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CONTENTS

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Seeing, Feeling, Doing: Mandatory Ultrasound Laws, Empathy and Abortion

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ABSTRACT

In recent years, a number of US states have adopted laws that require pregnant women to have an ultrasound examination, and be shown images of their foetus, prior to undergoing a pregnancy termination. In this paper, I examine one of the basic presumptions of these laws: that seeing one's foetus changes the ways in which one might act in regard to it, particularly in terms of the decision to terminate the pregnancy or not. I argue that mandatory ultrasound laws compel women into a position of moral spectatorship and require them to recognise the foetus as a being for whom they are responsible, particularly through empathic responses to ultrasound images. The approach I propose extends the project of a bioethics of the image and highlights the need for a critical analysis of the political mobilization of empathy in discussions of abortion.

Obstetric ultrasound is today one of the most widely used of prenatal care technologies in the world, such that almost all pregnant women who interact with medical care in pregnancy will encounter it in some way (especially in resource-rich contexts but increasingly also in resource-poor settings). This is often in the form of prenatal testing for conditions such as Down Syndrome, spina bifida and other morphological anomalies. Even in pregnancies in which prenatal testing is not undertaken, women may have ultrasound images taken in the course of the pregnancy to examine factors such as foetal location, placental function, or increasingly, to identify risks factors for preeclampsia, amongst other conditions.

Within this context of international routinization, ultrasound technology sits at the crux of a “prenatal paradox” (Taylor 1997). Obstetric ultrasound contributes in fundamental ways to decisions about abortion on the basis of foetal characteristics such as malformations or genitalia. It makes such decisions possible by revealing foetal characteristics to prospective parents. At the same time, ultrasound technology has long been implicated in anti-abortion politics and the legal restriction of access to abortion services. This takes various forms, including the use of ultrasound images and video on pro-life websites, or as evidence in legislative proceedings that seek to restrict access to abortion services, or the legal requirement that women access ultrasound services prior to undertaking an abortion.

In recent years, a number of states in USA have adopted laws that require a woman seeking an abortion to undergo ultrasounds prior to accessing abortion services. Such ultrasounds are not required as part of the abortion procedure as such, but attempt to ensure that women see, or have the opportunity to see, their foetus prior to undertaking, or deciding to undertake, an abortion. These so-called mandatory ultrasound laws are often cast as a matter of information provision and consent. However, this is misleading. Instead, mandatory ultrasound laws seek to precipitate and mobilise a particular relationship between the pregnant woman and the foetus she carries, with the aim of influencing her decision-making and action in regards to that foetus. As Carol Sanger (2017, 109) puts it, mandatory ultrasound laws aim to “produce a confrontation” between the pregnant woman and foetus, compelling a woman to recognize the life she would end in abortion and aiming to deter her from that. In essence, the legal requirement to look is based on the idea that seeing one’s foetus changes how one might feel about it, and further, how one ought to act in regards to it. In short, the idea is that seeing the foetus has ethical effects.

While these laws have been widely criticized by legal scholars, the ethical implications of this harnessing of foetal images to legal access to abortion has received little attention in bioethics. Moreover, of the literature on mandatory ultrasound laws, very little considers in detail the underlying premise of these laws, that is, that seeing one’s foetus changes how one might act in relation to it—an idea, I argue, that is based more on the feelings precipitated by the image of one’s foetus rather than any informational value it might have (or be purported to have).

In order to elaborate this idea, I build on the case made by Paul Lauritzen that a ‘visual bioethics’ is required to understand the ways that foetal images such as those produced through obstetric ultrasound have persuasive force, and are mobilised within antiabortion campaigns as “visual arguments”. One difficulty with Lauretzin’s approach is that it says very little about why images of the foetus might have persuasive force; I remedy this by turning to discussions of moral spectatorship and empathy. In a brief discussion in *The Ethics of Care and Empathy* (2007), Michael Slote suggests that ultrasound images may affect the empathic relation that can be maintained with the foetus, and consequently, their moral status. I extend Slote's comments about empathy and abortion to consider the feelings involved in seeing the foetus and its connection to moral decision-making. Slote's comments, then, provide a starting point for a more extensive reflection on the relationship between visibility, emotion and ethics as enacted in obstetric ultrasound.

My discussion proceeds in three parts, the first two of which are broadly motivated by a concern with the connection between seeing and feeling. In the first section, I provide a brief outline of various ways that obstetric ultrasound has historically and contemporarily been linked to abortion politics, because of its capacity of make the foetus visible. One aspect of this is the notion of maternal bonding, to which ultrasound has been seen as contributing. In section two, I focus on the concept of empathy as a means of elaborating the ethical significance of the seeing-feeling nexus, specifically by taking up Slote's comments on empathy and abortion to discuss three points. First, I discuss the question of how we ought to characterise the emotional relationship with the foetus that is at least in part made possible by imaging technologies such as obstetric ultrasound. Second, I discuss the way in which ultrasound necessarily mediates the relationship that the viewer maintains with a foetus *in utero* and consider whether this matters for an ethics of empathy, such as that proposed by Slote. Finally, I consider the question of how ultrasound images are interpreted, especially given the background context of medical and social norms. I suggest here that the social and medical framing of an ultrasound image makes a difference to the empathic relationship that may come into play. In the third part of the paper, I consider the connection between feeling and doing, and the way that mandatory ultrasound laws mobilise this for political purposes. I argue in this section that such laws attempt to mandate a specific emotional relationship between the pregnant woman and the foetus she carries. Moreover, understood in its political context, it becomes clear that doing so comes at the expense of empathy with the pregnant woman herself, as she engages in the decision-making process around abortion.

Before moving to these discussions, let me be clear about the aim of this paper, and particularly what it is not. Most obviously, I do not aim to provide a detailed discussion of the varieties of mandatory ultrasound statutes currently in existence, nor of legal challenges to them (eg. Denbow 2015; Robertson 2011; Sanger 2008; Sanger 2017; Smith 2013). Nor do I aim to engage in long-standing debates in bioethics around the ethics of abortion, or at least not directly. My interest is related to these, but also somewhat orthogonal to discussions of the moral status of the foetus, at least insofar as these revolve around claims about intrinsic characteristics of the foetus (see Mills 2014). Instead, what I am interested in is the entwinement of foetal imaging technology and law in framing the ethics of abortion, and specifically the supposition that seeing the foetus ought to or does change one's moral responses to it. In this, the paper aims to extend what might be called the bioethics of images,[1] by offering a more fulsome account of the connections between seeing, feeling and doing than has otherwise been proffered in bioethics.

1. OBSTETRIC ULTRASOUND, ABORTION POLITICS AND MATERNAL BONDING

According to historians Malcom Nicholson and John E. E. Fleming (2013), obstetric ultrasound technology has been a major driver of the medicalization of pregnancy and childcare since its invention in the 1950s; today, obstetric ultrasound is routinized as a form of prenatal testing in many countries. In this routinization, it has also been at the heart of a "prenatal paradox", in which knowledge provided by ultrasound may lead to abortion (such as when foetal anomalies are revealed by it), while at the same time ultrasound images have been extensively used in anti-abortion politics, in attempts to foster 'pro-life' sentiment and restrict access to abortion services (Taylor 1997). As such, obstetric ultrasound plays a complex and significant role in the technological mediation of the ethics and politics of abortion.

This linking of obstetric ultrasound to anti-abortion sentiments and politics is in itself not new. For instance, the obstetrician credited with driving its use in obstetrics, Ian Donald, was strongly opposed to abortion and used ultrasound images to attempt to convince unmarried pregnant women in Scotland during the 1960s not to terminate their pregnancies. He also showed a real-time film of a foetus at an anti-abortion rally in Milan in 1979, in the midst of Italian abortion reform debates, and was invited to an audience with Pope John Paul II—something that Donald himself

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[1] This formulation is both more focused and broader than that a 'visual bioethics' and allows for analysis of both the production and reception of images. Further, its neutrality in relation to sense perception may allow greater room for analysis of the affective and emotional aspects of the reception of images.

saw as a crowning glory of his career (Nicholson 2000). In more recent years, ultrasound has been increasingly harnessed to the legal regulation of pregnant women and their access to abortion services, and features heavily in legislative and public debates.

In the United Kingdom, for instance, the capacity of ultrasound to make the foetus visible featured in debates over a proposal to reduce the gestational limit for abortions for non-medical reasons to 18-weeks. In a series of editorial and opinion pieces, leading obstetrician Stuart Campbell, who was a driving force in the routinization of obstetric ultrasound for prenatal testing and the later use of 3 and 4-dimensional ultrasound, made much of the emotional impact of seeing the foetus *in utero*. Campbell writes,

> *There is something deeply moving about the image of a baby cocooned inside the womb…Advanced scanning means we have a window on the secret life of foetuses. At 11 weeks, we can see them yawn, and even take steps. At 22 weeks, they begin to open their eyes. Between 20 and 24 weeks we watch as they seem to cry, smile and frown…When I see a foetus that can smile at me, I know absolutely that we should not tear it from the womb. (Campbell 2008).*

Campbell's slippage from the claim that a foetus may "seems to cry, smile or frown" to the idea that it can "smile at me" points to the difficult matter of interpretation and whether, or to what extent, actions on the part of a foetus can be seen as expressions of emotions or feelings (Mills 2014). Further, though, Campbell links the construal of a direct relationship in which the foetus smiles at the viewer to a moral conclusion, one that makes abortion impermissible at this stage of gestation.

A similar harnessing of ultrasound images to moral conclusions has been advanced in the USA, where anti-abortion groups have pushed various legal measures to restrict access to abortion services in recent years. One of these campaigns has sought to introduce laws requiring women seeking an abortion to undertake an obstetric ultrasound examination, not as an aspect of the procedure, but prior to it. Currently, some twenty-six states regulate the provision of ultrasound to pregnant women seeking abortions, with various statutes in place (Guttmacher Institute 2018). The most onerous of these laws, in Texas, Louisiana, and Wisconsin, require that the abortion provider perform an ultrasound for each abortion sought, and both display the image for a woman to see, and describe it to her. Other states require that providers give the woman the opportunity to see the images, and, in some, hear a detailed description of it, before performing an abortion. Others require providers who already perform an ultrasound as part of the preparation for an abortion to provide women with an opportunity to view the image. The weakest forms of the law require providers to offer to perform an ultrasound.

The key justification offered for such legislation has been that ultrasound examination ensures that women are properly informed before they make an irreversible decision about their health and their pregnancy. A supposed effect of this is to protect their reproductive autonomy and strengthen their capacity to resist coercion. This reasoning is typified in the Texas Woman's Right to Know Act, which requires that women be provided with an information booklet and undergo an ultrasound examination, including a verbal explanation of the foetus's development and morphology, at least 24 hours prior to undergoing an abortion. This bill initially appears to be motivated by the principles of informed choice and reproductive autonomy. For example, the recently revised information pamphlet that must be provided to women seeking an abortion opens with the statement "You need good information in order to make important decisions about your pregnancy and your life. You have the right to make these decisions freely. No one else should make them for you" (Texas DHS 2016, 1). The pamphlet then goes on to provide information about the risks of abortion, detailed information about foetal development including colour pictures, and information about financial and other services to assist in raising a child.[2]

This justification in terms of informed choice and reproductive autonomy has been widely criticized, including by academic commentators on the laws. For instance, numerous commentators have pointed out that the ultrasounds do not provide information that is medically necessary to consent to an abortion procedure. Others challenge the link drawn between the informational aspects of ultrasound examinations and reproductive autonomy. For instance, James Rocha (2012) argues that the laws do not enhance autonomy but limit it by overriding a woman's prerogative to determine "how she wants emotion to be inserted into the process" of deliberation (2012, 49). Going further, Jennifer Denbow (2015) argues that such uses of ideas of autonomy are actually reshaping what autonomy means culturally and politically; she

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[2] Notably, the images of the foetus included in the 2003 version of the pamphlet were taken from Lennart Nillson's classic book, A Child is Born. This is interesting because Nillson's images are not representations of the foetus designed for medical information provision, but highly stylised works of art, often involving foetal remains. For an informative discussion of Nillson's images, see Lupton, D. (2013).

writes "autonomy is being conceived in terms of risk minimization and a medicalized, though legally controlled, notion of informed consent". Further, she points out that this conception of autonomy aligns with the notion that women are being coerced by medical practitioners and sexual partners to undertake abortions. The idea, then, is that providing additional information about the foetus will enable women to resist that coercion, and make their own autonomous decision in light of increased knowledge about the foetus.

Useful and important as such critiques are, they still tend to give too much credence to the claim that ultrasound examination prior to gaining access to abortion services is in fact about information provision. In this, an opportunity to critique the epistemology of ultrasound and foetal imaging is missed. For instance, as Julie Palmer (2009) has pointed out in an extended reflection on Campbell's commentaries on ultrasound and abortion that I mentioned above, the public mobilization of ultrasound images often entails a conflation of *seeing* with *knowing*. This, she claims, is evident in the idea that ultrasound allows one to 'face the facts' of abortion, for instance, which belies the necessity of interpretation in order to make sense of what one sees. In this, ultrasound is cast as a "moral speculum" (Mills 2014, 93), insofar as it seems to allow the viewer to peer inside and see/know what kind of moral being one is dealing with. Interestingly, this conflation also underpins Paul Lauritzen's (2008) claim that the interplay of words and pictures in the use of ultrasound images and other visual media in abortion debates constitute "visually mediated arguments". He builds on this to claim that the characteristics of argumentation, such as consistency and factual accuracy, can be used to assess the contribution that images make to debates on abortion. Contrary to the supposition of this approach, it is often extremely difficult to say with any clarity just what argument an image might be advancing in and of itself. In fact, this approach returns attention to the narrative that frames an image and its interpretation, such that the image is merely supplemental to that narrative.

What is obscured here is the emotional or affective impact an ultrasound image may have. To be sure, the emotional aspect of images is often mentioned, but is rarely analysed in any depth. For instance, Lauritzen suggests that uses of ultrasound images may lead to "emotional manipulation", while Rocha acknowledges that the requirement to view the ultrasound image injects emotion into the decision-making process (Lauritzen 2008; Rocha 2012). However, there is no articulation of *what emotions* might be involved, or of the moral significance of this dimension of seeing an image. In order to bring this into focus, it is first worth stating that the informational justification for mandatory ultrasound is in fact fundamentally misleading, since the provision of information could be achieved in ways other than requiring women to undergo ultrasound examinations. For this, the provision of a pamphlet (such as that also mandated in the Texas Woman's Right to Know Act) providing medically accurate information about foetal development and the abortion procedure should be sufficient.[3] Further, if it is the case that ultrasound images provide some specific information that other images may not, such images could also be included in an informational pamphlet. What becomes clear at this point, is that the requirement that a woman seeking an abortion has an ultrasound (and views the images thereby produced) relies on and seeks to mobilize a crucial extra element. This is the idea that seeing *one's own foetus* (not just any foetus) has a significant effect on how one feels about it, and further, how one might act in relation to it (Sanger 2008; 2015).

This notion that seeing one's own foetus makes a difference to how one will act toward it aligns with the theory of maternal bonding, to which ultrasound has been harnessed for some time. Although the idea of maternal bonding has a longer history, it has been explicitly linked to ultrasound since 1983, when two obstetricians published a letter to the editor in the *New England Journal of Medicine*, claiming that ultrasound has the capacity to enhance maternal bonding and potentially forestall decisions to abort. In this letter, the authors, Fletcher and Evans (1983), discuss two cases in which they argue 2D ultrasound is implicated in maternal bonding in the first trimester, whereas traditionally, maternal bonding was understood as restricted to later stages of pregnancy, after quickening. The authors cite the two women as saying of their foetus after viewing ultrasound images "I feel that it is human. It belongs to me. I couldn't have an abortion now", and "I am going all the way with the baby. I believe it is human" (Fletcher and Evans 1983).

