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The Problem of Spontaneous Abortion: Is the Pro-Life Position Morally Monstrous?

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A substantial proportion of human embryos spontaneously abort soon after conception, and ethicists have argued this is problematic for the pro-life view that a human embryo has the same moral status as an adult from conception. Firstly, if human embryos are our moral equals, this entails spontaneous abortion is one of humanity's most important problems, and it is claimed this is absurd, and a *reductio* of the moral status claim. Secondly, it is claimed that pro-life advocates do not act as if spontaneous abortion is important, implying they are failing to fulfill their moral obligations. We report that the primary cause of spontaneous abortion is chromosomal defects, which are currently unpreventable, and show that as the other major cause of prenatal death is induced abortion, pro-life advocates can legitimately continue efforts to oppose it. We also defend the relevance of the killing and letting die distinction, which provides further justification for pro-life priorities.

KEYWORDS natural embryo loss, spontaneous abortion, induced abortion, moral status, miscarriage, moral obligation, killing, letting die

Introduction

It is widely accepted that a substantial proportion of human embryos[†] die within a few weeks of conception, with estimates of losses from conception to birth often

[†] Technically, the developing human being is known as an embryo for the first eight weeks, and from the ninth week until birth, a fetus (Schoenwolf *et al.* 2015, p. 4). As the majority of spontaneous abortions occur in the first few weeks after conception, throughout this paper we generally use 'embryo'.

exceeding 70% (Jarvis 2017). Numerous ethicists have argued that this high incidence of spontaneous abortion (more commonly known as miscarriage²) is problematic for the pro-life view that a human embryo from conception has the same moral status as an adult human being.

Critics of the pro-life view have argued that if the human embryo possesses full moral status, then spontaneous abortion equates to a serious public health crisis (Douglas and Savulescu 2009). This view has been most persuasively articulated by Toby Ord (2008), who has stated that belief in the full moral status of embryos entails that spontaneous abortion is one of the most serious problems facing humanity. Ord regards this conclusion as completely implausible, and therefore a compelling argument against the pro-life view, which he thinks should be abandoned. More recently, Lovering (2017, p. 307) has similarly claimed that this conclusion is ‘counterintuitive if not absurd’. Clearly, a view of the moral status of human embryos and fetuses that entails an absurd conclusion is untenable. Moreover, pro-life advocates do not seem to treat spontaneous abortion as a public health crisis in the way construed by Ord, and he suggests this means they do not actually believe full moral status begins at conception.

Alternatively, if this view regarding moral status of human embryos is to be maintained, it is claimed that knowledge of the magnitude of spontaneous abortion entails certain moral obligations for pro-life advocates. It has been argued that pro-life advocates should ‘shift their resources away from opposition to abortion and toward preventing miscarriage, because so many more deaths are caused by miscarriage’ (Berg 2017, p. 1224). William Simkulet (2017, p. 790) goes further, describing pro-life advocates as ‘intellectually dishonest’ and claiming they ‘behave monstrously when they oppose voluntary, induced abortions while ignoring the much greater loss of life caused by spontaneous abortions’.

Here, we defend the pro-life view that human beings possess full moral status from conception against two claims. Firstly, that it is absurd to hold that spontaneous abortion is one of the most serious problems facing humanity, and that this absurdity entails pro-life advocates should abandon their claim that human embryos and fetuses possess full moral status. Secondly, that if pro-life advocates do continue to hold this view on moral status, they are morally obliged to redirect their resources away from opposition to induced abortions towards reducing spontaneous abortion. If they do not, they are behaving in a manner that is morally monstrous.

Before we address these claims ourselves, we examine what is meant by equal moral status, and survey the existing pro-life responses to the claims. We delve into the statistics regarding spontaneous abortions and induced abortions, before considering the absurdity claim. We then examine the various factors that affect pro-life moral obligations towards induced abortion and spontaneous abortion, and present our conclusion about how these two obligations compare with each other.

² Spontaneous abortion and miscarriage are equivalent terms. They both refer to pregnancy loss prior to viability (Kolte *et al.* 2014, p. 495).

Equal moral status

It is important at the outset to clarify what the pro-life position entails when it is claimed that human embryos possess equal moral status with adult human beings. This is often phrased as possessing *full moral status* from conception, or equivalently that they are *persons* from conception. This does not entail embryos have all the rights that adults do — many rights can only be exercised by adults — but does mean they have the same right to life. Crucially, however, this does not necessarily entail equal treatment, as pointed out by Dodsworth *et al.* (2008) in their response to Ord. In their view, this entails embryos have a weaker claim to aid than do adults. There are additional considerations that influence our obligations to others but have no implications for their moral status: for example, parents treat their own children differently to other children, and this does not imply their children have higher moral status. Much of our response examines the key considerations that should influence our treatment of human embryos.

