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Population, Climate Change and the Philosopher's Message

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Abstract

Population size is a significant variable that can be addressed to help combat climate change. If global fertility rates dropped by only 0.5 births per woman, almost a third of the emissions needed to avoid catastrophic climate change could be saved. This is equivalent to the annual emissions that would be saved from doubling the fuel efficiency of cars, increasing wind energy 50-fold or improving nuclear energy three times over. It accounts for over half of the Earth's yearly emissions. Yet, is there a way to address population size without violating human rights? To what extent should individual reproductive practices change? These are live questions. However, various philosophers claim that procreators should limit themselves to having no more than one child. Doing so, they say, strikes the most appropriate balance between protecting reproductive justice for people who want to have children and achieving a sustainable future.

This paper pushes back on this claim. There are plausibly too many sexist, racist, classist and eugenic outcomes in demanding people limit their procreation to one child. Therefore, philosophers should relax their messaging about permissibility limits and be more concerned with helping people cultivate the right *character* to think through procreation and overpopulation.

Keywords: Overpopulation; one-child message; ethics; education

Introduction

Population size is a significant variable that can be addressed to help combat climate change. If global fertility rates dropped by only 0.5 births per woman, almost a third of the emissions needed to avoid catastrophic climate change could be saved. This is equivalent to the annual emissions that would be saved from doubling the fuel efficiency of cars, increasing wind energy 50-fold or improving nuclear energy three times over (Hickey et al., 2016). It accounts for over half of the Earth's yearly emissions (O'Neill et al., 2010).

A growing list of philosophers, therefore, argue that despite population control's egregious history, it is time to take a closer look to establish whether there are morally justifiable ways to address it (c.f. Crist, 2019; Overall, 2012; Rieder, 2016). Is there a way to address population size without violating human rights? To what extent (if any) should individual reproductive practices change? What is the optimum population size? These are live questions. However, various philosophers claim that procreators should limit themselves to only having one child (c.f. Cafaro, 2021; Conly, 2016; Kuhlemann, 2018; Meijers, 2016). Doing so, they say, strikes the most appropriate balance between protecting reproductive justice for people who want to have children and achieving a sustainable future.

This discourse — which I will refer to as the one-child message — concerns me. While I agree that *something* must be done about population size, I disagree that people ought to have a maximum of one child. It risks perpetuating sexist, classist, racist and eugenic problems. It is the wrong message to send.

Section One uses Philip Cafaro's (2021) argument to explain why many philosophers believe that people should only have one child (if they are to procreate). His argument is *prima facie* compelling; it captures the key features of the one-child message, and he is a leading proponent of it. Section Two explains why this message is too dangerous to spread. Section Three concludes by briefly suggesting an alternative: instead of concentrating on what number is permissible, philosophers should be helping people cultivate the right *character* to think through procreation and overpopulation. The methodology I use is one of critical analysis and reflective equilibrium.

Cafaro's one-child message

Cafaro uses a study by Lianos and Pseiridis (2016) to show how the world is overpopulated. Lianos and Pseiridis explain that if we value each individual having the minimum physical ingredients required for a decent life — ingredients which include food, water, education, health care, sanitary living conditions and economic opportunities — and to do so in a way that allows future generations to have the same opportunities, the world's population needs to be significantly reduced. They calculate the gross world product of natural resources and show that, given the finite amount of resources, for *everyone* to have the opportunity to access the above physical ingredients, the world's population must be reduced to about 3.1 billion. Anything over that, and there are not enough resources for everyone: the higher the population, the fewer resources available per capita.

They also explain that for each person to access enough resources to secure the physical ingredients, the annual consumption cost is about \$9000. Spending more on consumption — consuming over this amount — entails that the population must be reduced *even further* to achieve sustainability: the higher the average per capita consumption, the lower the number of people the Earth can sustain within its natural limits. Therefore, Lianos and Pseiridis conclude, the Earth can only accommodate 3.1 billion people annually consuming \$9000 worth of natural resources each. Not living within these parameters puts the world in an ecological overshoot.

The annual per capita consumption of the average US citizen is about \$90,000 — almost ten times the sustainable amount. To achieve sustainability, the population must be reduced from its current 341 million people to about 45 million. The same goes for many European countries. France needs to decrease its population by 40 per cent, Italy by 66 per cent, Germany by 70 per cent and the UK by 81 per cent. All the while, their per capita consumption of natural resources *also* needs to decrease to \$9000. Otherwise, further population reductions are needed to achieve sustainability.¹

These numbers are confronting for anyone living in an affluent country. They entail that having a child in the West *requires* many others to live in abject poverty: creating someone who will consume an unsustainable amount of resources is incompatible with many others doing the same. It precludes people from the physical ingredients needed for a decent life and relies on injustice and inequality. The situation is unfair and incommensurate with what the goals of humanity should be.