It is worth noting the contexts in which these comments are made: the first woman was a victim of domestic violence and her pregnancy was discovered in the course of x-rays to determine damage to her abdomen. The second woman was involved in a trial of early steroidal intervention to suppress foetal androgens in cases of congenital adrenal hyperplasia, and she had to make a decision about whether to undertake early intervention or wait till the mid-trimester amniocentesis to determine the sex of the foetus and consider termination in the event that it was female. These are not the standard contexts of women considering abortion in the first tri-

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[3] The information pamphlet provided by the state of Texas mentioned previously continues to include discredited claims linking abortion to increased risk of breast cancer.

mester and one imagines the intensely emotional and even traumatic occasions of the ultrasound may well have heightened its perceived effects. Further, it is important to note the caution of the authors: while they do suggest that ultrasound may have an effect on maternal bonding in the first trimester, they also suggest this is only in the case of an already strongly wanted pregnancy, and maternal ambivalence toward the foetus may only be resolved with later ultrasounds, in the mid-trimester. Regardless of these caveats, though, this letter has been credited with (inadvertently) sparking the anti-abortion lobby's interest in ultrasound (Taylor 2002).

The notion that ultrasound precipitates or enhances bonding seems to have been strengthened by 3 and 4D ultrasound, which presents a much more vivid and 'realistic' image of the foetus than is obtained in grainy black and white 2D images. For instance, Campbell claimed in 2002 that while the clinical advantages of 4D ultrasound were disputable, the real gains lay in "parental behaviour and foetal behaviour" (Campbell 2002, 2). The latter is because 3 and 4D ultrasound makes it possible to observe small movements on the part of the foetus such as blinking. Of parental behaviour, Campbell argues that these images provoke significant emotional responses from parents, from which he concludes that the "natural desire of parents to see and know and love their baby before birth" ought to be recognized by obstetric ultrasound services. In 2006, he went further to suggest that augmentation of the bonding relationship by 4D ultrasound might be used to leverage positive parental behavioural changes – by implication, primarily on the part of the mother (Campbell 2006). In this opinion piece, Campbell claims that it is now widely accepted that ultrasound scanning at 12 and 20 weeks are "the main factors involved in initiating this bonding process" (Campbell 2006, 27). He again urges obstetricians to take more note of this aspect of ultrasound scanning, particularly since there is evidence that this may have health benefits, for example, women may reduce their alcohol consumption during pregnancy following scanning. This construal of the parental-foetal relationship gives enormous significance to ultrasound (and hence, medicine) insofar as it positions this technology as the principal instigator and fundamental mediator of the parents' affective relation to the foetus or "baby".

As Janelle S. Taylor (2008, 3) points out, while bonding theory was institutionalized in neonatal care in the early 1980s, the linking of bonding theory with ultrasound required a new supposition: that bonding can occur through spectatorship independently of the embodied experience of gestation. Moreover, obstetric ultrasound effectively renders the pregnant woman herself as a spectator. As feminist scholars have often argued, ultrasound images contribute to an understanding of the foetus as a being separate from the maternal body; in effect, ultrasound makes the foetus *an other*. Further, rendering the pregnant woman as a spectator obscures the privileged embodied relationship that she has to her foetus, placing her in a position more like that of other viewers of foetal images. As Iris Marion Young (2005, 61) argues, for instance "the pregnant woman's experience of that image is just the same as anyone else's who views it". In the context of mandatory ultrasound, Young's conclusion that this experience is the same as anyone else's is overstated. For one, no-one else is required by law to view images of a foetus. Nor is anyone else required by law to offer up their body in order to produce the image. Nevertheless, pregnant women (are required to) participate in a visual experience of spectatorship, one which is understood to generate a specific emotional response to the foetus.

Interestingly, the notion of spectatorship has been discussed in an ethical register by film theorist, Lisa Cartwright (2008). She proposes the concept of moral spectatorship to elucidate the way that representations interpellate viewers or spectators in particular ways, and, according to her, this occurs specifically through empathy. For Cartwright, empathy means "the reflexive experience of awareness of the thoughts, emotions . . . or concerns of an other or others" (Cartwright 2008, 23). In this, Cartwright understands empathy not as a matter of "feeling like" the other, but rather, of "feeling for" him or her (33-34). Further, the significance of empathy is that it may prompt a sense of responsibility for others. Cartwright writes "spectators may also 'feel themselves into' those they can imagine not as themselves but *as theirs*, or rather, as their responsibility." (Cartwright 2008, 235-6). What is important in this analysis, then, is the claim that an image or representation can precipitate the assumption of moral responsibility on the part of the spectator, specifically through an empathic response to the image. This claim shapes my discussion in the following section.

To summarize so far, we have seen that ultrasound images of foetuses have frequently been linked to abortion politics, and the idea that seeing the foetus will change maternal behaviour is not unique to mandatory ultrasound laws. In fact, a connection between ultrasound images and maternal bonding has been postulated for some time, an idea that relies upon the further supposition that spectatorship can itself precipitate a response of bonding. The idea of bonding here is obscure, but the notion of moral spectatorship may help make some of the stakes of the legal mandate to see one's own foetus clearer. Specifically, we can say that mandatory ultrasound laws, especially those that make viewing the ultrasound image compulsory, compel pregnant women seeking an abortion to take on the position of a moral spectator; in doing so, they are asked if not forced to take responsibility for their foetus through an empathic response to them. To make this plausible as a general description of the work of mandatory ultrasound laws, then, I need to discuss the notion of empathy for the foetus in more detail. To do this, I turn to some brief comments on empathy and abortion made by moral philosopher, Michael Slote, in his book *The Ethics of Care and Empathy* (2007).

2. EMPATHY AND ABORTION

Slote is recognized as one of the leading contemporary theorists of moral sentimentalism, and he has done much to refocus attention on the concept of empathy in moral philosophy. His general project is to give contemporary credence to the sentimentalist claims of David Hume and Adam Smith, through reference to the developmental psychology of C. D. Batson and Martin Hoffman. In this, he elaborates an ambitious agenda of providing both ethical and meta-ethical reasons for centring on the concept of empathy in normative philosophy. My task here is not to engage with or assess this project as a whole; rather, I am interested in a brief set of comments that Slote made about the value of the concept of empathy in clarifying the ethics of abortion in his book, *The Ethics of Care and Empathy* (hereafter ECE). In this section of the paper, I reflect on Slote's comments to amplify some aspects of his claims and draw out the connections between visibility, emotion and ethics that he suggests but does not elaborate. I focus on three issues: how the gestational age of a foetus may impact on empathy; the significance of the mediation of empathy by technology; and the way that social and medical norms frame the interpretation of an image and hence its capacity to generate empathy.

Slote's project in ECE is to develop a comprehensive account of care ethics that makes the concept of empathy foundational to the practice and normative implications of caring. In this, he defines empathy as "having the feelings of another (involuntarily) aroused in ourselves, as when we see another person in pain" (Slote 2007, 13). Empathy is thus distinguished from sympathy, which entails feeling *for* another, but not feeling their emotions per se.[4] In this, empathy is morally motivating in a way that Slote contends sympathy is not. He claims that empathy is crucial to altruism and moral motivation, such that "empathy makes a difference to how much we care about the fate of others in various different situations" (Slote 2007, 15). Because of this, in his view, feminist ethics of care needs the concept of empathy to elucidate why we might care for others. Beyond explaining the motivation for caring, the concept of empathy can also help extend care ethics into a fully-fledged moral theory—one that competes with, rather than merely complements, so-called justice based approaches. This is because empathy can provide a plausible criterion for moral evaluation, allowing us to determine the morally right and wrong. As he puts it "empathy can be used to clarify moral issues about what is intuitively better or more acceptable and what is intuitively worse or less acceptable" (Slote 2007, 19).

Slote attempts to demonstrate these points through a brief and, he admits, very preliminary discussion of the ethics of abortion, wherein our intuitive responses to the foetus guide moral evaluation. Slote claims that his use of the concept of empathy is almost unique in approaches to abortion, and preceded only by an article by John T. Noonan, a Catholic appellate court judge. In an article entitled "Responding to Persons" (1973), Noonan rejects forms of theorizing about abortion that do not focus on persons, a category that he supposes the developing embryo and foetus ought to be included within. This inclusion requires making the foetus visible and perceptible, and rests on recognition of the foetus as like us in some fundamental sense. In short, recognition of the embryo or foetus as like us is not based on physiological aspects of the foetus per se, but on comprehension of its experience. In this, empathy plays a crucial role. Noonan claims that while we have little direct access to the experience of being a foetus, since we don't remember it "empathy may supply for memory" (Noonan 1973, 303); as such, it is this empathic identification with the foetus that allows it to be included in the "family of man" (Noonan 1973, 305). The moral consequence that Noonan draws from this is that empathic recognition of the personhood and correlative right to life of the developing foetus prohibits abortion.

Slote extends on Noonan's claims to show that the concept of empathy may in fact yield an ethics of abortion more in line with pro-choice commitments, by identi-

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[4] Slote's definition of empathy is diametrically opposed to that proposed by Cartwright noted above. In literature on empathy, this definitional difference is not unusual. See especially Batson, C. D. (2009). Also see my earlier discussion of Peter Goldie's conception of sympathy and ultrasound, in Mills, C. (2011). Slote later revises his understanding of empathy into what he calls a 3rd person perspectival account. (Slote 2013).

fying two complexities that Noonan ignores. These relate to first, foetal development and gestational age, and second, the difference between the late-term foetus and the neonate. I address each of these issues in turn; I also address a third issue that Slote does not mention, that of the ways in which an ultrasound image is perceived and interpreted within a given set of medical and social norms that shape our capacity for empathy.

2.1. EMPATHY, OTHER MINDS AND THE FOETUS

Slote emphasizes the issue of foetal development and gestational age to argue that the concept of empathy supports a conclusion that abortions undertaken earlier in a pregnancy are morally acceptable in a way that later abortions may not be. He suggests that when made visible, early embryos often appear "alien", and "look more like fish or salamanders or (at least) non-human, lower animals than like human beings". As such, "we naturally tend to empathise more with [foetuses at] later stages than with the earlier" (Slote 2007, 18), and insofar as empathy is an evaluative criterion, this suggests that a moral distinction can be made between earlier and later abortions. This characterisation of a natural tendency to empathize more with foetuses later in gestation provokes a number of questions about the kind of beings with which it is possible to empathise, or, in other words, about the limits of empathy. Given that Slote defines empathy as "feeling what the other feels" (and not simply *feeling for* the other), there is a question about *what* a foetus feels, if it feels anything at all, as well as one of how we *know* what a foetus feels. I will address the second issue later, but here, the key issue is whether a foetus feels things of the kind that it is possible to empathize with. A first step in addressing this question is to consider whether a foetus feels anything.

In Slote's and other approaches, empathy is thought of as a means of interaction with other minds, or more specifically, with the feelings and experiences of a being with a mind. As such, the presupposition is that the being that one empathizes with (the 'target') has a mind, though that does not necessarily entail that it be the mind of a person. The question, then, is whether a foetus has a mind—or, to put it in other words, is a human foetus (generally understood) the kind of being that is sufficiently sentient as to have experiences and feelings with which one could empathize? While there are several layers to this question, one way to address it is through considering the basic development of the foetal brain. As it is, the field of foetal neurodevelopment has itself become embroiled in abortion controversies through debates on foetal pain. Central to this is the issue of at what point the neural pathways that transmit sensorimotor information are sufficiently developed to give rise to experiences of pain, with some researchers placing this as early as 15 weeks gestation and others at around 26 weeks gestation and later.[5] Even given this divergence, though, there is a broad consensus that such apparatuses are not in place within the 1st trimester of gestation – the time during which most abortions take place.

Given this, it seems reasonable to suggest that the foetus (or embryo) with a gestational age of less than 12 weeks does not have a mind, and is therefore not a sentient being with feelings and experiences. If that is the case, then it would seem that—insofar as empathy presupposes another mind—it is not possible to empathize with it. In short, at least according to Slote's definition of empathy, it is conceptually impossible to empathize with an embryo or early-term foetus *in utero* prior to the second trimester, since there are simply no feelings for another to feel. This is not to say that it would be misplaced to care about an embryo or early-term foetus in some way. For instance, one may have concern for its safety now with a view to the wellbeing of the future child it may reasonably be expected to become (in the absence of abortion or miscarriage). But, in this case, Slote's understanding of empathy will not help to articulate that care. This suggests that Slote's particular construal of empathy may limit its usefulness for thinking about ultrasound and empathy, and a less stringent definition in terms of "feeling for" may be more appropriate. Note, though, that Slote's point nevertheless resonates with evidence that some women required to have ultrasound examinations prior to abortion actually express positive feelings about having seen the foetus, particularly relief that it is not more recognisably human. I return to this point later.

The recognisability of the foetus also relates to the question of the limits of our empathic imagination. We can see from the discussion above that both Noonan and Slote rely on the presumption that empathy is facilitated by similarity or likeness, such that the more something is 'like us', the more able to empathize we are, and the more dissimilar it is from us, the more empathy is vitiated. In this, though, likeness can be understood in different ways, for example, as a matter of morphology or as a matter of behaviour. While a human embryo (prior to about 10 weeks gestation) is not morphologically similar, it is incontrovertible that at developmental stages later than

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[5] For opposed positions on fetal pain, see for example, Derbyshire (2010) and Sekulic et al (2016). For a useful overview of the issue, see Derbyshire (2015).

this a human foetus does look like ‘us’ (by which I mean postnatal human beings), that is, like a very small human being. Despite these apparent similarities, a human foetus is significantly different from us as well: foetuses live in a different world to us and are in some ways, a different kind of beings. Foetuses do not breathe air, they do not eat or ingest food, and their basic habitat is significantly different to that of postnatal human beings—they live and flourish in a fluid-filled sac that would be the death of the rest of us. Moreover, they necessarily live inside the body of another.

Because of this, significant difficulties emerge in the interpretation of foetal behaviours. A foetus can *seem* to display behaviours expressively similar to ours—for example, moving away as an expression of pain, smiling as an expression of happiness and so on. However, it remains unclear whether movements and facial expressions on the part of the foetus are expressive of a conscious (*emotional*) response to the world or are simply reflex actions. In short, poking at the belly of a pregnant woman may produce foetal movement, but this does not necessarily signify that the foetus consciously experiences the poke as discomforting and moves away because of that.

A further difficulty relates to the way in which perception of morphology and interpretation of behaviour interact. The question is, does the interpretation of behaviours as expressions of certain feelings or emotions as akin to ours, and with which we may empathize, follow from perception of morphological similarity in revealed in ultrasound images? And, does the interpretation of certain behaviours as having the same expressive function as ours moves us to attribute (moral) similarity to the foetus? In other words, are we moved to interpret behaviours like ours as expressing the same emotion because the morphological similarities mean we already think of the foetus as a person? Or does the interpretation of behaviour as expressing the same emotion as it does for us lead us to attribute personhood to a morphologically similar though also clearly different being? What is at issue here is whether empathy is a matter of comprehension of the other, or of projection onto the other. Also at issue is the extent to which the capacity for empathy with a foetus is implicated in the performative attribution of moral status to the foetus, or the recognition of that status (see Mills 2014).

As a final point in this section, the problem of other minds and the lack thereof for establishing an empathic relation with a foetus might be avoided altogether through a recent phenomenological argument that empathy is not circuited through minds, but is instead a form of immediate bodily intuition. The argument here is that the basically Cartesian premise of most debates on empathy, which casts empathy as a mediation between ourselves and the mind of another, is mistaken. Instead, empathy should be understood as "fundamentally a pre-Cartesian experience that does not differentiate between the body and the mind of another" (Taipale 2015). On the face of it, this suggests a way that the foetus might be understood as a being that one can empathize with, insofar as it is capable of bodily expression. This would at least be suggested in regards to the foetus late in pregnancy, though prior to the development of the nervous system this would not be the case. Even so, one might suggest that this understanding still requires a mind—it is simply that the mind is no longer separated from the body and its expression in the manner of the Cartesian approach. Further, it might also be objected that, in the case of the foetus, there is no opportunity for immediate bodily intuition—except, perhaps, on the part of the pregnant woman—since there is no bodily apprehension of the foetus without technological mediation. This leads us to the second complexity that Slote introduces.

2.2 EMPATHY, PERCEPTION AND TECHNOLOGY

Extending on the developmental difference thesis further, Slote asks whether there might be a similar difference between a foetus later in pregnancy and a newborn. Such a difference might arise, he suggests, because ultrasound and other technological visualisations of the foetus are indirect modes of perception: they are less immediate than contact with a newborn.

