

# THE SCIENTIFIC INNOVATIONS OF FETAL SURGERY AND ARTIFICIAL WOMB COULD INNOVATE ALSO THE CONCEPT OF LEGAL PERSONHOOD

Mario Triggiani

Teaching assistant in Law at Suor Orsola Benincasa University of Naples

## Abstract:

English law is clear that legal personality is afforded to all persons born alive.

This rule may need to be revised, as technological advances in fetal surgery and artificial womb technology do not appear to be compatible with traditional conceptions of birth and being alive in the law.

Using these technologies it is indeed possible to have an ex utero gestation or a temporary ex utero existence.

If the birth is only the separation between the gestator and the gestational subject, these foetuses could be considered born, and maybe even "born alive".

However, affording them legal personality may have a huge impact on the fundamental rights of pregnant women.

**Key-words:** Artificial Womb Technology; fetal surgery; legal personhood

**Category:** Legal Area

**Topic:** Privacy in Health

**Summary:** 1. Introduction – 2. Legal personality and the “born alive” approach – 3. Fetal surgery: problems for women and fetuses – 4. The risks of affording legal personality to the fetus in the artificial womb – 5. The only possible solution is creating a third status.

## 1. Introduction

According to English and Welsh law, legal personality is assigned at birth<sup>1</sup>. There has been always a clear distinction between a fetus, who has no legal personality, and a person born alive, who is afforded all the rights and protection of a child.

This born/unborn dichotomy is at risk because of the recent medical advances in the treatment of fetuses in uterus and infants.

In her article *Challenging the born alive threshold: fetal surgery, artificial wombs, and the English approach to legal personhood*” [Elizabeth Chloe Romanis, *Challenging the ‘Born Alive’ Threshold: Fetal Surgery, Artificial Wombs, and the English Approach to Legal Personhood*, *Medical Law Review*, Volume 28, Issue 1, Winter 2020, Pages 93–123, <https://doi.org/10.1093/medlaw/fwz014>] Elizabeth Chloe Romanis refers to the English legal system but her reflections are valid for all legal systems.

---

<sup>1</sup> Paton v British Pregnancy Advisory Service Trustees [1979] QB 276  
([https://www.bpas.org/media/1182/gjo\\_uk\\_patonvbritishpregnancyadvisoryservicetrustees\\_en.pdf](https://www.bpas.org/media/1182/gjo_uk_patonvbritishpregnancyadvisoryservicetrustees_en.pdf))

The author points out that the emerging medical advances give cause to question whether the legal concepts of births and born alive can still be considered a valid approach to assigning personhood.

Speaking of fetal surgery, in 2016, an innovative surgical team succeeded in extracting a pre-viability fetus almost entirely from the uterine environment, removing a life-threatening tumour, and placing the fetus back into the uterus to continue gestating.

The baby was then delivered healthy at the end of the normal gestational period, making the headlines as “the baby born twice”<sup>2</sup>.

Other problems to the born/unborn dichotomy may be soon caused by the development of the Artificial Womb Technology (AWT), in which a fetus is outside the mother’s body but in a primordial stage of his human development.

The **complete ectogenesis**, in which human beings are created in a laboratory by in vitro fertilization and grown in an AW until 36 weeks from conception, remains a remote possibility. The same cannot be said for the **partial ectogenesis**, that still involves the pregnant woman and in which the fetus is either delivered prematurely or extracted by C-section.

In 2017, a team of scientists and fetal surgeons announced the development of an artificial womb prototype that had supported lamb fetuses on the viability threshold for four weeks<sup>3</sup>. All test subjects survived the experiment without experiencing any of the common complications associated with lamb preterm birth.

These results are encouraging because it is hoped that this technology will also have the capacity to overcome the present limitations of neonatal intensive care and improve patterns of morbidity and poor prognoses in human preterms.

The artificial wombs could represent an alternative to neonatal intensive care because it treats the fetus as if it had not been removed from the uterus by closely mimicking uterine conditions to effectively prolong gestation.

## 2. Legal personality and the “born alive” approach

Before we can address the issue of the risks of scientific progress on legal personality, it appears necessary to clarify what is meant by birth.

According to English law, the birth corresponds to the separation of gestator and gestational subject<sup>4</sup>.

