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ARTICLES

WHAT IS IT? WHOSE IT? RE-POSITIONING THE FETUS IN THE CONTEXT OF RESEARCH?

AMEL ALGHRANI AND MARGARET BRAZIER*

INTRODUCTION

We begin with a thought experiment:

You are asked by a close friend to mind some of her valuables while she is on holiday and readily agree. Being a responsible person, you check for a safe place to store said valuables and you also check your insurance cover. On the appointed day, the door bell rings and a small girl presents herself, happily informing you that she is your friend's niece whom you have agreed to look after. The locked cupboard set aside for the "valuables" will scarcely be a suitable location for a lively child.

What, you may ask, has the above scenario to do with fetal or neonatal research? Consider your dilemma having said yes to your friend. You agreed to a simple request but then found that the "thing" entrusted to you was indeed valuable but wholly different to your expectation and not in any real sense the friend's to entrust to you. We may speak of "our" nieces and "our" nephew but these loved children are not in any legal sense ours. However, in the thought experiment above, the law at least is clear. The child is a fully legal person and her parents owe her substantial responsibilities that in their turn grant them powers to make a range of decisions on her behalf. We know what she is and whose she is. Answering the question what it is, and whose it is, becomes a much tougher challenge when we turn our attention to the legitimacy of research involving the living fetus and the just born infant. What legal and ethical framework helps us answer those crucial questions, questions that must be answered before we can begin to assess the ethics of research on fetuses and neonates?

* Centre for Social Ethics and Policy, School of Law, University of Manchester. This paper is based on earlier presentations given by the co-authors at the seminar, "Legal and Ethical Issues Surrounding the Involvement of Children in Health Care Research", held at Lancaster University on 20–21 September 2007 and funded by the MLR Seminar Competition. We would like to thank Emma Cave, John Coggon, Sheelagh McGuinness and Muireann Quigley for their helpful comments on earlier drafts. The research for this article has been developed as part of an Arts and Humanities Research Council (AHRC) funded project entitled "The Impact of the Criminal Process on Health Care Ethics and Practice", based at the Universities of Manchester, Lancaster and Birmingham. The support of the AHRC is gratefully acknowledged.

At first sight the answer may seem simple.

“A fetus is not a legal person, which means that it cannot be owed a duty of care.”¹

The law maintains a bright line between the fetus and the baby “born alive”.² The former has no legal personality; the latter enjoys the same rights and protection as any older child. As we shall see, the deceptively simple words “born alive” conceal a hugely thorny problem in the light of present and imminent technologies to push back the gestational age at which a fetus might survive *ex utero*. However, the living neonate is indubitably a legal person and if his or her parents share parental responsibility, the baby “belongs”³ to both of them and any controversial intervention in relation to his or her welfare which is likely to be contested will need the concurrence of both parents.⁴ Fathers have a say in what happens to their children and the law protects the child even from his parents should they act in a manner prejudicial to his welfare.⁵ In English law, the fate of the fetus is normally perceived as resting in the hands of the pregnant woman. The father has no say in what may or may not be done to “his” fetus. The law cannot intervene to safeguard the fetus even when that fetus is so fully formed that it would be likely to have the capacity to survive birth and flourish. This “bright line” between fetus and baby is dismissed as nonsense by some ethicists; it is, they contend, irrational to confer or deny legal status simply on the basis of physical location. Others, while maintaining that birth makes no difference to the moral claims of

¹ E. Jackson *Medical Law: Text, Cases and Materials* second edition (Oxford 2010), 642.

² In England and Wales the Congenital Disabilities (Civil Liability) Act 1976, s.4 (2) (a) states that “born” means “born alive (the moment of a child’s birth when it first has a life separate from its mother) ...”

³ We should make it clear that our paper does not seek to analyse classical issues of property in the fetus or the baby and in asking whose the fetus is, our question is who has a legitimate claim to make decisions about the relevant entity. For those interested in more specific questions regarding ownership or control they may find the English case of *Yearworth and Others v. North Bristol NHS Trust* [2009] EWCA Civ 37; [2009] WLR (D) 34 of interest which discusses the question of “ownership” in the reproductive context; see also S.H.E.Harmon and G.T.Laurie “Yearworth and Others v North Bristol N.H.S. Trust: Property, Principles, Precedents and Paradigms” [2010] C.L.J. 476–493.

⁴ Children Act 1989, s2(7) provides: “Where more than one person has parental responsibility for a child, each of them may act alone and without the other (or others) in meeting that responsibility; but nothing in this Part shall be taken to effect the operation of any enactment which requires the consent of more than one person affecting the child.” Nonetheless judges have consistently held that where some major or irreversible procedure is proposed and/or the parents disagree about treatment of the child either parental consent is required from both parents or a ruling must be sought from the courts. So in *Re J (Specific Issue Order: Muslim Upbringing and Circumcision)* [2000] 1 F.L.R 571 Butler-Sloss P. spoke of “a small group of important cases made on behalf of a child” which “should only be carried out where the parents together approve of it or, in the absence of parental agreement, where a court decides that the operation is in the best interests of the child”. Male circumcision was stated to be one example. Later in *Re C (Welfare of Child: Immunisation)* [2003] E.W.C.A Civ 1148 Thorpe L.J. held “that hotly contested issues of immunisation are to be added to that “small group of important decisions””.

⁵ Children Act 1989, s1(1): When a court determines any question with respect to –(a) the upbringing of a child; or (b) the administration of a child’s property or the application of any income arising from it, the child’s welfare shall be the court’s paramount consideration.

the fetus, concede on pragmatic grounds that a line must be drawn somewhere for legal purposes and that birth is as good a place as any.⁶ That English law draws such a line at birth is largely undisputed.

In this paper, we question whether that “bright line” may both be more blurred than is suggested, and becomes increasingly difficult to sustain in certain contexts. We ask first whether in the context of research on a living fetus *in utero*, a fetus who will be carried to term, the arguments that support such a divide between fetus and baby can be maintained, or should we figuratively re-position our analysis of what the fetus is, and “whose” it may be? Then in the very specific context of research into ectogenesis (artificial wombs), we explore how literally re-positioning the fetus from the body of a woman to an ectogenic chamber affects the question of what the fetus is and whose is it.

While a growing wealth of literature has emerged on the ethical issues raised by the ectogenesis,⁷ relatively few address how research into this technology will come about/be regulated in the United Kingdom. Nor how it will further complicate questions of what the fetus is and whose it is. This paper seeks to fill this lacuna. We consider it imperative that any legal discussion regarding research into ectogenesis first addresses fetal research, for this is the most obvious way the former technology will come about. In this paper, we confine our discussion to the fetus of or above 18 weeks’ gestation⁸ and we are thus concerned primarily with the following kinds of research; (1) research designed to lower the age at which a baby born prematurely may survive i.e. to push back the threshold of viability; (2) research into fetal development and disability; (3) how far such disability may be remedied prior to birth, for example by fetal surgery *in utero* or drug therapies administered to the fetus *in utero*; and (4) research into partial

⁶ See P. Singer, *Rethinking Life and Death* (Oxford 1994), p. 217.

⁷ S. Coleman, *The Ethics of Artificial Uteruses* (Aldershot, 2004); S. Gelfand, (ed.) *Ectogenesis: Artificial Womb Technology and the Future of Human Reproduction* (Amsterdam, 2006); S. Wellin, “Reproductive Ectogenesis: The Third Era of Human Reproduction and Some Moral Consequences” (2004) 10 *Science and Engineering Ethics* 615–626. P. Singer and D. Wells, *The Reproduction Revolution: New Ways of Making Babies* (Oxford 1984); A. Smajdor “The Moral Imperative for Ectogenesis” (2007) 16 *Cambridge Quarterly of Healthcare Ethics* 336–345; C. Kaczor, “Could Artificial Wombs End the Abortion Debate” (2005) 5(2) *National Catholic Bioethics Quarterly* 283–301; I. Aristarkhova “Ectogenesis and Mother as Machine” (2005) 11 (3) *Body & Society* 43–59; G. Corea, *The Mother Machine: Reproductive Technologies from Artificial Insemination to Artificial Wombs* (New York 1979).

⁸ In this paper we chose to focus our discussion on the fetus of or above 18 weeks gestation as this seemed to be an area where guidance on such research especially merited fresh consideration. It is also the most probable way that inroads into what ingredients are needed for ectogenesis are likely to be made, since research into complete ectogenesis which involves placing a fertilised embryo beyond fourteen days into an ectogenic device, designed to carry the resulting foetus to term would be a criminal activity. See Human Fertilisation and Embryology Act 1990, s. 3(3) which prohibits the use of embryos beyond the primitive streak. Section 3(4) provides: “For the purposes of subsection (3)(a) above, the primitive streak is to be taken to have appeared in an embryo not later than the end of the period of 14 days beginning with the day when the gametes are mixed, not counting any time during which the embryo is stored.”

ectogenesis whereby in the latter stages of gestation the fetus may be transferred to an artificial womb.

Fetal research has attracted relatively little attention from bioethicists and legal scholars in recent years⁹. The Code of Practice issued by the Polkinghorne Committee in 1989 is almost twenty years old¹⁰ and much of that Report focuses on research on fetal tissue, necessarily thus concentrating on the ethics relating to the use of dead fetuses.¹¹ We address the living fetus for the most part, although we draw at several points on analogies with the treatment of fetal tissue in the Polkinghorne Report. What Polkinghorne does say about research and the living fetus is this:

The live fetus whether in utero or ex utero.. should be treated on principles broadly similar to those which apply to treatment and research conducted with children and adults.¹²

We seek to argue that, in the context of fetal research, Polkinghorne is largely right in this contention. Within or outwith a woman's womb, research on living fetuses should be conducted in a manner that recognises that the fetus has claims independent of its mother, and that the father's claims cannot be ignored. As will be readily apparent, as we progress with our analysis we struggle with language. When does a fetus become a "baby"? When does "it" become "him" or "her"¹³?

I. THE FETUS: WHAT IS IT?

That in English law the fetus *in utero* enjoys no independent, legal personality needs restating.¹⁴ In *Paton v. BPAS*, Sir George Baker P., then President of the Family Division declared "there can be no doubt, in my view, that in England and Wales the foetus has no right of action, no right at all, until birth."¹⁵ Subsequent case law re-enforces Baker P.'s assertion.¹⁶ Balcombe L.J. put it this way "[A]n unborn child has, ex hypothesi, no existence independent of its mother."¹⁷ Heilbron J. in *C v. S* said of the child:¹⁸

"a child, after it has been born, and only then in certain circumstances based on his or her having a legal right may be party to

⁹ Though see S. Woods and K. Taylor "Ethical and governance challenges in human fetal tissue research" (2008) 3 Clinical Ethics 14–19.