However, affluent countries are not the only ones that must reduce their population. Cafaro points out that developing nations also need to. Given that many people in these countries will (and indeed deserve to) increase their consumption to escape poverty, their populations will ultimately have to be reduced to remain sustainable.

Not achieving sustainability, Cafaro explains, undermines fundamental rights to food, water, shelter and security. It compromises adequate medical care, education and other social services. It

will cause millions of deaths this century, billions over the millennium and an unquantifiable amount of suffering. It disables the essential ecosystem services we rely on to maintain a functioning social order.

So, if we take human flourishing and well-being as worthy values to strive for, we must, Cafaro says, reduce the population by putting limits on reproductive rights. Not doing so is to live unsustainably and to give up trying to achieve these values. The situation is so severe that moderate proposals are not good enough. Merely encouraging people to have a small family yet allowing them an absolute right to reproduction fails to take seriously the environmental crisis that overpopulation contributes to.

Instead of moderate proposals, therefore, Cafaro says that people should have no more than one child. Procreating multiple times is socially irresponsible. Everyone must be discouraged from doing so. Indeed, for Cafaro, these facts about overpopulation:

... don't merely justify stringent efforts to reduce human numbers as quickly as humanely possible, they morally require them. Overpopulation threatens massive suffering for billions of people and extinction for millions of species. It imperils life's flourishing, the ultimate value. This justifies the following ethical imperative: *Would-be parents should restrict themselves to one child* [emphasis his, pg. 62].

Cafaro is not the only one spreading this message. Conly (2016) claims that because of climate change worries, once people's fundamental interest in procreating is satisfied by having one child, there is a duty not to have more. Meijers et al. (2016) says that having a right to more than one child is incompatible with everyone having a right to the food, water, shelter and security needed to survive and flourish. Kuhlemann (2018, pg. 187) states:

In order for younger and future generations to have a chance at decent lives in a world that is not an environmental wasteland, there needs to be change to social ideas about what a normal family looks like. A one-child family ideal is a very small family indeed, but one that prioritises the life chances of children and future generations, the long-term stability of human societies, and the survival of the world's wildlife over the immediate preferences and desires of prospective parents. This is what makes sense, and how it should be.²

This one-child message has numerous points in its favour. First, it acknowledges the value of procreation by giving people the space to procreate at least once. The goods of procreation can be secured, and people's interest in having biological offspring, raising a family, and being treated as worthy of passing on their genes are protected. Second, it would just about halve the world's population if successful. A Bradshaw and Brook (2014) study shows that compliance by 2045 would reduce the global population to about 3.45 billion by 2100. Third, it would substantially reduce emissions to the point that achieving a sustainable world — and the values of flourishing and well-being — might be possible. Per capita, living standards would improve as everyone (not just those in affluent countries) gains access to the physical ingredients needed for a decent life.

Nevertheless, despite these advantages, below I put forward some non-environmental reasons which suggest that philosophers should not send a one-child message to prospective parents. Before doing so, though, I acknowledge that various *details* of the message could be analysed. For example, it could be clearer whether everyone must have a maximum of one child or whether the fertility rate merely needs to be one. If many people do not procreate at all, does it imply that some can have two children? Moreover, is the message aimed at couples or reproducers? If it is couples, it entails that someone could have a child with a partner, but then upon breaking up and re-partnering, could have another child. If it is reproducers, that person could not have another child upon re-partnering.

In any case, I will set these issues aside for the rest of the paper and simply assume they can be addressed. I will also set aside any queries regarding the *factual* claims about overpopulation. No doubt, an analysis could also be given of these claims. For instance, the nexus between consumption, population and sustainability could be explored further. However, it is not what is at stake in this paper. Regardless of the details, angles or data that is leaned on, everyone advocating for the one-child message concludes that the world's population is unsustainable. I will accept this conclusion. My concern is with the *moral message* derived from factual claims. Even if we agree that overpopulation is a problem and that something must be done about it, does it follow that we ought to tell people to have a maximum of one child? No.

Problems with the one-child message

While the one-child message has theoretical benefits, it has too many practical issues. It will plausibly result in sexist, classist, racist and objectionably eugenic outcomes. These outcomes indicate that it is not an appropriate message to send. I do not aim to offer a knockdown argument to defend this point. My aim is milder: to provide reasons suggesting that philosophers should be more concerned with how the one-child messaging is received. Too often, philosophical arguments imply an “all else being equal” clause, but rarely is all else equal — particularly regarding procreation.

