The Embryo Question is a three-part series about the cluster of cells at the crossroads of science, ethics and the law. Read the introduction.

Before fertility patients begin the long journey through hormone treatments, egg retrieval, fertilization and — hopefully, if everything goes well — a baby, there's the paperwork. As a first order of business, would-be parents are typically presented with a form that requires them to choose the fate of embryos they do not use in the course of building their families. Three couples — the LePages, the Fondes and the Aysennes — undergoing treatments from 2013 to 2016 at the Center for Reproductive Medicine in Mobile, Ala., filled out such contracts.

The clinic later said that one family chose to donate any remaining embryos to scientific research, another decided to destroy any embryos that were frozen after five years, and a third said any embryos deemed not suitable for reproductive purposes could be used for research and eventually disposed of. It was not clear, in other words, that these families intended for all of their embryos to be born.

Ultimately, though, their preferences were moot. In December 2020 a hospital patient wandered into an unsecured room where the couples' embryos sat in cryogenic storage, picked up the frozen embryos and, stung by the cold, dropped them on the floor. In February 2024 the Alabama Supreme Court ruled that these lost embryos were "extrauterine children," allowing the three families to proceed with lawsuits against the fertility clinic under the state's 1872 Wrongful Death of a Minor Act. Between the creation of these embryos and their destruction and as the cases wound their way for years through Alabama's courts, their meaning shifted: No longer potentially destined for research or disposal, each embryo had taken on the status, in the court's interpretation, of a minor child.

The ruling swiftly established what had long eluded abortion opponents: unambiguous personhood for embryos. But this new legal status also instantly jeopardized in vitro fertilization practice across Alabama, sending clinics and patients scrambling amid confusion over what kind of liability clinics bore for the embryos now legally children — in their care. As a dissenting justice noted, "No rational medical provider would continue to provide services" for creating and freezing embryos knowing that it might risk a wrongful death claim. Patients with scheduled embryo transfers had their appointments canceled as several clinics announced they were pausing operations. At least one major embryo shipping service said it would no longer make or take deliveries of embryos in the state.

Less than three weeks after the court ruling, Alabama's legislature passed a law protecting I.V.F. providers from civil and criminal liability. Gov. Kay Ivey swiftly signed it, over opposition from antiabortion groups, which argued it offered no accountability whatsoever for clinical mishaps. The law studiously avoided addressing any of the ethical questions raised by the court ruling and the furor that ensued. If I.V.F. was to be protected, did that mean embryos didn't really have full personhood? Or if embryos did have full personhood, what kind of law would protect a business from liability in the event of it destroying an entity legally considered a child? The uncertain moral status of these clusters of cells burst into view, undermining any attempt to put them into a neat legal category.

Since then, confusion about how to answer these questions has generated yet more confusion, as voices from across the political spectrum have weighed in with hot takes and legislation. A Democrat in South Carolina introduced a bill requiring insurers to offer life insurance to embryos — but also said he hoped to protect access to I.V.F. A Republican in Louisiana put forth legislation to protect I.V.F. but had to drop the effort when her fellow lawmakers insisted the bill's language refer to embryos as "human beings." (Louisiana law already deems a fertilized egg "a juridical person.") The conservative activist Charlie Kirk mused about whether one should save 10 embryos or three live babies from a burning building. He came down on the side of the 10 embryos, as long as "they're fully fertilized and will be used," he said. None of this confusion or controversy looks likely to be resolved any time soon.

IF THE CURRENT legal landscape when it comes to embryos seems messy, it's a result, in no small part, of the unsettled nature of what preceded it.

For over a century, courts generally did not grant personhood or independent rights to embryos or fetuses in utero. An 1884 decision by Oliver Wendell Holmes, at the time a Massachusetts Supreme Court justice, held that when a pregnant woman slipped and fell on a road, resulting in the loss of the fetus, no claim could be pursued on behalf of the fetus against the town; he voiced skepticism about "whether an infant dying before it was able to live separated from its mother could be said to have become a person recognized by the law."