¹⁰ Although note minor changes The Human Tissue Act Code of Practice –September 2009 makes to the Polkinghorne Report, some of which we discuss below.

¹¹ *Review of the Guidance on the Research Use of Fetuses and Fetal Material* (Cmnd. 762) (Polkinghorne Committee Review) 1989 (hereafter "The Polkinghorne Report").

¹² The Polkinghorne Report, see note 11 above, para. 4.1.

¹³ When reference is made to the fetus as a "him" or "her" the language is intended to be gender neutral.

¹⁴ *Paton v. B.P.A.S.* [1979] Q.B. 276, *Re F (In Utero)* [1988] 2 All E.R. 193.

¹⁵ *Paton v. B.P.A.S.* [1979] Q.B. 276, [279].

¹⁶ *C v. S* [1987] 1 All E.R. 1230.

¹⁷ *Re F (In Utero)* [1988] 2 All E.R. 193 [200].

¹⁸ *C v. S* [1987] 1 All E.R. 1230 [1234].

an action ... the claim crystallises on the birth at which date, but not before *the child attains the status of a legal persona* (our emphasis).¹⁹

Thus English law appears to draw its bright line between the fetus *in utero* and the neonate of even a few seconds old at birth. The newborn baby has the same claims to a right to life as you and us, yet the fetus has no claims and the pregnant woman is the arbiter of its fate. Nothing can be done to the fetus without her consent. She cannot be compelled to undergo any procedure that may benefit the fetus.¹⁹ Fetus and father can seem nigh on invisible²⁰. We need however to reflect on the contexts in which the existing case law has developed, contexts rather different from the questions of research involving a fetus who will be carried to term and born. The case law focuses on women who seek to terminate a pregnancy against the wishes of the fetus's putative father²¹, or women who refuse to consent to a caesarean section judged by doctors to be in the fetus's interests²², or attempts to compel a woman to stop taking drugs or accept treatment likely to benefit the fetus.²³ In each instance conflict between claims for the fetus and the woman's bodily integrity shapes the legal debate. The major issue at stake is the woman's control of her body.²⁴

Sometimes the claim that the fetus has no independent legal status is wrongly taken to imply that English law regards the fetus as of no account, and classifies the newborn baby as a wholly different entity from the fetus. Philosophers are right to point out that physiologically that would be nonsense. So for example Harris and Gillon argue that moral status should not be based exclusively on "biological (or legal) geography".²⁵ Harris asks: "What do people think has happened in the passage down the birth canal to make it okay to kill the foetus at one end of the birth canal but not at the other?"²⁶ Gillon argues:

While in practical terms the simple criterion of birth is generally easy to apply and corresponds to a stage when what was

¹⁹ *St George's Healthcare NHS Trust v. S* [1998] 3 All E.R. 673.

²⁰ In the aforementioned cases of *Paton v. B.P.A.S.* [1979] Q.B. 276 and *C v. S* [1987] 1 All E.R. 1230, the putative fathers were unsuccessful in their attempts to save the unborn children.

²¹ *Paton v B.P.A.S.* [1979] 1 Q.B. 276, *C v. S* [1988] 1 Q.B. 135.

²² *S v. McC; W v. W* [1972] A.C. 24, *Re T (Adult: Refusal of Medical Treatment)* [1992] 4 All E.R. 649, CA, *Re MB (An Adult: Medical Treatment)* [1997] 2 F.C.R. 541, *St George's Healthcare NHS Trust v. S* [1999] Fam. 26, CA.

²³ *Re F (In Utero)* [1988] 2 All E.R. 193. *D v. Berkshire County Council* [1987] 1 All E.R. 20.

²⁴ N. Priaulx, "Rethinking Progenitive Conflict: Why Reproductive Autonomy Matters" (2008) 16(2) *Medical Law Review* 169–200.

²⁵ But see E. Wicks, "Terminating Life and Human Rights: The Fetus and the Neonate" in C. Erin and S. Ost (eds.), *The Criminal Justice System and Health Care* (Oxford 2006) 189–206, pp. 199–201.

²⁶ See his interview with Sarah-Kate Templeton, "Doctors: let us kill disabled babies" *The Sunday Times*, 5 November 2006 (<http://www.timesonline.co.uk/tol/news/uk/article625477.ece>). It should be noted that the law permits abortion only in certain circumstances, see *Abortion Act 1967* (as amended by *Human Fertilisation and Embryology Act 1990*), s. 1.

previously hidden and private inside another human being is now a revealed, public, and clearly separate social entity, as a criterion for moral differentiation of a human being's intrinsic status it seems highly implausible. Essentially it is a criterion of what might be dubbed biological geography, asserting that a human being does not have a right to life if it lies north of the vaginal introitus but has a right to life once it has passed south and has (entirely) emerged from the vagina. What morally relevant changes can there have been in the fetus in its intrinsic passage from inside to outside its mother's body to underpin such a momentous change in its intrinsic moral status?²⁷

Such arguments fail to note that notwithstanding the absence of independent legal personality inhering in the fetus *in utero*, it is abundantly clear that English law recognises fetal interests²⁸ and does so from the earliest stages of development. Following the stance adopted by the Warnock Committee that the embryo has a "special status"²⁹, even the embryo *in vitro* of less than 14 days' development is afforded some protection in law.³⁰ Similarly the Polkinghorne Report stated that the fetus merits "profound respect based upon its potential for development into a fully-formed human being"³¹ and consequently it recommended that the fetus be accorded a status "broadly comparable to that of a living person".³² Addressing the law relating to the viable fetus, Judge L.J. in *St George's Healthcare NHS Trust v. S*³³ affirmed of a 36 week old fetus: "Whatever the fetus is it is not a nothing; it is not lifeless and it is certainly human."³⁴ As Pattinson says "while the fetus is not treated as having *full* status, neither is it treated as having *no status*."³⁵ Further, it should be recalled here that the European Court of Human Rights in *Vo v. France*³⁶ left the question of fetal status open. Madame Vo was the victim of a terrible error on the part of a French hospital which resulted in such injury to the 20–21 week fetus which she was carrying that her pregnancy had to be terminated on health

²⁷ R. Gillon, "Is There A "New Ethics of Abortion?" (2001) *Journal of Medical Ethics* 115, 118; E. Jackson, *Medical Law Text and Materials* (Oxford 2006), pp. 589–599.

²⁸ See R. Scott "The English fetus and the right to life" (2004) 11 *European Journal of Health Law*, 347–364.

²⁹ Report of the Committee of Enquiry into Human Fertilisation and Embryology (Warnock Committee Report), Cmnd. 9314, 1984, 71–72.

³⁰ Human Fertilisation and Embryology Act 1990 (as amended by the Human Fertilisation and Embryology Act 2008), s. 3(3): A licence cannot authorise – (a) keeping or using an embryo after the appearance of the primitive streak. S. 3(4) provides: "For the purposes of subsection (3)(a) above, the primitive streak is to be taken to have appeared in an embryo not later than the end of the period of 14 days beginning with the day when the gametes are mixed, not counting any time during which the embryo is stored".

³¹ The Polkinghorne Report, see note 11 above, para. 2.4.

³² *Ibid.*, para. 3.1.

³³ [1998] 3 All E.R. 673.

³⁴ *Ibid.*, 688.

³⁵ S. Pattinson, *Medical Law and Ethics*, second edition (London 2009), p. 227.

³⁶ (Application No. 53924/00) [2004] 2 F.C.R. 577. See also K. O'Donovan, "Taking a Neutral Stance on the Legal Protection of the Fetus" (2006) 14 (1) *Medical Law Review* 115–123.

grounds. She argued that French law was in breach of Article 2 of the European Convention on Human Rights (ECHR) in failing to punish the error as unintentional homicide. The majority in the court held *inter alia* that French law provided sufficient protection for the fetus in this instance through the protection offered to the mother. It was “neither desirable nor even possible” to decide the issue of fetal status in abstract terms.³⁷ As the Commission on Human Rights had done in *Paton v. UK*, the European Court of Human Rights in *Vo* “dodged the central question of foetal status”³⁸ while making it clear that the fetus was entitled to “some protection in the name of human dignity”³⁹.

Lack of independent personality in the sense of a right to bring a legal claim prior to birth does not indicate that the fetus has no moral or legal status, or that no obligations are owed to protect the welfare of that entity. Without digressing into the “circular debate”⁴⁰ pertaining to the moral status which should be ascribed to the embryo or fetus, what can be done to fetuses is not simply “the business of the woman in whose womb it may be located”, or of its genetic progenitors. As noted by Bonnie Steinbock, just because some argue that fetal entities do not have significant moral status, this does not mean that it does not matter how we treat them:

Like human corpses, human fetuses are human. Like trees, they are alive. Like flags, they have, for many people symbolic significance. All of these features may give rise to moral reasons for treating or not treating them in certain ways.⁴¹

This “symbolic significance” that is often associated with the human fetus has generated a collective societal concern for how the fetus is treated. Consider the moral outrage that ensued when a Canadian sculptor, Rick Gibson displayed a collection of his works, entitled “Human Earrings” in a London gallery. The earrings were made out of a freeze-dried human fetus of three or four months’ gestation. The police seized the exhibit and both the artist and the operator of the gallery were convicted of outraging public decency in

³⁷ At para. 85 and see R. Scott, *op. cit.* note 28 above, p. 353.

³⁸ M. Brazier and E. Cave, *Medicine Patients and the Law*, 4th edition (London 2007), 372 – Lexis-Nexis at para. 14.15.

³⁹ At para. 84 and see R. Scott *op. cit.* note 28, p. 352.

⁴⁰ M. Brazier “Embryos’ Rights: Abortion and Research” in M Freeman *Medicine, Ethics and The Law* (Ed) *Current Legal Problems* (London 1988) 9–22, 14. For discussions on the ethics of experiments on embryos see also J. Harris, “Embryos & Hedgehogs” in A. Dyson and J. Harris (eds), *Experiments on Embryos* (London 1989), pp. 65–82; J. Harris, “Should We Experiment On Embryos” in R. Lee and D. Morgan (eds.), *Birthrights: Law & Ethics at the Beginnings of Life* (London 1989), pp. 85–96; R. Bennett and J. Harris, “The ethics of human embryo studies” in T. Lindsay, S. Lindsay, and D. Wilson, *Molecular Genetics of Early Human Development*, (Oxford 1997), pp. 51–63. H. Kuhse, and P. Singer, “Individuals, humans and persons: The issue of moral status” in P. Singer, H. Kuhse, S. Buckle, K. Dawson and P. Kasimba (eds), *Embryo Experimentation* (Cambridge 1990), pp. 65–76.