First, consider the *sexist* issues in sending a one-child message.

Sexism

We are not talking to some abstract entity when telling people to have a maximum of one child. Instead, as Overall (2012) points out, we are telling *women* what to do with their bodies, labour and choices. It has always been a woman's job to manage reproduction. They have the lion's share in taking responsibility for safe sex, protecting against pregnancy, lowering risks during pregnancy and raising children. When reproduction does not go how people think it should, women are held most accountable.

Therefore, by spreading the one-child message, this imbalanced burden of managing reproduction will only get worse. Women will face extra pressures and have to deal with further scrutiny, shame and guilt if they do not meet society's strict reproductive expectations (Kukla, 2016). They will be asked to make the most sacrifices and be the environmentally virtuous ones (see Sasser, 2018).

The *number* of females in relation to males will also likely decrease as sex selection becomes a more significant issue. Anytime people feel pressured to lower their fertility rates, abortions and infanticide have disproportionately targeted females. Under China's one-child policy, for instance, there were about 116 males born to every 100 females. The global average was 107 to 100 (Fong, 2016). This causes a deeper entrenchment of patriarchal norms. Widespread selection against females influences many to see women as commodities (Conly, 2016).

Either way, given the overpopulation issues canvassed by Cafaro, scrutinising reproductive decision-making in itself does not seem to be the problem. The problem, I believe, is that the burdens of this scrutiny will disproportionately and egregiously affect women.³ A heightened surveillance of their bodies, choices and reproductive behaviour will likely intensify and exacerbate pre-existing sexist norms in society. Yet, as Overall (2012, pg. 21) says:

Women's bodily freedom (the absence of physical, legal or social constraints on one's decisions about one's body) and autonomy (the capacity to be self-determining, especially with respect to one's body) is the sine qua non for women's equality and full citizenship. The deontological basis for reproductive rights is that they are indispensable to protecting women's personhood.

This scrutiny is further unfair when one realises that the problems posed by overpopulation and climate change have mostly occurred because of the decisions made by *males* (Cripps, 2022).

Second, consider the *classist* issues that could reasonably arise from spreading a one-child message.

Classism

“Women” are not a homogenous group. They have unequal relations that intersect with class and race, determining how society treats them. The disproportionate burdens that women experience as a result of the one-child message will be felt even further by those with a low socio-economic status.

Many women with this status already have less autonomy and ability to control their reproduction (Kukla, 2016). Safe and affordable access to contraception is far from being universally realised. So, if the one-child message became a social norm, telling many women to adhere to it within their context would put them in an unfair situation. They do not necessarily have the agency only to have one child, and insofar as one child is the new reproductive “ideal” — or the ideal which presupposes a society of monogamous, married, educated, working women — they will likely face stigma for failing to achieve these norms. If we say to many women that there is this compelling argument which shows that they should only have one child, we run the risk of unjustifiably moralising about their life, creating stigma, causing extra burdens and not correctly understanding the nuances of their situation.

Women from a low socio-economic status will also likely experience further surveillance on their procreative choices, over and beyond affluent women. This increase may be because of the issue just highlighted - that is, they cannot meet reproductive ideals, so social regulation of their behaviour will intensify. Or, because throughout history, people with lower socio-economic status have *always* been deemed as “less worthy” of reproducing.

Indeed, Connelly (2008) shows that whenever attempts have been made to lower the population, vulnerable people from lower classes are the ones most targeted to carry this burden. The demand for women to have fewer children has never been uniform. The upper class, with the “right” ethnicity, has traditionally been called to have more children, while the lower class has been discouraged (also see Yuval-Davis, 1997). As recently as 2014, Indian women from lower castes, imprisoned women in California, and women living with HIV in Africa and Latin America all faced coercive sterilisation programmes (Bhatia et al., 2020). Throughout history to the present day, when judgements are made about where the population is excessive or who is to blame, people from lower socio-economic classes are at risk.

Third, consider the *racist* issues which the one-child message will likely exacerbate.

Racism

People of colour are disproportionately represented in lower socio-economic groups (Kukla, 2016). Consequently, they already receive and feel surrounded by anti-natalist messaging, while white women feel encouraged to procreate (Roberts, 2014). In family planning contexts, people of colour have often not been seen as individuals but as populations with lower IQs and higher crime (Connelly, 2008).