As this indicates, then, Slote gives some significance to immediate bodily apprehension in empathy insofar as he differentiates between the newborn and the foetus on the basis that the former are available to us through immediate perception whereas the latter are not; our perception of the foetus is necessarily technologically mediated through, for instance, obstetric ultrasound. For Slote, this difference between direct and indirect modes of perception matters for moral status, but unfortunately, he offers little explanation for this.

In a subsequent discussion of the moral significance of distance, Slote goes on to reiterate the claim that perceptual immediacy can make a difference to moral obligation. For him, this means that our obligations to those not immediately in front of us are relaxed or diminished. Even so, this discussion does not elaborate what perceptual immediacy amounts to, and nor does Slote return to the initial claim that the indirect perception of the foetus via imaging technologies such as ultrasound differentiates it morally from the newborn. In short, he fails to illuminate the role that technology plays in shaping perception and therefore empathy, and in particular, the ethical significance of this mediation of perception. Here, then, I want to reflect briefly on this point that technological mediation of perception impacts on moral status, insofar as it shapes empathy.

Although the question of the technological mediation of perception has had little play in bioethics, it has been taken up in philosophy of technology. For instance, Don Ihde (1979) has argued that technology changes our hermeneutic relation to reality. Building on this, Peter-Paul Verbeek has explicitly attended to the technological mediation of morality. Verbeek's general project is to elucidate the ways in which 'things' shape our moral lives. He argues that technologies and things give shape to our lives and precipitate certain moral actions; further, things often have embedded within them certain moral claims and they mediate our moral lives in fundamental ways. One of the technologies that Verbeek discusses is obstetric ultrasound. He argues that ultrasound "establishes a hermeneutic relation between the unborn and the people watching it" and effectively translates the materiality of the foetus into a particular representation. In the process, it constitutes the foetus as "an individual person…made present as a separate living being rather than forming a unity with its mother, in whose body it is growing" (Verbeek 2011, 24). Further, ultrasound examination transforms prospective parents into decision-making moral agents in regards to a foetus. Verbeek's analysis is not altogether novel insofar as feminist scholars have often pointed to the ways in which ultrasound is implicated in the constitution of personhood. However, what it helps to focus attention on is the way in which ethical relationships are themselves fundamentally mediated by technology.

Several points can be made about this mediation here. First, and most fundamentally, ultrasound constitutes the foetus *as an other*, a necessary prerequisite for the possibility of empathy. In other words, in presenting the foetus as separate from the maternal body, ultrasound imaging renders the foetus as a being with whom it is possible to empathize in a way that it would not be possible if the foetus is conceived of as part of a woman's body. In this, then, ultrasound makes empathy with a foetus possible in a fundamental way, by making it appear as an other being. In addition to this, though, imaging technologies such as ultrasound are the means of access for interpreting foetal behaviours as expressions of emotions with which we might empathize. In other words, ultrasound and other foetal imagining technologies operate as the medium through which it becomes possible to observe and interpret foetal behaviour. They are the means by which we 'know' a foetus and what it might be 'feeling'.

At this point, the double edge of the technological mediation of perception in Slote's account becomes clearer. On the one hand, imaging technologies such as ultrasound are necessary to establish the possibility of empathic relations with a foetus, insofar as they represent the foetus as another being. They are also crucial to establishing empathy in that they are the primary means by which we can see behavioural indicators that might be interpreted as expressions of foetal emotion. On the other hand, though, the very fact that ultrasound has this role ensures that the empathic relation established with the foetus is secondary to that possible with the newborn. By virtue of this dependency on technology, the empathic relation with the foetus is inherently mediated in way that the haptic, bodily apprehension of the newborn is not. Thus, ultrasound both makes empathy with the foetus possible, and at the same time, ensures that the empathic relation thereby established is necessarily and fundamentally inferior to the direct relation possible with the newborn. It might be said that Slote's reasoning exemplifies the logic of what Jacques Derrida (and others) identify as a "metaphysics of presence", in which the unmediated encounter is taken as the primary reference point and the mediated encounter is derivative of and inferior to that.

Even so, Slote's distinction between immediate and mediated perception brings into focus questions about the ways in which images may elicit empathy, which is itself complicated in regards to ultrasound. The value of ultrasound lies in its capacity to see the foetus, but what is seen in the ultrasound image (whether a still or a moving one) thereby produced is not simply the thing itself. Ultrasound is not "a window to the womb" as is popularly supposed, but rather, a complex technology that produces an image as an artefact of sound waves. The ultrasound image is in a strict sense a *re-presentation* of a foetus, produced through a synaesthesic 'translation' of sound into sight. Further, the image thus produced often requires interpretation to make any sense of it—it is often only when the sonographer or technician tells the viewer how to read the image that a foetus even becomes visible or recognisable in the image. This is perhaps less true of 3 and 4-dimensional ultrasound images, in which the addition of the plane of depth and in the latter, time, produces an image that is more susceptible to non-specialist interpretation. But, these images nevertheless require interpretation, as, in fact, all images do. Recognising the necessity of interpretation involved in the representational dimension of the ultrasound image brings to the fore the fact that the image and its interpretation is always *framed* in particular ways. In short, the technological mediation of the visibility of the foetus frames the encounter with the foetus in specific ways.

2.3. EMPATHY, NORMS AND FRAMING

It is a virtual truism of feminist analyses of ultrasound imaging that such images frame the foetus and its relationship to the woman gestating it in specific ways, especially to occlude the bodily presence of the pregnant woman and present the foetus as a separate being (Petchesky 1987; Stabile 1998; Hartouni 1997; Franklin 1991; Lupton 2013). This point rests on a critical understanding of what appears in an image, as well as what is left out. But the interpretation of images is also shaped by a broader notion of framing, insofar as the context of interpretation will also lend authority to some interpretive strategies and not others. As Judith Butler argues in regards to photography, images have a "transitive affectivity," which means that "[t]hey do not merely portray or represent—they relay affect" (Butler 2009, 68). Further, this harnessing of affect occurs in conjunction with the transmission or "iteration" of social norms that regulate the appearance of the socially recognizable. In other words, the body that 'appears' in an image is necessarily understood in the context of social norms that render some bodies more socially acceptable than others. If this is correct, then it raises a question about how such framing by norms impacts on the interpretation and reception of ultrasound images and makes some empathic relations possible while closing off others.

In regards to ultrasound images more broadly, there are (at least) two interconnected sets of norms that shape their reception and interpretation. The first and most obvious of these is medical norms. As I have discussed in more detail elsewhere, as a medical technology, ultrasound has been central to the formation and application of norms in obstetric care (Mills 2016). In particular, ultrasound technology has enabled the formation of norms of foetal development, thereby making possible the identification of foetal anomalies and/or abnormalities.[6] This is in fact one of the central uses of obstetric ultrasound today. While ultrasound was initially used in obstetrics to track foetal growth rates and estimate gestational age, the routine screens throughout pregnancy today are often seen primarily as a means of detecting foetal abnormalities. Consequently, at least in the context of the legal permissibility of termina-

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[6] See Mills, C. (2015) as to why both the terms 'anomaly' and 'abnormality' are appropriate here.

tion of pregnancy, it also makes possible decisions about foetuses that do not develop in accordance with norms. In this, it contributes to what Eva Kittay (2006) identifies as a "desire for the normal".

Arguably, the desire for the normal signals the point of intersection of such medical norms and the second set of norms that shape the interpretation and reception of ultrasound images, that is, social norms. Social norms can broadly be understood as the informal or customary rules and principles that guide behaviour in a given social grouping. However, social norms do not simply regulate behaviour; rather, as accretions of power, they also operate as an inescapable lens through which forms of embodiment are rendered socially acceptable or not. In her account of the impact of social norms on embodiment, Judith Butler (1993) argues that the social legibility of different bodies is unavoidably shaped by the operation of regulatory norms. Butler was primarily concerned with questions of gender and sexuality, but her view of the regulatory effects of norms on the social legibility and acceptability of different forms of embodiment has also been extended into matters of race and disability. The upshot of this is that forms of embodiment that deviate from social conceptions of normal bodies are rendered illegitimate or unintelligible, as fundamentally undesirable.

In terms of the interpretation of ultrasound images, the point is that the interpretation and affective response to such images is itself entangled in and shaped by the operation of social and medical norms. In short, the framing by norms means that any empathic relation with the foetus represented therein is itself shaped by norms both social and medical, and further, that the recognition of any particular foetus as an appropriate object of empathic relations is, to some extent, dependent on those norms. In philosophical discussions of empathy, the ways in which norms work upon a capacity to empathize is typically analysed under the rubric of bias. In this literature, it is broadly recognized that the capacity to empathize with the feelings of another are highly susceptible to bias. One issue in this susceptibility is the way in which moral approval and disapproval is subject to the modifying effects of social norms. But social norms also shape who one can empathize with, that is, who can recognizably be an appropriate target of empathy. With this in mind, it becomes apparent that empathy for the foetus is not straightforward, as the interpretation in a context of bias generated by social and medical norms means that the foetal image may interrupt empathic bonding as much as it precipitates it. We can identify two ways in which norms operate to interrupt and direct empathy in regards to the foetus.

First, it is worth considering one of the structuring oppositions within discussions of ultrasound, which I touched on in passing earlier. Recall that in the letter to the editor regarding maternal bonding, the women were quoted as saying “I feel that it is human” or “I believe it is human”. This designation of the foetus as human indicates that ultrasound has the capacity to bring the foetus into the sphere of empathic targeting through enabling or producing its recognition as human. However, as Campbell notes, upon seeing 3D ultrasounds in the first and early second trimester, many women regard the foetus as “alien” (Campbell 2006, 243). This is echoed in Slote’s claim that the early foetus often strikes us as alien or animal-like, such that we “naturally empathize more with later stages than with the earlier” (Slote, 2007,18). This suggests that seeing the foetus at the wrong stage of gestation might actually interrupt any bond that may have begun to emerge for the mother or parents – her baby is now rendered alien, and hence not an appropriate target for empathy. Interestingly, as I discuss further in the following section, this may mean that mandatory ultrasound viewing prior to the termination of a pregnancy has the opposite of the effect intended. As John Robertson (2011, 351) notes, rather than causing women to abandon plans for a termination, seeing the early foetus or embryo may in fact reassure women that a termination is morally acceptable.

Second, this interruption can also happen at later stages of development insofar as the interpretation of ultrasound images is saturated with norms that differentiate between the normal and the abnormal. What is interesting is how the medical norms of foetal development mesh with social norms that come to define pregnancies worth continuing. Moreover, these norms have themselves become fully integrated into the solicitation or, conversely, the suppression, of empathy. In effect, the diagnosis of anomaly can set a foetus outside the boundaries of empathy, breaking the maternal bond and rendering the pregnancy undesirable. As Catriona Mackenzie and Jackie Leach Scully (2007) argue, embodied experience may place significant limits on the capacity to empathically engage with the lived experience of differential embodiment, and this failure may help to account for high rates of abortion following the diagnosis of foetal anomalies or abnormalities. In the context of social norms that underwrite a differential valuation of bodily forms, it requires a particular imaginative effort to foresee a ‘life of value’ for the future child and person that a foetus with abnormalities may become.

As these points indicate, while the concept of empathy may be useful in articulating the general emotive effect of ultrasound images on decisions about abortion, we ought not assume that the response of one woman to an ultrasound image of the foetus she carries will necessarily be the same as that of another. Women seek abortions for a variety of reasons. Some do not wish to become a parent at all, others not now, or in the circumstances in which they become pregnant. Some women may wish to be pregnant, and to become a parent, but not with this sexual partner. Others want to be pregnant now, but seek an abortion following the diagnosis of abnormality. Given this, in the following section, I explore the disparities in women's responses to ultrasound images in more detail.

3. EMPATHY AND MORAL ACTION

So far, I have discussed some of the issues that arise in relation to the connection between seeing the foetus and feeling for it. What remains to be discussed though, is the connection between feeling for the foetus, and any (moral) action in regards to it. While I am not going to be able to explore this issue in great depth here, it is necessary to address several points. First, there is an underlying theoretical claim being made that there is a connection between empathy and moral motivation. I discuss this claim here, and particularly whether the mediated nature of the empathic relation established through ultrasound has implications for the strength of this connection. Second, throughout the paper I have noted claims about how ultrasound might change maternal behaviour, but I have not discussed any empirical studies of this claim. I do that here, including studies of the efficacy of mandatory ultrasound laws in preventing abortion. Following this, I turn to discussing the legal compulsion of empathy and make two points about mandatory ultrasound laws; first, I note a gendered misalignment in their operation, and second, highlight the way in which the compulsion of empathy for the foetus has come at the expense of empathy for pregnant women.

The recent revival of interest in the notion of empathy—both within philosophy and more broadly in psychology and popular literature—means that there is now a well-established debate about the role that empathy plays in moral action. As I mentioned earlier, Slote argues that it plays a foundational role, not only motivating moral action but also providing criteria for moral approval or disapproval. Others, including other moral sentimentalists, argue that empathy does not have any significant moral role—it neither provides a foundation nor a motivation for moral action. For instance, Jesse Prinz (2011) has argued that empathy does not fulfil the roles attributed to it, and further, is in fact a moral 'liability'. Prinz and other critics of empathy point out that as a moral motivation or foundation for moral approval, empathy is significantly misleading and fails to track moral judgements. This is because empathy is subject to various distorting effects, including bias and partiality.

For the purposes of this paper, it is not necessary to establish that empathy has a moral worth in general; what is important to consider is whether empathy has a moral motivating effect at all, and further, whether it has that effect in the context of gestation and the maternal-foetal relationship. Interestingly, the critical points made by opponents of empathy themselves lend strength to the idea that empathy is morally motivating, even if that motivation is not sufficiently wide to make empathy a good candidate for yielding moral action in general. For instance, critics of empathy point to a phenomenon that psychologists call the 'identifiable victim effect'. Experiments on this effect show that knowing identifying features of the victim of misfortune produces a more significantly caring response, in terms of charitable donations and so on. Paul Bloom (2016) links this effect to empathy and goes on to argue that this shows that empathy is a poor moral guide. Perhaps; but it also shows that insofar as knowing the identity of a moral patient yields empathy, then empathy seems to have moral effects in relation to that identified target (even if not others).

This is significant in the context of gestation and abortion, because it might be argued that mandatory ultrasound laws are precisely an attempt to mobilize the identifiable victim effect through making the foetus visible – what is at issue is no longer a foetus in general, but *this one foetus*. After all, such laws do not require that women adopt anti-abortion beliefs and work to prevent the abortion of all foetuses, only that a woman responds *to her own foetus*, this particular being. In effect, ultrasound makes a foetus appear as a singular, embodied being with whom the pregnant woman as spectator bears an ethical relationship (Mills 2011). This raises the more specific question, then, of whether seeing the foetus in the context of deciding on abortion actually makes a difference to the decisional outcome. In other words, do women change their minds about abortion after seeing the foetus?

Throughout the period of the international routinisation of obstetric ultrasound since the 1980s, there have been numerous empirical studies of the extent to which ultrasound images precipitate or strengthen parental, and especially maternal, bonding. Given the methodological and other variations between these, it is difficult to make general statements about the results of them.[7] However, it seems

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[7] For a critical discussion of recent studies in ultrasound bonding, see Roberts (2012).

that viewing ultrasound images of it may have some measurable effect on emotional bonding to a foetus for prospective parents (or at least prospective mothers, since many such studies only recruit pregnant women). Recent studies have also investigated the degree to which maternal attachment is impacted by factors such as the gestational age of the foetus, and whether the ultrasound image is generated using 2-dimensional or 3 or 4-dimensional ultrasound, with contradictory conclusions drawn (Ji, Pretorius et al. 2005; Sedgmen, Mcmahon et al. 2006; Atluru, Appleton et al. 2012; De Jong-Pleij, Ribbert et al. 2013). Sedgmen et al (2006), reported that viewing an ultrasound image may reduce maternal consumption of alcohol (Sedgmen, Mcmahon et al. 2006), though it did not have an appreciable impact on other health behaviours. It should be noted that all of these studies were undertaken with women who were seeking to continue their pregnancies—they were 'wanted' pregnancies.