Existing pro-life responses

Ord criticises those who believe that the human embryo possesses full moral status as lacking curiosity about the issue of spontaneous abortion, claiming ‘it would surely be a matter for heated discussion in the journals or in the Church’ (2008, p. 19). The topic has subsequently received attention in the literature.³ Primarily, pro-life philosophers have focused on three points, all of which we agree with. Firstly, they point out our knowledge of the frequency of spontaneous abortion is unreliable. For instance, Buratovich (2013), Lee (2010) and Kaczor (2014) argue that the percentage of normal human embryos that die before implantation is almost certainly inflated. Secondly, they believe high rates of spontaneous abortion do not necessarily imply anything about the moral status of human embryos, a position held by Beckwith (2007), Kaczor (2014) and George and Tollefsen (2011). They all appeal to the historically high rates of infant mortality — at times upwards of 50% — in some developing nations and reason that high rates of mortality do not necessarily indicate anything about moral status. Oderberg (2008) makes a similar point, arguing that it would be as much of a mistake to infer that the moral status of embryos is compromised by high rates of mortality as it would to the thousands of individuals who die as a consequence of starvation and poverty each day. Thirdly, a significant proportion of spontaneous abortions involve entities that are the result of a failure or defect in the fertilisation process, and so in many cases what is lost is not a human embryo to begin with (Lee 2010, George and Tollefsen 2011, Herranz 2013).

Herranz (2013) has perhaps the most detailed examination of this issue, devoting a chapter of his book to early human embryo loss. In his view the argument lacks force because reliable data is lacking, and Herranz concludes that ‘real and specific data on embryo attrition’ is required to make it tenable (2013, p. 147). Additionally, he believes that rather than biological failure, ‘we can understand embryo loss as the

³ See: DiSilvestro 2008, Burda 2008, Brakman 2008, Camosy 2008, Marino 2008, Card 2008, Dodsworth *et al.* 2008.

price we have to pay for the gift of each one's singular individuality, for each person's uniqueness' (2013, p. 144).

These responses, however, do not address the argument of inconsistency of action — that the high rates of spontaneous abortion entail that pro-life advocates have a moral obligation to direct more of their time and resources to reducing spontaneous abortions, instead of opposing induced abortions, which are responsible for fewer deaths — and that their failure to do so implies they do not actually believe (or at least are not being consistent with such a belief) that human embryos are persons. Kaczor does suggest that most spontaneous abortions are difficult to prevent, and claims that rates could be reduced only 'at great expense and burden to all those involved and with little hope of success' (2014, p. 139). He believes that affirmation of the moral status of all human life does not entail that extraordinary efforts must always be made to save lives. Ord, however, notes that some known causes of spontaneous abortion (for example, maternal alcohol use, nutritional deficiencies, and maternal smoking) could be reduced relatively easily, and claims there is limited evidence that pro-life advocates are interested in acting to do so (2008, pp. 17, 19).

A recent defence of the full moral status of the embryo in the context of spontaneous abortion has been made by Henrik Friberg-Fernros (2018b), in a response to Simkulet (2017). His claim is that the moral distinction commonly granted between causing and allowing death (or killing and letting die) can be extended to *preventing* deaths being caused (by induced abortion) and *preventing* deaths occurring by spontaneous abortion. He grounds this on the basis that induced abortion, from the pro-life view, involves two 'tragedies' — the death of a person and the human act of killing this person — and therefore preventing induced abortions warrants being considered a higher priority than spontaneous abortions. Friberg-Fernros' approach uses Jeff McMahan's (2002) *time-relative interest account* to explain why we might prioritise the deaths of children and adults over those of the unborn. Briefly, time-relative interests are stronger for those with a richer mental life, and so children and adults have stronger time-relative interests than the unborn. We explore this in more depth below.

One deficiency in existing responses considered previously is a sufficiently *in-depth* examination of the statistics involving spontaneous abortion, including the various causes. We provide this below, and also correct errors in the range of spontaneous abortion rates provided by Berg (2017). We also consider in greater depth the preventability of spontaneous abortions, the badness of death, and the morality of killing versus letting die and how this impacts pro-life moral obligations.

The prevalence of spontaneous abortion

Ord, Berg and Simkulet establish their case by presenting statistics on the prevalence of spontaneous abortions. The rates Ord uses for spontaneous abortion are 56% by 6 weeks, and 63% by term, and Simkulet 'over 60%' by term. Ord grants that there is room for disagreement with these figures, noting that the lowest estimate for spontaneous abortion is 45%.

Berg cites a very broad range of 22% to 89%. The 22% figure is incorrect: the study she cites (Weintraub and Sheiner 2011) is actually citing a study on early pregnancy loss, which it defines as ‘reproductive loss that occurs ~14 days after conception, at around the time of the next expected menstrual period’ (Elish *et al.* 1996, p. 406). This will certainly be lower than the overall spontaneous abortion rate. Her cited upper limit of 89% is uncharacteristically high, and the source is a study (Rolfe 1982) that involved only 11 participants, and used early pregnancy factor (EPF) to detect early embryo loss. There are doubts about EPF’s utility for diagnosing early pregnancy (Jarvis 2017) and it has rarely been used since hCG testing became widely available. Jarvis states that rates of 70% or higher ‘are excessive and not supported by available data’ (2017, p. 15). Consequently, we will focus on Ord and Simkulet’s figures.