So, even if the one-child message attempts — in theory — to target affluent white women (insofar as they produce the most emissions), because of the underlying racial dynamics in society, it is hard to see how this messaging would — in practice — distribute itself without reflecting those dynamics. It would likely exacerbate the problematic patterns of messaging that already

exist. Similar to the classist issues above, some races throughout history have been unfairly targeted by anti-natal messaging, and with racist structures still in place, we cannot reasonably rule this out happening again.

On top of this, there is a further injustice in spreading the one-child message to people of colour in developing countries, or indigenous people in developed ones. It is the actions of affluent Western cultures which have caused the injustices of climate change and resource scarcity (Farrell et al., 2021). When people in famine-plagued The Gambia, for instance, cannot feed their kids, and people in affluent countries have plenty of food to spare, there is a climate injustice at play. We are rich on the back of colonisation that has stripped people of the wealth that could (and should) have been theirs (Cripps, 2023). To tell indigenous people to limit themselves to one child also seems particularly problematic because colonising countries have compromised the survival of their cultures so much already. Sending the one-child message to them could plausibly see their cultures disappear altogether - it poses an existential threat.

Therefore, the historical story of colonialism, racism and how someone comes to emit an unsustainable amount matters (Dyett & Thomas, 2019). Affluent cultures are the ones that have created the problems caused by overpopulation and climate change. We use an unsustainable amount of natural resources that others have to pay the price for, and those most responsible for these issues should take the most responsibility (Cripps, 2022). Cavaliere (2020, pg. 137) puts it well:

Not all people contribute equally to the worsening of climate change and not all people are in an equal position to produce new resources to minimise these negative effects. Hence, it seems reasonable to assume that it would be self-defeating to implement measures which seek to reduce everyone's birth rates.

Climate action must involve climate justice. But, with the underlying and systemic racial structures in the world, and the power dynamics that these structures entail, any such nuances are likely to be lost under the spreading of a one-child message.

Permeating through these issues of sex, class and race is how the one-child message could plausibly contribute to unjustifiable *eugenics*.

Eugenics

Eugenics refers to the encouragement of some people — those deemed to have “desirable traits” — to reproduce, and the discouragement of other people — those deemed to have “undesirable traits” — from reproducing (de Melo-Martin & Goering, 2022). I have already highlighted how some groups prosper in attempts to reduce the population while others are compromised. Yet, the threat of unjust *eugenics* is worth mentioning more explicitly: dramatically decreasing the population would not just change the population number; it would change the population *structure* — that is, it would change who comprises the population (Cavaliere, 2020).

Discussions about the size of a population have always been linked to discussions about the “quality” of the population (Connelly, 2008; Coole, 2021). And this troubling past cannot be easily separated from the present: the entanglement of population reduction messaging with gender, race and class inequalities is inescapable. Were people only to get “one shot” at having a child, *who* the population consists of and *which* traits are desirable becomes a pertinent question. It is not a stretch, for instance, to envision that under the one-child message, many people will attempt to select the “best off child.” However, without wading too far into the complexities surrounding embryo selection, insofar as the “best off child” selects against people living with a disability — or it sends a message to them that they are not valued procreators — this could create problematic eugenic outcomes.

So, until the risks of vulnerable groups incidentally or intentionally dwindling can be avoided, it seems that the one-child message should also be avoided.⁴ Any message regarding how to respond to overpopulation should be decoupled (in theory and practice) from oppressive social structures (such as sexism, classism and racism). And, any proposed response should not reasonably lead to unjustifiably eugenic consequences.

The upshot

The upshot of all this, and the critical point that I am trying to make, is that perhaps if all else were equal, the one-child message could be viable. However, not all else is equal. There are too many nuances, complexities and structural problems in society. A message to have only one child will not be sent into a world with a blank slate. It will be sent into a world with severe inequalities and a history of troublesome population engineering. Depending on one's group, ethnicity, gender, culture or social status, people will feel pressured to have a maximum of one child differently. Competing interests and power dynamics will influence people's perception and assessment of questions such as:

- Who does the one-child message apply to?
- How stringent is the one-child message (for example, when it is an obligation and when it is a mere recommendation)?
- Who should have an exemption from the message?
- Who counts as valuable in procreating, and who is not as valuable?
- Whose interests should be given the most priority? And whose the least?