⁴¹ B. Steinbock, *Life Before Birth* (New York 1992), p. 166.

1990 and fined.⁴² Thus, there is a legitimate collective concern for how the human fetus is treated even after its “death”.

This concern is reflected in the criminal and civil law.⁴³ Laws that restrict abortion have as their basis a societal interest in the fetus. The criminal law also intervenes to safeguard the welfare of the child to be, so that injury to a fetus subsequently born alive and later dying of its injuries can be punished as homicide in the same manner as injury to you or us.⁴⁴ The Congenital Disabilities Act 1976 grants redress to the child born disabled as a result of fetal injury. The apparently contradictory stances of the law towards the fetus, that it has no legal personality and yet is “not a nothing”, have a simple explanation, derived from its usual location within a woman’s body. In the circumstances in which fetal status has so far been addressed, intervention to protect the fetus necessarily impinged on the bodily integrity of the pregnant woman. To benefit the fetus the law would have to impose on the woman a duty to rescue, a duty not currently imposed on the mother or father of an unborn child.⁴⁵

II. THE FETUS; WHOSE IS IT?

The same case law that held that the fetus has no independent legal personality equally may appear to confer *all* decision making powers in relation to what might be done to the fetus on the woman alone. So if we ask of the fetus whose is it, the answer seems to be – its “mother’s” in the sense that she, and not the putative father enjoys extensive control over what may be done to the fetus. In relation to dead fetuses, maternal “ownership” of fetal tissue in the context of research appears to be endorsed in the Polkinghorne Report. The Polkinghorne Code of Practice requires that written, *general* consent must be given by the

⁴² *R v. Gibson and R v. Sylveire* [1990] Crim. L.R. 738; [1990] Q.B. 619; L. Bortolotti and J. Harris, “Embryos and Eagles: Symbolic Value in Research and Reproduction” (2006) 15 (1) Cambridge Quarterly of Healthcare Ethics 22–34.

⁴³ For a discussion of the law see J. Keown, *Abortion, Doctors and the Law* (Cambridge 1988), J. Fortin, “Legal Protection of the Unborn Child” (1988) 51 M.L.R. 54–83.

⁴⁴ The ancient “born alive rule” first postulated by Coke in 1680 quoted: “if the child be borne alive, and dieth of the potion, battery, or other cause, this is murder: for in law it is accounted a reasonable creature in rerum natura, when it is born alive”, Co Inst., Pt. III, ch 7, p. 50. Affirmed in *AG’s Reference (No 3 of 1994)* [1996] 2 All E.R. 10 (C.A.); [1997] 3 W.L.R. 421 (H.L.).

⁴⁵ Note that whilst there is no general duty in English law to rescue a person in danger, so that a failure to rescue will produce no liability either in criminal law, or tort, this rule is qualified by a number of exceptions “where there is a duty to act”. Such a duty may arise where one who has voluntarily assumed responsibility to care for another who is dependent because of age, illness or other infirmity. In such circumstances, death caused by a negligent failing to intervene to protect them can result in a conviction for gross negligence manslaughter, see *R v. Stone and Dobinson* (1977) Q.B. 354 and *R v. Gibbins & Proctor* (1918) 13 Cr. App. Rep. 134. Thus the common law does in some circumstances impose a duty to rescue on the mother or father of a *living* child. We are grateful to the anonymous reviewer for their comments on this point.

mother before research can be carried out both on miscarried and aborted fetuses:

The written consent of the mother must be obtained before any research or therapy involving the fetus or fetal tissue takes place. Sufficient explanation should be offered to make the act of consent valid.⁴⁶

Similarly the Human Tissue Act Code of Practice states:

The law does not distinguish between fetal tissue and other tissue from the living – fetal tissue is regarded as the mother’s tissue. Consequently fetal tissue is subject to the same consent requirements under the [Human Tissue] Act as all other tissue from the living. However, because of the sensitivity attached to this subject, it is good practice to always obtain consent for the examination of fetal tissue and for its storage or use for all scheduled purposes.⁴⁷

What about the genetic father? What say does he have with regard to research upon “his” fetus? In short, the answer is little. The Polkinghorne Code of Practice states:

It may be desirable to consult the father since, for example, tests on foetal tissue may reveal a finding of potential significance to him, and because he may have knowledge of a transmissible or hereditary disease, but his consent shall not be a requirement nor should he have the power to forbid research or therapy making use of foetal tissue.⁴⁸

As noted above, the 2009 Human Tissue Act Code of Practice provides “fetal tissue is regarded as the mother’s tissue”.⁴⁹ So there is no requirement for paternal consent at least on tissue derived from a dead fetus. The justification given in the Polkinghorne Report is that his consent is not required as his relationship with the fetus is “less intimate” than that of the mother⁵⁰ and furthermore paternal consent is not needed for an abortion. The Report does not further elaborate on what might be meant by the idea that the woman is more “intimately connected” with “her” fetus. However it echoes a view expressed in the case cited earlier of *Vo v. France*⁵¹, when in declining to treat a fetus *in utero* as a person under Article 2 of the European Convention on Human Rights, the European Court of Human Rights reasoned that

⁴⁶ The Polkinghorne Report, see note 11 above, para. 4.1.

⁴⁷ The Human Tissue Act Code of Practice – Consent, Code 1 September 2009, paras. 157 ff.

⁴⁸ The Polkinghorne Report, see note 11 above, para. 4.3.

⁴⁹ Human Tissue Act Code of Practice – Consent, Code 1 September 2009, paras. 157 ff.

⁵⁰ *Ibid.* note 11 above, para. 6.7.

⁵¹ (Application No. 53924/00) [2004] 2 F.C.R 577.

the life of the fetus “was intimately connected with that of the mother and could be protected through her”.⁵²

In examining what could be meant by such statements, it could be argued that a woman is more intimately connected with the fetus on two grounds: The first by virtue of that fact the fetus resides within her body, and that such maternal dominion over the dead fetus correlates with the decision making power that women have with regard to the fetus *in utero*. Susan Sherwin contends that such an approach is right and women should have the decisive say with regard to the fetus, although she rejects any notions that women own the fetus:

Women are in a privileged position with respect to the fetuses developing in their bodies,...and in most circumstances, they are entitled to decide the future of those fetuses. This is not because they own the fetus, for they ought not to be free to sell them, but because they are responsible for them and should be trusted to decide if continued life when removed from the womb is in the best interests of the fetus.⁵³

Secondly, it could be argued that the woman is intimately connected with the fetus, because the fetus began its journey/life within the woman’s body; that for a period of time she has nurtured the fetus, feeling it grow within her by virtue of its connection to her. Interpreted in this way, the idea of “intimate connection” might lead some to contend that women should continue to have some greater say over the disposal of the fetus even when it is *ex utero*. However, both interpretations are problematic in light of fetal/ectogenic research: The first argument no longer holds up once the fetus is *ex utero*. For once a fetus is for instance placed in an ectogenic incubator the fetus is no longer “intimately connected” with the mother. The fetus is now independently located and has “the separate existence” that Sir George Baker P. spoke of in *Paton v. B.P.A.S.* when he stated “The foetus cannot, in English law ... have a right of its own until it is born and has a separate existence from its mother.”⁵⁴

In natural pregnancy it is well established that a prospective father has no legal say regarding reproduction, when to do so would involve violations either by continuing or terminating a pregnancy against a woman’s will. The reproductive choices of women are paramount and conclusive. But once fertilisation and the reproductive process are removed from the woman’s body the dispositional position of the gamete progenitors is no longer clear cut, and *ex utero* it has recently been

⁵² *Ibid.*, para. 86.

⁵³ S. Sherwin, “Review of Overall, Ethics and Human Reproduction” (1988) 13(2) *Atlantis* 125; C. Overall, “Biological Mothers and the disposition of the foetuses after Abortion” in C. Overall, *Human Reproduction: Principles Practices Policies* (Toronto 1993), p. 72.

⁵⁴ *Paton v. B.P.A.S.* [1979] Q.B. 276 at p. 279.

recognised that men have equal say with regards the genetic material. Once a frozen embryo is located outside the female body, the woman no longer retains the decisive say that she holds in pregnancy. Rather it will turn upon consent signed by both gamete progenitors. In *Evans v. Amicus*⁵⁵, a case concerning a dispute over the fate of stored embryos, the courts refused to grant declarations sought that the female progenitor could override the consent forms signed and use the embryos against the wishes of her former partner. Arden L.J. commented in the Court of Appeal that the wider issue to have arisen from this case was that in a world in which many people have come to accept a woman's right of choice as to whether she should have a child or not, it appears that now the genetic father should have the equivalent right.⁵⁶ Arguably in *Evans*, by declining to invest decisive say in the female progenitor, the court recognised that outside pregnancy, which invokes a woman's bodily integrity, men and women have equal rights in the arena of reproduction.

The second argument, namely that because the fetus began its life within the body she should retain decisive say with regards to the foetus once expelled is also a tenuous one. As noted at the outset of this paper, once a baby is born and has a separate existence from the mother, the living neonate is a legal person and if his or her parents share parental responsibility, the baby "belongs"⁵⁷ to both of them. Fathers who share parental responsibility have a say in what happens to the baby/child. A woman is not given the paramount say by mere virtue of the fact that she gestated the child. Any controversial intervention in relation to the child's welfare which is likely to be contested will need the concurrence of both parents.⁵⁸

Nor can it be argued that the fetus "can be protected through" the mother once *ex utero*. Paul Ramsey argues that it is "morally outrageous...to designate women who elect for abortion for comparatively trivial reasons, for social convenience or economic betterment".⁵⁹ Similarly, John Keown questions whether the Polkinghorne Committee should have considered "whether the woman who has aborted the fetus is an appropriate person to safeguard its interest".⁶⁰ Ramsey and Keown locate their comments on the fetus *ex utero* within a personal philosophy that would equally accord moral and legal status to

⁵⁵ *Evans v. Amicus Health Care Ltd and Others* [2004] 2 W.L.R. 713 (Fam.); [2004] W.L.R. 681 (C.A.); *Evans v. United Kingdom* [2006] 1 F.C.R. 585 (E.Ct.H.R.); [2007] E.H.R.C. 190 (E.Ct.H.R.).

⁵⁶ *Ibid.*

⁵⁷ See note 3 above.

⁵⁸ See note 4 above.

⁵⁹ P. Ramsey, *The Ethics of Fetal Research* (New Haven 1975), 89; J. Keown, "The Polkinghorne Report on Fetal Research; nice recommendations, shame about the reasoning" (1993) 19 *Journal of Medical Ethics* 114–120, at p. 116.