The wide range of rates cited indicate that there is substantial uncertainty about the numbers involved. Jarvis (2017) confirms that these estimates are very imprecise, noting limitations in the widely cited work of Roberts and Lowe (1975), and the difficulty of establishing rates of spontaneous abortion prior to biochemical signs of pregnancy. Detecting hCG⁴, a placental hormone initially produced by the human embryo, is only possible from the time of implantation, which at the earliest occurs 6–7 days after conception. Most estimates of pre-implantation loss are derived from IVF data. Jarvis (2017, p. 14) doubts IVF losses are representative of the rates of natural embryo loss, citing studies⁵ that show IVF is substantially less efficient than normal reproduction in terms of the number of egg-sperm interactions required to produce a live birth. The primary source for natural pre-implantation loss is the anatomical work of Hertig *et al.* (1956), who together collected 34 early human embryos from women undergoing gynaecological surgery over a fifteen year period from 1938. Jarvis describes Hertig and Rock’s estimates and Hertig’s (1967) analysis as having ‘cripplingly low precision’ (2017, p. 13). He concludes that ‘natural pre-implantation embryo loss remains quantitatively undefined’ (Jarvis 2017, p. 15), and cites the best available data as suggesting a range of 10–40%, substantially less than Ord’s figure of 50%. Jarvis (2017, p. 15) claims that ‘overall pregnancy loss from fertilisation to birth is approximately 40–60%’, the upper estimate being similar to Ord and Simkulet’s figures. We note this uncertainty for completeness, but for the purposes of argument will grant Ord’s 63% figure so that we do not cherry-pick a low rate favourable to the pro-life position.

An important point acknowledged by Simkulet and Ord is that a significant number of spontaneous abortions result from defects so severe that a human embryo is never formed. Anembryonic pregnancies, which comprise perhaps one third of spontaneous abortions (Lathi *et al.* 2007), have no identifiable embryonic elements and thus may never have been human organisms to begin with. Similarly, complete hydatidiform moles which arise when an ovum lacking its DNA is fertilised by one or two spermatozoa (Schoenwolf *et al.* 2015) and develop as a mass of uncoordinated tissue, were also never human organisms.

⁴ Human chorionic gonadotropin.

⁵ Such as Jones *et al.* 2010.

Using a spontaneous abortion rate of 63% and estimates of 133 million annual births, Ord concludes there are over 200 million spontaneous abortions annually (the actual figure is 226 million). If a third of these spontaneous abortions are not human organisms, then approximately 151 million spontaneous abortions of actual human embryos occur annually. According to the World Health Organisation (WHO) (2017), 56.4 million people died during 2016, and so the spontaneous abortion figures are almost three times greater than the number of deaths of post-birth humans annually. If, as pro-life advocates claim, these are deaths of human beings with full moral status, there is obviously a *prima facie* case to answer.

Humanity's most serious issue

Both Ord and Lovering suggest that it is absurd to believe that spontaneous abortion is one of the most serious problems facing humanity, but claim that this belief is entailed by the view that embryos possess full moral status. Ord compares his 200 million figure with the 7.6 million people who die from cancer annually and the 60 million people who died during the Second World War, asking if pro-life advocates can really believe that spontaneous abortion is more important than these issues.

Certainly, for someone who does not assign full moral status to human embryos, this no doubt seems an absurd claim, but Ord's target is pro-life advocates, and so we must consider whether or not it seems absurd to them. We can judge this by comparing it with a very similar claim about induced abortion. Sedgh *et al.* (2016) estimate that 56 million abortions were performed annually between 2010 and 14. While substantially less than the 151 million spontaneous abortions we estimated may involve actual human beings, this figure also dwarfs cancer deaths and is similar to Second World War deaths, and, if embryos have full moral status, induced abortion is clearly also one of humanity's most serious problems. It seems evident that pro-life advocates do not regard *this* as an absurd proposition — they do consider induced abortion as one of humanity's most serious problems, they demonstrate it by their allocation of resources, and this is a consequence of their views on the moral status of human embryos. It seems logical, then, for pro-life advocates to also accept that spontaneous abortion is also a serious problem for humanity.

Spontaneous abortion and pro-life moral obligations

What moral obligations do pro-life advocates have toward reducing rates of spontaneous abortion? Here, we make some basic assumptions that are widely agreed, and proceed on this basis to examine pro-life obligations. We assume that death and suffering are bad, and take the view expressed by Peter Singer that 'if it is in our power to prevent something bad from happening, without thereby sacrificing anything of comparable moral importance, we ought, morally, to do it' (1972, p. 231). On the pro-life position, huge numbers of human beings with full moral status — persons — are dying prior to birth, and so this entails that a *prima facie*

moral obligation exists for pro-life advocates to act to reduce rates of spontaneous abortion. Given our assumptions above and that pro-life resources are limited, we can derive two important considerations that should influence how pro-life advocates should act to fulfill this obligation: the *preventability* of death and the *badness* of death. This implies deaths that are preventable should be prioritised over deaths that are not preventable, *ceteris paribus*: if we allocate the majority of our resources towards deaths that are very difficult to prevent, this will entail far fewer deaths will be prevented than if we primarily act to reduce preventable deaths. Reduction of the *badness* of death has certain implications also — some deaths are worse than others in their consequences, and so we should also prioritise prevention of these deaths if possible. For example, a common intuition is that it is worse for a healthy young person to die than an elderly person. Finally, it may be that some deaths are *morally* worse than others. For example, if deliberate killing is morally worse than letting someone die, then this also may need to be a consideration.

