Appeared in Free Inquiry, vol 34 issue 5
OP-ED

When Does Human Life Begin?

Arthur Caplan

When does human life begin? For those in the “personhood” movement in the United States, there is no doubt about when that happens—it is at conception, when the sperm meets the egg. The personhood movement has gained a foothold among antiabortion activists who are looking to pass laws that define embryos as people with full rights. Personhood advocates aim to outlaw all abortions, along with in vitro fertilization, embryonic stem-cell research, and emergency contraception. Granting embryos personhood would also mean that someone who killed a pregnant woman at any stage in her pregnancy would be at risk of prosecution for a double homicide. And in those states that restrict a woman’s right to utilize a living will if she is pregnant, no living will could apply from the moment of conception.

A personhood law has been enacted in North Dakota. Wisconsin, Florida, and Colorado are seeing the most recent attempts by personhood proponents to write their stance into state law. Personhood measures have made the Colorado ballot twice before, in 2008 and 2010, led by the efforts of a Denver-based nonprofit group called Personhood USA. Those measures did not pass. Last year, nine states had personhood bills either introduced in their state legislatures or put forward as ballot initiatives, as occurred in Colorado. So far, none has passed.

Put aside the fact that those who advocate for personhood never say when personhood precisely begins—when a sperm reaches an egg, when it penetrates the egg, when genetic recombination begins, or when a new genome is formed. There is plenty about personifying an embryo that makes no empirical sense.

Those who argue that personhood begins at conception base their claim on the assertion that every human life begins with conception. That is true. But what they fail to acknowledge is that conception does not always create an embryo life, much less a baby. In fact, it usually does not. Why is this fact not well publicized? Because scientists and doctors have, sadly, held themselves aloof from the whole contentious argument. Many endorse the view of the U.S. National Academy of Sciences (NAS), which stated in 1981 that the existence of human life at conception is “a question to which science can provide no answer.” Since that time, scientists and physicians have remained more or less mum—or self-censored—on this issue.

While it is true that the law or theology can stipulate when life and personhood begin, it is also true that science and medicine have found facts that bear on the possible answers to that question. While the facts, as the NAS noted in 1981, do not tell us what we ought to say about when personhood begins, they do certainly, contrary to the NAS view, lay out boundaries for what can be said about the starting point. So what are the facts? Sometimes, conception creates more than one life—twins or triplets, but then one of those lives is absorbed into the body of another—fetal resorption. It really is not clear how many lives can be started at the moment of conception, and to say that a person always begins at conception is patently false.

The biggest empirical problem with the view that personhood begins at conception is the scientific fact that a large percentage of embryos lack the capacity, under any circumstances, to become human beings. During the period of embryonic development that begins with fertilization and ends a few days later with successful implantation of the blastocyst into the uterine wall—the period known as "preimplantation development"—up to 50 percent of human conceptions fail to survive, most likely due to genetic errors in the embryo.

Miscarriage is the most common type of pregnancy loss, according to the American College of Obstetricians and Gynecologists. Studies show that anywhere from 10 to 25 percent of all clinically recognized pregnancies (meaning that an embryo has implanted) end in miscarriage, depending in part on the age of the woman.

The biological facts don't tell us where to draw the line as to when personhood begins. But they do show that many embryos that result from conception—indeed, the majority of them—lack the capacity to become living human beings. They do not produce disabled humans. They cannot produce any sort of human life. Science and medicine know this. They are simply too intimidated to say so.

In its moral zeal, the personhood movement makes a huge mistake when it tries to legislate a starting point for human life that is inconsistent with biology. And scientists are making an inexcusable blunder not to point out factual errors by those engaged in the argument about when life begins. Human life is very difficult to start. More often than not, it fails postconception. To argue that personhood begins at conception is to reach for a moral stance that the facts simply do not support.

So, what then? When might we reasonably say that personhood begins?

A starting point that is far more consistent with the facts of biology is not conception but the emergence of the human brain. We declare persons dead when their brains have lost the capacity to govern the core functions necessary for life—breathing, excretion, and the like. When a fetus has developed a brain that can support its basic biological functions, probably at around six months of life, it can be reasonably argued that personhood has begun.