These questions will not be answered in a philosophical thought experiment or a political vacuum (see Schultz, 2021). They will be addressed within the sexist, classist and racist structures which are part of today's society. The most vulnerable people are the most underrepresented at all levels of decision-making. Therefore, it seems all too plausible that they will suffer the most from how these questions are answered and, thus, how the one-child message is received and applied. Cafaro has, I believe, shown that having a maximum of one child can matter *pro tanto* (i.e. up to a certain point), but he has not demonstrated that it is the message philosophers should be sending to people, *all things considered*.

If this is the case, a lacuna exists regarding what message to send. Is there an appropriate way for philosophers to educate and communicate overpopulation issues? How can this gap be filled? Below, I conclude this paper by briefly suggesting an alternative message which concentrates on one's *ethos* instead of one's duties. I do not pretend that this message is perfect. No doubt it has flaws. However, I put it forward in the hope that it can contribute to understanding how best to communicate procreation and overpopulation issues.

An ethics-centred message

Decisions around procreation are some of the most intimate and personal choices that one can make. They are inherently tied to the capacity to control the narrative of one's life. When responding to overpopulation problems, therefore, we should attempt to uphold and defend people's decision-making capacity to the greatest degree possible. Instead of sending a message that tells people to have a maximum of one child, I propose that an appropriate message will target the type of person one wants to be — *one's ethics*.

Indeed, consider the distinction between "morals" and "ethics." "Morals" comes from the word "*mores*" and denotes the customs, manners and duties one has towards others. When we are concerned with a person's actions — their obligations and responsibilities — we are concerned with their morals. "Ethics" comes from "*ethos*" and denotes one's values, character and attitudes

towards how they see themselves.⁵ When we are concerned about the character of a person — the type of person they are — we are concerned with their ethics. We are interested in who a person is, how they understand a situation, what their motives are and whether they exhibit good character.

Ethics has a rich history in philosophy. Since Socrates asked, “What sort of person should I be? What shall I aim for? What are my values?”, it has been an important line of inquiry. Aristotle (1999) took a virtue ethics approach and believed that the type of person one *is* is more important than what one *does*. He thought that if we concentrate on cultivating a good character, we will do the right thing. If I work hard at becoming a caring person, for instance, I will likely act in a caring way. I will strive to be concerned for others in the right way, to the right degree, at the right time and for the right reasons. The correct action will simply be whatever I (the caring person) choose to do, acting *from* my caring character traits.

Therefore, instead of examining what makes an action right, Aristotle says we should be concerned with a more fundamental question: “How should I live?”. Just like an archer aims at a target, we should aim to cultivate a good character and be concerned with *living* well. The entry point for ethical reflection is not what one’s moral obligations are but a reflection on one’s life as a whole and where it is going (Annas, 1993).

Exploration into one’s ethics has received extensive attention in the climate ethics literature. If people cultivate the right attitude and values towards nature, they will likely act in ways that respect the environment (c.f. Sandler, 2007; Lenzi, 2023; Hursthouse, 2022; Jamieson, 2014).⁶ Yet, making the leap to applying one’s ethics to overpopulation *specifically* has not received much attention. Any mention of “values” within this context has been vague and without clear guidance.

Only Rieder (2016) explicitly highlights how having a particular *ethos* could lead to having fewer children. He points out that someone with the character trait of “mindfulness” would be mindful of, and thus likely take responsibility for, the sustainability problems of procreating. However, while Rieder offers important insights, he does so mainly for evaluatory reasons - to show when someone might be blameworthy for procreating. He does not explore how cultivating one’s ethics should be *the* message philosophers send to people. He also uses virtue ethics specifically, whereas the ethics that I am interested in, to be clear, is the more Socratic conceptualisation above, which includes attitudes and values more generally.⁷ Nor, unfortunately, have Rieder’s comments been explored further in the literature.

Most claims about procreation and overpopulation concern people’s *morals*. It is common to describe, as Cafaro does, a state of affairs — such as the size of one’s ecological footprint or the problems of overpopulation — then prescribe how one should act in light of that state of affairs, such as telling people to have a maximum of one child. This type of moral move can have merit. However, it lacks existential grounding, leaving no space for one’s character, attitudes or values. The move is entirely impersonal. It knows *nothing* about the agent (other than the fact they may want a child), and it has no genuine interest in their inner world — their life projects, their convictions, their motives — when making a demand on them.

Something, then, is missing. Questions regarding whether to have children are fundamentally existential. They concern one’s values and character: how one wants to live, who one wants to be and what one’s place in the world is. When people think through procreation, they rarely do so in a way that is detached and isolated from what gives their life meaning (see Smyth, 2020). When someone considers procreation, they often ask questions such as:

- Can I be a good parent?
- Am I ready to love and care for a child?
- How will having a child affect my relationship with my partner and friends?
- What challenges will having a child bring to my personal and professional life?
- Is having a child consistent with how I want my life to look?
- What kind of legacy do I want to leave behind?