At this point we note that Simkulet's claims are far stronger than noting a moral obligation exists. He asserts that opposition to induced abortion is 'morally negligent', even 'morally monstrous', given it focuses on 'the comparably small evils of induced human abortion, rather than the overwhelming evils of spontaneous abortions' (Simkulet 2017, p. 789). Simkulet believes that on the pro-life view, the problem of spontaneous abortion is so significant that it should take absolute priority over opposition to induced abortion. He doubts that pro-life advocates can meet their moral obligations towards spontaneous abortion while opposing induced abortion in the manner that they do.

Interestingly, Simkulet does not quote any figures on induced abortion for comparison. Given annual spontaneous abortion estimates of 151 million actual human beings (based on Ord's figures), and induced abortion estimates of 56 million, it is clear that Simkulet's use of 'insignificant' and 'overwhelming evils' is inappropriate. *Both* figures are very significant in comparison to post-birth deaths of 56 million from *all* causes. If we have a moral obligation to act to reduce *all* deaths, for pro-life advocates, this means acting to reduce *all* prenatal deaths as well as post-birth deaths.

We will now examine the three primary considerations we have suggested should influence pro-life moral obligations towards spontaneous abortions: preventability of deaths, the badness of death, and killing versus letting die.

Preventability of death

To delve into the preventability of deaths, particularly for spontaneous abortions, we must investigate the various *causes* of spontaneous abortion, and evaluate their potential for prevention. It is important to note that spontaneous abortion is an umbrella term encompassing *all* natural deaths prior to 20 weeks gestation, and it has a variety of different causes. As Tollefsen (2008) has noted, 'it is not as if there is one pathology or disease that is responsible for all incidents of early embryo loss. This makes analogies to a single disease that wipes out a corresponding

number of adults highly inapt'. McMahan also suggests multiple causes as a possible explanation of complacency about spontaneous abortion (McMahan 2002, p. 165). Direct comparisons of spontaneous abortion with induced abortion, or indeed with any postnatal cause of death gives the misleading impression that it is a single cause of death that far outweighs any other cause. This is analogous to comparing, say, deaths from road accidents to post-birth deaths from *all* natural causes, and claiming that the latter is overwhelming compared to the former. If our goal is to reduce intrauterine mortality, and we are to prioritise our resources, we need to look at the different causes of spontaneous abortion.

There is already significant ongoing research into spontaneous abortion, which as we have noted is commonly referred to as miscarriage. This research is aimed at treating recurrent miscarriage — two or more miscarriages — and improving IVF success rates. According to Jeve and Davies (2014, p. 166), 'recurrent miscarriage is one of most widely researched areas in medicine'. Although establishing causation can be difficult, particularly for pre-implantation spontaneous abortions, a number of probable causes have been identified. The most common cause of spontaneous abortion is chromosomal abnormalities, accounting for perhaps 70% of all spontaneous abortions (Salim 2011), whether anembryonic or not (Lathi *et al.* 2007). These abnormalities are mostly *aneuploidies*, an abnormal number of chromosomes in cells (O'Connor 2008). The most frequent of these are *trisomies*, where cells have one extra chromosome, and are rarely compatible with life with the exception of Down's syndrome and Klinefelter's syndrome (O'Connor 2008). This is a broad category of causes — there are a variety of aneuploidies, which in turn are caused by chromosomal defects in oocytes or spermatozoa, or errors in the fertilisation process.

Here we note that Ord uses a very conservative range of 30–60% of spontaneous abortions being caused by chromosomal defects. Schreck and Williams (2013, p. 2) explain that earlier techniques had various limitations that failed to detect certain defects, and figures of 60% aneuploid fetuses found in early studies 'should be considered a minimum estimate of the incidence of chromosome abnormalities in miscarriages'. Accordingly, we have chosen to use the higher end of Ord's range, 60%, in our later calculations of the primary cause of spontaneous abortions.

Other causes or risk factors for spontaneous abortion include immunological and immunogenetic causes, thrombophilias, endocrinological causes, uterine malformations, and acute maternal infections (Macklon *et al.* 2002, Larsen *et al.* 2013). Certain lifestyle factors are also thought to contribute, such as smoking, alcohol and caffeine consumption, obesity, heavy lifting and night-shift work (Nilsson *et al.* 2014). Finally, increasing maternal age is implicated in higher rates of spontaneous abortion (Salim 2011, Nilsson *et al.* 2014). These are not exclusive causes: for example, increasing maternal age is also known to increase the risk of chromosomal defects (Ozawa *et al.* 2019).