Once embryos began appearing ex utero, however, courts and legislatures were forced to reckon with their legal status in novel scenarios — notably in divorce cases in which the parties disagreed on how to deal with frozen embryos created during the marriage. The answers courts have come up with for how to view embryos have been all over the map, ranging from seeing them as property to declaring them, in the Alabama decision, "unborn children." One of the earliest and most influential embryo disputes was a 1992 Tennessee case in which a divorcing couple, Junior Lewis Davis and Mary Sue Stowe, disagreed on the fate of their remaining embryos. The wording of the Tennessee Supreme Court's decision captured some of embryos' ambiguous quality, concluding that embryos "are not, strictly speaking, either 'persons' or 'property,' but occupy an interim category that entitles them to special respect because of their potential for human life." But the court ultimately decided in favor of Mr. Davis, who wanted to destroy the seven frozen embryos that Ms. Stowe sought to donate, on the grounds that he should not have to father children against his will.

In explaining the court's reasoning, Justice Martha Craig Daughtrey expounded at length on "the right of procreational autonomy," calling it a "vital part of an individual's right to privacy" and integral to American conceptions of liberty, a freedom "composed of two rights of equal significance: the right to procreate and the right to avoid procreation." The right to privacy is the same principle that underpinned the reasoning in Roe v. Wade.

Embryo custody cases, as they're sometimes termed, were typically resolved along similar lines — that parenthood should not be forced on a person who does not want it, with a few exceptions, said Ellen Trachman, a Denver-based lawyer specializing in assisted-reproduction-related cases. That principle was challenged in 2018, when the Arizona State Legislature passed a law requiring judges to award disputed embryos "to the spouse who intends to allow the in vitro human embryos to develop to birth," regardless of any contracts signed by both parties. The law was a response to a case in which a court ordered a divorced couple's seven frozen embryos donated, per the couple's previous agreement, even though the wife wanted to use them after her cancer treatment.

Ms. Trachman expects more judges to favor the party who would like to use the embryos to attempt pregnancy now that Dobbs v. Jackson Women's Health Organization has undermined the rights to privacy and procreative autonomy protected in Roe. "The person opposing conception is probably going to be in less of a strong position, when before, it was an overwhelming position" to rule in that person's favor, she said. A Republican legislator in Missouri proposed a similar bill this year after being petitioned by a divorced woman, Jalesia Kuenzel, who has been unable to use embryos she and her ex-husband created while married.

The murkiness of embryos' status has sent courts on strange detours in their legal reasoning. In a 2023 Virginia case a judge was tasked with deciding whether two frozen embryos should be awarded to Honeyhline Heidemann, who wanted to implant them, or kept frozen, per the wishes of her ex-husband, Jason Heidemann. Ms. Heidemann asked that the embryos be considered property, so they could be assigned to her like any other salable item. Mr. Heidemann said each was unique and nonfungible and thus could not be treated as personal property. The case, as Leah Libresco Sargeant wrote, turned embryos into "Schrödinger's persons," resulting in "one parent bizarrely needing the embryos to be considered persons in order to prevent them from being born and the other parent needing to argue the children were property in order to let them be born." Eventually, Judge Richard Gardiner reasoned that "as there is no prohibition on the sale of human embryos, they may be valued and sold and thus may be considered 'goods or chattels.'" The reliance on slavery-era codes immediately raised eyebrows. In March another judge rejected Judge Gardiner's rationale, calling his reasoning that human embryos could be valued and sold, as enslaved people once were in Virginia, "a strained construction."

In Oregon a contractual agreement to divide embryos has given rise to a dispute over parental rights. In 2014 a child's genetic mother, Cory Sause, signed an agreement when undergoing I.V.F. with the child's genetic father, Jordan Schnitzer: He would receive all the male embryos, since, as the father of two girls, he was eager to have a son. She would get the female ones.