Those in the personhood movement in the United States have let their animus toward abortion blind them to the facts that have emerged about human embryology over the past fifty years. And scientists, sadly, have been unwilling to correct them. Conception is the start of something, but it is more the start of the possible rather than the actual. It is not until a being emerges that has the traits necessary for individual existence that we can and should say that a person has begun. How law and public policy want to handle that fact is still debatable. But to ask the law to treat embryos as persons from the moment of conception is to head down a path where the facts ought not permit anyone to go.

Arthur L. Caplan is the Drs. William F. and Virginia Connolly Mitty Professor of Bioethics at New York University and director of the Division of Medical Ethics at New York University Langone Medical Center.

Caplan Receives National Science Board Award

The National Science Board (NSB) has named Arthur L. Caplan the 2014 recipient of its Public Service Award for an individual, which recognizes exemplary service in fostering public understanding of science and engineering.

"Years before the cloned sheep Dolly appeared on the global stage, Arthur Caplan was working to raise public awareness and discussion about ethical implications of science," said Ruth David, chair of the NSB's Committee on Honorary Awards. "Arthur engaged with reporters, wrote and talked about ethical and policy questions related to science, medicine and bioengineering, and

encouraged his peers and students to do likewise."

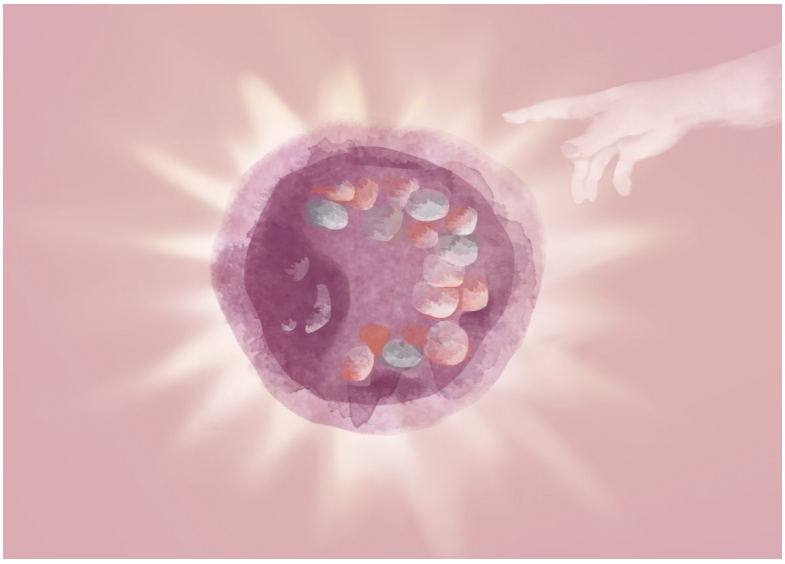
Caplan is the founding head of the Division of Bioethics at New York University Langone Medical Center in New York. He is the author or editor of thirty-two books and over six hundred papers in peer-reviewed journals. He has chaired a number of national and international committees and writes several regular columns, including one for Free Inquiry since 2006. He is also a fellow of several professional organizations, including the Hastings Center, the American College of Legal Medicine, and the American Association for the Advancement of Science.

Caplan has previously received the McGovern Medal of the American Medical Writers Association and the Patricia Price Browne Prize in Biomedical Ethics, and he was named a Person of the Year for 2001 by USA Today.

When Does Life Begin? It’s Not So Simple.

Fetal personhood bills are gaining steam—but many religious and scientific ethicists, as well as women, see the path to personhood as a gradual one.

By Elissa Strauss



Natalie Matthews-Ramo

n March of 2011, Ohio Republicans invited an ultrasound technician and two pregnant women to a House committee meeting and watched, on a large screen, as the women underwent ultrasounds. They were trying to garner support for legislation that would ban abortions after the embryo’s heartbeat can be detected, which happens at around 6 weeks’ gestational age or 4 weeks following conception. “I think it kind of hits you in the forehead about what is going on in the woman's womb,” Rep. Lynn R. Wachtmann, a sponsor of the bill, told reporters after the demonstration. “It’s an eye-opener.”

The belief underlying the Ohio measure, which never made it to the Senate floor, is that the heartbeat serves as final and irrefutable proof of the arrival of a unique human being, one who should be treated with the same respect and care as a person outside the womb. Since 2011, similar heartbeat ban bills have been proposed in 14 states, and one was proposed in the House of Representatives this past January. The laws passed in Arkansas and North Dakota, but both were ultimately blocked by federal courts.