This array of evidence has led both proponents and opponents of mandatory ultrasound laws to assume that viewing an ultrasound image in the context of seeking an abortion for an unwanted pregnancy will impact on a woman's decision to continue with or forgo pregnancy termination. There is, however, little evidence that seeing the foetus in the context of mandatory ultrasound prior to termination does have such straightforward effects. One qualitative study of women's views on ultrasound in abortion care found that while both these views received some evidential support, mandatory ultrasound also had some unexpected results. In this study, Kimport et.al (2012) interviewed a sample of women receiving abortion care in two conservative states in the USA that have mandatory ultrasound statutes in place. They found that some women were dissuaded from having a termination, when they were already feeling ambivalent about that decision or undecided about their course of action. Conversely, as argued by pro-choice activists, some women found that viewing an ultrasound had a heightened emotional toll, but did not dissuade them from their prior decision to have a termination. Unexpectedly, women also reported that seeing the foetus made them feel better about having a termination, since it made the whole process of pregnancy termination "more real" or because it helped to concretize their responsibility in the process and "honor the complexity of her choice" (Kimport et al. 2012, e516). They conclude that in the context of an unwanted pregnancy, the effect of ultrasound viewing can have differential effects for women, including "improving their overall experience of abortion and satisfaction with their decision" (Kimport et al. 2012, e517).

Interestingly, the findings of this small qualitative study were reinforced in a larger quantitative study, involving more than 15,000 patients at a Planned Parenthood clinic in Los Angeles, California. In this, Gatter et.al (2014) collected data from women who *chose to view* an ultrasound image as part of their pre-abortion care, since the Californian statute requires that an ultrasound be offered, but does not mandate viewing. The conclusions of this study were that voluntary viewing of an ultrasound image in the context of abortion care has had little effect in terms of decision-making: 98.4% of women who chose to see their foetus continued to termination, compared to 99% of women who did not see their foetus beforehand. Of these, women with "low decisional certainty" (ie, who were confused, conflicted or did not want to abort), had slightly lower rates of continuing to termination after seeing the foetus (95.2%). As the authors conclude, viewing an ultrasound was only of significance for women who were already uncertain about the decision to terminate. And furthermore, this effect was strongly related to gestational age, such that women at 17-19 weeks gestation were 20 times as likely to continue the pregnancy compared to women at less than 9-weeks gestation (Gatter et al. 2014, 84).

Finally, a very recent mixed method study by Upadhyay et al. (2017) has examined the effects of ultrasound viewing in Wisconsin, a state that mandates that abortion providers present and describe the ultrasound image to the pregnant woman seeking a termination, regardless of whether she wants to view the image. Even in the context where seeing the foetus was legally mandated, the authors report similar results to those above. They conclude from quantitative data that Wisconsin's mandatory ultrasound law was associated with a statistically significant but small increased likelihood of women continuing a pregnancy. However, the authors suggest that this needs to be considered in context and that factors other than viewing the foetus – such as having to pay out-of-pocket for abortion services—may explain this increase (Upadhyay et al. 2017, 18). From qualitative data, they show that most women reported that seeing the foetus had no impact on their decision; for a small number (8), it had an impact, but for most of these (5) the impact was positive—it helped solidify their decision to abort. Two women reported in interviews that seeing ultrasound images contributed to their decision to continue the pregnancy, both of whom reported significant ambivalence and uncertainty about seeking a termination. One reported that her boyfriend wanted her to abort, though she did not want to; the other reported that seeing her foetus on ultrasound at 16 weeks gestation resolved her uncertainty and made the decision to continue the pregnancy clear to her (Upadhyay et al. 2017, 17).

Two points from these empirical studies can be highlighted. First, it is worth noting that gestational age appears to play a role in the extent to which viewing one's foetus generates morally significant attachment to it. Seeing the foetus at later gestational stages reportedly had more impact on women's decision-making, and especially the decision to continue the pregnancy, than seeing the foetus at earlier stages of gestation, wherein the emotive responses were more mixed. This seems to synchronize with Slote's developmental thesis, in which an image of a foetus carries more weight in terms of moral decision-making the more the foetus appears 'like us'. The second point to highlight is that seeing the foetus appears to have most impact in a decisional context of maternal ambivalence. In other words, when a woman is less certain about the decision to terminate a pregnancy, seeing the foetus may have some impact, though for women with high decisional certainty, it has little impact, or, indeed, may have a positive effect of reassurance.

This context of maternal ambivalence points to an interesting feature of mandatory ultrasound laws and the justifications offered for them. As Denbow (2015) discusses in detail, mandatory ultrasound laws are cast as a means of protecting the informed choice of women against the influence of men who would have them abort. This means they work with two somewhat contradictory ideas. On the one hand, they posit that viewing an ultrasound can help precipitate bonding in circumstances where it is absent or insufficiently developed. On the other hand, though, they posit that women are naturally bonded with their foetuses, and, further, that natural bond needs to be protected against the coercive intrusions of others, such as abortion providers and male sexual partners. In relation to the second of these, the suggestion is that the influence of men diminishes women's capacity to provide properly informed consent for terminations of pregnancy, since they coerce women into abortions they otherwise do not want. If we take this claim at face value, however, what becomes apparent is that there is a gendered misalignment in mandatory ultrasound laws. For if it is the case that men are coercing women into having abortions against their will, it is not obviously pregnant women who need to be shown ultrasound images of foetuses so much as their male sexual partners. This is not a recommendation, not least because in many circumstances, it would be unworkably impractical. However, it does make apparent the way in which such laws fit within the (biopolitical) regulation of the reproductive behaviour of women (Rodrigues 2014). Moreover, it also highlights the moral burden that is being placed on women: they are caught in the bind of being simultaneously a threat to the foetus and its potential rescuer.

The double edge of this positioning also contributes to the final point that I wish to make here, which pertains to the political distribution of empathy in the context of mandatory ultrasound laws. In the previous section, I made the point that ultrasound works to constitute the foetus as other, which is a necessary prerequisite for empathy. Further, I argued that the directionality of empathy is shaped by social norms, such that the question of who can be recognized as an appropriate target of empathy is itself a question of social power. Arguably, one effect of the mobilization of ultrasound images within the anti-abortion campaigns has been to direct empathy toward the foetus *at the expense of* empathy for the pregnant woman herself. In the unwanted pregnancy, two beings increasingly vie for empathic concern, and insofar as the pregnant woman is cast as threatening, she is seen as less deserving of that concern. In essence, insofar as ultrasound contributes to the formation of the two beings model of pregnancy, through the constitution of the foetus as other, it has meant that empathy has either been directed toward the foetus or the pregnant woman. And because women are seen as causing moral harm to another, they are no longer the appropriate target for empathic concern. In short, moral norms can get in the way of empathy.

4. CONCLUSION

This paper is guided by two aims—first, to extend the project of a bioethics of images through reflection on ultrasound imaging; and second, to critique the mobilization of such images in efforts to reduce access to abortion, specifically in mandatory ultrasound laws in the USA. While there is a growing critical literature on such laws, there has been little philosophical engagement with them, and few attempts to unpack the basic presumption of such laws: that seeing one's foetus changes the ways in which one might act in regards to it, including in terms of the (ethical) decision about whether to allow it to live or not. However, in my view, this presumption raises significant questions, specifically about the relation between visibility, emotion and ethics. Throughout the paper, I argue that mandatory ultrasound laws compel women into a position of moral spectatorship and require them to recognise the foetus as a being for whom they are responsible, particularly through empathic responses to ultrasound images. In an effort to clarify the emotive effects of ultrasound images, I focus on the concept of empathy, to show that empathy with a foetus is complexly related to gestational age. I also point out that empathy is technologically mediated, and shaped by the intersection of medical and social norms. In the final section of the paper, I consider the relationship between empathy and moral action, specifically through empirical studies of the extent to which seeing the foetus impacts upon decisions about termination of pregnancy. I also highlight two critical points: first, mandatory ultrasound laws suffer from a gendered misalignment insofar as the presumption is that men coerce women into abortions – in this case, if the aim is to prevent abortions, it is men who apparently require the bonding experience supposedly precipitated by ultrasound images. Second, seen in political context, mandatory ultrasound laws attempt to foster empathy for the foetus, and they do so at the expense of empathy for pregnant women.

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Termination of Pregnancy After Non-Invasive Prenatal Testing (NIPT): Ethical Considerations

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ABSTRACT

This article explores the Nuffield Council on Bioethics' recent report about non-invasive prenatal testing. Given that such testing is likely to become the norm, it is important to question whether there should be some ethical parameters regarding its use. The article engages with the viewpoints of Jeff McMahan, Julian Savulescu, Stephen Wilkinson and other commentators on prenatal ethics. The authors argue that there are a variety of moral considerations that legitimately play a significant role with regard to (prospective) parental decision-making in the context of NIPT, for example, views on the morality of abortion and understandings of the impact of disability on quality of life. The variable nature of such considerations, both singularly and combined, suggests that any approach to NIPT should be sensitive to and understanding of similarly variable parental assessments and decisions. The implications of the approach developed for current and future policies in this area are explored, along with the impact of such arguments on ideas about procreative beneficence.

INTRODUCTION

While the ethical and social dimensions of prenatal testing and selective termination of pregnancy have been debated for many decades (Shakespeare 2006), the advent of non-invasive prenatal testing (NIPT) and its rapid and widespread adoption has reawakened these debates, together with associated anxieties about eugenics and equality. Because NIPT removes the risk of iatrogenic miscarriage associated with invasive procedures such as chorionic villus sampling (CVS) and amniocentesis, there seems to be less reason for pregnant women and their partners to be cautious about consenting to screening for Down syndrome and other conditions (Chitty et al 2016). Moreover, NIPT is more accurate in identifying Down syndrome than previous screening tests (Taylor-Phillips et al 2016), and appears simpler to understand, at least in the case of Down syndrome screening. This suggests that more pregnant women are likely to opt for screening without fully considering the implications. This in turn means more identification of affected pregnancies, possibly at an earlier stage of pregnancy. Given that upwards of 90% of pregnant women who are identified carrying a pregnancy affected by Down syndrome currently chose to terminate, this suggests that there may be more selective abortions, and potentially fewer babies born with Down syndrome or other trisomies.[1] However, the trend towards women becoming pregnant later in life means a somewhat higher incidence of Down syndrome and other trisomies, so this has to be set against the increase in diagnosis and selective abortions.

Further, NIPT may increase the number of other conditions that are detectable prenatally. Until now, mainstream screening has been largely limited to trisomy screening and detection of anomalies on ultrasound. NIPT is already being used to identify microdeletions in the genome, where the test has a much lower accuracy. The universal acceptance of NIPT raises the option of whole exome or genome sequencing (WES/WGS). The cost of sequencing has been reducing year on year

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[1] Down syndrome results when a fetus carries 3, rather than 2 copies of chromosome 21, hence 'trisomy'. Other common trisomies affect chromosome 18 (Edwards syndrome) and 13 (Patau syndrome). These trisomies affect infants more significantly than Down syndrome: half of children with Edward syndrome die within a week of birth, with less than 10% of surviving to age 10; more than 80% of children with Patau syndrome die within the first year of life, and around 13% survive to age 10.

for decades: WES will soon be cheaper than $500. Sequencing has the potential to identify both significant and insignificant genetic conditions, as well as variants of unknown significance (VUS). For example, in some clinics in the USA, prospective parents are offered WES if any structural anomalies—such as unusual nuchal translucency findings—are detected on ultrasound or through other screening tests, with three-quarters accepting the offer. These developments may have a number of implications. Information about microdeletions and single gene conditions will be more uncertain, more complex, harder to understand, and demand more genetic counselling support. Where the risk of a genetic condition is high, more invasive tests may be required for accurate diagnosis, and these tests may cause more iatrogenic miscarriage. More conditions may be identified prenatally, at an earlier stage of gestation. This may result in earlier terminations of pregnancy.

It should be noted that NIPT is not diagnostic for trisomies or many other changes (Taylor-Phillips et al 2016). In a high chance population (women who have been identified by serum screening as being at a higher than 1:150 chance of carrying an affected fetus) the positive predictive value for Down syndrome may be as high as 91%; whereas in the general population the positive predictive value falls below 82%, meaning that 18 out of 100 pregnancies identified are not in fact affected by Down syndrome. The test performs even worse for the other trisomies, where positive predictive value in the general population is less than 50%. This explains why NIPT is better offered as a second tier screen after serum screening, as the NHS National Screening Committee proposes, and why a diagnostic test is still required to confirm that the pregnancy is affected (NSC 2016).

The Nuffield Council on Bioethics is an independent advisory body in the UK, funded by the Medical Research Council, Nuffield Foundation and the Wellcome Trust. It is often considered to be the closest that the UK comes to having a national bioethics committee. In 2016-17, a working group of the Nuffield Council on Bioethics spent approximately one year considering the ethics of NIPT resulting in a report that was published in March 2017. The working group, comprising expertise in law, philosophy, psychology, public health, social science, and genetics, deliberated the issue with input from both experts in the field and lay people, including people with lived experience of genetic conditions. The deliberations of the working group thus drew on empirical data—about scientific and clinical practices, and about public opinion—and on normative arguments, as well as on responses to an open consultation.

The working group's inquiry into NIPT considered all kinds of uses of NIPT—for screening for trisomies (sometimes called Non-Invasive Prenatal Screening, NIPS); diagnosing single-gene conditions (sometimes called Non-Invasive Prenatal Diagnosis, NIPD); and for determining fetal sex. The working group also looked to the future, when whole genome sequencing of fetuses using NIPT might become clinically available. The inquiry considered both public sector provision of NIPT in the NHS, but also explored how NIPT was marketed and provided in the commercial sector.

The working group developed an ethical approach to the formation of policy in this area based on the three sets of values:

1. The value of reproductive choice;

2. The importance of reducing or avoiding harm to different individuals and groups;

3. The importance of ensuring equality and social inclusion.

This led the working group to support the offer, whether in the NHS or the private sector, of NIPT for significant medical conditions and impairments, but to argue that certain preconditions would have to be met. These preconditions included: that the test gave an accurate prediction of the condition being tested for; that women/couples were provided with high quality information and support; that disabled people receive high quality health and social care; and that the discrimination and exclusion experienced by disabled people was tackled. The working group had particular concerns about availability of information and genetic counselling in the private sector.

The working group had more concerns about extensions to NIPT, particularly in the private sector. The report argued that NIPT should not normally be used to test whether a fetus has a less significant medical condition or an adult onset condition, or to find out if the fetus is the carrier of a gene for a medical condition. The report argued that NIPT should not be used to disclose the sex of the fetus at the 10-week stage, or for non-medical traits at any stage. In particular, the report argued that there should be a moratorium on the use of whole genome sequencing with NIPT. The argument was that WGS information had limited clinical utility, that information would create anxiety, that it would lead to more confirmatory invasive testing, and that lay people generally lacked the information and support necessary to make an informed and ethical decision. The working group made an exception for situations where there is a family history of genetic conditions, or where NIPT is used diagnostically after anomaly has been detected on ultrasound.

The authors will end up agreeing with the Nuffield Council on Bioethics recommendations on these points, perhaps unsurprisingly given that one author chaired the working group. However, the current paper offers a chance to go into the question of the ethics of NIPT in more depth, and to consider the recommendations more philosophically, particularly regarding what might appear to be an inconsistency in the Council's position. We will show that, given the considerations we explore, the Council's position need not be regarded as inconsistent.

NUFFIELD COUNCIL ON BIOETHICS RECOMMENDATIONS

As can be seen, in this report, the Nuffield Council on Bioethics adopted a compromise position on NIPT and selective termination. Contrary to the advocacy of the Down Syndrome community—represented by highly vocal campaigns such as 'Don't Screen Us Out'—the Council supported, with qualifications, the provision of NIPT services as a second tier screening test for trisomies in the NHS. In other words, it would be offered to women who were found to be at a higher chance (greater than 1: 150) of having a pregnancy affected by Down syndrome as a result of first tier serum screening. But contrary to the advocacy of pro-choice advocates such as the British Pregnancy Advisory Service, the Council recommended prohibition of NIPT for sex selection, and a moratorium on whole genome sequencing/exome sequencing.

