to share in an inheritance.²⁸⁸ This was not the case in the apartheid years.²⁸⁹ Property rights and inheritances for females apply to common and traditional law under the Bill of Rights.²⁹⁰ Before the Bill of Rights, customs and traditional law either saw the eldest son, or the father or male cousins and uncles become the heirs.²⁹¹ Therefore, under the Bill of Rights, South African women are seen to experience greater equality. Recognition of customary marriages has improved the status of wives within polygamous marriages, despite the argument that polygamy does not contribute to gender equality, but rather contributes to a patriarchal society.²⁹² I claim this is a contradiction, because promoting gender equality and greater autonomy for women in a patriarchal culture is inconsistent. I argue that this can be remedied by a push for a stronger national identity as happened in Brazil.

Section 3 made the point 'Make all you women Brazilians', I will show that this should be applied to all members of all South African cultures. A South African's nationality should come first and his/her culture second – to be South African should be a culture in itself. Brazil is also a nation rich in tradition with many different cultures, but by women being able to identify themselves as Brazilian first, this gives them a strong sense of unified identity and helps them work towards developing the nation by lowering fertility rates. By such a process, I claim that institutions such as polygamy would fall away as they are not compatible with a model based on gender equality and equal rights. 'In addition, the Bill of Rights places the eradication of discrimination on the grounds of race on the same constitutional footing as the eradication of discrimination on the grounds of sex/or gender.'²⁹³ If this is true, there is absolutely no place for the institution of polygamy in this country because it

²⁸⁷ Andrews, 2009, p 356

²⁸⁸ *Ibid.*

²⁸⁹ *Ibid.*

²⁹⁰ Currie & de Waal, 2005, pp 254 & 542

²⁹¹ This relates to the Black Administration Act 38 of 1927 (Andrews, 2009, p 365).

²⁹² Andrews, 2009, p 375

²⁹³ Andrews, 2009, p 355

establishes a patriarchal hierarchy as a cultural norm within South Africa.²⁹⁴ I have shown that this is relevant in the case of contradictory situations like polygamy where gender equality is conflicted. When South African citizens prioritise their identities as being South African rather than those of their cultures, these conflicts will fall away.

Therefore, it would be even more complicated to achieve successful implementation of a modified authoritarian ZPG policy in South Africa, since in order to stimulate gender equality, better health care and education, one has to leave the legacy of apartheid behind. The cultural relativism issue could be discussed when addressing the replacement rate policy of members of polygamous marriages: gray areas could always be resolved by means of laws added to the Bill of Rights to suit a multicultural society.

The racial legacy apartheid left South Africa with an attitude of fear and apprehension towards authoritarian policies of any kind and this proves to be an obstacle. An example of such a view can be seen in ‘...the white political rhetoric of the “black peril”. According to this logic, the unchecked population growth of the indigenous African population posed a threat to white power, safety, and profits.’²⁹⁵

The modified authoritarian ZPG policy establishes a nearly perfect procedural justice as each family is entitled to two children regardless of its social, race or economic background.²⁹⁶ I claim that ‘...[n]o social discrimination is involved; both social justice and societal welfare are taken into consideration.’²⁹⁷ I therefore conclude that a ZPG policy addresses gender equality in the South African community, is not racist, as previous birth control programmes were under apartheid, and it would be implemented to advance the collective well-being. The limitation of reproductive rights would maintain South Africa’s population at a static number ‘...so that the community may enjoy a higher quality of life—one in which starvation and severe malnutrition, with attendant medical ills and economic and social problems are uncommon.’²⁹⁸

²⁹⁴ Andrews, 2009, p 375

²⁹⁵ Brown, quoted in Kuumba, 1993, p 82

²⁹⁶ Rene, 2007, p 53

²⁹⁷ Tien, quoted in Rene, 2007, p 53

²⁹⁸ Rene, 2007, p 52

Conclusion

My research report concludes that by employing a variation of ethical perspectives, in a developing nation such as South Africa, the limitation of reproductive choices is morally justified and that not all rights are absolute, given the multitude of known difficulties that a nation like South Africa must face in providing a minimum standard of living for all its citizens. I claim that the long-term welfare of the community, together with human development for all who have potentialities, and not as presently for a privileged few, outweighs the claim that reproductive rights are absolute. I have shown that the national efforts aimed toward development, modernisation, a better standard of living for South Africa's poor, are burdened by additional citizens. Under Mill's rule utilitarianism, '...it is possible to develop a set of rules that will maximize the best consequences for *everyone* in society, including those whose preferences are in the minority.'²⁹⁹ Assuming population growth is the chief factor contributing to poverty and the backward economic conditions in South Africa, the modified authoritarian ZPG policy establishes a nearly perfect procedural justice as each family is entitled to two children regardless of its social and economic background.³⁰⁰ I conclude that a modified authoritarian ZPG policy is morally justified as the policy establishes the means of developing consensus to advance the collective well-being. No racial or social discrimination is involved and this policy will maximise the best consequences for everyone in the South African society.