After their son was born via surrogate the following year, Ms. Sause asked the courts to be granted parental rights. She argued that although she had signed a contract giving Mr. Schnitzer custodial rights over the male embryos, she believed this contract did not apply to any resulting live offspring, in whose lives she expected to play some role. In the years that the two parties have been at odds, the entity at the center of this case has grown into a 9-year-old child, who is now trapped in a baffling legal limbo.



Equipment at Tmrw, a start-up that allows for the tracking of patients' embryos through RFID tagging. While there are no good estimates for the total number of frozen embryos in the United States, Tmrw has more than 350,000 frozen embryos and eggs in storage in clinics and in its facilities (none of which were present at this demonstration).

The overturning of Roe gave lawyers arguing for embryonic personhood a new legal avenue to pursue. In a recent Texas divorce case Caroline Antoun sought to use the Dobbs decision to help void a contract that would award the couple's frozen embryos to her ex-husband, Gaby Antoun. Arguing in court just five days after Dobbs came down, her lawyers noted that Texas' abortion ban would soon be triggered into effect.

This, they argued, would change the status of the embryos from property to people. Once they're reclassified as children, Ms. Antoun's lawyers continued, the embryos should be appointed a guardian to represent them in court and be subject to a custody agreement that considers their best interests, rather than be awarded based on a contract both parties signed before commencing I.V.F. that plainly stated Mr. Antoun would get them in the event of divorce.

The judge was not convinced. In the divorce decree, she granted Ms. Antoun primary custody of their I.V.F.-conceived twins, while Mr. Antoun was awarded their three frozen embryos as part of the division of marital property. (The divorce decree also gave each party a car and granted him their king-size bed frame and a TV from their garage.)

The former spouses each told me that as they were filling out forms at the clinic, Mr. Antoun initially was going to let his wife have any remaining embryos in case of divorce. But when Ms. Antoun suggested donating them to another family, knowing how difficult their own struggle with infertility had been, Mr. Antoun couldn't envision his genetic children being "raised by a stranger," he said. In any case, both said they hadn't seen divorce in their future. They eventually circled "husband" on the form, putting their initials next to their choice. Today Ms. Antoun says her exhusband gave her an ultimatum to sign them over to him or he wouldn't proceed with the fertility treatment, something that Mr. Antoun disputes.

Ms. Antoun wanted to appeal the ruling and said she received some pro bono help from one anti-abortion group, while others offered her only "thoughts and prayers." Using private counsel, she appealed the ruling in a brief that argued that the contract she had signed treating the embryos as property was, post-Dobbs, incompatible with Texas' public policy.

The Texas Legislature has gone to great lengths to protect the interests of embryos. Its abortion ban, one of the strictest in the country, defines an "unborn child" as "an individual living member

of the Homo sapiens species from fertilization until birth, including the entire embryonic and fetal stages of development." The Texas Penal Code defines an individual as "a human being who is alive, including an unborn child at every stage of gestation from fertilization until birth."

The legislature, however, specifically created a carve-out for I.V.F., exempting death of an "unborn child" from murder or manslaughter charges when they are caused by a lawful medical procedure performed by a licensed provider in the context of assisted reproduction. But when offered the chance to extend this status to I.V.F. embryos in a divorce case, no Texas court has yet seemed willing to do so. In July 2023 an appeals court judge again found in Mr. Antoun's favor.

Ms. Antoun then asked the Texas Supreme Court to hear her case, at which point Texas Right to Life chimed in with an amicus brief. The court declined to take it up. Although she could have attempted to get it in front of the U.S. Supreme Court, the deadline for that has passed. Instead, she is litigating through the media; she contacted me after reading an earlier article in this series on embryos, to explain why treating embryos as property "is harmful and leaves parents without rights."

Although the Antouns provided very different accounts of events in their marriage, they both hold nuanced views on what embryos are — far more nuanced than the law allows. While Mr. Antoun has

fought for the embryos under the guise of property, he told me he will never discard them. Ms. Antoun asked for her embryos to be reclassified as people, though today she said that she would consider discarding her embryos. She declined to share her views about abortion but said she did not have an anti-abortion agenda and had no desire to jeopardize the practice of I.V.F., which a ruling in her favor could have done. "For me, parents should always get to decide what is best for their family and for their children," she told me. "And while they're property, you can't do that."