The report justified this compromise position in terms of a balance between the ethical value of choice, and the countervailing values of avoiding harm, and promoting equality and inclusion. For example, on trisomy, the Council argued that choice should be balanced with more extensive information provision, balanced and non-directive prenatal counselling, and welcoming of Down syndrome babies.

To take another example, the Council argued that NIPT for sex selection would be intrinsically sexist, and could lead to undesirable social consequences. Moreover, in a global context where some countries—China, India and some Middle Eastern countries—have used prenatal testing to favour male rather than female births with consequences for their national sex ratios, the Council argued that the UK should not undermine the international efforts to counter this deleterious social practice by permitting NIPT for sex selection.

Yet in recommending restrictions on the use of testing and implicitly the availability of information to pregnant women and their partners, the Council could be accused of paternalism. Indeed, this was exactly the charge levelled by the British Pregnancy Advisory Service.

While the Report explored ethical issues, placing NIPT in the context of values such as choice, avoidance of harm, and equality and inclusion, it did not give a closely argued justification of the position adopted. In recommending that prospective parents be able to use NIPT to discover the trisomy status of the fetus, the Report followed the ethos of reproductive autonomy and informed choice. However, when it came to NIPT for sex selection or NIPT with whole genome/exome sequencing, the Report took the position that this information should essentially be denied to the parents, unless there was a compelling reason arising from family history or ultrasound indication of anomaly.

The resulting recommendations are thus vulnerable to the accusation of inconsistency, as well as paternalism. A straightforward and consistent position to adopt could be that parents are able to find out all available information about their fetus, and that women should have control over their own bodies, and thus the right to terminate on any grounds. This is what the principle of reproductive autonomy might demand. But in the era of whole genome sequencing and perhaps particularly given that NIPT can convey results at week 10-12, rather than week 18-20, the implications are troubling to those who want to see an acceptance of diversity and who worry about the dangers of "laissez faire eugenics" (Kitcher 1996). If prospective parents can discover every difference or anomaly at an early stage of pregnancy, then the scenario envisaged by Barbara Katz Rothman (1993) in *The Tentative Pregnancy* can come to pass. Particularly for those—middle class and empowered people—who are accustomed to choice and control in their lives, it might be tempting to reject any fetus which carries an obviously deleterious allele—not just chromosomal anomalies like Down syndrome, Edward syndrome, Turner syndrome, Klinefelter's syndrome, Patau, not just serious genetic conditions such as haemophilia and cystic fibrosis, but also anything untoward, however trivial, including unwanted social or behavioural traits, such as being female or having a higher chance of being gay or on the autistic spectrum. The implications are also troubling for anyone who worries about increasing numbers of terminations of pregnancy, and who might consider that such a morally weighty act can be best justified on the grounds of characteristics of the fetus which are significant and non-trivial. While all this seems worrying enough, some theorists go further and argue that it is now morally wrong to have disabled children when the severity of a genetically transmitted condition is "great enough that particular parents are morally obligated to prevent it, given the specific means necessary for them to do so" (Buchanan, Brock, Daniels and Wikler 2000, 243).

PROCREATIVE BENEFICENCE AND NIPT

Several philosophers would place on pregnant women and their partners a particular duty, when it comes to reproductive choices. In the context of pre-implantation genetic diagnosis, rather than prenatal screening, Julian Savulescu writes: "couples (or single reproducers) should select the child, of the possible children they could have, who is expected to have the best life, or at least as good a life as the others, based on the relevant, available information." (Savulescu 2001, 415).

In a slightly different formulation, Jeff McMahan presents his 'Impersonal Comparative Principle': "If in either of two possible outcomes the same number of people would ever live, it would be worse if those who live are worse off, or have a lower quality of life, than those who would have lived" (McMahan 2005, 145). Neither McMahan nor Savulescu makes the mistake of holding that a person is harmed by being brought into existence in these cases, even if the person's quality of life is low. Their position acknowledges Parfit's famous non-identity problem, which is brought in to play given that these cases involve identity-affecting choices (Parfit 1984). The problem is expertly articulated by Buchanan, Brock, Daniels and Wikler where they point out that, in the case of disability, for example, "a person's disability uncontroversially leaves him or her with a worthwhile life", so "it would not be better for the person with the disability to have had it prevented, since that could only be done by preventing him or her from ever having existed at all" (Buchanan, Brock, Daniels and Wikler 2000, 245).

Nonetheless, the implication of McMahan's and Savulescu's claims, particularly Savulescu's, is that, where the same number of people will exist, there is a positive duty on prospective parents to exercise procreative beneficence and thus to produce or select the best fetus and hence best child they can.

The practical implications of the duty of procreative beneficence are hard to understand. For those people who are at known risk of passing on genetic conditions to their child, then procreative beneficence presumably demands and must surely recommend that they either access PGD services, or use prenatal diagnosis and selective termination if such conditions can be avoided. One might think that it would also recommend forgoing reproduction in favour of adoption or childlessness where they cannot be avoided, yet the principle is consistent with the view that if the only possibility is to have a child with a given condition, then it is acceptable to go ahead and do so (Savulescu 2001, 415).

The very many couples affected by skeletal dysplasia, or deafness or other avoidable conditions who knowingly reproduce and have children with their own conditions might be guilty of violating the Reproductive Beneficence Principle, and potentially the Impersonal Comparative Principle. However, this depends on what is meant by "the best life, or at least as good a life as the others" and understandings of the comparative "worse off, or lower quality of life". Many disabled people report that they have as good a quality of life as non-disabled people, and indeed quality of life evidence suggests that measures of well-being and quality of life are indeed comparable among people with and without disability (Amundsen 2010).

For those who are not at any known chance of carrying a baby with a genetic condition, then these two Principles demand caution when it comes to reproduction, perhaps specifically imposing a duty that people should avail themselves of all available screening services, and terminate selectively. With the advent of NIPT, this would suggest using this new screening service, in association with whole genome/exome sequencing, to avoid possibly deleterious alleles (ignoring the point that it would not be a trivial problem to ascertain what might be deleterious, neutral or even positive in the context of a particular genome and socio-historical environment).

As Rothman argued in *The Tentative Pregnancy*, these Principles place a potentially draconian obligation on women who wish to reproduce, and their partners. Rather than leaving the fate of their prospective offspring to karma, God or the random assortment of genes, prospective parents would have to go through the stress of waiting to get pregnant, then a screening test—with possible need for confirmation via diagnosis invasive test—then termination if any of the alleles turn out to be problematic.

Given that every genome contains around 100 mutations, it might be thought that almost every genome has something that could raise alarm. This being so, the prospective mother and father, as Rayna Rapp (1999) has written, are turned into bioethicists, weighing up whether this life or that life would have "at least as good a life as the others", often in the absence of good empirical evidence about the natural history of genetic conditions, let alone the lived experience of people who themselves have the condition.

Prospective parents are turned not only into bioethicists but also, arguably, into consumers, considering whether this or that possible offspring would be of sufficient quality, or should be rejected. Data on the sequelae of abortion is scant and contested, but the implications of serial quality control terminations of pregnancy must be daunting to at least some prospective parents. Therefore, we would argue that, if they were applied in the context of NIPT, the implications of the purported duty of Reproductive Beneficence or the Impersonal Comparative Principle are repellent.

Of course, one could restrict the application of a principle of Procreative Beneficence to selection cases involving pre-implantation genetic diagnosis during IVF, when decisions regarding which embryo to implant must often be made regardless, and thereby avoid some of these worries. Moreover, termination of pregnancy might be considered to be an issue that would override the demands of Procreative Beneficence if applied in the context of NIPT. However, it is not at all obvious that this need be or is the case. For example, Savulescu asserts that his argument "extends in principle to selection of fetuses using prenatal testing and termination of affected pregnancy" (Savulescu 2001, 421) and it is hard to see why prospective parents would not avail of that option if they considered Procreative Beneficence to be *the* principle, or the most significant one, to follow. On the other hand, Savulescu acknowledges the psychological harms associated with termination of pregnancy (Savulescu 2001, 421) and states that Procreative Beneficence is a principle that must be balanced against others (Savulescu 2001, 425). We acknowledge here too, that the application of a principle of Procreative Beneficence in the context of NIPT would involve some controversial, even if reasonably common, assumptions about the nature and moral status of human development (that might impact in turn on beliefs about termination of pregnancy explored below). That is, at the particular stage of pregnancy in a given case, the potential life in question would have to be considered as not yet being a morally relevant entity that can be harmed or benefitted. Altogether then, it would seem that either the principle can be read as quite a radical thesis whereupon the significant concerns outlined above remain or, more generously, it is not as controversial as it can first appear. It can be limited in application to cases of pre-implantation genetic diagnosis during IVF, leaving open the contentious issue of whether or not advocates of Procreative Beneficence believe that PGD during IVF should become the procreative norm. Moreover, both with IVF and in a more general sense, it is a principle that is one of many contextual considerations that we explore below.

Some notion of beneficence is likely to play a significant role in (prospective) parental decision-making. Michael Parker argues, for example, that

> *insofar as we have reason to believe that it is possible to say something meaningful about the conditions under which it is possible to live a good life, the concept of beneficence will have content and will require of us, where we have choice and insofar as it is possible to discern, that we choose to reproduce in ways that make it possible for our children to grow up under such conditions (Parker 2007, 283).*

In addition, however, there are a variety of other considerations that, we suggest, legitimately factor in to such decisions. They will likely combine as well, to add content to any notion of beneficence.

One such consideration in the context of NIPT is a (prospective) parent's beliefs about termination of pregnancy. It goes without saying that most, if not all, of the considerations discussed here are intensely personal, and views about termination of pregnancy are no exception. Indeed, they tend to be held very deeply and so, in turn, can have a critical role in deliberations. Some views will also have different implications for decision-making, depending on the stage of the pregnancy in question.

The Nuffield Council report, for example, cites research exploring the factors that influence women's decisions to continue or terminate a pregnancy following a diagnosis of fetal anomaly. Reasons for continuing a pregnancy after a diagnosis include, amongst other things, "religious beliefs" and "not wanting to experience a termination" (Nuffield Council 2017, 11). Karpin and Savell similarly suggest that what women are prepared to do to prevent the birth of a child who has an abnormality or genetic condition or disease is a crucial contextual matter (Karpin and Savell 2012, 283). They also observe that, as a pregnancy proceeds, the willingness to terminate that pregnancy can decrease, citing evidence that the stage of gestation correlates with clinicians' willingness too, to facilitate termination for certain disabilities (Karpin and Savell 2012, 283).[2]

This is reflected in a concern expressed in the Nuffield Council report, that of-

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[2] Karpin and Savell (2012, 283) further postulate that the interaction between severity and gestational age might work in reverse, "that is, that the threshold for seriousness might be lower early in pregnancy or before pregnancy".

fering NIPT only to women after they have had an initial combined test may lead to a delay in diagnosis for some women. The report states that such a delay (of a week or longer) "will be significant to some women, particularly those considering a termination" (Nuffield Council 2017, 42). The significance is said to lie in the fact that some research suggests that later terminations are associated with higher levels of stress and therefore increased harm to women, at least in the short term, which is clearly likely to be bound up with women's considered beliefs about the issue and procedure. The report thus recommends that "women are able to go straight to diagnostic testing after a high chance combined test result if they wish" (Nuffield Council 2017, 42).

It is obvious, then, that beliefs about the issue of termination of pregnancy can have a significant impact on decision-making with regard to NIPT. Indeed, the significance of the issue and its impact is highlighted further in the Nuffield report, where it is said that the decision to terminate a pregnancy following diagnosis of fetal anomaly "is frequently described by pregnant women and couples as shocking, painful and distressing, with some reporting feeling unprepared for making such a decision" (Nuffield Council 2017, 11). The report cites research from The Netherlands, which found that "a significant number of women experienced post-traumatic stress symptoms and depression in the 16 months following the termination, particularly among those who felt high levels of doubt during the decision-making period, lacked partner support, were religious, and were at more advanced stages of pregnancy" (Nuffield Council 2017, 11-12). This was the case even though most women did not report regretting their decision to have a termination (Nuffield Council 2017, 12), which both illustrates the gravity of the issue and implores a deep sensitivity to women's considered decisions in such cases (in either direction).

Decisions to terminate pregnancy on the basis of a diagnosis of fetal anomaly are made on a number of grounds, according to the Nuffield Council report (Nuffield Council 2017, 11). They correspond to three loosely defined and interrelated sets of considerations that, along with beliefs about the issue of termination, legitimately factor in to (prospective) parental decision-making. The first involve an evaluation of the impact of the diagnosed condition on the life of the prospective child. The second involve an evaluation of the impact of having a child with the diagnosed condition on the parent(s) and other family members, along with consideration of (prospective) parental hopes and aspirations. The third involve the social, economic and personal context in which a decision is being considered. While balancing such considerations is no easy task, we want to suggest that any serious and sensitive evaluation will attempt to do so.

A diagnosed condition is likely to concern us because of the impact that it might have on a prospective child's life or, as Jonathan Glover puts it, their capacity to flourish. In the context of disability, for example, Glover argues that it

> *requires failure of functioning. But failure of functioning creates disability only if (on its own or via social discrimination) it impairs capacities for human flourishing. It would not be a disability if there were a failure of a system whose only function was to keep toenails growing. With arrested toenail growth, we flourish no less (Glover 2006, 9).*

Similarly, having one gender or another does not impair capacity for flourishing.

Here, then, the concern of (prospective) parents speaks "not to imperfection, but to human suffering" (Karpin and Savell 2012, 155). Moreover, as Wilkinson rightly points out in his analysis of Glover, the relationship between a diagnosed condition and human suffering is indirect because "the a priori connection is not between being disabled and *not flourishing* but rather between being disabled and having a reduced *capacity to flourish*" (Wilkinson 2010, 63). Clearly, as has already been described, individuals with disabilities can and do live flourishing lives, which leads Wilkinson to argue that it is inadvisable to generalize about the relationship between disability and quality of life (Wilkinson 2010, 68). Having said that, the impact that a diagnosed condition is likely to have on a child's capacity to flourish is an obvious concern of (prospective) parents, however difficult it is to assess. We note here the danger that prospective parents may be ignorant about, or even biased against disability, given the prevailing negative valuation of disability in modern societies (Kaposy 2018).

Judging the impact of a given condition on a potential child's capacity to flourish is very problematic and controversial. It is perhaps least controversial in what tend to be described as 'wrongful life' or 'sub-zero' cases.[3] These are cases where it is said that a prospective child's life will not be worth living or, put another way, that the life created will contain negative net utility. Wilkinson argues that a child with a negative quality of life

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[3] This is not to deny that some people's beliefs about termination of pregnancy may preclude that course of action, even in these types of case.

> *does have a valid complaint and can legitimately claim that it has been harmed by being created. For if the child could compare the state of affairs in which it exists (one with sub-zero quality of life) with another in which it does not (one with no life, and hence no quality of life) it would (and rationally should), other things being equal, prefer the latter (Wilkinson 2010, 70-71).*

Wilkinson goes on to contend that wrongful life cases are extremely rare. "Most people with disabilities have a positive quality of life, even if their disabilities, or society's responses to them, cause them to have a lower quality of life than that of the average non-disabled person" (Wilkinson 2010, 71). Thus, unless we wanted to raise the threshold of wrongful life to include the types of conditions tested for via NIPT, which would be very contentious, the concept of wrongful life has little to offer (prospective) parents when trying to assess the impact of a diagnosed condition in the context of NIPT.

Above the wrongful life threshold, it is very hard to know what we can legitimately say about decisions made on the basis of an assessment of the likely impact of a diagnosed condition. Given the non-identity problem described earlier, we cannot claim that it is wrong to continue with a pregnancy after most diagnoses of fetal anomaly, since it will likely result in a child with a worthwhile life who prefers to exist than to not exist.[4] However, for reasons already given (and more to follow), we do not want to claim that it is wrong to continue with a pregnancy after a positive NIPT result.

What discussion of the wrongful life threshold and the non-identity problem encourages, perhaps unexpectedly, is a more nuanced discussion of what we consider might add to, detract from, or have a questionable impact in either direction on, our capacity to flourish. For it is fair to assume that no decent (prospective) parent would desire to have a child whose quality of life was a morsel above zero. Thus, while we do not wish to claim that it is wrong to have a child whose quality of life hovers just above the zero threshold, there are a myriad of serious moral considerations that legitimately apply above that threshold, and which help us to form a view about whether or not to continue with a pregnancy in any specific circumstances.