²⁹⁹ Rene, 2007, p 55

³⁰⁰ Hernandez, cited in Rene, 2007, p 52

Bibliography

About.com. 2012. "Population Growth Rates". Accessed on 11 February 2012.

<http://geography.about.com/od/populationgeography/a/populationgrow.htm>

Alexander, Larry. & Moore, Michael. 2008. "Deontological Ethics". *The Stanford Encyclopedia of Philosophy*. Edward N. Zalta (ed.). Accessed on 25 July 2011.

<http://plato.stanford.edu/archives/fall2008/entries/ethics-deontological/>

Allix, Mark. 2012 October 24. "Ratings cut blow to SA's R1-Trillion build plans".

Business Day. p 1

Andrews, Penelope, E. 2009. "Who's Afraid of Polygamy? Exploring the Boundaries of Family, Equality and Custom in South Africa". Accessed on 27 February 2012.

<http://epubs.utah.edu/index.php/ulr/article/viewFile/172/145>

Asmal-Motala, Fatima. 2012. "A political question, not a cultural one". *Mail & Guardian Online*. April. Accessed on 28 April 2012.

<http://mg.co.za/article/2012-04-20-a-political-question-not-cultural-one>

BBC Ethics Guide. 2012. "Mass Birth-Control Programmes". Accessed on 27 February 2012.

http://www.bbc.co.uk/ethics/contraception/mass_birth_control_1.shtml

Bedi, Rahul. 2011. "India offers cars and TV sets for sterilisation". *The Telegraph*. July. Accessed on 26 February 2012.

<http://www.telegraph.co.uk/news/worldnews/asia/india/8610957/India-offers-cars-and-TV-sets-for-sterilisation.html>

Bennett, T. W. 1993. "Human Rights and the African Cultural Tradition". Accessed on 8 March 2011.

<http://transformation.ukzn.ac.za/index.php/transformation/article/download/628/444>

Brzozowski, Diane. 2003. "Lifeboat Ethics: Rescuing the Metaphor". *Ethics, Place and Environment*, Vol. 6, No. 2, pp 161-166.

Burke, Jason. 2011. "India's birth rate grows unchecked". *Mail & Guardian Online*. October. Accessed on 22 February 2012. <http://mg.co.za/article/2011-10-29-indias-birth-rate-grows-unchecked/>

Callahan, Daniel. 2009. "Ethics and Population". *Hastings Center Report*, Vol. 39, pp 11-13.

Callahan, Daniel. 1972. "Ethics and Population Limitations: What Ethical norms Should be Brought to Bear in Controlling Population Growth?". *Science*, Vol. 175, pp 487-494.

Central Intelligence Agency. 2012. "The World Factbook." Accessed on 9 October 2011.

<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2127rank.html>

Clark, David, A. 2005. "The Capability Approach: Its Development, Critiques and Recent Advances". Accessed on 10 March 2012.

<http://economics.ouls.ox.ac.uk/14051/1/gprg-wps-032.pdf>

Craig, Edward, (ed.) 2010. *The Shorter Routledge Encyclopaedia of Philosophy*, London: Routledge Taylor & Francis Group.

Currie, Ian & De Waal, Johan. 2005. *The Bill of Rights Handbook*, Fifth Edition, Lansdowne: Juta & Co Ltd.

"Demographics Scenario". 2010. *City of Cape Town Discussion paper*. Last modified August 2010. Accessed on 5 November 2012.

<http://www.capetown.gov.za/en/sdf/Documents/Nov2010/DemographicsDiscussionPaperAugust2010.pdf>

Development Indicators 2009. "The Presidency". Accessed on 2 November 2012.

<http://www.thepresidency.gov.za/learning/me/indicators/2009/indicators.pdf>

Dictionary.com. 2012. "Zero Population Growth". Accessed on 23 August 2011.

