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# Review article: the ethics of population policies

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**ABSTRACT**

This is a review of contemporary philosophical discussions of population policies. The focus is on normative justification, and the main question is whether population policies can be ethically justified. Although few analytical philosophers have directly addressed this question – it has been discussed more in other academic fields – many arguments and considerations can be placed in the analytical philosophical discourse. This article offers a comprehensive review and analysis of ethically relevant aspects of population policies evaluated on the basis of the main ethical theories. This analysis is preceded by a brief historical contextualisation of when and how population policies became ethically contentious and how this relates to philosophical debates in environmental ethics, population ethics and political philosophy. The article also includes a conceptual analysis of population policies in which the empirical intricacies around individual fertility decisions are sorted out and the different ways in which they can be affected are categorised in a taxonomy which highlight the most relevant ethical aspects of population policies. The ethical analysis shows that while population policies can be justified on the basis of most ethical theories, it all depends on what prior assumptions are made about what is at stake.

**KEYWORDS** Population policies; population ethics; coercive; eugenics; population control; ethics; climate change

## Introduction

Population policies are once again presented as a necessary means to reduce humanity's impact on nature and to save ourselves from ecological catastrophe. This time around it is the ever-worsening problem of climate change that is taken as a reason to 'discuss the elephant in the room', that is, how to limit world population. As always when this discussion is had, there is plenty of ethical controversy. The ethics of population policies is a topic tainted by the history of patriarchal, racist and colonial oppression it is part of. According to some critics, it is not meaningful to even try to justify population policies, they are instead best left out of political discussions altogether. But this jumps

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to conclusions. Recently, the topic has been explored also by philosophers (see e.g., Conly, 2016; Coole, 2018; Hedberg, 2018; Greaves, 2019; Pinkert & Sticker, 2020; and additional references discussed below) and this incipient discussion suggests that it is actually not clear what conclusions to draw about whether population policies can be ethically justified. This is the subject matter of this review article.

The focus is on the contemporary philosophical discussion of population policies, or more specifically on whether one can justify policies that aim to limit the size of populations. This is a normative investigation and it is the ethical justification we are interested in analysing and scrutinising. The ethical reasons for or against population policies are not always plain in sight, though, but rather often obscured in reasoning that must be reconstructed to get to the principled ground of what is at stake. This is partly due to the fact that historically, it is a topic which few analytical philosophers have contributed to. But it is our contention that these non-philosophical discourses around population policies are relevant to consider in the search for their ethical status. Indeed, we believe that these larger academic and public debates over population policies form an important backdrop against which the ethics of population policies must be considered.

The article is structured in the following way. We begin in the following section with a brief historical contextualisation of population policies. Thereafter, in section three, we take a step back to consider another necessary prerequisite for a meaningful ethical analysis, that is, the empirical and conceptual intricacies around population policies. We provide a conceptual analysis of population policies which highlight the different ways in which fertility decisions and population sizes can be affected by those who so desire. The most important distinctions made are summarised in a visual taxonomy which illustrates the dimensions in which population policies should be evaluated ethically. Thereafter we turn to this evaluation and do so in a systematic way by considering whether population policies can be justified on the basis of the main ethical theories on offer, that is, ecocentric environmental ethics, consequentialism, libertarianism, feminist ethics, and theories focused on fairness. This systematic review of both the concept of and ethical justification of population policies gets to the bottom of some of the ethical controversies that again has played out in recent years.

## Historical background

The academic discussions about population policies can be traced back to Thomas Malthus' *An Essay on the Principle of Population* (1798). Malthus argued that the human species has a natural propensity to propagate and that this stands in the way for an improvement of the well-being of the population; in particular as the supply of natural resources at best develops

linearly, whereas population growth is exponential. Thus, growth of the food stock does not lead to higher levels of wellbeing, but to more people and lower average wellbeing. When population growth is larger than food production growth, catastrophe looms.

It was not until the end of the 1960s, however, that a general fear spread that the population of the world was too large and that the uncurbed population growth would lead to everyone's despair.[1] The main source of this was Paul and Anne Ehrlich's *The Population Bomb* (Ehrlich & Ehrlich, 1968). The Ehrlichs argued that much of the suffering in the world can be explained by overpopulation, and that this raises the question of how one ought to reduce the world population. They argued that population control can take the form of incentives and penalties, but they also recognized that clearly coercive means may be needed. One example, they argued, is 'the addition of temporary sterilants to water supplies or staple food. Doses of the antidote would be carefully rationed by the government to produce the desired family size' (Ehrlich & Ehrlich, 1968, pp. 130–131).[2]

Garrett Hardin (1968) came to a similar conclusion in arguing that coercive population control is necessary for avoiding the 'tragedy of the commons' – that is, in order to prevent individuals from overexploiting commonly owned or managed resources. He wrote: 'A finite world can support only a finite population; therefore, population growth must eventually equal zero' (Hardin, 1968, p. 1243). According to Hardin, this is not a technical problem that can be solved with new technologies, nor can one appeal to people's conscience: In the long run those who do not heed that advice will give birth to more children, many of which will have the same disposition to propagate, which means that population growth will just accelerate.

This left Hardin with coercive means as the only viable solution for curbing population growth. He does not point to any specific means which he thinks should be adopted, but argues that coercion may be justified. To illustrate this, he uses the example of how we would treat a bank-robber. We would not appeal to his sense of responsibility to get him to stop robbing banks. Rather, we would say that the money in the bank is not a common, and make sure that our society is not constructed in such a way that this could be perceived as a common. There are enforceable rules that prohibit bank-robbing. Similar rules would be needed with regards to procreation.[3] Infamously, Hardin did not target everyone's reproduction equally, but held what must be described as a white nationalist or racist view about who was primarily responsible; it was the poor people in developing countries who were the cause of the problem and the 'fortunate minorities' in developed control had to impose population control there because they are all in the same lifeboat which otherwise would sink (Hardin, 1968).