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[4] Of course, a child may not consider their life to be worthwhile, but this may be for reasons entirely independent of a diagnosed condition or for reasons that cannot be predicted or assumed. By implication, they cannot form the basis of a defensible reproductive decision.

Some of those considerations about the impact on a prospective child's capacity to flourish that apply above the zero threshold will be explored below.

While it is hard to claim that a child is harmed when it is brought into existence above the zero line, there are a number of ways of articulating worries about the impact of certain conditions. One is to question whether the level of suffering or restriction likely to be bound up with a given condition is reason enough to prevent it where that choice is available. These are cases where, as Herrisone-Kelly puts it, "the possible child's life would be worth living, but would contain what the prospective parent considers a greater load of suffering than she is prepared to allow her child to endure" (Herrisone-Kelly 2006, 169). While this sounds like a sensible and humane approach, Wilkinson questions the logical implications of harm prevention arguments more generally. Given that, as he puts it, *all* people will suffer harmful experiences of some sort during their lives, the reasoning behind harm prevention arguments suggests the "banning of *all* conceptions, because *all* children will suffer harm at some point" (Wilkinson 2010, 84). Wilkinson concludes that this style of argument must therefore be rejected.

While the point is appealing, we wonder if it has merit. For example, we could qualify the claim that "all people will suffer harmful experiences of some sort during their lives" with 'within reason'; and where the severity and likelihood of suffering exceeds what we consider to be ordinarily acceptable, we could argue that we are justified in wishing to prevent it. It is one thing to suggest that a life will have a fair chance of containing, for example, a range of injuries, exposure to crime, toothache, a broken heart, a road traffic collision, periods of deep sadness, illnesses, job loss and the like. It is quite another to suggest that, as a matter of near certainty, it will contain, for example, deep psychological trauma, protracted chronic pain, subjection to chemical warfare, prolonged imprisonment, or absolute poverty. And while the contrast is admittedly extreme, it illustrates that a contrast can indeed be drawn between harmful experiences of different severities and likelihoods and that, although it is true that all people will suffer harmful experiences of some sort during their lives, we may justifiably think seriously about the latter types of projections while being far less perturbed by the former.

There may be, then, defensible reasons to prevent suffering when we can, where it is both severe and highly likely to be experienced. Moreover, this need not entail raising the threshold of wrongful life. We are not claiming that such lives are wrongful: we are recognizing legitimate moral concerns about quality of life (way) above that threshold, which help to determine what prospective parents are prepared to bring about. The level of suffering or restriction that a child is likely to experience is clearly a legitimate concern, which reinforces the point that the wrongful life threshold is far from the end of the story when it comes to (prospective) parental considerations, responsibilities and permissible choices. Rather obviously, it also explains why prenatal testing, including NIPT, exists.

Another way of moving beyond the wrongful life threshold is by comparison with other possible lives. As already observed, the decisions being considered are identity affecting, so one strategy is to compare a prospective child's life (with a diagnosed condition) with an alternative future child's life (without that condition). Wilkinson cites Parfit's 'same number quality claim' as exemplifying such a strategy, which states that "If in either of two possible outcomes the same number of people would ever live, it would be worse if those who live are worse off, or have a lower quality of life, than those who would have lived" (Parfit 1984, 360, Wilkinson 2010, 91).[5] He argues further, that same number quality claims seem plausible: "For in the absence of strong countervailing reasons (an important qualification) it is patently irrational, one might even say perverse, knowingly to select the worse of two states of affairs. Indeed, part of what it means to say that a state of affairs is 'better' is that we have reason to prefer it" (Wilkinson 2010, 91). This reflects Jonathan Glover's observation about the non-identity problem, that it "shows that we can make the world a worse place without harming particular people, and that this matters" (Glover 2006, 49).

Along the above lines, then, one might consider termination of pregnancy after a diagnosis of fetal anomaly, on the grounds that a future child without the diagnosed condition is likely to have a better quality of life than the one with it. Otherwise, as Wilkinson puts it, "a worse-off future person is created when a better-off future person could have been created instead" (Wilkinson 2010, 92). However, while many find the above sort of approach appealing, there are significant conceptual problems with it as well as some insensitive implications, which have been well articulated elsewhere (Bennett 2014, Herissone-Kelly 2006, Hull 2009, Wilkinson 2010, 91-96). These difficulties suggest that a defensible analysis will not hinge solely on a same number quality claim. Moreover, we do not want to restrict our evaluation to same number quality claims. That is, we want to argue that there are compelling reasons to not continue with pregnancy in some cases (reasons concerning harm preven-

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[5] A similar type of claim can be found in Buchanan, Brock, Daniels & Wikler (2000, 249).

tion, for example,) *irrespective* of who is or is not subsequently born. Having said that, the above approach does introduce comparative considerations that might, even if largely hypothetical to most (prospective) parents, make a useful contribution to an assessment of the likely impact of a given condition.[6]

When thinking about the likely impact of a diagnosed condition in terms of what we may wish to prevent, irrespective of any alternatives, concerns about autonomy can add further substance to the analysis. During an instructive discussion of the topic, Wilkinson argues that frequently cited 'open future' arguments are, at root, attempts to articulate more plausible ethical principles relating to autonomy (Wilkinson 2010, 47). He describes one such principle as "the view that parents ought to do what they can to ensure that their children develop into autonomous adults who are capable of making independent rational choices, based on autonomously held beliefs and desires". In turn, autonomy is taken to be "a psychological property of persons and 'respect for autonomy' is a term for the moral constraints that a person's having this psychological property places on the way in which we should treat her" (Wilkinson 2010, 48).

Concerns about autonomy take two forms, according to Wilkinson, which he terms "the Failure to Respect Autonomy Worry and the Failure to Promote Autonomy Worry". The Failure to Promote Autonomy Worry is a worry about choosing to create future people whose autonomy will be limited (Wilkinson 2010, 51) (presumably, as a psychological property). The Failure to Respect Autonomy Worry is a worry about choosing to create future people with limitations that will, in adulthood, lead to the frustration of their autonomous desires and the failure of their autonomously formulated aims and projects (Wilkinson 2010, 53). While he argues that there are problems with the Failure to Respect Autonomy Worry, he concludes that, in as much as we value autonomy, "both 'worries' seem ultimately to count *in favour of* some forms of selection" (those that will increase autonomy) (Wilkinson 2010, 51, 54). Although this view clearly has weight among persons and in cultures where individual autonomy is particularly favoured, others do take contrary positions (Kittay 1999, Kaposy 2018).

Wilkinson's discussion takes place in the context of embryo selection prior to implantation but, even so, the ethical concerns clearly carry over to cases of diagno-

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6. Herissone-Kelly (2006, 168) seems to argue against this, where he says the sort of transpersonal "better for" judgment of what he calls the external perspective will have no force: "it cannot be regarded as any sort of reason, let alone a moral one". We are suggesting that such a perspective does provide reason, even if it is inappropriate or irrelevant in many contexts and for many (prospective) parents.

sis during pregnancy. In tandem with the desire to prevent suffering, they comprise legitimate and weighty considerations about whether or not to continue with a particular pregnancy. Moreover, they are reflected in the practical concerns of healthcare providers, as evidenced by national and international guidelines about the seriousness of a given condition. The Nuffield Council report, for example, cites the Royal College of Obstetricians and Gynaecologists' 2010 guidance on termination for fetal anomaly, which states that doctors should weigh up the following factors when reaching a decision:

> 1. The potential for effective treatment, either *in utero* or after birth;
>
> 2. On the part of the child, the probable degree of self-awareness and of ability to communicate with others;
>
> 3. The suffering that would be experienced;
>
> 4. The probability of being able to live alone and to be self-supporting as an adult;
>
> 5. On the part of society, the extent to which actions performed by individuals without disability that are essential for health would have to be provided by others (Nuffield Council 2017, 24-25).[7]

Here, concerns about suffering and lack of autonomy are abundantly clear; and the Nuffield Council largely endorses the views of the RCOG, including their conclusion that an assessment of the seriousness of a fetal anomaly should be considered on a case-by-case appraisal (Nuffield Council 2017, 25). The reasons for that conclusion, as quoted in the Nuffield report, are that "the consequences of an abnormality are difficult to predict, not only for the fetus in terms of viability or residual disability but also in relation to the impact in childhood as well as on the family into which the child would be born" and that "sufficiently advanced diagnostic techniques capable of accurately defining abnormalities or of predicting the seriousness of outcomes are not currently available" (RCOG 2010, Nuffield Council 2017, 25). As we explore

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[7] Karpin and Savell observe further, that the RCOG guidance draws on the World Health Organization's definitions of Assisted and Dependent performance (Karpin and Savell 2012, 260).

below, this acknowledges the point that a condition like Down syndrome might not be thought of as serious at all, by affected individuals and families (Slotko et al 2011; Slotko et al, 2016). Indeed, it is interesting to note here that, as well as concerns about suffering and lack of autonomy on the part of the potential child, the impact of having a child with a diagnosed condition on the parent(s) and other family members is also recognized as a significant factor. This brings us to the second cluster of considerations that, along with beliefs about the issue of termination, legitimately contribute to (prospective) parental decision-making.

Assessment of the seriousness of fetal anomaly is further complicated by the fact that (prospective) parental perceptions about what is serious legitimately weigh in to the assessment. It is possible, for example, that one (prospective) parent could consider a particular condition to be serious, while another could consider it to be a little less, far less or not at all serious. In turn, this is highly likely to be bound up with distinct yet often related perceptions about the impact of a given condition on (prospective) parents and other family members, as well as with personal experience of different conditions. Karpin and Savell, drawing on the work of Wertz and Knoppers, suggest that there is little consensus about where to draw the line between serious and non-serious conditions; that there is a broad spectrum of opinions with greater agreement at the extremes (Karpin and Savell 2012, 273). They then follow Rosamund Scott's analysis, arguing that, between the extremes, disagreement is most prevalent with regard to what Scott describes as 'mid-spectrum' conditions (Karpin and Savell 2012, 274).[8] In these types of cases (as well as others, in our view), perceptions of the impact on the parent(s) and other family members may be decisive. As Scott puts it, "the point of recognizing that parents will be the most important judges of the impact on them of a given fetal condition is to suggest that, given there is *room for doubt* about seriousness in the mid-spectrum area, parents' perceptions may legitimately *tip the balance*" (Scott 2003, 212, Karpin and Savell, 2012, 275). For Karpin and Savell, this reinforces their point that "the question of what is serious may not be a purely clinical determination, as parents will have views about whether or not the disability being described to them is one with which they feel they can cope" (Karpin and Savell 2012, 275).[9] Indeed, given their interaction and engagement with the other considerations discussed throughout, we believe that (prospective) parental views will

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[8] These are conditions that are harder to classify. They may entail a good or reasonable quality of life, yet have a significant impact on parents and other family members.

[9] Karpin and Savell (2012, 275) suggest that there will be further complexities that inform the interpretive matrix. We explore some of these in the section on context.

'tip the balance' quite a lot. While we believe that any ignorance and bias should be challenged by provision of evidence-based information and counselling (e.g. Slotko et al 2011, Slotko et al 2016), we consider that for many people, there will remain valid reasons for concern about the impact of certain conditions.

So far, the analysis has considered (prospective) parents' beliefs about termination of pregnancy, considerations about the impact of a given condition on a (potential) child's capacity to flourish and perceptions of the impact of having a child with a diagnosed condition on (prospective) parents and other family members. All of these things will be clearly bound up with (prospective) parental hopes and aspirations, both about their own lives and the lives of their potential children. As already stated with respect to quality of life, such hopes and aspirations are likely to extend way beyond any zero threshold and, we argue, legitimately so. Add to the analysis the moral optionality of parenting in general and, given the moral concerns described above, we should be sympathetic to decisions to terminate pregnancy when they involve such concerns. As Wilkinson argues, "if we believe in the moral optionality of parenting in cases… where disability and disease are not an issue, then surely we should believe that the moral optionality of parenting applies a fortiori to cases… where the decision is whether or not to have a child with a serious genetic disorder" (Wilkinson 2010, 182). Moreover, given the personal and variable nature of such assessments, exclusionary messages can be avoided. Karpin and Savell argue for example that, given the assessments described are made by the individuals closely concerned and carry the meaning of the woman/couple affected, they need not be assessments upon which we must necessarily agree and, by implication, the negative social effects of the choice to avoid a particular outcome are lessened (Karpin and Savell 2012, 347-348). They add that "it then becomes open to the community to challenge the individual's imaginary account of that outcome, since it is not enshrined in any kind of legal or policy doctrine" (Karpin and Savell 2012, 348).

Another reason for the likely variability of (prospective) parental assessments and decisions is that they will inevitably take place in different contexts. Different individuals bring varying personal and material resources to bear. As Rapp has argued, people's thinking about risks and chances will be very different, depending on the risks they already face in their daily life, which will be very different for people who are poor or socially excluded than they are for people who are economically privileged. Equally, the consequences of having a disabled child depend greatly on the material resources an individual or family can draw on. For example, where a couple can afford to have one parent who does not do paid work, or works part time, it may be easier to support a child who has additional needs in their life; similarly if they can afford to pay privately for therapy, assistance or transport. The resources may not be about individual households, they might pertain to better and more supportive local networks or wider social environments being inclusive, via national policies on healthcare, education, and accessibility. As barriers are removed and provision is improved, it may become easier to parent a child with additional needs, or to contemplate a good life for an adult with disability.

As well as these individual and structural resources—which include availability of services and networks, as well as funds—there are also individual resources at the psychological level. Some individuals and families are more resilient than others. They can cope with difficulties, and maybe even thrive and grow as a result (Traustadottir 1991, Slotko et al 2016). Some individuals are more open to different experiences, and indeed different forms of embodiment, and others are more prejudiced against disability. People's values differ, and they may consequently place different weight on individual accomplishment, as opposed to other strengths such as sociability or inclusiveness. Individuals are all different in their responses to disability, and so are disabled people themselves.

CONCLUSIONS

In line with the conclusions in the Nuffield Council on Bioethics report, in stressing the moral nature of individual choices, we do not wish to imply that prenatal diagnosis and selective abortion is all down to individual choice. We have written elsewhere of the ways that near-patient and wider social processes can undermine choice and push women and men into making particular decisions (Shakespeare 1996). For example, the availability of balanced information, the extent to which counselling is directive or non-directive, and the 'conveyor belt' of routinisation of testing and onward march of decision making all render the notion of choice problematic. In wider society, there remain pressures on people to avoid disability, and strong social messages that disabled lives are inferior to non-disabled lives. For these reasons, it is very significant that the Nuffield Council on Bioethics report states very powerfully that social and cultural pressures, and unbalanced information, need to be amended, and also that society should welcome disabled babies into the world, even as it also offers prospective parents better technological means to avoid that eventuality, should they so wish.

NIPT is one of a panoply of techniques available, alongside diagnostic ultrasound, gamete donation, pre-implantation genetic diagnosis and other measures. But it is currently far-fetched to suggest that pre-implantation genetic diagnosis, for example, might or should become the procreative norm; and we would argue that this is likely to be the case for the foreseeable future. However, NIPT is becoming the norm, which is why it is important to question whether there should be some ethical parameters regarding its use.

There are numerous ethical considerations in the context of NIPT, many of which are intensely personal and reasonably variable, especially in combination. As such it would be both insensitive and misguided to prescribe responses to test results when such weighty and contextual considerations are involved. By implication, there should be no blanket policy with regard to termination of pregnancy as a result of NIPT.

Our analysis further suggests that there can be no single metric upon which a principle of procreative beneficence could or should operate, given legitimate variations in beliefs, perceived outcomes and impacts, parental hopes and aspirations; and context (both singularly and combined). Moreover, many of those variations will serve at least to partly comprise a view of what beneficence actually entails. That conclusion is reinforced by the non-identity problem and, in the current context of NIPT, the morally objectionable idea of encouraging more widespread selective termination of pregnancy.