Addressing procreative questions, in other words, requires exploring one's ethics. Presenting people with a moral message to have a maximum of one child while not attempting to engage with who that person is isolates them from their values. It leaves their character and attitudes out in the cold and removes their agency. This removal is particularly problematic in a time of overpopulation and climate change when individual actions can feel too small to make a difference. Overpopulation can feel like a distant, impersonal issue. Ethics makes it personal. Living according to our values is self-affecting. Cultivating our character — thinking through our ethics rather than just our morals — matters for our sense of agency.

Therefore, instead of impersonally demanding that people have a maximum of one child, philosophers should send a message about overpopulation that engages one's ethics. People care about their character. It matters what we choose to do with our lives and how we feel about it, whether we live according to our values or have thought about what kind of person we want to be. Philosophers should be connecting with this sense of who we are in their messaging. The message should be that everyone can have multiple children if they want, yet they must engage with some important *ethical* issues to do so.

As an example of how this messaging might look, consider the following questions that could be communicated to people (particularly in affluent countries who rely on injustice and unsustainable lifestyles to live and procreate). These questions all attempt to engage with *who* someone is, or wants to be, in light of overpopulation:

- What does justice mean to me? Will my child have a high-emissions lifestyle, and will this rely on others living in poverty? If so, is this justifiable?
- Do I have biological parenting desires — that is, the desire to parent someone who has my genes? Or do I simply have parenting desires — that is, the desire to raise someone in a loving environment according to my values, regardless of their genes?
- Even if I might discover a strong biological connection once I have a child, could I be fulfilled or find meaning in my life if I raised someone who is not biologically connected to me?
- If I have only parenting desires, can this be satisfied in other ways, such as through fostering, teaching, mentoring, raising a pet or, if possible, adopting?
- Does satisfying my parenting desires in other ways particularly apply to me if I already have one biological child?

These questions are not exclusive or exhaustive, but are indicative of the type of *ethical* questions that philosophers could help people to think through. From an educational perspective, they could form the basis of discussion in high schools and universities, where late teens and young adults can think through their options regarding life choices in front of them and how they can make those choices in line with their values. Most of us want to live *well*. Engaging with this want in an educational capacity — helping people *how* to think — offers a more promising way than the one-child message does — telling people *what* to think — in communicating procreation and overpopulation issues.

Of course, some philosophers (like Cafaro) might agree with the importance of ethics but object to an ethics-centred message being strong enough. *More* must be done for the environment, so the message must be more assertive. However, when considering the most appropriate way to communicate to individuals about overpopulation, we must remember why it is an issue in the first place. Why does something need to be done about population size? What do we want to protect the environment *for*? One significant reason is that failing to do anything about overpopulation threatens to undermine people's dignity and capacity to flourish. The cost of protecting these values should not be to compromise on the values themselves. Given our actual, imperfect and unequal world, telling people to have a maximum of one child threatens to make this compromise. We must tread a finer line.

We can, I think, tread this line via an ethics-centred message. It will not solve all the problems highlighted in Section Two, but it at least attempts to minimise them. It avoids putting undue pressure on vulnerable individuals to bear the burden of responding to overpopulation, while still doing *something* about the issue. The message, moreover, is pragmatic. When people feel empowered to make decisions according to their values and have the flexibility to do so, they are much more likely to adhere to a course of action than if told to take that course (Caney, 2020). An ethics-centred message gives people the agency to respond to overpopulation problems and thus helps to sever the connection between population reduction aims and human rights abuses.

Conclusion

An ethics-centred message needs development, and I do not pretend to have offered that here. I have said nothing, for instance, about how the government or other social institutions can help to communicate this message. I have not fleshed out how it might look from a philosopher's perspective. Instead, I have merely suggested that given the problems associated with telling people to have a maximum of one child, philosophers should be more concerned with helping people to consider the *ethical* ramifications of procreation. In the real world, not everyone is equal, and moralising over people's fertility has real-world consequences — the message we send matters. One's ethics matter. An ethics-centred message, then, is an appropriate one to send. There may even be a *moral* obligation to do so.