How preventable, then, is spontaneous abortion? The primary cause, chromosomal abnormalities, cannot currently be treated, although in the future gene-editing may be possible for affected embryos in known pregnancies. The majority of spontaneous abortions due to chromosomal defects occur before pregnancy is known, and so advances are likely to have a limited effect on spontaneous abortion rates. Some uterine abnormalities can be surgically corrected, and treatments exist to

reduce the risk of spontaneous abortion in women with antiphospholipid syndrome. Lifestyle factors can be modified: Nilsson *et al.* (2014) estimate lifestyle changes can reduce the risk of late miscarriages, a minority of spontaneous abortions, by up to 25%. Given that increased maternal age has been shown to result in higher rates of spontaneous abortion as noted above, it seems plausible that if women have children earlier in life and use contraception when not intending to become pregnant, this could reduce spontaneous abortions.

The badness of death

Intuitively, some deaths seem worse than others, if we measure the badness of death by its effects on the overall value of a life. A young adult who dies suffers the loss of far more net good from their future possible life than an elderly person, so their death can be considered worse. Curiously, though, most people regard the death of an embryo or fetus as less bad than the death of an adult, even though they have more net good ahead in their future possible life. One sophisticated attempt to capture such intuitions about death is Jeff McMahan's (2002) *time-relative interest account* (TRIA). McMahan's account tries to estimate the net good in an individual's future possible life, and applies a multiplier based on the degree of special concern an individual rationally has for their own future. This *egoistic concern* varies between individuals — an infant, for example, has a very weak concern about their future — and is based on the degree of *psychological unity* between the individual now and in the future. One's psychological unity over a time period is dependent on the richness and continuity of their mental life. According to McMahan, then, death is not as bad for an infant or a fetus because despite the net good in their future possible life, their weak psychological unity discounts their interests. This is the approach Friberg-Fernros (2018a) takes in his defence of the substance view of persons — a common pro-life position that claims all human beings are rational substances of equal value. In his view, there is greater evil involved in the deaths of born human beings because of their greater time-relative interests. We hesitate to use the term 'evil', but certainly on McMahan's account, the deaths of born human beings are far worse than those of fetuses in terms of the loss of their time-relative interests.

We should note here that McMahan's TRIA is not usually associated with pro-life views. It forms part of his *Two-Tiered Account* of the morality of killing, which introduces the threshold of respect marking the level of psychological capacities that distinguishes persons from non-persons. Below this threshold, McMahan considers that the TRIA governs the wrongness of killing, and above it, for persons, all killing is equally wrong. Because this threshold lies over fetuses and infants, McMahan regards induced abortions as permissible, and even infanticide. We can, however, utilise his TRIA account as a measure for the badness of death without accepting his threshold of respect for persons and Two-Tiered account of the morality of killing.

It is also worth noting that some causes of death involve a substantial amount of human suffering, while others do not. Given that spontaneous abortions are defined

as those occurring in the first 20 weeks of pregnancy, and the majority in the first few weeks, it seems that there is little suffering experienced by fetuses which spontaneously abort as they are generally reckoned to not possess the cognitive apparatus that would enable them to experience pain. This is also the case for the majority of induced abortions. Of course, we must be careful not to neglect the considerable suffering that parents undergo when a wanted child miscarries. As Friberg-Fernros also notes, when an adult human being dies (or a child), the interests of others associated with the person who has died are also damaged, and make a death worse. It is clear, however, that post-birth deaths involve vastly more suffering on behalf of the person who dies than do deaths of fetuses, as they are experienced by conscious human beings.

There is one further consideration: if a high proportion of spontaneous abortions are a result of chromosomal defects, many of which are severe, then merely acting to increase the percentage of these fetuses that survive may actually substantially *increase* suffering if their condition is not resolved: for example, this could result in an increase in grossly deformed children being born who survive only for a few days. According to Oderberg (2000, pp. 81–2), such treatment would be regarded as *extraordinary* because of its futility in achieving the aim of restoring health, and so it would not be morally obligatory to administer.

Killing versus letting die

Some pro-life advocates have used a distinction between killing and letting die as a justification for a stronger moral obligation towards preventing induced abortions because they are regarded as morally worse than spontaneous abortions. We have already noted Friberg-Fernros has claimed that deliberate killing involves two tragedies from the pro-life perspective — the death of a person and the human act of killing this person. Simkulet (2017, p. 788) is doubtful this distinction is helpful to the pro-life position, claiming that there would have to be a ‘wide gulf’ in the degree of badness between spontaneous abortion and induced abortion for this to make a significant difference, presumably because of the much higher number of deaths from spontaneous abortion (151 million compared to 56 million).