Around the same time, the Club of Rome released its report *The Limits to Growth* (Meadows et al., 1972), issuing stark warnings about ecological

collapse due to (at least in part) overpopulation. The general anxieties around overpopulation expressed here, as well as by the Ehrlichs and Hardin, influenced the philosophical discussions as much as the public debate. The general discussions of environmental problems around the time created several new subfields within moral and political philosophy. An obvious example is *environmental ethics*, which studies the impacts of humanity on non-human nature and the responsibility of humans to care for the environment. Indeed, the academic field of environmental ethics arose in part due to the ecological impact of human population growth.[4]

Another outlet for discussions on population size was in *population ethics*, which took form in the end of the 1960s and beginning of the 1970s with contributions from Jan Narveson and Derek Parfit. Here, worries about overpopulation were addressed on a much higher level of abstraction – safe from political controversies. The questions addressed were formulated in terms of how to value the future. As Katarina Forrester (2019, p. 173) notes, when the 'racist and civilizational discourse of overpopulation would gradually become politically toxic for liberals and the left as antiracist critiques of eugenics, sterilization, and population control gained traction', the move towards a higher level of abstraction made population ethics durable. One could, however, argue that even if these philosophers took their views about the value of future populations to be policy neutral, their ethical underpinnings connected to a 'technocratic theory of government', which 'was historically associated with colonial practices of population control and eugenics' (Forrester, 2019, p. 181). Some population ethicists also drew out the policy implications of their ethical views, such as Narveson (1967) who argued that no one has the right to produce a child with a miserable life which would only burden the public.

The survivalist tendencies expressed by Hardin also influenced political philosophers. One example is Onora O'Neill (1975), who adopted Hardin's metaphor of a lifeboat ethics to address the joint threats of famine and overpopulation. She urged that the most pressing question to ask is one of survival: Given the radical shortage of resources, how can we save as many people as possible? The answer she proposed was that there was a need for both global famine prevention policies and population policies. Which specific population policies would be needed depended on the severity of the threat and they range from 'mild to draconian', from contraception to sterilization (O'Neill, 1975, p. 276 f). O'Neill's problem formulation was widely shared at the time by many other liberal philosophers who focused on famine prevention and international humanitarianism. It also related to ongoing policy discussions, such as the Brandt Report (Brandt et al., 1980).

As time passed, population policies became more and more politically toxic. Eventually it was no longer viable to relate to individual reproduction from a top-down humanitarian perspective. Individual rights and the rights of

the family to procreation took center stage. The International Conference on Population and Development (IDPD), in Cairo 1994, marked this shift in the general attitude towards population control. Principle 8 in the program of action that was agreed upon states that:

> Everyone has the right to the enjoyment of the highest attainable standard of physical and mental health. States should take all appropriate measures to ensure, on a basis of equality of men and women, universal access to health-care services, including those related to reproductive health care, which includes family planning and sexual health. Reproductive health-care programmes should provide the widest range of services without any form of coercion. All couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so.

The emphasis here is on the right to decide freely and the right to not be subject to coercive means.[5] This so-called 'Cairo declaration' is part of the political backdrop against which contemporary philosophers must position themselves in arguing about population policies. The other part is the history of racist, sexist and colonial practices which have characterized the implementation of anti-natalist policies. One might wonder whether it is possible to justify population policies in this hornet's nest.

## Conceptual and empirical clarifications

Before assessing population policies from an ethical point of view, certain conceptual and empirical clarifications are needed. Broadly construed, a population policy is a measure with the intention to affect the *pattern* of a population, e.g., the size, ethnographic distribution, and geographical spreading.[6] Most often, however, population policies are understood merely as a means to affect population *size*.[7] While population policies can be implemented as a means to stop or decrease population growth it can also be implemented as a means to increase population growth. In this paper we focus on the former since this is what most of the relevant research has focused on.[8] However, much of what we will say here will also be true for population policies that are introduced in order to increase population growth.

There are many ways to affect population size. One can, for example, influence people's *procreative decisions* – i.e., decisions about whether and when to have children or how many children to have. A variety of factors affect people's procreative decisions. For instance, different social, economic and cultural factors can be distinguished as relevant to individual procreative decisions, as well as factors such as education, religion, contraceptive use, abortion, immigration, cohabitation, age of marriage, female participation in the labour force, teenage fertility, and government programs, children as a source of labour or old age support, costs of raising children, health care improvements, gender equality,

maternal and social support, and so on. Some of these factors have been shown to correlate with declining fertility rates, others with inclining fertility rates. The evidence of effects of population policies is, however, mixed (Balbo et al., 2012).

Population policies can be characterized in different forms. Many existing characterizations draw on the distinction between *coercive* and *noncoercive* population policies. This is perhaps not surprising considering their history. The practice of compulsory sterilization, for example, is a shameful legacy of many societies and is today recognized as a horrendous abuse of human rights.[9]

However, the coercive/noncoercive distinction is not very illuminating (Moskowitz et al., 1995; Steinbock, 1995). Other features of population policies are also relevant. One distinction worth making in this respect is the one between *direct* and *indirect* population policies. A direct population policy is one which targets procreation directly, such as sterilisation programs or family tax benefits. An indirect population policy is one which targets procreation *via* some or other means, such as education programs. We will return to this when we discuss the libertarian approach to population policies in section 4.3.