Notes

1 Tucker (2019), Crist (2019), Dasgupta (2019) and Pimentel, Whitecraft, and Scott (2010) all make similar calculations and reach similar conclusions: the global population needs to reduce to about two - three billion people to achieve sustainability. However, for the details and method of Lianos and Pseiridis' (2016) calculations, see pgs. 1686–1687. For a further summation of their calculations, see particularly pgs. 60–61 of Cafaro (2021). It is beyond the scope of this paper to analyse *how* we might lower our per capita consumption to \$9000. Lianos and Pseiridis offer a discussion on this point on pgs. 1694–1695. Amongst other things, they point out that satisfying our needs with consumption goods that do not have as high resource requirements — such as plant-derived foods instead of animal-derived — would result in resource savings. Either way, they conclude that population reduction is unavoidable if we wish to achieve sustainability.

2 For examples of others endorsing this position, see Robeyns (2021), Pimentel et al. (2010) and Crist et al. (2022)

3 For further discussion of feminist issues and gender justice in population discourse see Fenner and Harcourt (2023) and Harcourt (2020).

4 Perhaps these outcomes could be avoided by better education and ensuring that discussion of the message is well conceived. However, successful avoidance would take a considerable amount of time, and given the seriousness of the sustainability problems caused by overpopulation, it must be addressed *now*. In any case, below in Section Three, I suggest an alternative form of education that, I argue, can better help to decouple population reduction messaging from these uncomfortable notions of sex, class, race and eugenics.

5 Of course, "ethics" can also refer to an area of philosophical study or part of a philosophy curriculum. However, anytime I use it in what follows I am referring to it in the way I denote it in the main text. For more on the distinction between "ethics" and "morals," see Grayling (2023).

6 Cafaro himself is greatly interested in and has offered important contributions to, environmental ethics more generally. For example, see Cafaro and Sandler (2005). The problem is that in his (2021) paper he takes it a step further by making the moral demand to have no more than one child. It is *this* message that is the wrong one to send. An ethics-centred message is more appropriate. Or so I argue.

7 Indeed, one does not need to be a virtue ethicist, nor believe its substantive claim that character is more important than actions, to agree with my claim that ethics matters in our messaging. I am not specifically arguing for virtue ethics, and in any case one can simply view what I am saying as a pragmatic claim. That is, an ethics-centred message is pragmatically the best way to communicate the connection between overpopulation and individual-decision-making. Certainly, it seems that the one-child message may not even have a feasible chance of success (see Stanbury, 2022).

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Ethical standard. Nothing to note.