More importantly, Berg, citing Thomas Pogge (2010), points out that ‘the distinction between killing and letting die does not appear to extend to *preventing* cases of killing versus letting die’ (Berg 2017, p. 1222). It may be morally worse for an individual to kill than to let die, but pro-life advocates are bystanders who are trying to prevent deaths involving *others*. As far as *they* are concerned, failing to prevent induced abortions and failing to prevent spontaneous abortions are *both* cases of letting deaths happen, Simkulet also makes this point, citing Berg (2017, p. 788).

Berg, however, fails to note Pogge’s subsequent argument, that of our participation in induced abortions as citizens in a democratic society. As Pogge notes, ‘we are responsible for helping to bring these deaths about by participating in maintaining and enforcing a legal system that, by permitting abortions, foreseeably results in these extra deaths’ (Pogge 2010, p. 127). Pogge demonstrates the force of this argument by comparing the responsibility of US citizens prior to 1860 for

slavery laws. Whether or not one personally owned slaves, citizens were morally responsible for the injustice of slavery. Likewise, pro-life advocates are participants in abortion legislation, and even though they are unwilling participants, they still bear some moral responsibility for induced abortions that occur, at least within their own society. This means that the killing versus letting die distinction remains a significant consideration in considering pro-life moral obligations.

Let us now consider the killing versus letting die distinction and its validity here by briefly surveying the vast literature on this area. Numerous accounts attempt to explain how they are different and why this difference is morally relevant, whilst objections typically involve producing pairs of examples that seem to show doing and allowing (or killing and letting die) as morally equivalent.

It is a widely shared intuition that killing is worse than letting die: as James Rachels notes (2001) we do not consider ourselves murderers for failing to contribute to famine efforts. Rachels points out that we cannot avoid letting people die, whether it be children starving or people dying from preventable diseases: while it is not difficult for most people to fully discharge a duty not to kill, we cannot fully discharge a duty to not let people die. Additionally, if we kill someone, they are dead, but if we fail to save someone, it is still possible that they will be saved by someone else.

Philippa Foot (2002) defends the distinction based on the difference between negative and positive rights. Negative rights are a right to non-interference (such as the right to life), while positive rights are the right to aid or support. Foot regards negative rights as stronger than positive rights, grounding this view on the manner in which an agent is involved in a harmful sequence of events. Interference (i.e. violating a person's negative rights) involves *initiating* a harmful sequence, whereas failing to aid permits an *existing* harmful sequence to continue. Jonathan Bennett (1998) frames it slightly differently, using the idea of positive and negative behaviours. A positive behaviour regarding an action is classified as such when most behaviours at the time would *not* result in the upshot, and a negative behaviour is when most behaviours *would* result in the upshot. For example, there are only a few ways in which someone could act in taking someone's life (positive), but any number of ways someone could act with regard to not saving someone's life (negative). In Bennett's view, the *difficulty of avoidance* of a bad upshot is what is morally relevant: if most of the ways someone acts will *not* lead to the bad upshot, then being causally relevant to the upshot is morally worse than being causally relevant when most of the ways someone acts *do* lead to the bad upshot.

Fiona Woollard (2015) builds on the work of Foot and Bennett, claiming that in doing harm, the agent's behaviour is part of a sequence leading to harm, whilst in allowing harm, the agent's behaviour is relevant (in that they could have prevented the harm) but not part of the sequence leading to the harm: doing harm is causally imposing on the victim. Woollard sees what she calls the Doctrine of Doing and Allowing — which states that it is harder to justify doing harm than allowing harm — as a principle protecting us from harmful imposition by others, and a necessary one if anything, including our bodies, is to belong to us. In doing harm, the victim is *causally* imposed upon, while in allowing harm, the victim *normatively* imposes on others, and so the doctrine protects us from either imposition.

Where do these accounts of doing and allowing harm leave us with regard to spontaneous and induced abortions? The debate is ongoing, but it is clear many have strong intuitions that there *is* a moral difference between doing and allowing in a variety of scenarios, and denying this difference would require a radical revision of our moral beliefs. It may be that the distinction is blurred when comparing between certain contrived examples, but we doubt that this affects cases that are widely agreed to demonstrate a moral difference. Let us examine a comparison as analogous as possible (on the pro-life view) to most induced abortions and spontaneous abortions: the deliberate killing of a newborn baby who could be expected to live a normal life, and allowing a newborn with a fatal and incurable chromosomal disorder to die. Our claim is that these two scenarios are clearly not morally equivalent — indeed, letting die in this case may not be morally problematic at all, while killing a newborn baby is never permissible if we grant the child full moral status and the right to life this entails. We have seen that perhaps 60% of spontaneous abortions are due to chromosomal abnormalities, which are currently not preventable, and so the majority are analogous to allowing a newborn with a fatal and incurable chromosomal disorder to die. Conversely, the majority of induced abortions are performed on fetuses who could expect to live a normal life, according to *Finer et al.* (2005) — in their survey the most frequently cited reasons for abortion in the United States were that having a child would interfere with education or ability to care for dependents (74%), and would be unaffordable (73%). We conclude that pro-life advocates can legitimately utilise the killing and letting die distinction to claim that participating in an induced abortion is typically significantly morally worse than failing to act to prevent a spontaneous abortion.