In order to acquire legal personality, the child must be not only “born”, but also “born alive”, which means he must demonstrate any signs of life (a typical example is autonomous breathing)<sup>5</sup>.

The vitality of the newborn was fundamental in times when this was the only way to evidence a human being’s development.

The English law, in fact, has always recognized the existence of “stillbirth”, which occurs when a child is born without having demonstrated any signs of life.

The law, however, only state that a stillbirth child cannot be the victim of a homicide or have another person bring an action on his behalf in tort.

Nowadays the “born alive” rule may appear an outdated approach to afford legal personality because developments in fetal monitoring have enabled medicine to determine that developing human beings exist and exhibit signs of supported life before birth.

---

<sup>2</sup> “Baby Lynlee 'born twice' after life-saving tumour surgery” BBC 24 October 2016 (<https://www.bbc.com/news/world-us-canada-37750038>)

<sup>3</sup> “An artificial womb successfully grew baby sheep — and humans could be next” The Verge Apr 25, 2017 (<https://www.theverge.com/2017/4/25/15421734/artificial-womb-fetus-biobag-uterus-lamb-sheep-birth-premie-preterm-infant>)

<sup>4</sup> Paton (n 1) per Sir George Baker at 279. “The foetus cannot, in English law, in my view, have any rights of its own at least until it is born and has a separate existence from the mother”

<sup>5</sup> Births and Deaths Registration Act 1953 s 41, as amended by Still-Birth Definition Act 1992 s 1 (<http://www.legislation.gov.uk/ukpga/Eliz2/1-2/20/section/41>)

### 3. Fetal surgery: problems for women and fetuses

If being born is only a matter of not being inside another person anymore, it might be argued that during a surgery the fetus, who is extracted from the pregnant woman's body to be operated upon, remaining attached only by the umbilical cord, is born and has, therefore, legal personality.

However, recognizing the fetus's legal capacity during the operation is not a trivial choice.

The law states that the fetus is not a legal person in order to protect the mother's right of self-determination.

During the surgery, whatever is done to the fetus physically affects the pregnant woman and the law chooses to consider her the only patient for the purposes of the procedure so it is only her consent that is significant.

If it is considered that the fetus is born at the time of the surgery, as it was separated from the womb, its rights should also be protected, with a visible deterioration of the mother's fundamental freedoms.

In addition, the legal personality afforded to the fetus during the surgery must be undone when it is returned to the uterus.

However, there is no legal precedent for the undoing of a human being's personhood. The only way to remove legal personality is death, and it is counter-intuitive to imagine that reinsertion into the womb is equivalent to death.

On the other hand, even the solution that does consider the fetus operate legally born presents problems.

Without personhood during the operation, liability for grossly negligent surgeries causing death in utero and subsequent stillbirth of fetuses might be precluded because gross negligence manslaughter could only be established if a baby was born alive with injuries sustained from negligent surgery that later cause death.

Furthermore, the offence of "child destruction" (recognized in England and Wales in the case of killing of "viable fetus", which means a fetus potentially suitable for extra-uterine life<sup>6</sup>) or of procuring miscarriage could not be established because there would be no mens rea.

There may be no civil recourse following the stillbirth of a fetus that died in utero as a result of negligent fetal surgery because if the fetus is not born alive, it is not an entity that can bring an action in tort.

There could be only a course of action in negligence for the baby born alive but injured by negligent surgery.

### 4. The risks of affording legal personality to the fetus in the artificial womb

In order to be afforded legal capacity, it is not sufficient to be separated from the uterus, but there must be also proofs that the newborn is alive.

The **English law** states that a child is born alive if it breathes after birth.

It has not been specified, however, whether breathing must be demonstrated only immediately after birth or also for some continuing time after.

The discriminating factor, therefore, is only the independence of the infant's breath from the mother's.

Even in the case of **assisted ventilation**, in fact, the child uses his lungs to breathe.

Instead, a fetus placed inside an artificial womb does not "breathe", acquiring the oxygen not using its lungs but by placental gas exchange through cannulae in the amniotic fluid, just like the fetus in utero<sup>7</sup>.

---

<sup>6</sup> "Any person who by wilful act intentionally destroys such a fetus is guilty of child destruction" Infant Life Preservation Act 1929

<sup>7</sup> "An extra-uterine system to physiologically support the extreme premature lamb" Nature Communications, 25 April 2017 (<https://www.nature.com/articles/ncomms15112>)

Moreover, the acquisition of oxygen by placental gas exchange rather than ventilation is one of the greatest advantages of the artificial womb, which allows the lungs to continue to develop ensuring they are inactive.