For years, it has largely been anti-abortion groups that intervened in cases involving embryos, using these private lawsuits as means to a public end: to help secure an embryo's status as a full legal person, as the Harvard legal scholar I. Glenn Cohen pointed out to me. Yet when that goal was taken to its logical extreme, through the pronouncement of the Alabama Supreme Court, some in the little-known world of embryo adoption found themselves wincing at what felt like an own goal.

The embryo adoption movement was born in the late 1990s when John and Marlene Strege, two observant Christians living in California, spoke with their fertility doctor about using anonymously donated embryos to get pregnant. They were intrigued but thought the process was due more respect than the mere signing over of some leftover tissue. (Transferring embryos from one party to another is not legally adoption and is typically treated as a simple transfer of property — not so different from handing over a car.)

"These are lives, created at conception," Mr. Strege later wrote. "You donate money, food, clothing, time, but you don't donate life." He and Ms. Strege, along with the agency Nightlight Christian Adoptions, developed a program that mimicked the regular adoption process by requiring similar screenings and home studies but relied on embryos' status as property to keep legal costs low. Although the Streges have long insisted their embryo adoption activism is distinct from their anti-abortion views, in 2021 the Streges filed an amicus brief in the Dobbs case, which they illustrated with their daughter's baby photos and a picture of her as an embryo. (The Streges also filed amicus briefs in support of Ms. Antoun.)

But after the Alabama court's decision came down, several people in the embryo adoption world told me that personhood for embryos would make their work harder, not easier. Dr. Jeffrey Keenan, a Christian fertility doctor who oversees the nation's largest embryo adoption program, in Knoxville, Tenn., said the ruling denied "basic biology and reality." "The majority of embryos, even embryos created through natural intercourse, do not go on to form babies," he told me. "To say that they are all 'children' is incorrect."

There are also people thinking about how the concepts of embryonic and fetal personhood could be deployed in surprising ways. The legal scholar Michele Goodwin pointed out that under those concepts, the embryos of undocumented pregnant women could qualify for citizenship, although she emphasized that a conservative political agenda wouldn't extend personhood rights that far.

Ms. Goodwin, the author of "Policing the Womb: Invisible Women and the Criminalization of Motherhood," also suggested that establishing full rights for embryos and fetuses could make people and businesses liable should a pregnancy go awry, giving the examples of manufacturers or factory farms that pollute their communities, people who spray toxic pesticides or landlords who don't properly maintain a home in which a pregnant person resides.

"Women who have suffered during pregnancy the ill effects of environmental injustice and pollutants and toxins and all of these different kinds of things — it opens them up to be able to utilize the same tools and the same kinds of arguments in order to protect their health and safety," she told me. In South Korea a fetus was the named plaintiff at just 20 weeks of gestational age in a lawsuit against the South Korean government for not taking sufficient action against climate change; now a toddler, he won his case last August.



Some of Michele Goodwin's thinking was informed by watching the unfettered market for sperm and egg donations emerge alongside talk of the sanctity of embryonic life, even as lifesaving organs were strictly regulated and compensation banned. As she points out, "A heart will save your life. An embryo will not." Yael Malka for The New York Times

The questions raised by these legal scenarios, some unfolding with increasing regularity, should spur us to grapple with the current inconsistencies in our laws and ethics. These questions are likely to become even more salient in the years ahead: Hundreds of thousands of people undergo I.V.F. every year in the United States; hundreds of thousands more get divorced. Procedures go awry. Clinics make mistakes. As a result of these ordinary events, people will continue to contest the meaning and fate of embryos in courts, where, as we have seen, there are few consistent guidelines.