Discussion

Having examined in some detail the considerations that we believe should influence our moral obligations, what can we conclude about the the moral obligations of pro-life advocates towards both spontaneous abortion and induced abortion? Preventability of death is the first factor we examined, and so we reviewed the various different causes of prenatal deaths to determine which were the most significant. Using Ord's figures, we have calculated 151 million spontaneous abortions of actual human beings (once anembryonic pregnancies are removed). If aneuploidies represent approximately 60% (91 million) of spontaneous abortions of human organisms, and if we include the 56 million induced abortions in the total, aneuploidies are the cause of 44% of prenatal deaths prior to 20 weeks.⁶ Induced abortions account for 27% and the remaining 29% of deaths are spontaneous abortions from a number of disparate causes. We note that as Ord's 63% figure for spontaneous abortion rates that we have used is outside Jarvis' more recent estimated range of 40–60% (2017, p. 15), future

⁶Total prenatal deaths of human organisms are approximately 151 million spontaneous abortions and 56 million induced abortions. Aneuploidies, accounting for 91 million deaths, are therefore approximately 44% of prenatal deaths.

revisions are likely to result in a decrease in the estimated numbers of spontaneous abortions, increasing the percentage of deaths attributable to induced abortion.⁷

On these calculations, the largest single cause of prenatal deaths is aneuploidies, followed by induced abortion. We have noted there are many different types of aneuploidies, and in turn there are a variety of causes for them. As a broad category, however, this gives us an initial indication of where resources might be directed, just as ‘cancer’ covers many types and has various causes. Similarly, induced abortion can be a result of abortifacients or various surgical techniques, and those choosing it have a variety of motivational causes.

In terms of pro-life moral obligations towards preventing prenatal deaths, clearly the initial priority should be the two largest causes of death, which together comprise 71% of prenatal deaths. We have noted that we should address the most preventable causes without ignoring other causes, and as in-utero aneuploidies are currently untreatable, and usually occur before detection of pregnancy, their preventability is very low. This does imply research into earlier detection of pregnancy should be supported by pro-life advocates. We have noted the possibility in the future of gene-editing techniques that can be used on in-utero, but there are some caveats: development would likely require supporting destructive research on embryos — unacceptable for the pro-life position — and there are also ethical concerns regarding the safety of these techniques.⁸ Finally, we must keep in mind that merely preserving the life of embryos with usually fatal chromosomal defects is not necessarily a moral obligation if the result is an infant with defects so severe that it soon dies — as we have noted this would be regarded as extraordinary treatment because of its futility in restoring health.

The other significant cause of death, induced abortion, is a result of human agency, and is theoretically reducible by changing human behaviour. Legislative change is the most obvious means of doing so, although the lack of reliable abortion data in many countries makes the efficacy of this approach difficult to demonstrate. Sedgh *et al.* (2016) conclude that abortion rates in different countries are similar irrespective of the legal status of abortion, but suggest in countries with restrictive abortion laws, there is a higher unmet need for contraception which contributes to abortion rates. Levine and Staiger’s (2004) study compared how changes in abortion legislation affected rates of abortion in various countries, concluding that modest legal restrictions on abortion in Eastern Europe reduced abortion rates by up to 25 percent. Levine has also considered the impact of *Roe vs Wade* on abortion rates, concluding that recriminalizing abortion in the United States would result in an additional 440,000 births per year (Levine *et al.*, 1999).

There are also other means by which induced abortion rates could be reduced, such as restricting public funding of induced abortions (Morgan and Parnell 2002) and requiring mandatory abortion counselling (Singh *et al.* 1996). Although

⁷ If the midpoint of Jarvis’ (2017) range of 40–60% is used — 50% — this means the number of spontaneous abortions is equivalent to the number of births, 133 million. Removing anembryonic pregnancies yields 88 million spontaneous abortions of human beings. Using our 60% aneuploidy rate, aneuploidies account for 37%, induced abortions 39%, and other causes 24%.

⁸ See, for example, Lanphier *et al.* (2015).

research is not conclusive, there *may* be an inverse relationship between contraceptive use and abortion rates. Marston and Cleland concluded that ‘rising contraceptive use results in reduced abortion incidence in settings where fertility itself is constant’ (2003, p. 6). More recently, Miller and Valente (2016, p. 1007) suggested that ‘reductions in the cost of contraception may reduce the incidence of abortion’ based on their study of the legalisation of abortion in Nepal, although the context was actually an expansion of Nepal’s abortion supply which resulted in a *decline* in contraceptive use. We do not consider that a causal link between increased contraceptive use and a decline in abortion rates is sufficiently established for pro-life advocates to support campaigns to promote the widespread availability of affordable contraception for the sole purpose of decreasing abortion rates.