Different population policies might also differ with respect to their geographical scope, which is captured by the distinction between *local* and *global* population policies. A local population policy aims to affect the population size within a certain geographical area, while a global population policy aims to affect the world's total population size. For instance, *restricted immigration* can be seen as a local population policy, since it affects the population size within a certain geographical area (typically within the borders of a nation state). International efforts to promote qualitative education for all, on the other hand, would count as a global population policy.

Relatedly, there is a question of *whose* reproduction is targeted *within* the (local or global) area. Whether or not it was the intention of past policy makers, population policies have often targeted specific social groups. Sterilisation programs, for example, were often aimed at the mentally ill, the poor or more specifically poor women, or those belonging to certain ethnic minorities (Glover, 1998). This leads to a suspicion that population policies have been disguised means of social control – or, more specifically, of separating or selecting socially desirable from socially undesirable citizens. A worry about teenage pregnancies may, for example, really be a worry about poor people multiplying and creating costs for society at large, a worry which is taken as justification for incentivising or nudging young working-class women not to procreate. We will get back to this in section 4.4, when we discuss a feminist approach to population policies.

Moreover, it should be emphasized that the *intended goal* of a population policy is potentially relevant to its justification. It can, for example, be the case that a population policy is justified as a means to reduce poverty, but not as a means to prevent biodiversity loss. As we shall see below, different ethical views yield different implications regarding *which* goals are relevant in this respect. This

also suggests that it is important to consider whether population size should be understood as an end in itself, or merely as a means to some separate end – such as alleviating poverty or preventing further biodiversity loss.

In relation to this, it is relevant to consider whether the goals, that would potentially justify a population policy, could be achieved by *other* means than population policies. Indeed, social goals can be met in different ways by targeting different factors in the complex causal web of social interaction. Although reducing fertility rates could be *one* way of reducing inequality and improving life expectancy in a society, it is not the *only* way of doing so. Another way would be to redistribute social goods. As an example, Hartmann (2016, p. 283) points out that successful demographic transitions in Cuba, Sri Lanka, Korea and Kerala cannot be explained in terms of population control. Instead, she argues, they are due to factors such as income and land redistribution, employment opportunities, social security, reductions in infant mortality, improvements in the position of women, and accessible health care and education.

The above shows some of the conceptual and empirical complexities around population policies. There are ethical questions in relation to all aspects of these conceptual and empirical complexities, as we will see in what follows. It may therefore be helpful to use the following graph, which illustrates the most important dimensions, to focus the attention in the ethical analysis that now follows.

In accordance with the graph in Figure 1, a population policy can be characterised as being anything from (i) coercive to noncoercive, (ii) means to ends-oriented, and (iii) targeting local or global demographic factors. Consequently,

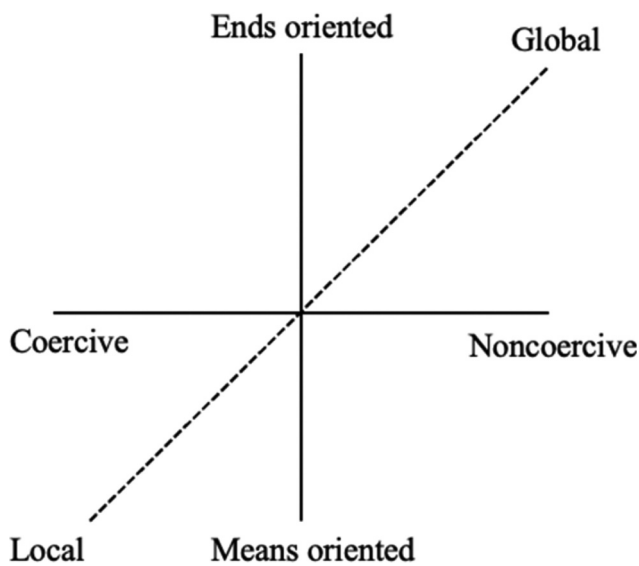


**Figure 1.**

a population policy can at least in part be identified depending on where it is situated on this three-dimensional graph.

Moreover, this framework can be applied at an *individual* as well as a *collective* level of morality. This relates to the distinction between *personal* and *public* morality. In other words, it can be investigated to what extent ethical justification can be given for (i) governmental or non-governmental population policies in order to decrease the human population, and (ii) individual people's measures taken to influence others to have fewer children. While it is quite clear that collective population policies might be relevant for sustainability reasons, one might question whether an individual's choice to have fewer children is at all relevant in such regard. However, just as a collective's (e.g., a nation's) ecological impact is the product partly of the population factor, an individual's ecological impact is *also* the product partly of the population factor (in terms of reproduction). Murtaugh and Schlax (2009) and Wynes and Nicholas (2017) argue that by choosing to have fewer children, an individual can – other things being equal – lessen their ecological footprint compared to what it would be had they chosen to have more children (see Van Basshuysen & Brandstedt, 2018 for criticism). As we shall see below, however, most of our discussion will concern public population measures.

## An ethical evaluation of population policies

In this section, we assess population policies on the basis of some influential ethical views. We start with the ecocentric and consequentialist approaches that are most permissive towards population policies in general. We then move towards more liberal approaches, including the libertarian approach and the feminist approach, that tend to be more restrictive.