Over the years, philosophers, legal scholars and bioethicists have thought through these quandaries in the pages of academic journals. In a 2023 paper in The Georgetown Law Journal, the law professors Dov Fox and Jill Wieber Lens argued, perhaps counterintuitively, that in cases of reproductive loss (which can encompass everything from mishandled embryos to mismanaged pregnancies resulting in miscarriage or stillbirth), achieving justice requires less consistency rather than more. In their view, juries should evaluate cases on multiple factors, including the subjective experience of the people who suffered the loss. "A plaintiff might herself believe she lost a child, a baby, a pregnancy or property," they wrote.

Similarly, Françoise Baylis, a Canadian bioethicist, has long believed that embryos deserve their own legal category; neither "property" nor "people" is accurate or commensurate with the "sociocultural value of these materials," as she wrote in an unpublished paper she began 20 years ago with a co-author. In it they proposed a third category: that embryos are sui generis. Dr. Baylis later explained that this means "there is no one size fits all for every ethical, social or legal challenge." Evaluating embryos under this concept invites subjectivity and contingency considering each one, as it were, in the round, in the context of "many interconnected and competing factors," she said.

But outside the pages of scholarly journals, such nuance is hard to come by in the United States. This is, of course, because of our suffocating abortion debate, the stakes of which have perhaps never been higher. Many discussions about embryos become abortion fights by proxy, which has led to decades of zero-sum battles about whether an embryo is a human being or a clump of cells.

Dr. Fox noted that the country has barely had a nationwide conversation on human embryos since the late 1970s and '80s, when I.V.F. was new. Many in the scientific and medical communities hoped that proposed regulations from the Ethics Advisory Board of that era "would serve as the foundation for further regulations of the practice of I.V.F.," he added, but in failing to act on its proposals, legislators left I.V.F. to operate "in a regulatory gray zone, rarely the focus of public debate."

This has brought us to the profoundly unsatisfying situation in which we find ourselves today: governed by scattershot regulation, subject to unpopular court opinions and bewildered by bizarre and often contradictory pronouncements from policymakers and thought leaders.

Yet, to state the obvious, abortions and embryos are not the same thing. Given the evolution of reproductive technologies and innovations in embryo research, it is now possible to consider questions of how we want to treat embryos, in some situations, separately from the rights of those who gestate them. And that will demand different considerations, questions and principles.



Now a bioethicist, Alta Charo worked in the 1980s as a legal analyst tasked with preparing a report on new reproductive technologies, which touched on the legal status of embryos. "That was the beginning of my own personal view that intrinsic biological potential is not enough. It needs active human assistance," she said. Yael Malka for The New York Times

Normally we would turn to democratic processes to let society reach an outcome that, even if not agreeable to everyone, would allow diverse voices to be heard. Unfortunately that is not where we are. The strategy of abortion opponents over the past two decades also suggests that the opportunity for open dialogue might have passed.

As Ben Hurlbut, a bioethicist who has written extensively on the relationship between human embryo research and democracy, observed, supporters of embryonic personhood changed tack after the stem-cell debates in the 2000s. Once the public and funders such as the National Institutes of Health largely embraced stem-cell research, the anti-abortion movement shifted from trying to sway public opinion with scientifically grounded arguments about the sanctity of genetically unique organisms to focusing more on a bare-knuckle strategy centered on amassing political and judicial power.

Without dialogue and debate, transparency and understanding, we risk a future in which embryo governance — or lack thereof — will be decided by religious critics of I.V.F. ruling from the bench or enthusiastic techno-optimists developing products and services

with an eye toward profit. A real public conversation, I believe, is necessary if we are to have any coherence or even humanity in our approach to embryos and to all of the people who have a stake in them.

Of the five dozen or so people I interviewed for this project, none seemed confident that a good-faith societywide conversation around these questions was possible in America today.

IN BRITAIN the conversation that started four decades ago with the Warnock Committee — the group that proposed the 14-day rule for embryo research that became the de facto global standard — continues. This past December, the leading lights of Britain's embryo world gathered in central London to discuss where the embryo's special status will lead.