The use of NIPT for sex selection (except where to avoid certain genetic conditions) is not justified on the basis of the above discussion either, since that use does not involve any of the moral concerns we have outlined and, as such, could be said to be a superficial reason to terminate pregnancy in most contexts, arising from bias rather than genuine concerns about the impact of gender on the life chances of the potential child. The same applies to any principle of beneficence, where it does not draw upon the types of moral considerations discussed that are weighty enough to justify termination of pregnancy on the grounds of a test result (that is, where there is little or no perceived suffering, loss of autonomy, impact on (prospective) parent(s) or family members; and further contextual issues do not apply).

In addition, the option of whole genome/ exome sequencing can be considered to have the potential to offend the principle of autonomy and should be resisted in the absence of significant countervailing benefits. It could also be used to bolster the unjustified application of a principle of beneficence (where it does not draw on weighty moral considerations, as noted above). With that in mind it is worth remembering that, presumably, the reason that this technology has been developed is to detect issues or problems, not to create them.

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The Endless Umbilical Cord: Parental Obligation to Grown Children

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ABSTRACT

One might think that parental obligation to children ends with the end of childhood. I argue that if we consider why parents are obligated to their children, we will see that this view is false. Creating children exposes them to life's risks. When we expose others to risks, we are often obligated to minimize damages and compensate for harms. Life's risks last a lifetime, therefore parental obligation to one's children does too. Grown children's autonomy, and grown children's independent responsibility for some of their own problems, can sometimes limit what parental responsibility demands of parents but it doesn't do away with the responsibility. I argue that my conclusions are not as counterintuitive as they might initially seem. I also consider the implications that parental obligation to grown children might have on the oft assumed obligation that grown children have to care for their parents.

I. WHY NOT FOREVER?

Taking care of children is hard work. When children are born, they can do almost nothing for themselves, they even need help *burping*. As children get older, they usually become more independent and able to care for themselves, freeing up their parents from bathing and burping them. And when they turn 18, or 21, or (increasingly) 31, children often can really take care of themselves, from burping to paying rent. The parents are off the hook then, right?

In a 2015 episode of *This American Life*, a woman in her early twenties, who was in and out of an abusive relationship since she was a teenager, explained that one reason why she stayed with her abuser for so long was that, without him, she was alone since her mother spent weekends and holidays with her boyfriend. The young woman was even alone on Christmas. I found myself angry with the mother for not being there for her daughter, regardless of her daughter's age. Why leave your young adult daughter alone for the holidays when you know her abusive boyfriend is waiting in the wings? (The mother was aware of her daughter's situation). To me, the fact that, over the course of her years in an abusive relationship, the teenager has grown into a young adult doesn't do away with her mother's obligation to care for her as needed. Am I alone in this intuitive response?

It is not uncommon to think that parental obligation to children ends with the end of childhood. Once children are grown, we might think that they are then able to care for themselves and parental obligation to care for them is therefore concluded. But, if we consider why parents are obligated to their children in the first place, it is unclear that parental obligation to children comes with an expiration date.

In this paper, I argue that parental obligation is lifelong (i.e., for the duration of the child's lifetime). Parental obligation may sometimes require less of parents due to the autonomous capacity and agency of adult children, and it can sometimes be constrained by the parents' own legitimate interests, but it never ends. I will begin, in Section II, by discussing the reasons why parents are obligated to care for their children and argue that it is difficult to find a reasonable account that will include a less than lifelong endpoint to the obligation. In Section III, I will discuss limits to parental obligation to grown children. Section IV will address objections, and Section V will address some further questions and implications of the lifelong parental obligation for which I argue.

II. SOURCE OF PARENTAL OBLIGATION

Why are parents obligated to care for their children? Before we saddle parents with lifelong obligations to their children, it behooves us to think about the reasons why parents are obligated to care for their children at all. Maybe once we consider why parents have to take care of their children, we will see that they don't have to do so for as long as their children live.

1. *Risk Imposition:* I argue that parental obligation is incurred because, by procreating, parents expose children to life's risks (Weinberg 2015). Children exist because

their parents engaged in procreative acts which exposed their children to life's risks.[1] And when we expose other people to risks, we are often obligated to take care to minimize damages by meeting some standard of care (however it is set) and/or by providing compensation if the risk ripens into a harm. For example, because driving is an activity that exposes others to risk, we're required to learn the rules of the road, drive uninebriated, buy collision insurance (i.e., meet the standard of care for driving), and pay for damages when we fail to meet the standard of care set for driving and damages result.

It is procreators who expose children to life's risks and, I argue, thereby incur parental obligations to care for their children. Therefore, when I speak of parental obligations, I am speaking of the obligations incurred by procreators. I have argued elsewhere regarding which sorts of acts count as procreative and thereby incur parental obligations (Weinberg 2008 and 2015); here, I argue for how long those obligations last. One may disagree regarding whether procreators incur parental obligations, regarding which acts count as procreative, and regarding which sorts of parental obligations are transferrable and what constitutes such transfer. My arguments in this paper are aimed at how long the parental obligation incurred by procreators lasts.

Procreation exposes children to life's risks, which are numerous, unpredictable, and can result in grave harm.[2] Because life is very risky, children are very vulnerable, and some of the risks and harms of life are unpredictable and/or unavoidable, our standard of parental care for children is very high. We require parents to attend to all of their child's many needs and to raise, nurture, and guide their child to, hopefully, an autonomous adulthood. That is, very roughly speaking, our parental standard of

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[1] One might wonder about others who might seem to have similarly imposed life's risks on a person, e.g., a doctor who saves an unconscious person's life (without explicit consent) or someone who stops a person's suicide attempt. However, these cases differ in important and relevant respects from the parental case because parents create a new life but the person whose life is being saved in the doctor and suicide cases is already alive and enmeshed in life's risks. Not only are the people saved in these cases already alive and living with life's risks, but also the saviors presumably have reason to believe that the person they are saving really wants to continue living, thus saving is more like acting on behalf of another than imposing risks on another. Thanks to Matthew Smith for raising these kinds of cases.

[2] Some might find it odd to speak of imposing life's risks on our children because, unlike other risk imposing cases, our children don't exist prior to our procreating them so there seems no clearly available baseline from which to assess harm. In my view, existence and nonexistence are both neutral states and can serve as a baseline of neutrality from which to assess procreative harms. I argue in much more detail for this view in Weinberg, *The Risk of a Lifetime* (2015). Some may also consider life's benefits to generally offset its harms and thereby relieve parents of much procreative and even parental responsibility. This view is reminiscent of the non-identity problem (see Derek Parfit, *Reasons and Persons*, Oxford University Press, 1984), which I respond to in great detail in Weinberg, *op. cit.*

care. Our parental standard of care is very high but we tend to think of it as fading out with the autonomous adulthood of grown children.

I am arguing here for a parental standard of care that is lifelong. As parents, we try to encourage our children's autonomy, independence, and self-reliance because that's good for them. (I will be using the term 'autonomy' in the broadest sense, to include not only the capacity to make decisions using one's rational capacities, etc., but to be capable of independence and making one's way in the world). People tend to feel good and fare well when they are autonomous. That works well for children, and the adults into which they grow, freeing up parents from the job of caring for their grown children, and allowing grown children to flourish as independent agents. Usually. But very often things don't work out that way.

It can seem reasonable to think of parental responsibility as ending when children are grown because, as children grow, their vulnerability usually decreases and they usually become able to care for themselves and wish to do so. They no longer need or want the care, so it seems reasonable to stop requiring parents to give it to them, especially since autonomy is usually good for people and contributes to the ability to live a life of human flourishing. But I argue that this way of thinking mischaracterizes the situation. In my view, parental care for children is a lifelong obligation but, when grown children do better caring for themselves then parental obligation to care for them is not expired but, instead, is fulfilled by the autonomous adult children. When grown children encounter illness, disability, addiction, or other significant life challenges with which they need emotional, physical, or financial help, and parental help could really help them, it is hard to see why the parents would not be obligated to help. If it's only a child's ability to care for herself, and the fact that people tend to want to care for themselves and fare better when they do, that lets parents step back from their care taking role, when it is not the case that children want to or will be better off without parental help, the obligation seems to remain, unaltered. The procreative act exposes the child to life's risks and life's risks last a lifetime. When it's better for the child to continue receiving parental care, setting parental obligation to care for children to just expire at 'adulthood' seems arbitrary, and unjustified.

The risk imposition source of parental obligation points toward a lifelong obligation. What about alternative sources of parental obligation? Will those sources point to an earlier end point?

2. Volunteerism: Some may think that parental responsibility results from whichever act counts as volunteering to be a parent (examples include Hill 1991 and Millum

2008). That seems to make sense because volunteering to do something usually obligates you to do it. But thinking of parental responsibility as the result of volunteering for it will not help us figure out when parental responsibility ends because all it really tells us is that parental responsibility is a voluntary commitment of some sort. It does not tell us what counts as a voluntary commitment of this type, nor does it tell us the limits or endpoint of that commitment. It seems reasonable to presume that volunteering for parental obligation commits one to fulfilling that obligation, leaving it to other theories to explain the nature and extent of the commitment. All volunteerism tells us is that the obligation is incurred voluntarily. In contrast, the risk imposition view tells us how parental obligation is incurred, namely, by imposing a risk, and it can be informative regarding the nature and duration of that obligation by looking to how we treat cases of risk imposition more generally.

3. Causation: Some think that parental obligation to care for children is a result of the fact that parents are a primary or proximate cause of their children's existence. This account is very broad and difficult to parse because causation is multifaceted and can lead one deep into a regress of causal factors. The risk imposition account, in contrast, specifically targets a particular kind of act or set of actions that do a specific kind of thing, i.e. impose a risk, and is consistent with our moral, legal and societal norms regarding risk-imposing activity. Leaving aside the problems we encounter when trying to pinpoint causation (Weinberg 2008), if we accept this account we will still lack an endpoint for parental obligation to children since parents, on this view, are the cause of their child's existence (and neediness) for however long the existence (and neediness) lasts. Arguably, that last a lifetime since children exist for their entire lifetimes and their neediness, while less pressing during autonomous adulthood, can last a lifetime or crop up periodically at any point during a lifetime.

It looks like alternate sources of parental obligation are unlikely to help us find an earlier endpoint to parental obligation. Of course, there may be other sources of parental obligation than those discussed here, and maybe one of those other sources could justify an earlier endpoint for parents' obligation to care for their children. To work, these other sources would have to make more sense than the risk imposition reason and they would also have to explain why and when parental obligation ends. Until then, it looks like we are stuck with a lifelong obligation.

Factors that may limit what parents have to do to meet their parental obligation to their grown children include the good and the fact of adult autonomy, and the legitimate and separate interests of the parents. The obligation remains, but it demands less of the parents. I will address these limiting factors in Section III. Objections to setting a lifelong parental standard of care include adult children's responsibility for problems of their own making, and the generally counterintuitive nature of a lifelong parental obligation to adult children. I will address these objections in section IV.

III. LIMITS

When setting the parental standard of care, we can think of some pretty persuasive reasons to limit what the obligation requires of parents in terms of how *much*, i.e., how much care parents have to provide, and how long, i.e., how *long* do they have to provide it for.

1. Autonomy: The autonomous nature of adulthood argues in favor of adulthood as limiting what parental responsibility requires of parents. Both the good and the fact of autonomy serve as limiting factors:

a) The Good of Autonomy: The good of autonomy argues in favor of adulthood as limiting what parental responsibility demands of parents, for the adult children's own good. We have ample evidence as well as common sense and commonly expressed sentiment telling us that people feel good and seem to fare well when they're running their own lives, being autonomous, being an *adult* (see Sheldon *et al* 1996; Ryan and Deci 2000; and Weinstein 2016, among many others). Children of overprotective parents usually don't fare as well as children whose parents allow for more freedom and responsibility (see LeMoyne and Buchanan 2011). Children who have too much free floating money, with (presumably) the resulting weaker impetus to establish self-sufficiency are at a higher than average risk for drug abuse and addiction (Califano 2003). In short, as most people think and as empirical evidence shows, it's usually good for children to develop and exercise autonomy, in age appropriate ways, culminating in an autonomous adulthood. That seems to argue against continuous parental care with life's challenges. For our children's own good, we should stop taking care of them as they become adults capable of caring for themselves. Great! Problem solved?

Not so fast. Thus far, all that has been shown is that autonomy can limit what parents have to do to meet their parental obligation, and it only does so to the extent that the good of autonomy both applies to the grown child in question (i.e., the child is competent) and outweighs the benefits of parental aid. So maybe it's best for the adult child to pay her own rent, but is it really better in terms of well-being for the grown child to, say, take out a huge mortgage on her starter home instead of getting some help with the down payment from her parents? If the grown child is generally autonomous and responsible, is this one-time cash infusion going to be worse for her than a hefty mortgage? And the greater the need, the less the good of autonomy outweighs it so you might tell the young adult to wait to buy a house or to buy a smaller one, etc., but what if she needs help to pay for a kidney transplant? Or help putting food on the table while she looks for a new job? If parents can help when their adult children need the help coping with life's challenges, it is only when the good of autonomy is more important or weightier than the need that we can look to autonomy to limit what parents have to do to meet their parental obligation.

Thus, the good of autonomy for grown children, as a limiting factor on the demands of parental obligation to grown children, seems limited to when and to the extent that autonomy is actually better for the grown children. In assessing which cases meet this limit, we may note that Western culture in general, and American culture in particular, go a little crazy in our value of autonomy, self-determination, and making it on our own. So a bit of caution in our application of autonomy as a limit to the demands of parental obligation to adult children is in order. Maybe we fetishize autonomy and overvalue it. Maybe being cared for is pretty great! Yes, common sense, common sentiment, and empirical evidence do point to autonomy as a significant contributor to human well-being, but that contribution is subject to limits, caveats, cultural bias, and other contributors to well-being such as health, emotional support, shelter and food, etc.

Autonomy is probably usually good and, therefore, parents can withdraw some parental care in support of children's developing autonomy, and as respect for their grown children's actual autonomy. But, still, the good of autonomy will not limit the demands of parental obligation to care for their adult children when the care would still be good for the adult children in their struggle with life's risks and challenges, despite its potential incursion on adult children's autonomy.

b) The Fact of Autonomy: The *good* of autonomy won't relieve the parental obligation to grown children when the parental care would still mitigate life's risks and be good for the adult-children. But the *fact* of autonomy just might. When children in fact grow into autonomous adults, the need for parental care diminishes or ends and one might think that the obligation to care should then diminish or end as well. Why should parents be obligated to care for adult children who can care for themselves? This is a persuasive point and might serve as a reason to significantly limit parental obligation to care for adult children, or to set the parental standard of care to zero, once grown children are able to care for themselves, but it will only limit the obligation to the extent that adult children actually are able to care for themselves. When adult children face illness, disability, job loss, or other serious life problems that they cannot handle well on their own, the fact of autonomy will no longer be present to serve to limit parental obligation. Therefore, to whatever extent the fact of autonomy might set parental obligation to grown children at nothing, it would make a difference only to the subset of cases where the good of autonomy doesn't already limit parental obligation anyway and the fact of autonomy remains in place. But even then, the fact of autonomy does not clearly free parents from their obligation to their grown children.

Because even if adult children *can* care for themselves, why must they? They didn't ask for any of this. In the immortal words (okay, tweet) of Ricky Montgomery: "I am upset with my parents for making me exist. u just decided to make a person one day? who's gonna pay my bills? me? I didn't ask for this."[3] Parents decide to create children, to impose life's risk on them, thereby obligating parents to care for their children. When it is good for children to care for themselves, then we have reason for parents to cede the care of their adult children to their adult children, as argued earlier. But, when it would be good for adult children to have parental care with life's risks and harms, the good of autonomy notwithstanding, the fact that adult children have the ability to care for themselves doesn't cleanly or completely get parents off the hook because taking care of oneself is a lot of un-volunteered for work. Why should adult children have to do all of this work all by themselves when the only reason the work needs to be done is because their parents decided to create a needing-lots-of-work human? The parents created the problem. Why should the adult children have to work to solve it, just because they might be capable of doing so? (This reasoning also applies to causal accounts of parental obligation since generally, on those views, parents are responsible to meet the needs or remedy the problems that they caused).