### *The ecocentric approach: a case for reducing the human population*

The most apparent normative defence of population policies comes from *ecocentric* moral theories. Ecocentric moral theories employ a holistic worldview according to which so-called 'ecological wholes' – such as ecosystems, species, biotic communities, etc. – have *direct moral standing*. Nonhuman parts of nature have a right to exist *for their own sake*, irrespective of whether they are useful for humans. A conclusion that is often drawn from such theories is that humans have no right to infringe on these natural entities.

What is characteristic for ecocentric theories, compared to the human-centered theories discussed below, is their axiology. While human-centered moral theories typically endorse only human-related values – such as *human* well-being, autonomy, perfection, etc. – ecocentric moral theories endorse environment-related values – such as *ecosystemic* integrity, beauty, stability, biodiversity, etc. Sometimes these values are considered constituents of the

'well-being' of ecosystemic wholes. Whether an act is right or wrong depends, thus, on how it affects these values – or, in other words, whether it promotes or counteracts the well-being of ecosystemic wholes (Keller, 2010).

It is not entirely clear what more specific action recommendations are implied by such views, but we shall not explore the fine details of the ecocentric approach but rather its more general implications for population policies. We will, however, distinguish between *radical* and *moderate* ecocentric theories (Callicott, 2013). On radical ecocentric theories, such as, e.g., Aldo Leopold's *Land ethic*, these ecocentric values are the *only* things that matter for the rightness of an action (Leopold, 1949). As this implies, radical ecocentric theories allow – or even *require* – population policies to be used whenever that is needed for safeguarding ecocentric values. Such theories are highly implausible. For instance, they are 'ecofascist', as Tom Regan has argued (Regan, 1983), since they do not allow individual humans inviolable rights and thus open up the possibility of sacrificing individuals for the sake of ecological wholes.

For that reason, moderate ecocentric theories might turn out to be more plausible. According to such theories, human beings possess direct moral standing just as ecocentric wholes do. Human-centered values are supposed to count *in addition* to the ecological values. Human well-being must thus be taken into consideration *as well as* the well-being of ecosystemic wholes. Typically, moderate ecocentric theories imply that humans have no right to use nature *over and above* what is required for satisfying basic human needs.

This notwithstanding, moderate ecocentric theories allow for quite substantial population policies too. Consider one of the most famous moderate ecocentric moral theories, *deep ecology*. The relation to population anxiety can be seen in the eight basic principles of deep ecology, formulated by Arne Naess and George Sessions. The fifth principle, for instance, states that: 'The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.' The eight principle states that: 'Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes.' According to deep ecology, we thus have an obligation to decrease human population (Naess & Sessions, 1984).

It is not clear from the deep ecological principles *how* such a decrease in the human population should be brought about. Given the moderate ecocentric stance of taking into account human-centered values alongside ecocentric values, one possibility is that policies which frustrate basic needs of humans are impermissible. At a first glance, it might therefore seem that coercive population policies cannot be justified by deep ecology. At a closer look, however, things are more complicated. Indeed, even deep ecology regards humanity from a *holistic* point of view. This means that it is centred around the human *species* rather than on human *individuals*. Hence, 'basic human needs'

should be understood, not in terms of what is required for the survival and well-being of individual human beings, but rather in terms of what is required for the survival or well-being of the human species. And those things are quite different. The survival and well-being of the human species is consistent with both death and suffering of a great number of human individuals.[10]

Since there is no doubt that the human population is currently expanding at the cost of other species on Earth, as well as the toll it takes on many ecosystems, it seems quite clear that the current human population size is problematic from any ecocentric perspective. As this suggests, they all seem capable of justifying population policies *on the condition that the objective is to care for the well-being of ecosystemic wholes*. As a consequence, it seems quite clear that ecocentric moral theories can *both in principle and in practice* allow for substantial population policies of many kinds.

It should be noted, though, that things are a bit more complicated here as well. Humanity's impact on the Earth's ecological systems can be explained in terms of the I = P*A*T equation, where the ecological impact (I) is the product of *three* factors: the population size (P), this population's affluence measured in consumption of goods and services (A), and the technology with which these goods and services are produced (T). Consequently, the population factor is not the only factor by which ecosystemic health can be safeguarded. This same end could be reached through decreased consumption or improved technology, or some combination thereof. This in turn suggests that even if ecocentric theories could *justify* population policies, they *require* them only if there are no other alternatives available.

That being said, it is clear that population policies based on an ecocentric approach will be ends oriented. Depending on the specifics of the application, they can belong to the sphere of public as well as private morality, and be placed anywhere along the dimensions of coercive/non-coercive and global/local policies.

## *The consequentialist approach: a case for efficiency*

Roughly, a consequentialist ethical theory can justify the implementation of a population policy if – and only if – it leads to better consequences than the implementation of any alternative (including other population policies as well as no policies at all). The consequentialist approach adopts a different axiology than the ecocentric approach. Typically, consequentialist theories are welfarist. In other words, they do not take into account any ecocentric values: Only the well-being of humans and other sentient beings matter for the rightness of an action. This restriction to the well-being of sentient beings implies a restriction on which population policies that can be justified. Still, one cannot *in principle* rule out any population policy from the perspective of consequentialism – not even coercive population policies. If a coercive policy

leads to more overall well-being in the world, then, on a welfarist approach, it is justified. This is acknowledged by Räikkä (2001), who claims that coercive population policies may in some cases be preferable to noncoercive ones. Whether or not a population policy is justified, he argues, depends on the efficiency of the means it proposes and the potential harm of restricting individuals' procreative liberty by such means compared to the harm reduction thereby brought about through a smaller population size.