<http://dictionary.reference.com/browse/zero+population+growth?s=t>

Dreyer, June, T. 2004. "Democratization in Greater China: The Limits to China's Growth". Accessed on 20 February 2012.

<http://www.fpri.org/orbis/4802/dreyer.limitschinagrowth.pdf>

Eastern Cape Department of Social Development. 2011. "Population Policy for South Africa – April 1998". Last modified April 1998. Accessed on 1 October 2011.

<http://www.socdev.ecprov.gov.za/SubUnits/Eastern%20Cape%20Population%20and%20Research%20Unit/AboutUs/Population%20Research%20Policies/Population%20Policy%20for%20SA.pdf>

Educational Pathways International. 2010. "What is a developing country?".

Accessed on 10 May 2012.

http://www.educationalpathwaysinternational.org/?page_id=97

Ensor, Linda. & Isa, Marian. 2012 October 26. "Gordhan to crack whip on soaring state costs". *Business Day*. p 1.

Fitzpatrick. 2009. "China's One-Child Policy". *Time World*. July. Accessed on 12 March 2012.

<http://www.time.com/time/world/article/0,8599,1912861,00.html>

Gauri, Varun & Lieberman, Evan S. 2004. "AIDS and the State: The Politics of Government Responses to the Epidemic in Brazil and South Africa". Paper presented at the Annual Meetings of the American Political Science Association, Chicago, IL September 2-5, 2004. Accessed on 10 February 2012.

<http://cyber.law.harvard.edu/blogs/gems/politicshiv/liebermanpaper.pdf>

Gleason, David. 2012 November 21. "Whipping the ass of evictions law". *Business Day*. p 12.

Goldani, Ana Maria. 2001. "What will happen to Brazilian Fertility?" in *Completing the Fertility Transition*. Department of Economic and Social Affairs, Population Division, United Nations. Accessed on 8 February 2012.

www.un.org/.../population/.../completingfertility/RevisedGOLDANIpaper.PDF

Gorney, Cynthia. 2011. "Machisma". *National Geographic*, September, Vol.220, No 3, pp 96-119.

Guilmoto, Christophe, Z. & Attané, Isabelle. 2005. "The geography of deteriorating child sex ratio in China and India". Accessed on 20 February 2012.

<http://iussp2005.princeton.edu/download.aspx?submissionId=51524>

Hardin, Garrett. 1968. "Tragedy of the commons". *Science*, Vol. 162, pp 1243-1248.

Hernandez, Donald. 1985. "Fertility Reduction Policies and Poverty in Third World Countries: Ethical Issues". *Studies in Family Planning*, Vol. 16, No. 2, pp 76-87.

Hesketh, Therese & Zhu, Wei Xing. 1997. "The one child family policy: the good, the bad, and the ugly". *British Medical Journal*, Vol. 314, pp 1685-1687.

Hessley, Rita, K. 1981, "Should Government Regulate Procreation? A Third View". *Environmental Ethics*, Vol. 3, pp 49-53.

Honderich, Ted. (ed.) 2005. *The Oxford Companion to Philosophy*, Second Edition. New York: Oxford University Press.

Horsthemke, Kai. 2011. *Letter of Correspondence to Mr van Schaik*.

Hurka, Thomas. 1983. "Value and Population Size". *Ethics*, Vol. 93, No. 3, pp 496-507.

Johnson, Robert. 2010. "Kant's Moral Philosophy". *The Stanford Encyclopedia of Philosophy*. Edward N. Zalta (ed.). Accessed on 25 July 2011.

<http://plato.stanford.edu/archives/sum2010/entries/kant-moral/>

Johnson, Victoria. & Nurick, Robert. 1995. "Behind the Headlines: The Ethics of the Population and Environment Debate". *Ethics, the Environment and the Changing International Order*, Vol. 71, No. 3, pp 547-565.

Khumalo, Gabi. 2009. "Parents urged to apply for grants". *SouthAfrica.info*. January. Accessed on 11 March 2012. <http://www.southafrica.info/about/social/social-210109.htm>

Kunzig, Robert. 2011. "Population 7 Billion". *National Geographic*, January, Vol.219, No 1, pp 32-69.

Kuumba, Monica, B. 1993. "Perpetuating Neo-Colonialism through Population Control: South Africa and the United States". *Africa Today*, Vol. 40, No. 3, Health Issues in Africa, pp 79-85.