Supporters of these bills have embraced the ultrasound as offering scientific proof of their religious belief that life begins as early as conception. And with President Trump seeking to add justices to the Supreme Court who would overturn Roe v. Wade—which protects abortion rights up to the point of viability—these activists have new reason to be hopeful. Should a radically shifted court ever embrace the cause that’s become known as fetal personhood, abortion would be considered murder and outlawed nationwide.

But despite the insistence of anti-abortion activists, the notion that life begins at the bright line of conception is at odds with many ethical traditions. In a number of religions, when an embryo or fetus becomes a person remains a mystery, something that occurs not in a single moment but in a series of moments, none necessarily more important than the next. And, for all the anti-abortion side’s embrace of ultrasounds, the medical community tends to agree.

"Many scientists would say they don't know when life begins. There are a series of landmark moments," said Arthur Caplan, professor and founding head of the Division of Medical Ethics at New York University Langone Medical Center. "The first is conception, the second is the development of the spine, the third the development of the brain, consciousness, and so on." That perspective, it turns out, has deep roots. It's also one that resonates for many pregnant women who experience the embryo's gradual passage to personhood on a visceral level.

* * *

Many religious traditions, including a number of denominations of Christianity, are ambivalent about the beginnings of life. The Evangelical Lutheran Church in America and many American Baptists don't believe abortion is akin to murder. Presbyterians concede that they "may not know exactly when human life begins" and encourage their followers to make their own careful decisions on abortion. Unitarians are more overtly pro-choice and "believe not only in the value of life itself but also in the quality of life."

Among Muslims, there is no universally agreed-upon moment when a fetus becomes a person. "Some say it takes 40 days, others say it takes 120 days, for a human soul to be breathed into a fetus," Sherine Hamdy, an associate professor of anthropology at Brown who researches cross-cultural bioethics, told Slate. She said many Muslim religious leaders allow for abortion in case of rape before 4 months, and some also allow for it in the case of a prenatal diagnosis of disability if it is seen as "an arduous burden on the family's well-being."

In a number of religions, when an embryo or fetus becomes a person remains a mystery, something that occurs not in a single moment but in a series of moments.

The majority of Jews do not believe that life begins at conception but instead see the creation of life as something that happens over time. During this process, the fetus is seen as part of the mother, whose well-being, both immediate and future, takes precedence. As with other religious traditions, Jewish ethicists have increasingly become willing to consider psychological threats to the mother in addition to physical ones, when considering whether an abortion is the right decision.

"The tradition holds that we enter life in stages and leave in stages," Rabbi Elliot Dorff, bioethicist and professor of Jewish theology at the American Jewish University in California, told Slate. He pointed to Exodus 21, in which the Bible explains that if a pregnant woman is physically harmed and miscarries as a result, the punishment for the assailant should not be the same as if he killed another person. "It's clear here that there is real distinction between the status of fetus and status of a woman who is a full-fledged human being."

There are also a number of biblical passages in which the breath, and not the heartbeat, serves as the central symbol for life, including, most famously, Genesis 2:7: "Then the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul." Anti-abortion activists often counter these examples with two other biblical passages, both which suggest that some kind of ensoulment happens at conception. "Before I formed thee in the belly I knew thee, and before thou camest forth out of the womb I sanctified thee," reads Jeremiah 1:5. Together, these passages suggest that the author or authors of the Bible were as uncertain as we are about when life begins.

For many Christian ethicists, this ambivalence is reason to err on the side of caution and to assume we are ensouled from the very beginning.

"You might be surprised to know that the Catholic Church has never dogmatically defined when life begins," said Daniel Sulmasy, a Catholic bioethicist and director of the Program on Medicine and Religion at the University of Chicago. "Instead, there is a recognition that there is unfolding developmental potential in embryo, from unification between the sperm and egg to birth. There is no defined moment of ensoulment. But we know the potential of human life is there from conception so believe we ought to be cautious and not interfere." To him, this teaching holds true even if the fetus has no chance of survival. "Our advice would be to let a natural miscarriage happen or carry the fetus to term. And if the fetus is too sick to live on its own, it can be allowed to die."