Robin Attfield (2015, p. 129) gives another consequentialist argument for population policies. He argues that China's one child policy actually presents a case for coercive population policies. He reasons as follows: noncoercive means would have been insufficient for limiting the population growth in China and an uncontrolled population would have led to catastrophic consequences. So, while he acknowledges that China may have acted ethically wrong by limiting reproductive freedom, that is if they thereby failed to minimize harmful consequences, if the alternative for China would have been no population policy and thus catastrophe, then the coercive nature of the one child policy is justified.

Although it is thus clear that any *type* of population policy can in principle be justified from a consequentialist perspective, nothing has been said so far about exactly how a population policy must be conducted more concretely in order to be justified. Few consequentialists have explicitly discussed the specifics of population policies in this respect. Philip Cafaro (2015) is an exception. He argues that we must take the severity of the possible consequences of climate change into consideration when assessing population policies. He proposes *restricted immigration* as a concrete population policy. By closing the borders of the state, he argues, the population size of a nation will be limited to the (procreation of) its existing members. This would thus count as a *local* population policy. However, Cafaro argues for this policy on the basis that immigration increases the greenhouse gas emissions. More specifically, he argues that the US ought to severely limit immigration in order to become ecologically sustainable.

The ethical discussion around immigration policies is complex and it is far from clear that restricted immigration is justified on consequentialist grounds. Among other things, the effects on the would-be immigrants' well-being, the long-term consequences for the economy, and the badness of climate change, must be taken into consideration before one can conclude that restricted immigration is *all things considered* a justified policy. In relation to this, it should be mentioned that fertility rates are, indeed, falling in parts of the world, much due to the abovementioned factors. This has had as a consequence that some express worries about a declining population. For example, Ben Wattenberg (2004) discusses the demographic challenges we face with falling fertility rates. Especially in Europe this will have serious consequences that need to be addressed according to Wattenberg. Similarly, Bricker and Ibbitson (2019) stresses

that important developments in the world have allowed women to have fewer children than previous generations which will lead to a decreasing world population with all the challenges that comes with it.

Moreover, consequentialists in general tend to acknowledge that there are better alternatives to coercive population policies. Consequentialists, who claim that it is our moral obligation to make sure that procreation ends since existence entails more suffering than joy, still argue that coercive means should be avoided. The most well-known consequentialist having such a view today may be David Benatar. He argues that *if* the state were to implement coercive population policies (e.g., via legal prohibitions of procreation), then it would have to 'engage in highly intrusive policing and the invasion of privacy that that would entail', which would in effect lead to very bad consequences (D. Benatar, 2008, p. 106). Obligatory abortions, for instance, would have the consequences that women would hide their pregnancy and give birth in places lacking the proper medical equipment which would in turn lead to much suffering. Even if Benatar is vague about which means to implement in this regard, it is clear from his (David Benatar, 2020) that he thinks that given certain commonly accepted conditions, e.g., that we ought to combat global property, it follows that procreative freedom should be restricted.

This suggests that the consequentialist approach would *in practice* recommend noncoercive population policies before coercive ones (if it would at all recommend population policies before other means to increase welfare in the world). To find *principled* arguments in favour of noncoercive population policies over coercive, however, one must look elsewhere.

## *The libertarian approach: a case for incentivization*

While coercive population policies can in principle be justified on both ecocentric and consequentialist theories, they are ruled out by many other ethical views. One common critique is that population policies tend to unduly restrict individual liberty. This critique can be supported on several non-consequentialist grounds, among which the libertarian moral theory is perhaps the most apparent.

On the libertarian approach, a population policy can be justified only insofar as it does not violate anyone's rights. More precisely, libertarianism condemns violations of *negative* rights, that is, individuals' rights to non-interference. The basic idea is that individuals should be free to do what they want insofar as they do not impermissibly restrict the freedom of others.

Since coercive population policies are *per definition* interfering with others' procreative freedom, they are typically hard – if not impossible – to justify on a libertarian ground. An exemption to this would be if the coercive policy is an instance of *self-defence*, and as such necessary to avoid an interference

that the would-be procreator otherwise would make. For sure, it is not only the would-be procreator that has rights against interference from the state, but also other people that have rights against interference from would-be procreators and their offspring. As Peter Vallentyne notes, 'one has a duty to ensure that others are not disadvantaged in certain ways by the presence of one's offspring' (Vallentyne, 2002, p. 205). If procreators fail to comply with this duty, then other people have a right to defend themselves against such failures. Population policies might be one instance of such a defence. Perhaps coercive population policies could also be justified in extreme cases, even though no one has violated or threatened anyone else's rights. Onora O'Neill, for instance, argues that coercive population policies can be justified only by the threat of major harm, such as 'threats of war, famine, disease, poverty, pollution or overcrowding'. However, we shall sidestep this possibility here in order to determine what noncoercive alternatives could be justified on libertarian grounds. For, it is not even clear to what extent noncoercive population policies could be so justified.

As mentioned above, individuals' fertility decisions are at least in part shaped by socio-economic and cultural factors. Hence, one potential means by which such decisions could be affected, is through changes in these factors which incentivises people to have fewer children. We thus turn to the question of whether incentivizing population policies can be justified.

A closely related population policy is that of *nudging* – a notion introduced by Cass Sunstein and Richard Thaler (Thaler & Sunstein, 2009) in order to refer to the subtle ways to impact people's decision-making. The morality of nudging has lately been much discussed. Much of the discussion has focused on whether nudging is a form of manipulation (e.g., Noggle 2018 and Sunstein 2015). As such nudging appears to be coercive. For instance, a tax on childbearing might nudge or incentivize people to have fewer children, but such a tax could be argued to be coercive since it restricts people's liberty in a quite drastic way. The only libertarian justification for such a tax is that it is a means to internalize the social costs that come with childbearing. We return to this below.