⁶⁰ J. Keown, *ibid.*

the fetus *in utero*.⁶¹ But what they say has force independently of any views held about the status of embryos and fetuses per se. Keown has rightly criticised the analogy with abortion as irrelevant: “It certainly does not follow that because the father is denied a veto on abortion he should therefore be denied a veto on the use of the abortus.”⁶²

We argue that there is a difference between abortion and fetal research *ex utero* which justifies given men equal say in the latter. Men and women having equivalent rights should arguably be welcomed by all those who believe in gender equality. In the context of family rights, men continue to fight against their discrimination, and over the last decade we have witnessed the growing voice of men; consider the various high-profile demonstrations that have been staged by activists campaigning for increasing fathers’ rights in order to improve access to their children.⁶³ In conjunction with the promotion of gender equality in other contexts⁶⁴ it is submitted that perhaps men’s voices ought to be heard more in the domain of reproduction also.⁶⁵ Following this, we would argue that once the fetus is *ex utero*, alive or dead, and once a woman’s bodily integrity is no longer at stake, the male progenitor should have an equal say with regard to fetal research/treatment and paternal consent should also be sought.

However if policy is to be amended to state that paternal consent should also be sought for fetal research *post utero*, we must acknowledge difficulties that may arise in implementing such a policy. For instance, situations may arise where a woman does not wish the biological father to know she is pregnant so refuses to reveal his identity, or situations where conception arose as a result of a “one night stand” the woman may not know who he is. Obtaining paternal consent in such circumstances could prove difficult. The question that will merit consideration is whether the rights owed to men in this context should override the woman’s privacy/confidentiality.

⁶¹ But note that John Harris who accords nil status to the fetus *in utero* agrees that having aborted the fetus the woman has no claim to determine whether or not the dead fetus may be used in research; J. Harris, *The Value of Life* (London 1985), p. 122. We are grateful to Sheelagh McGuinness for bringing this to our attention.

⁶² J. Keown, see note 59 above, pp. 114–120.

⁶³ M. Lawson, “No Justice 4 Fathers” *The Guardian*, 20 January 2006; R. Little, “Fathers Still Need Justice” *The Sunday Times*, 22 January 2006; E. Mayne and M. Beckford, “Fathers for Justice Force the National Lottery Off Air” *The Mail on Sunday*, 21 May 2006.

⁶⁴ See generally R. Collier, “A Hard Time to be a Father?: Reassessing the Relationship Between Law, Policy, and Family (Practices)” (2001) 28 *Journal of Law and Society* 520; R. Collier, “Fathers 4 Justice, Law and the New Politics of Fatherhood” (2005) 17 (4) *Child and Family Law Quarterly* 511.

⁶⁵ Although note the authors are not proposing that fathers should have the ability to intervene in a woman’s decision to terminate a natural/*in vivo* pregnancy for this would constitute a violation of her bodily integrity. Rather, we argue that once the fetus is *ex utero*, alive or dead and once a woman’s bodily integrity is no longer at stake, the male progenitor should have an equal say with regard to fetal research/treatment and paternal consent should also be sought.

III. REPOSITIONING THE FETUS: FETAL RESEARCH

Developments in science continue to blur the boundaries between the fetus and the infant. Some US scholars and neonatologists coined a new term the “fetal infant”.⁶⁶ Spanish law seems to acknowledge the existence of an intermediate legal category of “human beings” who are neither fetuses, nor yet babies.⁶⁷ Research on extremely premature infants continues to provide vital information to help advance neonatal care. Research on fetuses may offer new insights. However both also raise a plethora of legal and ethical issues. Let us first focus on fetal research and contemplate some hypothetical scenarios where research on the fetus goes horribly wrong.

Sandra is a distinguished obstetrician who is seeking to develop open fetal surgery to correct cardiac defects in utero. There have as yet been no successful animal trials of the intervention. In the four cases where the surgery has been attempted before in the USA, two fetuses died in utero, two babies survived to be born, but one died at 3 days old of complications of the surgery. Jane is 22 weeks pregnant when Sandra enrolls her in her trial. No consent is sought from Ben, Jane’s husband. The surgery exacerbates rather than remedies the defect and at 24 weeks Tom is born with very severe cardiac problems. Thanks to neonatal intensive care Tom will survive but will need several operations. He will be very restricted in any physical activity.

The Congenital Disabilities (Civil Liability) Act 1976 imposes liability for prenatal injury when a child is born alive and suffering from a disability caused by an occurrence affecting either parent in his or her ability to have a healthy child or affecting the mother in her pregnancy or mother or child in the course of birth, but the defendant is only liable to the child if also liable in tort to the affected parent.⁶⁸ Liability to the child is derivative and usually derives from liability to the mother, for example, if a doctor negligently prescribes a drug in pregnancy that harms the fetus. The ambit of the Act is however wide enough to embrace a claim derivative on a wrong done to the father too, if perhaps his sperm had been damaged by negligent exposure to toxic substances that resulted in fetal abnormality.

Before Sandra can be liable to Tom she must be in breach of duty to an affected parent. Jane consented to the trial. Was her consent

⁶⁶ N.K. Rhoden, “The New Neonatal Dilemma: Live Births from Late Abortions” (1983–4) 72 *Geo.L.J.* 1451, 1465.

⁶⁷ S. Romeo-Malanda, “Non-treatment of Severely Disabled Newborns and Criminal Liability Under Spanish Law” in C. Erin and S. Ost, *op. Cit.*, note 25 above, pp. 207–224.

⁶⁸ Congenital Disabilities (Civil Liability) Act 1976, section 1(3) provides: “Subject to the following subsections, a person (here referred to as “the defendant”) is answerable to the child if he was liable in tort to the parent or would, if sued in due time, have been so; and it is no answer that there could not have been such liability because the parent suffered no actionable injury, if there was a breach of legal duty which, accompanied by injury, would have given rise to the liability.”

sufficiently free and informed? If not, then if Sandra is liable to Jane she is also liable to Tom. But what if Sandra is not liable to Jane, as Jane gave an informed consent to the trial, but at no point was Ben consulted or warned of the risk to the fetus who became Tom, do we just shrug our shoulders and say tough to Tom and his Dad, Ben? Could we argue Sandra owed a duty to Ben and has thus affected Ben's ability to have a healthy child? If so, Tom's claim could derive from his father.

The 1976 Act provides a defence that the affected parent knew of the risk.⁶⁹ But if Ben was not involved in the decision to enter the trial he (the affected parent) remained unaware of the risk. And that raises the central question about whether Ben has or should have a right to or say about whether Tom should be in the trial at all. It is indisputable that Jane could not be forced to enter the trial, however much it is thought Tom could benefit, because a pregnant woman "has an absolute right to choose whether to consent to medical treatment or refuse it or to choose one rather than another of the treatments offered."⁷⁰ However, Jane and Ben are engaged in a joint enterprise to have this baby, Tom, and as a married couple, will share parental responsibility, responsibility that Tom's prenatal harm will make all the more onerous.

Let us alter the scenario. Sandra is wholly open with Jane and informs her that the trial may do as much harm as good. The fetus may well be born worse off but science will advance and she, Sandra, will be nearer her Nobel Prize. Jane is Sandra's best friend and not that bothered about her baby. Tom is born in a bad way. He cannot sue his mother as she is immune from liability under the 1976 Act.⁷¹ He cannot sue Sandra because Jane was *volenti*⁷² to all the risks. If the argument that we consider above that under the 1976 Act Tom can derive a claim from Ben fails, Tom has no civil remedy for his injury. Or even if a claim on Tom's behalf could be derived from Ben, but the charismatic Sandra has persuaded Ben to consent to the research too, again Tom would have no civil redress.

⁶⁹ Congenital Disabilities (Civil Liability) Act 1976, s. 3(5) provides: "Compensation is not payable in the child's case if the injury to the parent preceded the time of the child's conception and at that time either or both of the parents knew the risk of their child being born disabled (that is to say, the particular risk created by the injury)."

⁷⁰ *St George's Hospital NHS Trust v. S* [1998] 3 All E.R. 673.

⁷¹ The Congenital Disabilities (Civil Liability) Act 1976, s. 1(1) grants a mother express immunity from suit: "If a child is born disabled as the result of such an occurrence before its birth as is mentioned in subsection (2) below, and a person (*other than the child's own mother*) is under this section answerable to the child in respect of the occurrence, the child's disabilities are to be regarded as damage resulting from the wrongful act of that person and actionable accordingly at the suit of the child". The only exception is where the injury was caused by the mother's negligent driving, see s. 2.

⁷² The Latin maxim "*volenti non fit injuria*" is commonly used to refer to a defence from tortious liability where the claimant "freely and voluntarily, with full knowledge of the nature and extent of the risk he ran, impliedly agreed to incur it": *Letang v. Ottawa Electric Rly. Co.* [1926] A.C. 725 at 731 (citing *Osborne v. London and North Western Rly. Co.* (1888) 21 Q.B.D. 220).

So does this illustrate that the law has no concern for the fetus? In *St George's Health Care Trust v S*⁷³, Judge L.J. said: "... each woman is entitled to refuse treatment for herself. It does not follow without any further analysis that this entitles her to put at risk the healthy viable fetus which she is carrying."⁷⁴ Let us now turn our attention to the criminal and the ancient (but still living) "born alive" rule (*Attorney General's Reference (No. 3 of 1994)*)⁷⁵. If a person either deliberately or grossly negligently injures a child in the womb and that child is born alive but later dies of his injuries the perpetrator can be criminally liable for murder or manslaughter.⁷⁶ So if Tom were to die as a result of the prenatal surgery, Sandra and even possibly Jane could face prosecution. And Lord Mustill has suggested that where injury does not cause death but lasting harm a prosecution for causing grievous bodily harm could lie.⁷⁷

Thus it is contended that the common law recognises that any third party who intervenes in such a way as directly to impact on the fetus's health owes a duty to the child to be born that is little different to the duty the neonatologist owes to the baby in his care. In our hypothetical scenario, Sandra should be seen to owe a similar duty to Tom *in utero* as her neonatologist colleagues will to Baby Tom. And she will share their problem. Neither Fetus Tom nor Baby Tom can consent to her research proposal. Once born any person with parental responsibility can authorise treatment in the best interests of the child.⁷⁸ In routine treatment the consent of both parents is not needed. But the courts have made it clear that in potentially contentious cases doctors should seek a dual consent.⁷⁹ Of course were Jane and Ben not married, we would not technically know until Tom's birth is registered whether they will share parental responsibility but let us, for the moment, keep the two joined in wedlock.⁸⁰ Ben is going to share in Tom's upbringing. We argue that this gives him as great a claim to speak for Tom and as great a stake in his health and future. In this instance Fetus Tom should be

⁷³ [1998] 3 All E.R. 673.