The badness of death is our second consideration, and we have used McMahan’s time-relative interest account to show that the badness of death primarily affects human beings who have already been born, by having their life cut short or by suffering a prolonged unpleasant death. This justifies the allocation of resources towards alleviating sickness and disease, despite the numbers of prenatal deaths being significantly higher than those of humans who have been born. The badness of death, however, provides little insight into whether spontaneous abortions should be prioritised over induced abortions, as it is equivalent for any prenatal deaths irrespective of the cause.

Finally, we have concluded that in the majority of cases, induced abortion (from the pro-life perspective) is significantly morally worse than letting die — indeed, when it is not preventable, letting die does not seem morally problematic. We also noted that as citizens in a society that permits induced abortions, pro-life advocates bear some responsibility for them and therefore have an obligation to act to reduce the number of induced abortions.

Once we take these factors into account, we have a much clearer understanding of pro-life moral obligations. There is little pro-life advocates can do directly to address the primary cause of spontaneous abortions — aneuploidies — if embryo experimentation is regarded as unethical. Given that induced abortion is the second highest cause of prenatal death, and there is considerable potential to lower rates by legislation and influencing societal attitudes, it seems reasonable that induced abortion is prioritised and considerable resources are dedicated towards reducing it. Given our conclusion about its moral badness and Pogge’s argument that all citizens in democratic societies are participants in abortion legislation, albeit sometimes unwillingly, this makes induced abortion a legitimate priority for pro-life advocates over spontaneous abortions.

This does not mean pro-life advocates have no obligations towards reducing spontaneous abortions. There are some causes of spontaneous abortion such as thrombophilia that are potentially reducible by further research that is acceptable to pro-life advocates, and this research should be supported, along with research into earlier detection of pregnancy. We have noted, though, that considerable research is already conducted in this area, and this diminishes any moral obligation to contribute if there are more profitable avenues for reducing deaths.

Modifying lifestyle risk factors such as alcohol consumption and obesity are likely to have a positive impact, and spontaneous abortion rates could be reduced by

encouraging women to live healthier lifestyles. As we have suggested, if women have children earlier rather than later in life and use contraception at other times, this may reduce spontaneous abortions. Campaigns or government measures that encourage this behaviour could be supported: for example Mills *et al.* (2011, p. 857) conclude that while the impact of direct cash incentives and indirect payments is uncertain, ‘policies which reduce the incompatibility between work and mother roles lead to younger ages at first birth’. The main issue with allocating resources towards these sorts of measures is that their eventual impact on spontaneous abortion rates is quite indirect. Given their efficacy on the concomitant goals of healthier lifestyles and earlier childbearing ages is difficult to quantify (Mills *et al.* 2011, p. 857), it is likely to be even more difficult to determine their effect on spontaneous abortion rates, and so other measures should take priority.

Finally, even if little can currently be done to reduce rates of spontaneous abortion, pro-life advocates should at a minimum commit to discussing and publicising this issue.

Conclusion

Various ethicists have argued that high rates of spontaneous abortion are problematic for pro-life advocates who regard human embryos as having the same moral status as adult human beings from conception. This view implies spontaneous abortion is one of the most important problems faced by humanity, which is claimed to be an absurd conclusion and therefore a *reductio* against this belief about moral status, which should be abandoned. We have explained that from a pro-life viewpoint, this is not an absurd conclusion, noting that pro-life advocates currently take a similar issue, induced abortion, to be one of humanity’s most important problems.

A further claim is that if this belief about the moral status of human embryos is maintained, knowledge of the high numbers of spontaneous abortions entails a strong moral obligation to take action to reduce them, an obligation which pro-life advocates have failed to take seriously. Moreover, it has been claimed that it is ‘morally monstrous’ to continue to oppose induced abortion rather than diverting resources towards reducing spontaneous abortion rates.

The overall numbers of both induced and spontaneous abortions are far greater than the number of deaths of human beings post-birth, and it is clear that a *prima facie* moral obligation exists to act in ways that will reduce *all* prenatal deaths, including those from spontaneous abortion. However we noted there are various considerations that will affect this obligation. These factors include directing efforts towards the most preventable causes, the badness of death, and the killing and letting die distinction. Taken together, these lead us to conclude that for pro-life advocates, induced abortions are morally worse than spontaneous abortions. Upon examining the figures, conservative calculations have shown that chromosomal defects and induced abortion are the primary causes of prenatal death, and there are a variety of lesser causes. Little can currently be done to reduce deaths from chromosomal defects, and so we conclude that the primary obligation for

pro-life advocates is to continue to oppose induced abortion — and they are not morally negligent or morally monstrous for doing so.

This does not, however, imply that spontaneous abortion can be ignored by pro-life advocates: it must be recognised that it is an important issue accounting for a high proportion of deaths of human beings. Accordingly, it should be an issue of concern, and widely discussed in pro-life circles. Ethical research into reducing spontaneous abortion rates should therefore be strongly encouraged. These actions need not divert significant resources from opposing induced abortion, and failing to do so may indicate the critics discussed here are correct in their assessment that pro-life advocates do not believe their own claims about the moral status of human embryos.

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