Hickey et al. (2016) give three criteria that must be met for incentives not to be coercive.[11] First, there should be transparency about the goals, methods and outcomes of the implemented policy. Second, the incentives should be offered to the would-be procreators rather than government officials and families. Third, in order to avoid coercion to poor women the incentives should be directed at 'upstream' procreative behaviours, such as the use of birth control and other family planning practices.[12] If they are correct an incentivizing population policy could reasonably be justified on libertarian grounds.

A concrete way of conducting incentivisation is through *preference adjustment*. Preference adjustment is the practice of changing the norms of individuals and the society they live in, e.g., through public campaigns (Hickey et al., 2016, p. 14). The permissibility of preference adjustment depends on how it is done. If the

information that causes the preference adjustment is objective and rational, then it is difficult to see what could be wrong with it. The information is then merely a catalyst for forming an informed decision. If the interventions adopt rhetorical means, however, then it may be harder to justify. Although rhetorical tactics – such as emotional appeal and celebrity endorsement – would be a very efficient means of changing the preferences of a population, and much harder to justify (Ryerson, 1994).

Diana Coole admits that incentives and disincentives often are coercive but argues that some incentives and disincentives can still play a part in a neoliberal governance. She concludes that a case can be made for reducing the size of population. However, two provisos must be met, human rights must be protected and "if a convincing, evidence-based case is made for its current and future benefits, and following public discussion" (Coole, 2018, p. 96).

The conclusion of this subsection is that a libertarian approach can justify noncoercive population policies of an incentivizing kind. There are, however, those who object to incentivization as a means to reduce population size. Roughly, the main argument is that there is no way to know that the changes that result from incentivization are fully voluntary (Mills, 1999). As Betsy Hartmann (2016, p. 64) elaborates, '[f]or people who are desperately poor, there is no such thing as a free choice'. Also, noncoercive incentivizing population policies will likely affect women more than men. As this suggests, incentivizing population policies may be discriminatory. This leads us to a feminist critique of population policies.

### *A feminist approach: a case for reproductive rights*

It can be argued that incentivizing population policies are morally problematic. Moskowitz et al, for instance, highlight that incentives for contraceptive implants are often an 'instrument of class prejudice and eugenic social coercion' (Moskowitz et al., 1995, p. 2).[13] This criticism is supported by what we may call a *feminist approach* according to which both gender equality and equality in general must be guaranteed for population policies to be justified. This kind of justification highlights *structural* problems related to population policies, which ecocentric, consequentialist and libertarian approaches neglect.

Feminist thinkers have observed that implementation of population policies often tend to target *specific groups* of people – such as women or the poor. One possible explanation is that poor women have higher fertility rates than other women. However, the poor also have much smaller ecological footprints, so when for example, climate change is discussed as a problem of overpopulation this can also reflect classist, racist and sexist attitudes through which responsibility for global problems are deflected from the affluent and poor people in developing countries are seen as the cause of their own suffering. Accordingly, a population policy must be designed and implemented in a way which avoids perpetuating

structural discrimination. It has also been argued that population programs should give women control and encourage social changes through providing women with greater opportunities (Tangri, 1976).

A specific proposal put forward in this context is a *right to reproduction*. This is often supported by the claim that everyone has a right to their own body and to freely form important decisions with regard to it. In this context it is also clear that pro-natalist policies can be rejected on the same ground as anti-natalist policies. Pro-natalist policies could also be accused of treating women merely as a means and infringing their right to their own bodies. This right, it is argued, would be violated if individuals' were to be manipulated to have fewer children than she otherwise would. This right to reproduction is often interpreted not only as a *negative* right against interference in one's decisions concerning procreation, but also as a *positive* right, which involves a right to assistance in procreation (Brake & Millum, 2018). Understood in this way, the right also involves such things as child care, income support, and health services – which are typically more important to the most marginalized in society.

One argument for the positive right to reproduction is that there are certain *enabling conditions*, i.e., conditions that enable individuals to freely make fertility decisions that are necessary for the reproductive right to be realized. According to Correa and Petchesky (2007), the right to reproduction comes with four enabling conditions (or 'principles', as they call them): (i) bodily integrity, (ii) personhood, (iii) equality, and (iv) respect for diversity. They claim that, although the social implications of these are often ignored, '[a]ll four principles, as we interpret them, both derive from and further society's interest in empowered and politically responsible citizens, including all women' (Correa & Petchesky, 2007, p. 298).[14]

Sara Conly has argued that the right to reproduction can be met by having just *one* child (Conly, 2016). This implies that a reproductive right is in principle compatible with policies limiting population size. Sure, this might not be what others have in mind when they refer to the right to procreate. This more general idea of a right to procreate, i.e., the right to one's own body, to control it and to have full autonomy over decisions relating to it, may be compromised by a population policy introduced to limit the number of children a woman gives birth to. This line of response is also available for the suggestion that one can acknowledge that there is a right to procreate but that this right may be tradable. This view, that is found in a proposal from Boulding (1964), has recently been advanced by De la Croix and Gosseries (2009) who argue that a way to deal with over- and under-population is to introduce a scheme with tradable procreation entitlements.