⁷⁴ *Ibid.*, at p. 686.

⁷⁵ *AG's Reference (No. 3 of 1994)* [1997] 3 All E.R. 936 (H.L.).

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*, at p. 942.

⁷⁸ Children Act 1989, s. 3(1) defines "Parental Responsibility" as "all the rights, duties, powers, responsibilities and authority which by law a parent of a child has in relation to the child and his property." Parental responsibility includes the right to consent to medical treatment on behalf of a child, but the Children Act 1989 demands that parental responsibility must lawfully be exercised in the "child's best interests" (s. 1).

⁷⁹ Cases such as immunisation and male circumcision require dual parental consent: *Re B (a child) (immunisation)* [2003] EWHC 1376, [2003] EWCA Civ 1148. *Re J (Child's Religious Upbringing and Circumcision)* [2000] 1 F.C.R. 307.

⁸⁰ In relation to children born after 1 December 2003 (England and Wales), 15 April 2002 (Northern Ireland) or 4 May 2006 (Scotland), a child's biological parents automatically acquire parental responsibility if they were married at the time of the child's birth or at some time thereafter. Alternatively parental responsibility can be acquired if they are registered on the child's birth certificate (irrespective of whether the parents are married or not).

treated no differently to Baby Tom and his father should have the same claims to be consulted about him and duties to him as the woman in whose uterus he resides.

In so saying we do not seek to infringe the woman's autonomy, neither the father nor the doctors can impose on Jane any procedure that violates her bodily integrity, but we argue Jane alone cannot say yea to research that may affect Tom. Pregnancy is often seen as a unique dilemma in which the mother and child function as a dyad with mother as the child's only voice. In the context of research on a living fetus *in utero* the paradigm no longer holds good.

Let us consider an analogy – adult conjoined twins – and imagine Ben is such a twin, his brother being Dan. They are joined at the lower trunk with one kidney each. A new drug is being tested that it is thought may improve renal function. Animal trials have shown that possible side effects of the drug include impotence and possible brain damage. Dan is celibate. Ben, as we know, is married to Jane. Unless Dan's renal function improves soon, both twins may have to go on dialysis. Doctors consider that administering the drug to both twins via Ben is the best option. Ben says no. Whatever our view may be of Ben's obligations to consider his twin's interests, Ben cannot be legally forced to accept the insertion of the drug via his body. So doctors seek to administer the drug via Dan although it will inevitably affect Ben. Is Dan's consent enough? Can he unilaterally expose Ben to risk?

In attempting to answer these questions, we might reflect on Judith Jarvis Thomson's famous violinist.⁸¹ Thomson asked the innocent reader to imagine that one morning they awaken to find they have been kidnapped by the Society of Music Lovers, who after canvassing all the available medical records discovered that you alone have the right blood type to cure Victor, a famous unconscious violinist. The violinist has a fatal kidney ailment, and so his circulatory system has been plugged in to yours so that your kidneys can be used to extract poisons from his blood as well as your own. It is only for nine months. To unplug him would be to kill him. Let us alter Judith Thomson's scenario slightly. You wake up tomorrow with the famous violinist plugged into you and dependent on you for survival, but medicine has moved on since 1971 and if we wait a week or so the violinist could be put on artificial life support. You reluctantly agree to act as a human dialysis machine for seven days. However doctors suggest a new experimental drug that might help them unplug Victor in just three days. The drug will be administered via a drip in your arm and will pass through you and into Victor. Unfortunately, a possible side effect is that the drug could affect mobility in the joints – little enough not to

⁸¹ J. Thomson, "A Defense of Abortion" (1971) 1(1) *Philosophy and Public Affairs* 47, at pp. 48–49.

bother you but dire for a violinist. Is it only you who has a legitimate claim to decide whether or not to accept the drug?

In utilizing all these examples, we seek to establish that Jane's right to control her body ought not to grant her unfettered rights over the living body of Tom *in* or *ex utero*.

A. *From fetus to neonate*

The care of the fetus considered to be at the threshold of viability raises some of the most difficult clinical problems for obstetricians and pediatricians.⁸²

Advances in neo-natal technology have steadily reduced the gestational age at which a baby born prematurely has a chance of survival, and an increasing number of babies born at or after 24 weeks survive to leave hospital.⁸³ However it should be noted that there has been no significant increase in the number of babies born below 24 weeks surviving and care for infants born at 22 weeks remains unsuccessful.⁸⁴

Of those babies born at the borderline of viability, which is below 25 weeks 6 days, a proportion of those who survive will have severe disabilities. The survival of extremely premature babies born on the cusp of viability is often dependent on mechanical life support of the Neonatal Intensive Care Unit (NICU).⁸⁵ There are exceptional cases of so called miracle babies who survive despite their prematurity. Consider the case of Amillia Taylor, born at 21 weeks 6 days and reported to be one of the world's most premature babies.⁸⁶ Delivered weighing a mere 280 grams, she was immediately transferred into a technologically advanced incubator in the neo-natal intensive care unit for a further 16 weeks, and was later discharged 'healthy and thriving'.⁸⁷ Amillia, however, is an unusual case, and at twenty two weeks very few babies survive to leave hospital without serious disability.

B. *Research and ectogenesis*

If conventional neonatal care is unlikely to reduce the gestational age at which an extremely premature baby has a reasonable chance of

⁸² K. Costeloe, E. Hennessy, A.T. Gibson, N. Marlow, A.R. Wilkinson, "The EPICure study: outcomes to discharge from hospital for infants born at the threshold of viability" (2000) 106 *Pediatrics* 659–71.

⁸³ D.J. Field, J.S. Dorling, N. Bradley Manktelow, and E.S. Draper, "Survival of extremely premature babies in a geographically defined population: prospective cohort study of 1994–9 compared with 2000–5" (2008) *BMJ* Downloaded from bmj.com on 13 May 2008.

⁸⁴ *Ibid.*

⁸⁵ A point made by F. Simonstein, "Artificial reproduction technologies – all the way to the artificial womb?" (2006) *Medicine, Health Care and Philosophy*, pp. 1386–7423 (Print), 1572–8633 (Online). Accessible at: <http://www.springerlink.com/content/p5vix7033r0w025h/fulltext.pdf>.

⁸⁶ J. Moorhead, "Against All Odds" Wednesday February 21, 2007, *The Guardian*. Accessible at <<http://www.guardian.co.uk/society/2007/feb/21/health.lifeandhealth>>

⁸⁷ "Most-premature baby allowed home" Wednesday February 21 2007, Accessible at <<http://news.bbc.co.uk/1/hi/world/americas/6384621.stm>>

survival, other research options are highly likely to blur yet further the legal boundary between fetus and baby. One avenue of such research lies in ectogenesis, the creation of an artificial womb or device that can simulate the uterine environment and so would help sustain the lives of babies who might otherwise be born too soon to survive.⁸⁸ As Lupton notes, ectogenesis “clearly has the potential to rescue neonates who would otherwise die or be doomed to live with serious physical and/or mental handicaps due to the premature nature of their birth.”⁸⁹ The fetus relocated into an artificial womb no longer depends on the woman to survive. Is he a fetus or a baby? Is he “born alive”?

Before we even try to answer those questions, we need to explore what may be entailed in the road to human ectogenesis. Extensive research will be needed with inevitable casualties in terms of fetal/neonatal deaths and injury. But how would such research be regulated in the UK? What problems does relocating the fetus/baby generate? As we have already noted, there is no explicit legislation governing fetal research, instead the current regulation of fetal research rests primarily on the Code of Practice issued by the Polkinghorne Committee in 1989 which does not canvass even the possibility of ectogenesis.⁹⁰ Research into ectogenesis using living human fetuses may focus on three possibilities, all of which highlight our central questions about the status of the fetus once we contemplate repositioning it *ex utero*. These three possible research options involve:

- (1) Research designed to improve survival rates at lower gestational ages designed to develop partial ectogenesis whereby a fetus conceived in the mother’s womb and gestated therein for some period of time can be transferred into an artificial womb, an ectogenic incubator, when either a woman is about to go into premature labour, or risks to her health and/or that of the fetus require that she be delivered at a stage when conventional neonatal care offers little hope of survival for the baby.
- (2) Research to develop an effective ectogenic incubator carried out using unwanted live abortuses.

⁸⁸ For more on ectogenesis see: S. Wellin, “Reproductive Ectogenesis: The third era of human reproduction and some moral consequences” (2004) 10 *Science and Engineering Ethics*, 615–626. P. Singer and D. Wells, *The Reproduction Revolution: new ways of making babies* (Oxford 1984). S. Coleman, *The Ethics of Artificial Uteruses* (Aldershot 2004). S. Gelfand, note 7 above, ch. 2. A. Smajdor, “The Moral Imperative for Ectogenesis” (2007) 16 *Cambridge Quarterly of Healthcare Ethics* 336–345. C. Kaczor, “Could Artificial Wombs End the Abortion Debate” (2005) 5(2) *National Catholic Bioethics Quarterly* 283–301. I. Aristarkhova “Ectogenesis and Mother as Machine” (2005) 11 (3) *Body & Society* 43–59. G. Corea, *The Mother Machine: Reproductive Technologies from Artificial Insemination to Artificial Wombs*, (New York 1979).

⁸⁹ M. Lupton “The Role of the Artificial Uterus in Embryo Adoption and Neonatal Intensive Care” (1999) 18 *Medical Law* 613 at pp. 625–629.

⁹⁰ The Polkinghorne Report, see note 11 above.

- (3) Research into complete ectogenesis whereby an embryo is placed directly into an ectogenic incubator and gestated for the entire forty weeks.

As our paper focuses on fetal research at above 18 weeks gestation, we address the first two options only.

1. Research on the "extremely premature baby"

Consider the following hypothetical scenario:

Annabelle is pregnant with a boy whom she has decided she will name Tim. At 21 weeks, she is taken to hospital and is diagnosed as suffering from the hypertensive disorder pre-eclampsia⁹¹ putting both her life and that of her fetus at risk. As the fetus is showing signs of distress, doctors can perform an emergency caesarean section, but the chances of the fetus surviving at 21 weeks using conventional neonatal technology are nil. They inform her that this is a unit that is undertaking research to push back the threshold of viability via ectogenesis, and ask whether she consents to her baby/fetus partaking in such research.