Sulmasy added that there is no real historical theological precedent for the recent focus on the heartbeat, which couldn't have been heard until the stethoscope was invented in the 19th century. For much of its history, the church considered life to begin at the quickening, or the first time a woman feels the baby move, which usually happens sometime around 18 weeks. "[The focus on the heartbeat] is just a contemporary attempt to create some dividing line based on what we now know about biology," he said.

In light of this uncertainty, even among Christian factions, it's striking that anti-choice activists have spent decades fighting to codify a fixed definition of when life begins into state and federal law. These efforts were given a boost by the passing of the Religious Freedom Restoration Act in 1993, which made it easier for opponents of abortion to argue that compromising those beliefs would be a violation of their freedom of religion. With Roe v. Wade already the law of the land, meanwhile, the voices of the religious pro-choice have largely been missing from the debate.

"There has been a failure of religious groups of more moderate perspective to really fight back on the expansion of laws [that restrict abortion rights]," Jodi Jacobson, president and editor-in-chief of the pro-reproductive rights online publication Rewire, told Slate. She believes leaders in some faith traditions are reluctant to appear to disrespect the beliefs of their peers—a position she sees as less and less reasonable as reproductive rights diminish. "This has become an ethical dilemma."

Janet Crepps, senior counsel in the U.S. legal program at the Center for Reproductive Rights, sees legal potential in the argument that one group's religiously informed belief that life begins at conception violates the freedom of religion of other groups whose traditions tell them otherwise. "There is absolutely room for people of different religious faiths to come in and challenge the thinking behind these laws," Crepps told Slate—emphasizing that the time to push back is before the laws pass, not afterward. "We need to make other views heard in all their diversity."

As for the scientific community, Caplan believes that the relative silence from his peers on these issues is a product of professional fear. Many scientists rely on the government for funding and want to avoid alienating anyone with the power to shut down their research. "If scientists weren't such cowards about getting into the abortion issue, they would be speaking up more about this," Caplan said.

* * *

In the debate over life's beginnings, the heartbeat is a metaphor, a visceral and potent symbol of life that some can't help but interpret as proof of life itself. It's hard to be unmoved by the coursing of blood through an embryo or fetus' heart, something many women and men now bear witness to in the exam room, with our eyes, ears, and, yes, hearts.

Still, the heartbeat deceives. It renders the grayscale beginnings of life in black and white, in refutation of the fact that this is a mysterious process with many possible ends. Denying this doesn't just threaten women's reproductive rights, but also limits the way we think and talk about pregnancy, pregnancy loss, and childbirth. This mystery is what makes it possible for the same woman to choose an abortion and then grieve a miscarriage, or to pray for the survival of the 5-day-old embryo implanted in her womb by a fertility doctor while being at peace with the fact that, if that one makes it, the other half-dozen in the freezer will be destroyed. When we view life as evolving in stages, it frees us to experience all these moments in all their fullness and complexity.

Last year I went through infertility treatment. This included one egg retrieval, during which doctors took 21 eggs out of my ovaries, 19 of which fertilized, 12 of which made it to the fifth day, and four of which were determined to be chromosomally viable through preimplantation genetic screening. The first egg doctors implanted in me made it to 6 weeks gestational age, and then I started bleeding. When I went into the doctor to figure out what was going on, I saw the heartbeat. Two days later, the heartbeat was gone. A few months later I was implanted with another egg, and I'm now nearing the end of my third trimester. Throughout all this, my husband and I struggled to boil down the mix of emotions and science to something our toddler son could digest, a formulation that wouldn't hide our desire for another child while still acknowledging the precariousness and liminality of the whole undertaking.

What worked for him is this: Mommy is trying to grow a baby. And when I got pregnant: Mommy is growing a baby. Describing it this way allowed him to understand two things: The creation of babies, of life, is a long, complicated, and often messy experience. Also, babies don't magically appear but can only come into being with the assistance of the women who play host to them. It's a simple formulation, one that ultimately helped us make sense of what was happening as well.

And when, if, this baby I am growing takes his first breath, it will be a moment of awe for all parties involved. Finally, we will take comfort in what we see as the undeniable, palpable arrival of life: a new person, in the world.