Still, it could be argued that rights can be exceeded, and having more than one child will cause so much damage that it would go beyond the right to procreate.[15] Conly supports this view with Amartya Sen's claim that 'despite the importance of reproductive rights, if their exercise were to generate disasters such as massive

misery and hunger, then we would have to question whether they deserve full protection' (1996, p 1039). In a similar vein, The European Convention on Human Rights (ECHR) states in Article 8 that a public authority may interfere with people's reproductive rights if doing so is 'in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others'.

Since population growth contributes to e.g., climate change, which in turn threatens these values, perhaps even a feminist approach should accept some population policies. The potential hazards of population growth is for example, considered by ecofeminist Donna Haraway who formulated the slogan 'Make Kin Not Babies!' in order to emphasize the role of kinmaking as an alternative to biological children (Haraway, 2016, p. 103). This multispecies kinmaking is believed to enable a free choice to not procreate in order to reach a population size of 2–3 billions without engaging ethically problematic means (see also Clarke & Haraway, 2018). More generally, given feminisms focus on equality it is likely that feminist approaches would at most support *indirect* population policies. This is in line with Tangri (1976), who argues that fertility reduction should be regarded as secondary (see also Marsden, 1973). Fortunately, there is evidence that policies aimed at neutralizing gender inequalities have in fact also reduced population growth. For instance, female education is a highly efficient means for fertility reductions, since it typically leads smaller families (O'Neill et al., 2005, Sen, 2001,; Lutz et al., 2014). Also, strengthening the position for impoverished women reduces their fertility. As argued by Abadian (1996, p. 1793), "by attending to fundamental freedoms for impoverished women, by enhancing women's access to and control over critical resources – their capability to achieve well-being – we not only meet welfare goals but also promote a reduction in fertility". More generally, family planning services, education, and safe methods of contraception strengthen women's reproductive autonomy and often has as a consequence that the individuals choose to have fewer children. Consequently, it is not impossible to find population policies on a feminist agenda, but they tend to be indirect, means-oriented and noncoercive.

## *The fairness approach: the case for internalising the costs of children*

The last category of arguments we will survey is focused on a comparison between parents and non-parents. The main claim, in short, is that if the decision to have a child creates costs for society at large including for non-parents, then these costs should be borne by those making the decision, i.e., the parents. The alternative, i.e., to socialise the costs, is unfair on the non-parents. If this claim can be substantiated, then some kind of population policies may be justified as a means to securing that everyone gets the fair share, they are entitled to by distributive justice.

Before we can evaluate this, it is important to note a few things about the relevant costs in question. The starting point here is that creating an individual can result in either positive or negative externalities (Casal & Williams, 1995). The main positive externalities are goods and services the new individual produces and which society at large can benefit from, e.g., their work, taxes, and contributions to pension systems. The main negative externalities are the costs imposed on society and those living in it by the new individual through their consumption of scarce natural resources and production of waste.

Some have argued (e.g., Casal & Williams, 1995; cf. Cripps, 2015) that to the extent that having children produces negative externalities, e.g., contributes to climate change, fairness demands that these costs should be internalised to the parents – the so-called 'Parental Provision view'. Paula Casal and Andrew Williams (Casal & Williams, 1995) ground their argument on a Dworkian view of egalitarian justice according to which inequalities between individuals are unjustified if they result from brute luck (e.g., natural misfortune) but justified if they result from free choice. The decision to have a child is, in relevant respects, no different from other choices an individual could make (cf. Young, 2001), and so there is no reason for why others should cover its costs. To the extent that the creation of an individual reduces others' share of impersonal resources, fairness demands that the parents compensate them for that loss even though they themselves end up worse off as a result. What concrete implications this has in terms of population policies is not fully clear, but Casal and Williams (1995) argue that subsidies to parents (e.g., child allowances and tax exemptions) should be removed and perhaps new taxes imposed. Elizabeth Cripps (2015) takes a similar line arguing that having children is unfair on non-parents because the additional costs created make it harder and eventually even impossible for them to meet their duties of basic global and intergenerational justice. In particular, it risks placing future generations in a tragic choice situation in which either they may not have any children at all or be forced to act unjustly towards their contemporaries. We are not yet, she argues, in this situation, but morally hard choices must be made already now. We may, for example, need to introduce fines on those having children and stigmatising those having many children even though such policies would be both intrusive and aggravate inequalities.

Marcel Wissenburg (1998) seems to accept the Parental Provision view, but draw a different conclusion. He argues that it leads to a paradox: on the one hand, it is necessary to reduce the world population, on the other hand, introducing population policies, which would restrict the procreative liberty of those who have not yet reproduced, is unfair and incompatible with the idea of a liberal society. Wissenburg's concern seems to be a problem of non-ideal theory. If the Parental Provision view is correct, then procreative liberty should be restricted by parents having to pay the full price of having children, but these restrictions may need to be implemented gradually so as to not frustrate anyone's existing life plans.

The fairness-based argument for restrictions on procreative liberty can, however, also be challenged in other ways. One thing is that it is far from clear what an optimal world population size is, taking into account both positive and negative externalities (Greaves, 2019). Adding individuals to our world now will, other things being equal, lead to some negative externalities, but may also, for example, accelerate the development of new technology.

Another way in which the argument can be challenged is in its attribution of responsibility to the parents for the environmental impact of their grown-up children and more distant descendants (Olsaretti, 2017; cf. Van Basshuysen & Brandstedt, 2018). Olsaretti (2017) counters the Parental Provision view on several fronts. One thing is by arguing that it assumes a static, time slice perspective on society. In the dynamic real-world situation, everyone is someone's child and the claim to internalise all externalities of children would effectively spell the end to distributive justice. In other words, the Parental Provision view is incompatible with the thought that as members of a society, there are certain things we owe one another. Furthermore, socialising the costs of children does not give benefits to parents compared to non-parents, but rather gives children their fair share – everyone is still entitled to an equal share. Olsaretti (2017) does, however, recognise that population growth can make it worse for everyone, but argues that if this is so, then this is a problem that it must be explained in other ways.