Let us for the moment consider this proposal as simply a variant on current research on neonates. In the Nuffield Council Report on *Critical Care Decisions in Fetal and Neonatal Medicine* it was recommended that below 21 weeks 6 days a baby should only be admitted to neonatal intensive care within an ethically approved research study.⁹² If we regard the fetus to be transferred to the artificial womb as a neonate that recommendation would seem to apply to research into ectogenesis. But would any such study be lawful and ethical? How should a research ethics committee approach such a proposed trial? Do the potential benefits outweigh any potential harm? The chances of a 21 week old baby surviving at all are minimal. But, as without the trial of ectogenesis, his chances of survival are nil, can we perhaps give this trial the benefit of the doubt and regard the research as therapeutic research? Thus it may be argued that his parent(s) can consent to a procedure "intended directly to benefit the child"⁹³; i.e. the trial is lawful as it is in the best interests of the baby. This kind of research cannot be carried out other than on neonates. But is participation in ectogenesis research in the baby's interests? Is the slenderest hope of life of any sort enough even at the cost of possible severe disability? His

⁹¹ Statistics indicate that 10 mothers and 1000 babies die each year as a result of the effects of pre-eclampsia. See Department of Health. *Why mothers die. Report on confidential enquiries into maternal deaths in the UK 1994-96*. London: Stationery Office, 1999.

⁹² Nuffield Council on Bioethics "Critical Care Decisions in Foetal and Neonatal Medicine: Ethical Issues" (November 2006), para. 9.19.

⁹³ See Royal College of Paediatrics "Child Health: Ethics Advisory Committee Guidelines for the ethical conduct of medical research involving children" (2000) 82 *Archives of Disease in Childhood* 177-82.

parents may see that hope as in their interests. The reality is that the trial may benefit babies born at the same stage as baby Tim in years to come and not necessarily in Tim's best interests. He will be subjected to a battery of tests and procedures likely to cause him at least some degree of pain and distress while he survives. If, as is likely, he does not live to leave hospital, what benefit to him ensues? If he survives with multiple disabilities, are his interests served? It does not seem to us that the case that research into ectogenesis is in the Tim's best interests is incontestable. In a series of judgments⁹⁴ raised in the context of interventions to prolong the life of severely disabled babies, the judges have emphasised that it in some cases it will be impossible to justify the degree of suffering occasioned to the baby for a slender chance of allowing the baby to survive a little longer.

Any research into ectogenesis is inevitably going to require, not just the creation of the artificial and mechanical ectogenic chamber, but also appropriate drugs and other pharmaceutical products and thus in assessing the legality of research into ectogenesis the Medicines for Human Use (Clinical Trials) Regulations 2004 apply.⁹⁵ The 2004 Regulations offer little additional guidance in this scenario but make some limited provision for research not directly for the benefit of the child subject. To comply with the Regulations the research involving Tim must relate "directly to a condition from which the minor suffers" and must not be able to be done on any other group of subjects. What of the requirement that there must be some direct benefit to the group of patients to which Tim belongs? Here there may be a difficulty. Is a potential benefit to babies in the trial 2 to 3 years ahead enough? We suggest that it is. Without studies such as the surfactant trials that offered no real hope of immediate benefit to the neonatal subjects at the time⁹⁶, babies born at what is now seen as a pretty safe time, 28–30 weeks, might not survive today. The potential to improve the care

⁹⁴ *Wyatt v. Portsmouth NHS Trust and another* [2004] EWHC 2247; [2005] EWHC 117; [2005] EWHC 693 (Fam) *Re L (Medical Treatment: Benefit)* [2004] EWHC 2713 (Fam) *Re C* [1998] 1 F.C.R. 1.

⁹⁵ SI 2004/1031. The Regulations implemented the EU Clinical Trials Directive (Clinical Trials Directive 2001/20) into UK law. See also E. Cave "Seen But Not Heard? Children in Clinical Trials" (2010) 18(1) *Medical Law Review* 1–27.

⁹⁶ Surfactant trials arose in response to endeavours to treat respiratory distress syndrome (RDS) in premature babies and reduce neonatal morbidity. The lungs of premature babies were in some cases too immature to produce enough surfactant, a substance which lines the alveoli, the small air sacs at the end of the lungs" numerous branching airways. For more on clinical trials of surfactant treatment in neonates, see H.L. Halliday, "Recent Clinical Trials of Surfactant Treatment for Neonates" (2006) 89 *Biol Neonate* 323–329. M.Hammoud, N. Al-Kazmi, M. Alshemmiri, L. Thalib, V.T. Ranjani, L.V. Devarajan, H. ElSORI, "Randomized clinical trial comparing two natural surfactant preparations to treat respiratory distress syndrome." (2004) 15 *J Matern Fetal Neonatal Med* 167–175. S.B. Ainsworth, M.W. Beresford, D.W. Milligan, N.J. Shaw, J.N. Matthews, A.C. Fenton, M.P. Ward Platt, "Pumactant and poractant alfa for treatment of respiratory distress syndrome in neonates born at 25–29 weeks' gestation: a randomised trial." (2000) 355 *Lancet* 1387–1392.

of premature babies provides a strong case for permitting ethically approved research to push back the threshold of viability.

So far however we have glided over one key issue, that even if we regard research into an ectogenic chamber to rescue extremely premature babies as intended to benefit the baby and thus therapeutic research, consent is still required and if we classify the entity as a baby that consent must come from a person with parental responsibility. Do we only need to concern ourselves with maternal consent? Insofar as any procedure to deliver the child is concerned maternal consent is a *sine qua non*. So if a classical caesarean section is needed to maximise the chances of the fetus surviving the transfer the procedure can only go ahead with the woman's consent. Once the delivery is complete the mother can, as a person with parental responsibility, give consent to the fetus/baby's participation in the trial. But what if the father objects? Or the mother says no let the "baby" die in my arms? Were we contemplating such a trial on a baby born alive but becoming ill even just minutes after birth, the case law indicates that in the face of parental disagreement the wishes of both parents must be given due regard and if necessary the matter should be referred to the courts.⁹⁷ If we classify Tim as a fetus both when he is in transition to, and inside the ectogenic chamber then as we note above the Polkinghorne guidance suggests that the "mother" alone has a voice. But as we argue above whether we call Tim fetus or baby once he is no longer within the woman's body, and if the purpose of the trial is that he has a chance to live, and so engage paternal responsibility the father can no longer be excluded from decision making. Whether in law the father can claim a say in Tim's fate will currently depend on the matter that becomes key to many of the remaining issues in this paper. What does it mean to be "born alive" if ectogenesis becomes reality? We shall now address this question in the context of using the live abortus for ectogenic research.

C. Research on the live abortus and what it means to be "born alive"

One of the practical obstacles to research into ectogenesis using fetuses/babies who are delivered extremely prematurely is that, whether or not the father has a say in the participation of his offspring in any trial, any form of parental consent may be hard to obtain. When informed that their child is highly likely to die and if he should survive to leave the artificial womb he may be severely disabled, both parents may say no, let him die in peace. The likely attrition rate (in terms of death and/or severe impairment) for the first fetuses to be transferred to any ectogenic chamber may incline doctors and ethics committees to prefer to embark on research using fetuses when a decision has been taken to

⁹⁷ See note 4 above.

abort, using fetuses not intended to survive. So would it be lawful to use aborted living fetuses in ectogenic research? We consider only fetuses between 18 weeks and 21 weeks 6 days gestation, fetuses who could not survive outside the womb using current medical technology. What is the status of the fetus as it is lifted from the woman and transferred to the artificial womb? Has it been “born alive”? For if “it” is in law now “born alive” then once removed from the woman and in transit to or in an ectogenic chamber the fetus crosses the law’s bright line and thus acquires independent legal personality. Once that line is crossed the father too acquires rights he lacks in relation to the fetus. The difficulty is that once we explore what is meant by born alive that bright line looks a lot less bright. Defining born dead is easier. The Births and Deaths Registration Act 1953 as amended by the Stillbirth Definition Act 1992 defines a “stillborn child” as “a child which has issued forth from its mother after the 24th weeks of pregnancy and which did not at any time breathe or show any other signs of life.”⁹⁸ The World Health Organisation (WHO) defines “live-born” as “evidence of life, such as the beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscle”. Were such reflex responses to constitute born alive for the purposes of English law, then such a definition might embrace fetuses delivered from a much earlier stage than 22 weeks perhaps as low as 16–18 weeks. But it is clear that born alive in English law means more than transient evidence of continued biological existence⁹⁹. The nineteenth century case law focused on the moment that the child had a separate existence from the mother even if the placenta had not at that stage been fully expelled.¹⁰⁰ More recent case law focus on the capacity to breathe. In *Rance v. Mid Downs Health Authority*¹⁰¹, Brooke J. defining capable of being born alive under the Infant Life (Preservation) Act 1929, stated that the fetus must possess the capacity to breathe “through its own lungs alone, without deriving any of its living or power of living by or through any connection with the mother”¹⁰² However neonates delivered at much higher gestation than 22–24 weeks cannot breathe alone but survive only with the aid of a ventilator. In *C v. S*¹⁰³ Sir John Donaldson M.R. put the issues differently. A child was not capable of being born alive “if incapable of breathing either naturally or with the aid of a ventilator”. And we would suggest that Donaldson’s test represents the current law. The fetus outside the woman’s body who has the biological maturity to survive with the aid of a ventilator is born alive and from that point he

⁹⁸ Section 1(1).

⁹⁹ *C v. S* [1987] 1 All E.R. 1230.

¹⁰⁰ M. Brazier and E. Cave, *Medicine, Patients and the Law*, *op cit.*, note 38 above, p. 382.

¹⁰¹ [1991] 1 Q.B. 587.

¹⁰² *Ibid.*, at p. 622.

¹⁰³ *C v. S* [1987] 1 All E.R. 1230.

cannot be actively killed, decisions about whether to resuscitate him and admit to intensive neonatal care must be made in his best interests and his father (if he has parental responsibility) acquires a say in his fate.

Can this test be extended to ectogenesis? Were we to do so, first the Donaldson definition would need to be expanded, to allow for any fetus sufficiently mature to survive with the aid of whatever artificial means of replicating the uterine environment that the ectogenic chamber provides. Initially, assessing the chance of survival will be a matter of guesswork, but if ectogenesis succeeds, the boundaries of capacity to allow a fetus to mature outside a woman's body will be pushed further and further back.