In reading about the Warnock Committee, I was struck by the genuinely reciprocal engagement between policymakers and an anxious public during that process. Britons were intrigued by but uneasy about the new technology in their midst and shared these thoughts with Mary Warnock, a philosopher, and her biologist colleague Anne McLaren, as the women toured the country meeting ordinary citizens where they were, at universities and libraries. As Sarah Franklin and Emily Jackson recounted in their history of the 14-day rule, this dialogue created a virtuous cycle that generated trust in both scientific research and the policy that would govern it.

What transpired in December was not quite a gathering at the local library, but it brought together a broad range of perspectives under one roof. The audience, 200 people in all, included philosophers, undergraduates, politicians, lawyers, device manufacturers, OB-GYNs, investors, embryologists, developmental biologists, geneticists, fertility doctors, medical students, ethicists, research funders, regulators and scholars from a variety of fields. From 8:30 a.m. through lunchtime over sandwiches, all of them served ice-cold ("very British," observed one attendee), until 7 p.m., when the last few embryo enthusiasts trickled out of the cocktail reception, they discussed embryos, earnestly trying to make sense of their special status in the law, in the fertility clinic, in the research laboratory and in ethics. An undergraduate studying biomedical genetics asked about the possibility of gene editing embryo models. (The student later told me, "I don't think that anyone who's doing a biomedical or medical degree can afford to not have those conversations.")

A scientist described obtaining a 16-to-19-day-old embryo from someone who had undergone an abortion shortly after missing her period and designated the remains for research purposes. In a Q&A a sociologist proposed that women who undergo medication abortions at home could collect the expelled blood and tissue and send it to biologists who research postimplantation embryos. During the lunch break, I saw the scientist and the sociologist discussing how to make this plan a reality, cold sandwiches in hand.

The biggest surprise of the day came just after the sandwiches, in an afternoon panel on the embryo's status in the law. Peter Thompson, the chief executive of the Human Fertilization and Embryology Authority, which regulates the fertility sector and research on human embryos, said that the pace of innovation had created what he described as a mismatch between scientific progress and the law. The previous month, the authority's board carefully weighed the arguments for and against extending the 14day limit.

"The fact that something is scientifically possible is not, of course, a sufficient reason to change the law," he acknowledged. But given the potential for insights into the black box period (14 to 28 days after fertilization, when an embryo's development is essentially unobservable) to yield new treatment options and evidence that a majority of the British public would be supportive, he said, the board reached the conclusion that research on embryos should be allowed up to 28 days. He was clear that the authority was not simply flinging the door wide open: If Parliament agrees to extend the law, the authority will probably review proposals case by case to go beyond 14 days, and researchers would have to justify their rationale for wanting to do so.

Given Britain's longstanding leadership in regulating embryo research, Mr. Thompson's announcement felt, to many of those of us in the room at least, history-making. But in fact, another country had beaten him to it. In October 2023 the Health Council of the Netherlands unequivocally recommended that the Dutch Parliament extend the country's legal limit on cultivating embryos for research purposes to 28 days. (Sweden is also considering similar changes to its 14-day limit.) Shona Kalkman, a staff ethicist at the Health Council of the Netherlands, said she and her colleagues had prepared for a media firestorm, but to their surprise, the news landed with barely a ripple. I spoke to some scholars who have written about the 14-day rule who had not heard of the Dutch position.

The council's decision cited three considerations that any research guidelines must balance: the protection of early human life, the benefits of scientific research and the societal perspective. A supplemental background paper lists the various conditions that extending the limit could provide new insight into — heart defects such as cardia bifida in Week 3, body cavity wall defects and scoliosis in Week 4. (Interestingly, the report concluded that embryo models and "classic" embryos created through I.V.F. are "morally equivalent," on the grounds that "as long as it is scientifically impossible to rule out" that the models could one day develop into a human being, they deserve the same consideration.)

But the Netherlands and Britain are not the United States.

Instead, our political system and the characters who preside over it have created a situation of utter incoherence, in which so-called pro-life laws banning abortions have contributed to the deaths of several pregnant women, even as the number of abortions has risen and in which a ruling that embryos are children has caused delays for families seeking to have actual children, as fertility clinics in Alabama put treatments on pause. This inability to "lean into the gray," as a lawyer at the London conference put it, is understandable. Venturing into dense fog alone is hardly appealing. But since it must be done, perhaps it is something we can do together.