A final way in which the Parental Provision view can be challenged is the claim that it cannot be implemented without undermining the social bases of self-respect for children (Heyward, 2012). Even 'soft' population policies, such as removing child allowances and social campaigns against having many children, would inevitably lead to collateral damage on the children born after these are introduced and give them a worse start in life than that of previous generations.

## Conclusion

We began this review article by highlighting the conceptual and empirical intricacies of population policies and thereafter made various distinctions which resulted in a three-dimensional taxonomy for understanding the ethically relevant dimensions of population policies. This paved the way for a deeper and more detailed assessment of their ethical status. A general implication of the results of the ethical analysis we have done is that whether or not population policies are ethically justified comes down to what fundamental assumptions are made about whose fertility decisions are targeted and for what reasons, and which consequences are taken into account in the justification. It is clear that ecocentric and consequentialist approaches can in principle allow for both direct and coercive population policies of various kinds – at least insofar as the ecosystemic well-being, or the overall welfare in the world, is thereby increased. Both libertarian and feminist approaches, however, put tougher constraints on population policies. According to the libertarian approach coercive population policies are

impermissible, but certain incentivizing policies may be allowed. The feminist approach agrees with this, but further requires that the noncoercive policies take structural justice issues into account. Finally, there are issues of fairness that must be addressed in the implementation of population policies, in particular as they tend to negatively affect those already most disadvantaged. The conclusion must be that to ethically justify population policies is very problematic.

## Notes

1. There were, of course, those who disagreed and put forward more positive views of population growth. The most famous example is Esther Boserup's *The Conditions of Agricultural Growth* (Boserup, (2014) [1965]). Boserup argued that, as necessity is the mother of invention, population growth will lead to more efficient agricultural production. Another important criticism to this line of thought can be found in Julian Simon's *The Ultimate Resource* (Simon, 1981) and *The Resourceful Earth* (Simon & Kahn, 1984) in which he argues that, roughly, a growing population leads to innovation, and when scarcity of a resource raises its price alternative resources will be found. This belief made him challenge Paul Erlich in a wager on the price development of metals, as he believed that their price would not rise with increasing scarcity.
2. A few years prior, in 1964, economist Kenneth Boulding proposed that a system of marketable procreation licences would meet the overpopulation problem in the most ethical way: "Each girl on approaching maturity would be presented with a certificate which will entitle its owner to have, say, 2.2 children, or whatever number would ensure a reproductive rate of one. The unit of these certificates might be the 'deci-child,' and accumulation of ten of these units by purchase, inheritance, or gift would permit a woman in maturity to have one legal child. We would then set up a market in these units in which the rich and the philoprogenitive would purchase them from the poor, the nuns, the maiden aunts, and so on" (Boulding, 1964, p. 135).
3. This is not an analogy that is meant to tell us something about commons, rather it is meant to show us that coercive means can be justified.
4. For a more contemporary discussion similar to the *The Limits of Growth*, see e.g, J. Rockström et al. (2009).
5. In the Final Act of the International Conference of Human Rights 1968, sect II, item 16, the following claim can be found: "Parents have a basic human right to determine freely and responsibly the number and the spacing of their children." However, population growth is also seen as a hurdle for human rights provision. In other words, this shift has gradually happened. For a good overview of this development see Pizzarossa, L. B. (Pizzarossa, 2018). For a discussion about the possibility that this formulation can be construed as a justification for population control see Freedman and Isaacs (1993).
6. As noted, population policies must typically involve an *intention* to affect the population pattern. We will however also discuss some policies that will have such an effect even if it is not intended (cf. Räikkä, 2001). To call any policy that will affect the population pattern, even if it is not the intended effect, seems to be too inclusive since most policies may have this effect to some degree.
7. This may be compared to Diana Coole's definition of *population control*. That is, 'a policy regime designed to modify fertility trends through deliberate interference in

reproductive behaviour, with the aim of influencing demographic outcomes.' (Coole, 2018, p. 4)

8. Pro-natalist policies are common in many parts of the world, and in some contexts, they are not believed to be as problematic as anti-natalist policies. However, as we shall discuss in section 4.4, pro-natalist policies can be criticised on feminist grounds.
9. The most influential publication at the time, advocating sterilization, was Gosney and Popenoe (1929). The compulsory means were often motivated by arguing that the individuals subjected to these sterilizations would actually benefit from it, that is, on paternalist grounds. This, in turn, was often based on ideas of racial supremacy. For a general critique of eugenics and sterilisation programs, see Glover (1998).
10. For a brief introduction to deep ecology see Brennan and Lo (2016).
11. Hickey et al understand an incentivizing population policy as an 'attempt to influence fertility by directly altering the costs and benefits associated with certain reproductive behaviors.' (p 13).
12. For more on the ethical dimension of incentives see e.g., Ruth W. Grant 2012.
13. For more on this see Davidson and Kalmuss (1997) and Hartmann (2016).
14. Interestingly, if these conditions are accepted, then it can be inferred that the reproductive right is violated in cases where not everyone has access to family planning, and so are forced to have more children than they actually desire.
15. See also McKibben (2013) for the view that we ought only to have one child and Overall (2012) for a discussion on procreative rights and their limits.

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