It has also been highlighted, however, that breathing is certainly a valid indicator to establish that the subject is "born alive", it cannot be the only vital sign of life taken into consideration.

However, it is difficult to identify what the others may be since there is no uniformity of views about the sufficiency of primitive circulation or growing movements.

Another **possible approach** is the one called "**forced symmetry**", which states that if a defining characteristic can be isolated that makes a person legally dead, the emergence of that characteristic identifies when a person becomes legally alive.

A typical sign of the occurrence of death is the irreversible loss of consciousness<sup>8</sup>.

There is no doubt that in the artificial womb the fetus lacks any consciousness and therefore could not be considered alive.

It is also evident, however, that this lack of knowledge is not irreversible or permanent because the fetus will at some point be capable of exercising an independent life and if undisturbed will be removed from the artificial womb.

Therefore, it is easy to see that it is not legally alive but also not dead.

Considering the fetus in the artificial womb "born alive" could also **change the conception of viability** because the technology has the potential to change what "**capable of being born alive**" means.

Viability marks the point from which the fetuses are granted a limited right not to be aborted. Currently, the limit set by the 1967 Abortion Act is 24 weeks<sup>9</sup>, after which the fetus is presumed capable of being born alive.

Affording legal personality to whom is in an artificial womb could lead to the contention that a fetus in utero capable of surviving in an AW should be considered "capable of being born alive".

The technology of the artificial uterus could therefore **considerably reduce** the point at which a fetus can survive outside the uterus, since there is no definition of "capable of being born alive only if supported by an artificial uterus".

The Artificial Womb Technology also threatens access to abortion by empowering the anti-abortion lobby, who could claim AWT in order to advocate for a reduction of the time allowed for abortion.

## 5. The only possible solution is creating a third status

The current binary structure of personhood, where there is only the possibility of having legal personality or not, appears too restrictive.

Therefore, the author suggests the creation of a third status, a "partially born" category, for entities like the fetuses in the artificial womb or the fetuses who undergo a surgery outside the maternal uterus.

This third status could be used to identify these subjects accurately, avoiding the creation of a ripple effect in other areas of law and solving relevant discrepancies appropriately.

---

<sup>8</sup> Academy of Medical Royal Colleges, A Code of Practice for the Diagnosis and Confirmation of Death (2008) [http://aomrc.org.uk/wp-content/uploads/2016/04/Code\\_Practice\\_Confirmation\\_Diagnosis\\_Death\\_1008-4.pdf](http://aomrc.org.uk/wp-content/uploads/2016/04/Code_Practice_Confirmation_Diagnosis_Death_1008-4.pdf)

<sup>9</sup> Abortion Act 1967 s 1, as amended by Human Fertilisation and Embryology Act 1990 (<http://www.legislation.gov.uk/ukpga/1967/87/contents>)

The English law already **affords some protection to fetuses in utero**<sup>10</sup>, to the embryos created as part of the In Vitro Fertilization process<sup>11</sup> and even to the animals<sup>12</sup>. All these entities are not valued to the same degree as a legal person but have their legal existence protected.

The creation of different categories of human beings could, however, carry some normative concern and risks of abuse.

**Link:** <https://academic.oup.com/medlaw/article/28/1/93/5510054>

---

<sup>10</sup> A fetus is protected by the Infant Life Preservation Act, which criminalises child destruction and the Offences Against the Person Act 1861 criminalising the procurement of miscarriage  
(<http://www.legislation.gov.uk/ukpga/Geo5/19-20/34/section/1>)  
(<http://www.legislation.gov.uk/ukpga/Vict/24-25/100/contents>)

<sup>11</sup> The Human Fertilisation and Embryology Act 1990, as amended by the Human Fertilisation and Embryology Act 2008 renders it unlawful to experiment with embryos after 14 days from conception  
<http://www.legislation.gov.uk/ukpga/2008/22/contents>)

<sup>12</sup> The Animal Welfare Act 2006 contains provisions criminalising behaviour that causes excessive suffering to an animal  
(<http://www.legislation.gov.uk/ukpga/2006/45/contents>)