Returning to the issue of the live abortus then it is clear that *ex utero*, if deemed "born alive" the fetus must be regarded as a baby with independent legal personality and the principles relating to research involving it are no different from those applying to the Tim who was born or delivered extremely prematurely out of necessity, not choice. Most crucially any subsequent action designed to kill the fetus/baby in the artificial womb (if for example there were evidence of abnormal development) might constitute homicide. This is why when a termination of pregnancy is to be performed later than 21 weeks 6 days, the current threshold of viability, the Royal College of Obstetricians and Gynaecologists recommend that feticide be carried out before the initiation of labour to ensure that the fetus is not born alive.¹⁰⁴ If in a late termination, a fetus emerges alive, it is a live birth and the fetus must be treated in accordance with its best interests and the birth must be registered.¹⁰⁵ The doctor owes a duty of care to the neonate. As stated many years ago by Glanville Williams:

If an aborted fetus is alive it is a person, no matter how short the period of gestation, and using it for an experiment would in law be at least an assault upon it. If doctors wish to perform these experiments legally they must seek statutory authority.¹⁰⁶

This appears also to be in alignment with fetal guidance from the Polkinghorne Report that in the case of "the live whole fetus beyond fourteen days after fertilisation, whether inside or outside the womb" research or other use should only take place if it carries "only minimal risk of harm or, if a greater risk than that is involved, the action is, on

¹⁰⁴ Royal College of Obstetricians and Gynaecologists, "Termination of Pregnancy for Fetal Abnormality in England, Wales and Scotland" (London 2010); Nuffield Council on Bioethics "Critical Care Decisions" see note 89 above, para. 4.14.

¹⁰⁵ Nuffield Council on Bioethics "Critical Care Decisions" see note 89 above, para. 4.14.

¹⁰⁶ G. Williams *Textbook on Criminal Law*, 1st edition, (London 1978), p. 263, footnote 8; J. Keown, "The Polkinghorne Report on Fetal Research; nice recommendations, shame about the reasoning" (1993) 19 *Journal of Medical Ethics* 114 at p. 115.

balance, for the benefit of the fetus".¹⁰⁷ It would seem that if the abortus is considered alive it/he cannot be any more readily enrolled in trials of ectogenesis than his spontaneously born brother. Even were that conundrum to be resolved another question looms: would the removal of fetus from a woman, with her consent, but not required on grounds of maternal or fetal health, for the purpose of transfer to an artificial womb within a research project be lawful at all? We address two different scenarios.

(1) *The "wanted alive" fetus*

What if ectogenic research was agreed to by a woman who wanted to end her pregnancy but not necessarily to end the life of the fetus? In the context of technology and reproduction, many years ago Sheila McLean¹⁰⁸ envisaged a scenario whereby a woman seeking a termination could be "presented with the option of a pregnancy termination which did not inevitably result in the death of the foetus"¹⁰⁹ and even argued that while a woman had a right to end her pregnancy she has no right to destroy a salvageable fetus. Let us consider the following hypothetical scenario:

Sara is 19 weeks pregnant and very poor when she lands a lucrative and prestigious modelling contract. This contract will provide her with enough money to look after her and her child. However she must take up the contract within two months. She consults a professor of neonatal medicine who is currently researching pushing back viability through the use of an ectogenic incubator, she enquires about the prospect of transferring her fetus into one. This would ensure the best possible future for her and her child. It would also end her pregnancy without ending fetal life. She is clear that she *does* want the fetus to survive, and thus an abortion is out of the question.

Or perhaps a woman discovering her pregnancy after 18 weeks wishes to cease to be pregnant and avoid motherhood herself, but is happy for the fetus to have a chance of life with a view to its adoption. Such a course of action might seem to comply with the Polkinghorne Report in that research while involving much more than minimal risk is, "on balance, for the benefit of the fetus".¹¹⁰ It could be argued that transfer into an ectogenic incubator even with the slimmest hope of survival will benefit the fetus if the alternative is fetal death though the degree of suffering entailed in life within the chamber would have to be weighed in the balance.

¹⁰⁷ The Polkinghorne Report, see note 11 above, paras. 2.4 and 3.2.

¹⁰⁸ See S. McLean, "Women's Rights and Reproduction" in S.A.M. Mclean (ed.), *Legal Issues in Human Reproduction* (Aldershot 1989), pp. 213–232.

¹⁰⁹ *Ibid.*, at p. 220.

¹¹⁰ The Polkinghorne Report, see note 11 above, paras 2.4 and 3.2.

But such a premature termination of the pregnancy may not be lawful. Would doctors removing the fetus from the womb contravene section 58 of the Offences Against the Persons Act 1861 by performing an unlawful act with intent to procure a miscarriage?¹¹¹ Doctors might first argue that removal from the womb to effect fetal transfer does not constitute procuring miscarriage and so falls outside section 58, a statutory provision enacted at a time when ectogenesis was not even dreamt of. Section 58 envisages a process inevitably designed to kill the fetus. This process offers a chance of life. However, given that there is no record of a fetus having survived outside the maternal womb at the gestational age of nineteen weeks, and so arguably fetal death is virtually certain, such an exercise in statutory interpretation of the 1861 Act may not recommend itself to the courts. Thus the next question becomes whether the Abortion Act 1967 would render such removal and transfer lawful. The 1967 Act envisages fetal destruction but the wording of section 1 provides for circumstances in which “termination of pregnancy” may be lawful.¹¹² And termination of the pregnancy is just what fetal transfer entails. So as at present we focus on fetuses from 18 to 21 weeks 6 days gestation, section 1(1) (a) (the so-called social ground) could apply if two doctors were to certify that the risk of continuation of the pregnancy were greater than its termination. Such a conclusion may be problematic given that the transfer at 18 weeks or more is likely to involve major surgery on the woman who, if the pregnancy continued to term, might well be able to give birth naturally at less risk to herself. So other grounds might be invoked, perhaps “grave injury to her mental health” in the case of the woman contemplating possible adoption should the fetus survive against the odds. Distasteful though it sounds, termination of a pregnancy on the ground of fetal disability may fall within the letter of the law allowing disabled fetuses to be the first research subjects in ectogenesis. The presence of serious fetal handicap would on a literal reading of the 1967 Act render

¹¹¹ Offences Against the Person Act 1861, s. 58: “Every woman, being with child, who, with intent to procure her own miscarriage, shall administer to herself any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever with the like intent, and whosoever, with intent to procure the miscarriage of any woman, whether she be or be not with child, shall unlawfully administer to her or cause to be taken by her any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever with the like intent, shall be guilty of felony, and being convicted thereof shall be liable to be kept in penal servitude for life.”

¹¹² Abortion Act 1967 (as amended by Human Fertilisation and Embryology Act 1990), s 1 (1): “Subject to the provisions of this section, a person shall not be guilty of an offence under the law relating to abortion when a pregnancy is terminated by a registered medical practitioner if two registered medical practitioners are of the opinion, formed in good faith – [(a) that the pregnancy has not exceeded its twenty-fourth week and that the continuance of the pregnancy would involve risk, greater than if the pregnancy were terminated, of injury to the physical or mental health of the pregnant woman or any existing children of her family; or (b) that the termination is necessary to prevent grave permanent injury to the physical or mental health of the pregnant woman; or (c) that the continuance of the pregnancy would involve risk to the life of the pregnant woman, greater than if the pregnancy were terminated; or (d) that there is a substantial risk that if the child were born it would suffer from such physical or mental abnormalities as to be seriously handicapped.]”

the termination of the pregnancy lawful. However should the “baby” survive in the artificial womb and be considered once *ex utero* to be born alive, it would be no more permissible to kill him than to hasten the death of any other infant-subject of ectogenic research.

Assuming that the termination of the pregnancy where the woman wants fetal transfer is lawful and that in some instances ectogenesis may be welcomed by women who want to end their pregnancy but *not* the life of their fetus, can the woman authorise her fetus’s participation in ectogenesis research? Up until 2009, the Polkinghorne Report set out obstacles to this, through operation of the “separation principle”. The Report stated:

Great care should be taken to separate decisions relating to abortion and to the subsequent use of fetal material. The prior decision to carry out an abortion should be reached without consideration of the benefits of subsequent use.¹¹³

Were that guidance to have been applied to ectogenic research, the woman would not have been permitted to consent to the fetus being used in such research and could not have requested such a course of action. In 2009, the separation principle was amended by the Human Tissue Act Code of Practice which now states:

... guidance within the Polkinghorne guidelines which recommended that in the context of giving consent, women should *not* know the purpose for which the fetus would be used, or whether it would be used at all, is now superseded by guidance within this code on valid consent, which must be based on the person’s understanding of what the activity involves.¹¹⁴

In the context of ectogenic research, this is a welcome amendment for the context in which Polkinghorne developed the “separation principle” was wholly different from ectogenic research; it was premised on the assumption that what was in issue was fetal tissue from a dead fetus and not an entity that might have even the slimmest hope of survival. Fetal transfer to enter the fetus in a trial of ectogenesis would have been unduly hampered by the “separation principle” if the woman was acting to give some sort of chance to a fetus who will otherwise simply be destroyed. Allowing women who are seeking to end their pregnancy the choice to opt for fetal transfer/ectogenic research both accords the fetus more respect than only permitting its destruction, and at the same time enhances the woman’s autonomy enhancing her range of choices. It would be perverse to allow the woman to destroy the fetus within the current laws on abortion and yet prohibit her from

¹¹³ The Polkinghorne Report, see note 11 above, para. 4.1.

¹¹⁴ (Our emphasis) The Human Tissue Act Code of Practice – Consent, Code 1 September 2009, paragraph 160. On valid consent see paragraphs 30–34.

offering the fetus a chance of survival and at the same time offering prospective benefits to future women and fetuses who face delivery at a stage when only an artificial womb can offer hope of survival for their baby.

(2) *The unwanted fetus*

Women who are willing to consent to ectogenic research on a fetus they want removed from their bodies but hope may have chance of life will be few and far between. What of those fetuses aborted after 18 weeks where the woman does not want the fetus to survive? She chooses abortion because she does not wish to be a mother to that child in any sense. But she would, for the benefit of future children, be prepared to consent to using the unwanted fetus in ectogenic research. She is fully aware that the chances that the fetus will survive are negligible; that is her desire. The fetus is doomed to be destroyed. Could it be used for “good ends”?

As observed by Raskin and Mazor in the context of research on the early embryo:

We do choose, as a society, to make sacrifices if the benefit is agreed to be large enough. Research with in vitro fetuses carries its own benefits to our society. A major benefit of such research would be to increase knowledge of fetal development, understanding genetic deformities and treating horrible diseases. Other significant benefits would be to allow women who cannot gestate the opportunity to do so without using a surrogate, to protect a developing embryo/fetus from conditions in the womb that may be harmful, and to permit accessibility for corrective surgery to a fetus.¹¹⁵

As noted above, a woman seeking to donate her unwanted fetus to ectogenic research would no longer be precluded from doing so by the former Polkinghorne “separation principle” which would have previously stood in the way of her donation of the fetus for this specific research. The former reasoning/stance that permitted a woman to abort her fetus but not donate her fetus to research attracted criticism; Rebecca Bennett and John Harris asked:

Is there any good reason why embryo/fetus experimentation should not be permissible on the same terms as permissible abortion?