Lacewing, Michael. 2008a. "Mill's 'Harm Principle'". Accessed on 15 February 2012. <http://cw.routledge.com/textbooks/philosophy/downloads/a2/unit4/mill/MillHarm.pdf>

Lacewing, Michael. 2008b. "Mill on freedom of action". Accessed on 20 July 2012. <http://cw.routledge.com/textbooks/philosophy/downloads/a2/unit4/mill/MillAction.pdf>

Lander University. 2005. "Cultural Relativism". Accessed on 19 May 2012. <http://philosophy.lander.edu/ethics/relativism.html>

Lavietes, Stuart. 2003. "Garrett Hardin, 88, Ecologist Who Warned About Excesses". *The New York Times*. Accessed on 3 October 2012. <http://www.nytimes.com/2003/10/28/us/garrett-hardin-88-ecologist-who-warned-about-excesses.html> 2003

Lee, Donald C. 1979. "Some Ethical Decision Criteria with Regard to Procreation". *Environmental Ethics*, Vol. 1, pp 65-69.

Little, W., Fowler, H. W. & Coulson, J. Revised and edited by: Onions, C. T. 1970. *The Shorter Oxford English Dictionary on Historical Principles*, Oxford: The Clarendon Press, p 479.

Mbola, Bathandwa. 2008. "Thank you, South Africa: Mbeki". *SouthAfrica.info*, September 22. Accessed on 5 May 2012. <http://www.southafrica.info/about/government/mbeki-thankyou.htm>

McElroy, Marjorie & Tao Yang, Dennis. 2000. "Carrots and Sticks: Fertility Effects of China's Population Policies". *The American Economic Review*, Vol. 90, No. 2, Papers and Proceedings of the One Hundred Twelfth Annual Meeting of the American Economic Association. May. pp 389-392.

Malefane, Moipone. 2010. "Our Bleak Future – Mbeki laments SA crisis". Accessed on 29 October 2012.

<http://www.sundayworld.co.za/news/2012/10/22/our-future-bleak---mbheki-laments-sa-crisis>

Manuel, Trevor. 2012 October 31. "Proof of how much we have done—and still must do". Census 2011. *Business Day*. p 13.

Mokopanele, Thabang. 2012 November 1. "Not one tender for big infrastructure project in spite of state's grand plans". *Business Day*. p 1.

Oxford Dictionary. 2012. "Feminism". Accessed on 19 May 2012.

<http://oxforddictionaries.com/definition/feminism?q=feminism>

Oxford Dictionary. 2012. "Racism". Accessed on 19 May 2012.

<http://oxforddictionaries.com/definition/racism>

Penrose, Brian. 2011. *Social Justice Lectures*.

Population Growth Policies. "Population policies of the World". Accessed on 15 September 2012. <http://www.hsph.harvard.edu/population/policies/poppolicy.htm>

Rachels, James. 2010. *The Elements of Moral Philosophy*. Singapore: McGraw Hill Book Co.

Rene, Helena. 2007. "Ethical Perspectives on China's One-Child Policy". Accessed on 20 July 2012.

http://www.wics-usa.org/journal/Papers/WICS2007-Spring/2007Spring-3-One-ChildPolicy_20070517.pdf

Rohlf, Michael. 2010. "Immanuel Kant". *The Stanford Encyclopedia of Philosophy*. Edward N. Zalta (ed.). Accessed on 25 July 2011.

<http://plato.stanford.edu/archives/fall2010/entries/kant/>

Russell, Bertrand. 2010. *History of Western Philosophy*. Oxon: Routledge.

San Jose University. 1999. "Mission: Critical (False Dilemma Fallacy)". Accessed on 18 May 2012. <http://www.sjsu.edu/depts/itl/graphics/adhom/dilemma.html>

Sapa. 2012. "Census 2011 results". *Daily Dispatch*. Accessed on 5 November 2012. <http://www.dispatch.co.za/census-2011-results/>

Satia, J. K. & Rushikesh, Maru, M. 1986. "Incentives and Disincentives in the Indian Family Welfare Program". *Studies in Family Planning*, Vol. 17, No. 3, pp 136-145.

Sen, Amartya. 1994. "Population and Reasoned Agency: Food, Fertility, and Economic development". In: *Population, economic development, and the environment*, edited by Kerstin Lindahl-Kiessling and Hans Landberg. Oxford, England: Oxford University Press, pp 51-78.