In other risk imposition cases, we usually don't require compensation if the stan-

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[3] The view that parents may be obligated to help adult children with life's risks and harms because parents imposed those risks on their children does not entail that we are all free of all moral responsibility because all moral responsibility was thrust upon us involuntarily. Just because we didn't volunteer for existence that does not mean we can, say, steal from or assault another person. Those sorts of involuntary moral obligations can derive from sources that are unaffected by the involuntary nature of existence, e.g., Kantian respect, contractualist respect, contractarian prudence, or Aristotelian enlightened self-interest in living well. It is only some forms of consequentialist obligation that are vulnerable to the involuntary nature of existence challenge and, in my view, that counts against it as a moral theory. (See Rivka Weinberg, "It 'Ain't My World," *Utilitas* 2009 21: 144-162).

dard of care has been met, which is what we do in a no-fault car accident, for example. But that's because we all benefit from allowing people to drive and so we have set our standard of care for driving at driving responsibly and we don't require compensation when that standard is met. That's a standard that works for all of us, generally, or at least it's supposed to. Similarly, the fact of autonomy can argue in favor of setting the parental standard of care at a grown child's ability to care for themselves—maybe that's the standard that's most fair to all of us. And once that standard is met, parents would not be required to provide further care for their children. But the fact that children, unlike a society of drivers, didn't agree to participate in the risk activity of life and, unlike a society of drivers who would likely be inconvenienced by a driving ban, stand to lose nothing by not being born, argues against setting the parental standard of care to end at the fact of autonomy: that standard might work well for parents but it doesn't seem equally fair to children because the children don't gain as much by having that standard as the parents do.

For those who think that life is some sort of lovely gift bestowed on children (as opposed to my view of life as a set of risks imposed on children), it may be reasonable to conclude that once children are able to care for themselves, they should. They've been given a gift, they are competent to use the gift and operate within its constraints, now go off and enjoy. No need for further babysitting. Parental obligation to care for grown children, on this view, would be limited to cases where the fact of autonomy is not present. But I don't think that view is reasonable. It is far too rosy to count as realistic and it neglects the fact that children did not ask for this hard to manage 'gift' that was thrust upon them. It's not as if the 'gift' can be safely ignored—life takes a lot of work just to avoid severe suffering. I therefore think it is more realistic to view life as a mixed bag of uncertain benefits and burdens—as a set of risks imposed on children by the parents who created them—than as a gift. Thus, Montgomery's point retains some force, and serves to leave parental obligation to adult children in place even when the fact of autonomy is present.

2. Parental Interests: Another possible limitation to what parental obligation to grown children demands is the legitimate interests of the parents. Parents, presumably, are entitled to pursue their own good to some extent, even at times at the expense of their children's good. We normally do not fault parents for spending some discretionary money on themselves, even if that money could have benefited their children. Parenthood doesn't strip people of legitimate interests and the reasonable permission to pursue those interests, even, at least to some extent, when parents' interests conflict with their children's interests. So you can sometimes have your latte instead of buying your child a toy, and you can get a pair of work boots instead of getting your six-year-old summer sandals, but if she needs specialized treatment for, say, Attention-Deficit Disorder, probably not.

I will not attempt here to figure out exactly when parents cross the line into unacceptable selfishness or exactly how much parents are required to sacrifice for the sake of their children. But there's a vague, somewhat flexible line out there, and that can limit how much parents are required to do for or give to their children, in order to mitigate life's risks. I assume that limit line applies to adult children as well. But does it apply differently to adult children than it does to toddlers? Does that fuzzy line of permissible pursual of parental interest even at the expense of children's interests gradually allow for parental interests to prevail more often or to a greater degree as children grow into adults? Does that line *move* to give parents more moral leeway to prioritize themselves and/or to provide their children with less care once their children are grown? It is not clear why it would, aside from the fact that children need less, can care for themselves more, and can perhaps be held responsible for their needs more (more on that in Section IV) as they grow into autonomous adulthood. When thinking about whether parental interests can give parents greater leeway to favor themselves over their children as their children grow, aside from the leeway gained due to grown children's autonomy and agency, it is unclear why or how parental interests should count for more, vis a vis children's interests, once children are grown than they count for when children are younger.

One might argue that since parents generally yield more to their children's interests when their children are younger, it is only fair to let parental interest prevail and have greater weight when children are older, after parents have often already made many sacrifices for their children. However, this 'fair play' principle only holds if parents and children have equal priority claims, i.e., if parents' and children's interests are on equal footing. If parents' and children's interests have equal weight, then it may make sense to give greater weight to parental interests when children are grown since greater weight is usually given to children's interests while they are growing up. The problem with this tempting way of thinking about parent-child interests is that we don't have equal claim to priority in the procreative case: Because having children is the parents' choice, but being born is not the child's choice, the claim to having one's interests curtailed by the other's are not on equal footing. The responsibility to tend to the other's interests is only incurred by the parents. It therefore seems unwarranted for the parents to say to their grown children, "Well, my child, it's your turn to yield your interests in favor of mine now."

3. Autonomy and Parental Interests, Combined: Maybe the fact that adult children can care for themselves can provide us with a reason why parental interests can be given greater weight once children are grown. Since parents are entitled to pursue their own interests, when their children are grown and able to care for themselves, it seems fair to give parental interests greater weight, thereby allowing the obligation of parents to care for their autonomous, able-to-care-for-themselves adult children to require much less of the parents. This limit, to whatever extent it is sound, only applies when adults can truly care for themselves. In the many cases where adult children really do need care with life's challenges, regardless of whether they're usually able to care for themselves more generally, parental obligation to care ratchets right back up. Furthermore, even when adult children *can* care for themselves, the fact that the parents forced the adult children into having to take such care as life requires can serve as reason for parents to have to assist, regardless, so long as that's in the adult child's interests (remember the Montgomery!).

IV. OBJECTIONS

So far, we seem to have established a strong but possibly somewhat circumscribed obligation for parents to care for their grown children to the extent that their children need or could benefit from help with life's challenges. But what about cases where adult children need help not because their parents created them but because they themselves created lots of their own problems?

1. Messes of Their Own Making: Not everything is your mother's fault. You did some stupid stuff too. You may have messed up your own life. Why shouldn't grown children bear the burdens of their own making? I think that this challenge is important and can conceivably, in some cases and under appropriate circumstances, serve to blunt parental obligations to grown children. Exactly when and exactly to what extent, I leave open for further consideration. One might argue that even if some of grown children's problems are of their own making, they themselves are of their parents' making, and had their parents not created them, they wouldn't have any problems or any opportunity to make any so there is a sense in which all of our problems are in some way of our parents' making. But that way seems too weak to generate parental responsibility to solve the problems. We don't generally obligate people to solve all problems to which they have a causal connection. Setting aside questions regarding free will (which could undermine grown children's responsibility for their own problems and parental responsibility for their procreative acts, etc.), when adult children seem to clearly create their own problems, we have at least some reason to think that their parents might not be responsible to solve these problems. (This doesn't mean that society needn't help people who may have caused their own problems. Societal or civic obligations arise for different reasons and serve different purposes than parental obligations).

Before all you parents relax, remember that many, and maybe most, of the situations that put adults in need of parental care are nobody's fault, e.g., disease (mental or physical), job loss, addiction, etc. Many of the life challenges that grown children will need help with are situations beyond their control, such as many cases of illness, heartbreak, disability, or financial insufficiency. When we create children, we know this. We know the risks we are imposing. Why shouldn't we be on the hook for them so long as they are present and we can help? I argue that, for the most part, indeed we are.

2. Deeply Counter-Intuitive: So why don't we think we are? I certainly do not think that my parents are obligated to care for me, and you probably don't think that your parents should be taking care of you. Most adults do not think that their parents are obligated to take care of them. But that might be because people value their autonomy and tend to fare better when they live autonomously, without lifelong parental assistance. At first, the idea that parental obligation is lifelong is deeply counterintuitive yet, if you imagine yourself in true need and your parents in a position to help you with a life challenge, the intuition may change. If you were sick and needed help with paying for your medical treatment, and your parents could help you, shouldn't they? Wouldn't you find it disturbing if your parents decided to take a trip to Spain while you become homeless, or dead, because your cancer left you unable to work or afford health care? Consider cases of children who are not capable of autonomy, e.g., children with serious cognitive limitations. Would we think it okay for parents to just walk away from them when they turn 18 or 21 or 41? Probably not (See Desante 2016). So why would it be okay to walk away from a usually autonomous adult child who happens not to be autonomously capable of handling certain aspects of her life challenges, like paying for health insurance or fillings or a roof? Maybe because it is usually best to care for oneself, to figure out ways to be responsible and autonomous. Once again, it seems that it is only when it would be best for the adult child to be left to fend for themselves that we have a strong intuition telling us it is okay for parents to leave them to fend for themselves (which is pretty consistent with what I've argued here).

Let's consider some additional cases. Should parents take out a second mortgage on their house to pay for their 8-year old's cancer treatment? Intuitively, I think the answer is a very clear yes. Should parents take out a second mortgage on their house to pay for their 38-year old's cancer treatment? Intuitively, the answer may strike us as less clear but I still think it's a yes, though possibly mitigated by the adult child's own ability and responsibility, e.g., can she remortgage her own house? Does she need cancer treatment because she chose to skip her (free and relatively painless) PAP smears? If the answers to these limiting questions are resounding "no's," then I think the parents probably have to remortgage their house. Goodbye condo in Florida! One might argue that we tend to think parents should care for adult children in these cases because they have a current relationship with their adult children. However, we can see that the current relationship is not doing all the work here when we contrast our attitude toward parents with what we might expect of friends, even close friends. We expect parents to sacrifice for their adult children in these cases, even if the current relationship is not especially close, but we tend to expect much less of friends, even close current friends. When the grown child seems to have caused, or volunteered for her own problems, we may not think that her parents are obligated to care for her, and when it seems best for the autonomous adult to handle her own problems, we may think it best for her to do so without parental assistance, but all that is fairly consistent with the findings of this paper. When the adult child's problems are not of her own making and/or when it does not seem best for the adult child to forgo parental help, then thinking that her parents are responsible to care for her (to the extent that they can, of course) probably does not strike us as so terribly counterintuitive after all.

V: FURTHER QUESTIONS/IMPLICATIONS

1. *Grandparents' Obligations?* Should we visit the sins of the fathers on the grandfathers? If we hold parents responsible to care for their children because they imposed life's risks on them, does this responsibility extend to grandparents? I argue that it does not. From a risk imposition perspective, we hold parents responsible to care for their children because, by choosing to procreate, parents impose life's risks

on their children and when we impose risks or expose others to risks in order to do the things we want to do, we must take care to mitigate damages and compensate for harms, in accordance with the standards of care we set for the risk imposing activity. Grandparents don't impose life's risks on their grandchildren so they are not obligated to care for them at any stage of the child's life.

However, since parents are responsible to care for their children, they can sometimes be responsible to help their children meet the obligations that the children incur. Those obligations may sometimes include rent, sometimes a hospital bill, and sometimes care for children (the children's children, i.e., the grandchildren). When grandparents are responsible to care for their grandchildren, the obligation is derivative from their obligation to their children. These derivative obligations are subject to the same limiting factors that standard parental obligations to grown children are subject to: namely, the good of autonomy and the independent responsibility of the children. Grandchildren may sometimes be a paradigm case of the independent responsibility of grown children, thereby limiting grandparents' obligations.

A causal account of parental obligation to children would also fail to extend that obligation from grandparents to grandchildren because, although no one would exist but for their grandparents' procreativity, the mere causal connection between grandparents and grandchildren is not sufficient to ground parental or pseudo-parental obligations because we generally don't hold people responsible for just any situation to which they have causally contributed. Those who argue for a causation based parental obligation to children usually narrow the kind of causation down to primary or proximate causation and grandparents usually don't play that causal role in the creation of their grandchildren because the parents of the children are usually more causally primary and proximate. Alternatively, one might argue for a straightforward 'genetic relation' obligation to children and maybe that source of parental obligation can extend to grandparents but citing genetic relation as a source or reason for parental obligation invites the question: *Why* does a genetic relationship to a child create an obligation to care for the child? I suspect that any reasonable answer to that question will appeal directly or indirectly to one of the sources of parental obligation discussed here (namely, voluntarism, causation, or risk imposition).

2. Procreative Constraint? If we consider parental obligation to last a lifetime, we may wonder how this lengthy obligation impacts our views on when procreation is morally permissible. For example, if parental obligation is endless, might that make it unacceptable for people to have children when they are older and thus less able to provide care for their children for a prolonged period? This question is different from my focus in this paper, which is on whether parents who can mitigate life's risks and harms for their adult children must do so when it would be in their grown children's interests. My answer to that question is, yes, that is part of what parents are generally obligated to do. Whether this obligation impacts procreative permissibility is a question I will not address here except to gesture at a vague, and very qualified 'to some extent.' The fact that parental obligation doesn't have a hard stop at 18 or 21 does mean that the older people are when they have children, the more problematic their procreativity becomes in this respect. Of course, parents usually don't outlive their children so, at some point, they will no longer be available to care for them, but the later that point arrives, generally, the more the parent will be able to fulfill the lifelong aspect of their parental obligation. There are many factors that come together to help determine the moral permissibility of procreation in any given case and, if my conclusions here about a lifelong parental obligation to children are sound, then the ability of a person to provide continued care as needed for their child will count as one such factor, subject of course to being outweighed by many other factors. (Of course, there is a constraint on the other end as well since having children when one is very young poses its own set of problems for all concerned, and often problems far greater than those posed when having children at an older age).

3. Children's Obligation to Care for Aging Parents? We may wonder whether thinking of parents as obligated to care for their adult children gets things exactly backward. Isn't it generally assumed that adult children have to care for their parents?[4] Is that not the direction of parent-adult child obligation? Many have argued that adult children are indeed responsible to care for their parents, should parents need the care. This responsibility has been argued for on various grounds, including friendship (English 1979 and Dixon 1995), gratitude or a debt for past parental sacrifices (Wicclair 1990), social contract, or social good, some interpretations of Confucianism (Archard 1986), and involuntary special relationships (Sommers 1986). One might be forgiven for thinking that there are so many different grounds for filial obligation because none are particularly convincing. Most of these theories have obvious problems. I will not discuss the problems in detail here but I will briefly note that friendship does not always exist between parents and children and that friendship usually does not require a highly burdensome level of care for another person. Similarly, we usually don't think that gratitude for a voluntary (and largely unasked for) sacrifice

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[4] I thank my sons, Rami and Joey Gruman, for (separately) raising this objection.

or gift generates steep and on-going obligation. Basing filial obligation on the duties inherent to the special parent-child relationship sounds more like a claim than an argument and therefore seems question begging. That leaves us with a more societal or social contract based obligation for adult children to care for their parents. This may seem like a more promising basis for filial obligation because it is based more on what might work well on a societal level rather than on specific filial debts or duties that, as argued, are very difficult to justify. But 'social good,' 'overall good,' and/or 'societal good,' are themselves thorny justifications for specific and highly burdensome individual obligations.

It is not all that easy to justify filial obligation. It is easier to explain why we take ourselves to have it. For most of human history, virtually the only care aging people had available to them came from their children. So it is no big shocker that many cultures ingrained this value. Adults needed it. Furthermore, reciprocity is an adaptive trait (Cole and Teboul 2004; Fehr *et al* 2002), and although not necessarily adaptive in this case (because parents will have already provided the good so why help them later, when they can't help back), the general trait of reciprocity may dispose us to feel the reciprocal pull of parental care as generating a filial duty to care for parents.

It looks like our feelings of filial obligation are easy to explain but much harder to morally justify. It can also be challenging to square our feelings of filial obligation with the proposed obligation of parents to care for adult children. But that is just a case of understandable sentiment meeting a perhaps unexpected argument. At worst, we have what is sometimes known as philosophy. At best, we have mutual obligation of care between parents and adult children (kumbaya!). I prefer philosophy but I offer the happier resolution as well.

VI: CONCLUSION

It is not uncommon to hear people speaking of parental obligations as clearly concluding when children reach adulthood. This may be a comforting thought for some parents, as it may allow them to feel a burden lifted, an obligation paid in full, and a liberation from the sacrifices that parenting often demands. Yet, as I have shown here, parental obligation is lifelong. We impose life's risks on our children by creating them and our responsibility to mitigate those risks and harms lasts for the duration of the risks and harms, i.e., for the duration of our children's lives.

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