¹¹⁵ J. Raskin and N. Mazor, “The Artificial Womb and Human Subject Research” in S. Gelfand (ed.), *Ectogenesis*, note 7 above, p. 177.

Willard Gaylin and Marc Lappe¹¹⁶ also questioned why a woman should be allowed to abort, but not to donate the fetus to specific fetal research:

Affording the fetus the same protection as the child (both innocent and non consenting subjects) seems ludicrous in the light of the prevailing public acceptance and government approval of abortion. In abortion we more or less readily condone procedures which subject the fetus to dismemberment, salt induced osmotic shock, or surgical extirpation; certainly no conceivable experiment would do the same.¹¹⁷

Arguments have also been made that fetal experimentation can “ennoble” the death of a doomed fetus if it is utilised “to serve its more fortunate fellows”.¹¹⁸ If pre-natal lives are going to be wasted anyway, why cannot some of that waste be redeemed?¹¹⁹

Such arguments might then be deployed to argue thus. If the woman is allowed to abort with the intention that the fetus does not survive, it is irrational to ban her from donating the living fetus to ectogenic research (1) in the knowledge that it will probably not survive but (2) more problematically, with the *caveat* that once research is complete it should *not* be allowed to survive to leave the artificial womb.

Should we permit the use of the unwanted abortus in non-therapeutic research at all? Consider the comments of Hans Jonas:

Drafting him [the unconscious] for non therapeutic experiments is simply and unqualifiedly not permissible; progress or not, he must never be used, on the inflexible principle that utter helplessness demands utter protection.¹²⁰

But exceptionally, non therapeutic research can lawfully be carried out on children including neonates and the Clinical Trial Regulations do not outlaw such research, as long as there is some benefit to the group of subjects involved in the trial. We saw that this was something of a problem where extremely premature and *wanted* babies were to form the group of research subjects. In this scenario, the transferred fetus is to be experimented on with no intent that it or its fellows actually survive. The benefit in prospect is to a possible group of wanted babies at some later point in history which brings us back to the

¹¹⁶ W. Gaylin and M. Lappe “Fetal Politics: The Debate on Experimenting with the Unborn” unpublished manuscript, as cited in P. Ramsey *The Ethics of Fetal Research* (New Haven 1975), p. 41.

¹¹⁷ P. Ramsey, *ibid.*, p. 42.

¹¹⁸ *Ibid.*, 44.

¹¹⁹ *Ibid.*, 32.

¹²⁰ H. Jonas “Philosophical Reflection on Human Experimentation” *Ethical Aspects of Human Experimentation on Human Subjects*, Daedus, (spring 1969), 98: 241–3; reprinted in *Philosophical Essays: From Ancient Creed to Technological Man* (Englewood Cliffs, N.J.: 1974), pp. 123–129; P. Ramsey, note 117 above, p. 35.

question what is the fetus? If the unwanted abortus even once outside the woman's body is seen as a fetus, and the fetus is in law a genus wholly different from a baby, then the fetus belongs to a group who can never benefit from the ectogenic research and so research would be banned by the Clinical Trials Regulations if they applied. Yet if the fetus is in a legal category wholly different from children the Regulations would not apply. The key question that has beset our enquiry from the start of this paper looms large again. What do we mean by "born alive"? For if a fetus outside the woman in or on its way to an ectogenic chamber is deemed born alive that may make research lawful to benefit others in a group of "extraordinarily premature" babies, just as is the case with the wanted baby delivered extremely prematurely. However if the fetus is born alive, once *ex utero*, then any act designed to destroy him is murder and if destruction cannot be promised, the woman who seeks termination, not wanting the fetus to survive, will be likely to refuse to donate the fetus to ectogenic research.

Doctors seeking to pursue ectogenic research may face a dilemma at least in the early stages of such work. Women (and their partners) who want their baby to survive and see research into ectogenesis as their only hope may well refuse consent, if given an honest account of the negligible chance of benefit to their baby. And doctors may be wary of undertaking such research if they feel obliged to keep the fetus in the artificial womb alive, come what may, even in the face of delivering from the ectogenic chamber a baby with very substantial disabilities. Yet research performed where the fetus stands to derive benefit from the treatment in hand confronts fewer legal obstacles and will be more likely to be seen as ethical research. Thus, should ectogenic research be confined to those fetuses who are wanted by their progenitors and for whom ectogenesis, however experimental, is the only chance of saving that fetus? Or should we concur with Gaylin and Lappe and accept that whatever our views on the ethics of later abortions, if the fetus is already condemned to die, making good use of the fetus to benefit future children is better than simple destruction? One reservation, whatever view is held on the status of the fetus and the legitimacy of abortion is this: we have no sense of the degree of risk that ectogenic research will cause fetal pain¹²¹ and any such research must be designed to exclude such a possibility. Inflicting pain, for no commensurate benefit, cannot be justified simply because the law permits the fetus to

¹²¹ For evidence regarding the capacity for fetal pain see RCOG Fetal Awareness, Review of Research and Recommendations for Practice, March 2010, <http://www.rcog.org.uk/files/rcog-corp/RCOGFetalAwarenessWPR0610.pdf>; S.J. Lee, H.J. Ralston, E.A. Drey, J.C. Partridge, M. A. Rosen "Fetal Pain A Systematic Multidisciplinary Review of the Evidence" (2005) 295(2) *J.A.M.A.* 947–954. D. Benatar, and M. Benatar "A pain in the fetus: toward ending confusion about fetal pain" (2001) 15 *Bioethics* 57–76; R.P. Smith, R. Gitau, V. Glover, N.M. Fisk "Pain and stress in the human fetus" (2000) 92 *Eur. J. Obstet. Gynecol. Reprod. Biol.* 161–165.

be aborted and killed and even if it is the case that “terminations of pregnancy are sometimes carried out very late and are performed in circumstances that are careless of the suffering that may be inflicted on the fetus”.¹²²

Even if fetal pain can be avoided, do arguments, that because we allow late abortions we should then also allow research on living abortuses, hold good? Ramsey suggests not, arguing:

We have by law given ourselves the right to do these unimaginable acts of violence in abortion procedures; we then can legitimately claim the right to do lesser possible harms for the sake of other wanted babies. If that contention has any force at all, the argument more than borders on saying: Since we have given ourselves the right to do wrong, we have given ourselves the right to do other, lesser wrongs.¹²³

He continues “two wrongs do not make a right; a greater wrong does not help to justify a lesser one.”¹²⁴ There may be valid arguments for the morality of experimentation on fetuses, but this is not one. He states:

But there can be no obligation – indeed, it would be positively wrong – to obtain those results by means of abortuses who are hovering between life and death precisely because for them no such rescue or remedies were wanted. Those beneficial results should rather be among the research aims of therapeutic investigations that have as a first purpose the promotion of the survival of fetal patients and premature infants.¹²⁵

So Ramsey contends that aborted fetuses not intended to live should not be used in ectogenic research. We agree that in the context of ectogenic research we should refrain from seeking to use fetuses aborted after 18 weeks where the woman does not want the fetus to survive – the very reason she has elected for abortion is because she does not wish to be a mother to that child in any sense. And slim though the chance may be now, the whole purpose of such research is that the baby should survive and if he does he cannot be killed. Ectogenic research should be thus be limited to “therapeutic research” involving fetuses wanted (or at least tolerated) by their progenitors, but whose extreme prematurity would otherwise mean that they had no hope of survival.

¹²² J. Harris, “In Vitro Fertilisation: The Ethical Issues” (1983) 33 *The Philosophical Quarterly* 217–238; R. Bennett and J. Harris, note 40 above, pp. 51–63.

¹²³ P. Ramsey, note 117 above, p. 43.

¹²⁴ *Ibid.*, 48.

¹²⁵ *Ibid.*, 35.

CONCLUSION

Research to improve fetal survival rates, to correct disability *in utero*, and to bring forward the threshold of viability for extremely premature babies forces a re-appraisal of the ancient “born alive” rule and the guidance governing fetal research. As the transition is made between fetus to baby, and the fetus moves from being located in a maternal womb to a neutral “technological womb”¹²⁶ the claims of the father also merits reconsideration. We have argued that the law endorsing the right of the pregnant woman to determine the fate of the fetus she carries is dependent on its location within her and her claim to bodily integrity. Nothing can be done to her against her will, but she does not have an unfettered claim to determine what is done to the fetus. Once ectogenic research is contemplated, the case for re-consideration of the status of the fetus and the rights and responsibilities of both “its parents” becomes yet stronger however difficult and uncomfortable that exercise may be.

Research into ectogenesis raises questions regarding the transitional phase between fetus and baby. We have noted the difficulties of applying the “born alive” rule and somehow expanding current tests to “fit” emerging technology. We have come to the view that once any intervention to help the fetus no longer requires access via the mother, the *ex utero* fetus should acquire legal personality and the artificialities of the “born alive” rule should be discarded. *Ex utero*, the live fetus must be regarded as a baby with independent legal personality.¹²⁷ But such central questions of fetal/infant status are however not by any means the only questions that must be addressed if the prospect of research into ectogenesis is to be taken seriously. The legality of transferring a fetus from a maternal to an artificial womb is questionable in a variety of scenarios. Criminal laws dating back to 1861 and even the more modern Abortion Act fail to meet a challenge that legislators could not have envisaged. Nor is current Guidance much more helpful.

In 1989 the Polkinghorne Committee stated:

In time, we can expect our report to need reconsideration....It is desirable that subsequent revision should be undertaken as it becomes necessary and not have to wait until the arousal of considerable public concern before being taken in hand. Accordingly,

¹²⁶ F. Simonstein, note 85 above.

¹²⁷ In the present discussion we have limited ourselves to the fetus of 18 weeks and above, however it is clear that if ectogenic research continues to lower thresholds of viability and we get to a point where a 10 week fetus can be sustained *ex utero* in an ectogenic incubator it may be the case that we need a third category, besides fetus and baby to govern this entity with separately developed rules.

we recommend that the Health Departments should take steps to keep these issues under regular review perhaps in consultation with the MRC and the profession.¹²⁸

In light of current concerns regarding ectogenesis and fetal research to lower the age of viability, that time has come.

¹²⁸ The Polkinghorne Report, see note 11 above, para. 3.