Sen, Amartya. 1995a. "Population Policy: Authoritarianism versus Cooperation". Paper presented at the International Lecture Series on Population Issues sponsored by the Population Program of the John D. and Catherine T MacArthur Foundation, New Delhi, India, August 17.

Sen, Amartya. 1995b. "What is the Nature of the Population Problem and how can it be solved?". Paper presented at the Keio Economic Society and Department of Economics of Keio University's jointly organised lecture meetings with the common theme: "The Future of the World Economy", Tsuruoka, Japan, August 22.

Short, Susan E. & Fengying, Zhai. 1998. "Looking Locally at China's One-Child Policy". *Studies in Family Planning*, Vol. 29, No. 4, pp 373-387.

Singer, Peter. (ed.) 2006. *A Companion to Ethics*. Cornwall: Blackwell Publishing.

Singer, Peter. 2011. *Practical Ethics*. New York: Cambridge University Press.

South African Government Online. 2009. "Public Inquiry: Access to Health Care Services". Accessed on 15 March 2012.

<http://www.info.gov.za/view/DownloadFileAction?id=99769>

South Africa Government Services. 2012. "Older Persons Grant". Accessed on 5 March 2012.

http://www.services.gov.za/services/content/Home/ServicesForPeople/Socialbenefits/oldagegrant/en_ZA

The Economist. 2012 July 28. "Aim for victory". Vol.404, No 8795, p 11.

The Economist. 2012 March 10. "Just cap It". Vol.402, No 8775, p 42.

The Economist. 2012. October 20. "Over the rainbow", Vol.405, No 8807, pp 22-24.

The Free Dictionary. 2003. "Rainbow Nation". Accessed on 18 March 2012.

<http://www.thefreedictionary.com/rainbow+nation>

The World Bank. 2010. "Adolescent fertility rate(births per 1000 women ages 15-19)." Accessed on 27 February 2012.

<http://data.worldbank.org/indicator/SP.ADO.TFRT>

The World Bank. 2009. "Data, Brazil." Accessed on 7 March 2012.

<http://data.worldbank.org/country/brazil>

The World Bank. 2009. "Data, China." Accessed on 7 March 2012.

<http://data.worldbank.org/country/china>

The World Bank. 2010. "Data, South Africa." Accessed on 15 March 2012.

<http://data.worldbank.org/country/south-africa>

The World Bank. 2010. "Data, India." Accessed on 1 March 2012.

<http://data.worldbank.org/country/india>

The World Bank. 2010. "Population Growth (annual %)." Accessed on 5 February

2012. <http://data.worldbank.org/indicator/SP.POP.GROW>

The World Bank, 2009, "Prevalence of HIV, total (% of population ages 15-49)".

Accessed on 5 February 2012. data.worldbank.org/indicator/SH.DYN.AIDS.ZS

Tomanio, John & McNulty, William E. (NGM Staff). 2011. "Brazilian Rebirth".

National Geographic, September, Vol.220, No 3, p 103

United Nations, Department of Social and Economic Affairs. 2010. "Population and HIV/AIDS". Accessed on 20 February 2012.

<http://www.un.org/esa/population/publications/population-hiv2010/population-hiv2010chart.pdf>

Vaidya, Jayant,S. & Mitra, Indraneel. 1997. "Fraction of normal remaining life span: a new method for expressing survival in cancer". *British Medical Journal*, Vol. 314, pp 1682-1684.

Vallentyne, Peter. 2012. "Libertarianism". *The Stanford Encyclopedia of Philosophy*. Edward N. Zalta (ed.) Accessed on 25 July 2011.

<http://plato.stanford.edu/archives/spr2012/entries/libertarianism>

Van De Veer, Donald & Pierce, Christine, (ed.) 2003. *The Environmental Ethics & Policy Book*. Belmont: Wadsworth.

Van Niekerk, Anton. 2001. "Moral and Social Complexities of AIDS in Africa".

Accessed on 20 July 2012.

http://sun025.sun.ac.za/portal/page/portal/Arts/Departments/philosophy/cae/doc_publics/Tab/Van%20Niekerk%20on%20Moral%20complexities%20of%20AIDS.pdf

Xinhua. 2012. "Govt spending on contraceptives quadruples". *China Daily*. March. Accessed on 19 March 2012. http://www.chinadaily.com.cn/china/2011-11/23/content_14149881.htm