References

- Annas, J. (1993). *The morality of happiness*. Oxford University Press.
- Aristotle (1999). *Nicomachean ethics: With introduction, notes, and glossary (T. Irwin, Trans.)*. 2nd edition, Hackett.
- Bhatia, R., Sasser, J.S., Ojeda, D., Hendrixson, A., Nadimpally, S., & Foley, E.E. (2020). A feminist exploration of “populationism”: Engaging contemporary forms of population control. *Gender, Place and Culture : A Journal of Feminist Geography*, 27(3), 333–350. DOI: [10.1080/0966369X.2018.1553859](https://doi.org/10.1080/0966369X.2018.1553859).
- Bradshaw, C.J.A., & Brook, B.W. (2014). Human population reduction is not a quick fix for environmental problems. *Proceedings of the National Academy of Sciences of the United States of America*, 111(46), 16610–16615.
- Cafaro, P., & Sandler, R. (2005). *Environmental virtue ethics*. Oxford: Rowman & Littlefield Publishers.
- Caney, S. (2020). Human rights, population, and climate change. In *Human rights and 21st century challenges*. Oxford University Press.
- Cavaliere, G. (2020). The problem with reproductive freedom. Procreation beyond procreators’ interests. *Medicine, Health Care, and Philosophy*, 23(1), 131–140.
- Conly, S. (2016). *One child: Do we have a right to more?*. Oxford University Press.
- Connelly, M. (2008). *Fatal misconception: The struggle to control world population*. Cambridge: Belknap Press of Harvard University Press.
- Coole, D. (2021). The toxification of population discourse. A genealogical study. *Journal of Development Studies*, 57(9), 1454–1469.
- Cripps, E. (2022). *What climate justice means and why we should care*. London: Bloomsbury Continuum.
- Cripps, E. (2023). *Parenting on Earth*. Cambridge: The MIT Press.
- Crist, E. (2019). *Abundant Earth*. University of Chicago Press.
- Crist, E., Ripple, W.J., Ehrlich, P.R., Rees, W.E., & Wolf, C. (2022). Scientists’ warning on population. *The Science of the Total Environment*, 845, 157166–157166. DOI: [10.1016/j.scitotenv.2022.157166](https://doi.org/10.1016/j.scitotenv.2022.157166).
- Dasgupta, P. (2019). *Time and the generations: Population ethics for a diminishing planet*. New York Chichester, West Sussex: Columbia University Press.
- de Melo-Martin, I., & Goering, S. (2022). Eugenics. In E.N. Zalta (Eds.), *The stanford encyclopedia of philosophy*. <https://plato.stanford.edu/archives/sum2022/entries/eugenics/>
- Dyett, J., & Thomas, C. (2019). Overpopulation discourse: Patriarchy, racism, and the specter of ecofascism. *Perspectives on Global Development and Technology*, 18(1-2), 205–224.
- Farrell, J., Burrow, P.B., McConnell, K., Bayham, J., Whyte, K., & Koss, G. (2021). Effects of land dispossession and forced migration on Indigenous peoples in North America. *Science*, 374(6567), eabe4943.
- Fenner, M., & Harcourt, W. (2023). Debating population in and beyond feminist political ecology. In W. Harcourt, A. Agostino, R. Elmhirst, M. Gómez & P. Kotsila (Eds.), *Contours of feminist political ecology. Gender, development and social change*. Palgrave Macmillan.
- Fong, M. (2016). *One child: Life, love and parenthood in modern China*. London: OneWorld Press.
- Grayling, A.C. (2023). *Philosophy and life*. London: Viking.
- Harcourt, W. (2020). Unravelling the ‘P’ word in environment and development. *Development and Change*, 51(6), 1628–1639.
- Hickey, C., Rieder, T.N., & Earl, J. (2016). Population engineering and the fight against climate change. *Social Theory and Practice*, 42(4), 845–870.
- Hursthouse, R. (2022). Environmental virtue ethics. In J. Annas & J. Reid (Eds.), *Virtue and action: Selected papers*. Oxford University Press.
- Jamieson, D. (2014). *Reason in a dark time: Why the struggle against climate change failed—and what it means for our future*. New York, US: Oxford University Press.
- Kuhlemann, K. (2018). “Any size population will do?” the fallacy of aiming for stabilization of human numbers. *The Ecological Citizen*, 1, 181–189.
- Kukla, R. (2016). Whose job is it to fight climate change? A response to Hickey, Rieder, and Earl. *Social Theory and Practice*, 42(4), 871–878.
- Lenzi, D. (2023). How should we respond to climate change? Virtue ethics and aggregation problems. *Journal of Social Philosophy*, 54(3), 421–436.

- Lianos, T.P., & Pseiridis, A.** (2016). Sustainable welfare and optimum population size. *Environment, Development and Sustainability*, 18(6), 1679–1699.
- Meijers, T.** (2016). Climate change and the right to one child. In H. Rights, S. G. Bos & M. Düwell, 181–194). Routledge.
- O'Neill, B., Dalton, M., Fuchs, R., Jiang, L., Pachauri, S., & Zigova, K.** (2010). Global demographic trends and future carbon emissions. *Proceedings of the National Academy of Sciences - PNAS*, 107(41), 17521–17526.
- Overall, C.** (2012). *Why have children? The ethical debate*. The MIT Press.
- Pimentel, D., Whitecraft, M., Scott, Z.R., & et al.** (2010). Will limited land, water, and energy control human population numbers in the future? *Human Ecology*, 38(5), 599–611 10.
- Rieder, T.N.** (2016). *Toward a small family ethic: How overpopulation and climate change are affecting the morality of procreation*. Springer Briefs in Public Health Ethics.
- Roberts, D.** (2014). *Killing the black body: Race, reproduction, and the meaning of liberty*. Vintage.
- Robeyns, I.** (2021). Is Procreation Special?, *Journal of Value Inquiry*, 56, 643–661.
- Sandler, R.** (2007). *Character and environment : A virtue-oriented approach to environmental ethics*. New York: Columbia University Press.
- Sasser, J.** (2018). *On infertile ground: Population control and women's rights in the era of climate change*. New York: NYU Press.
- Schultz, S.** (2021). The neo-Malthusian reflex in climate politics: Technocratic, right wing and feminist references. *Australian Feminist Studies*, 36(110), 485–502.
- Smyth, N.** (2020). What is the question to which anti-natalism is the answer? *Ethical Theory Moral Practice*, 23(1), 71–87.
- Stanbury, C.** (2022). What to do about overpopulation? *Journal of Applied Philosophy*, 39(5), 841–856.
- Tucker, C.** (2019). *A planet of 3 billion*. Atlas Observatory Press.
- Yuval-Davis, N.** (1997). *Gender & nation*. London: SAGE.

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