OVER THE COURSE of reporting for this project, I've gained a deeper appreciation for how others view embryos and affirmed my intuition that they're not merely clumps of cells. But nothing has done more to unsettle my feelings about them than watching the ongoing development of my own embryo, who is now 2 years old. When I began work on this story in earnest, I was eight months pregnant.

I picked up the reporting again after a few months of maternity leave, and soon after that, we traveled to California, where a lovely babysitter watched my 5-month-old daughter on college campuses while I visited a laboratory where embryo models were being made by the hundreds and another where a researcher had created a model ovary. I saw the video of my daughter, as an embryo, engaged in what Magdalena Zernicka-Goetz called "the dance of life."

I learned about polygenic embryo screening and wondered whether, despite hearing from many of its critics, I had inadvertently harmed my daughter by not learning more about her potential health. I spoke to people who had adopted frozen embryos just like the ones I had in storage and used them to begin their own families.

Over these two and a half years of near-daily conversations about embryos — reading about them, talking to people about them and thinking about them — I pondered what to do with my remaining embryos. Many former fertility patients confront these questions once or twice a year, when the bill for their cryogenic storage arrives. For me, it was almost daily, starting with my morning Google alert for "embryo." Reading Dr. Zernicka-Goetz's book inspired me to contemplate donating them to research, where, I thought, they might help advance our scientific understanding of pregnancy.

When I first heard of what is called compassionate transfer, the transfer of one or more embryos at a time when pregnancy is highly unlikely to occur, my initial reaction was disgust; it seemed

to treat a woman's body like a garbage can, a place to dispose of unwanted tissue. But as I pored over the anthropologist Risa Cromer's book on embryo adoption, I was touched by a passage in which an embryo recipient recounts driving through a snowstorm, on her birthday, to reach her fertility clinic for a transfer, only to be told the embryos hadn't thawed well and she was unlikely to get pregnant. She still chose to go through with the transfer.

"They weren't dead; there was still life in them, and whether they were deemed 'successful' or not, I didn't want to put them in a trash can," she explained to Dr. Cromer. "I feel at ease knowing that they went into a warm body that was prepared for them and that loved them. I got to love them for two weeks, and then I got to pass them back to God."

All of a sudden, I could see the appeal of compassionate transfer. I don't believe in God, but I liked the idea of them coming to rest in my body — the place, in a sense, where they belonged. Then, as the reporting drew to a close, I watched my editor and three other close friends go through pregnancy with their second children, and I knew that I could do that, too. The possibility was waiting for me, sitting in a freezer somewhere.

What does it mean that I could consider such different fates for these embryos over the course of just a year or two? What does it say about the "wisdom of repugnance," in the words of the bioethicist Leon Kass, that my initial repugnance toward these various options fluctuated as I encountered other people's experiences and opinions?

I consider myself wiser not for following my instinctive disgust but for having engaged with these other perspectives. I would encourage us all to do the same — to think about embryos with a little more humility and a lot less certainty and, above all, in the company of others. Trying to pin down their ultimate moral significance, the bioethicist Alta Charo wrote, is akin to "the hunting of the Snark," a quixotic endeavor with little chance of a satisfying outcome, yet an endeavor, I would argue, that is worth undertaking nonetheless.

In all likelihood, this is not a single conversation but many. It may happen between doctors and patients, researchers and regulators and friends and neighbors. It will require leaning into the gray. As a society, we must assess the legal regime that courts have created through their piecemeal decisions and decide if another way forward is preferable. We could benefit from a firmer grasp of the science of reproduction and let that literacy inform how we debate our intuitions regarding early human embryo research. Conversations about the technology of embryo screening and other practices in fertility medicine should lead to more transparency and accountability. Perhaps we could even learn, finally, just how many embryos are currently in storage. There need not be consistency across these conversations. We all have the capacity to feel one way about embryos in one context or on one day and a different way in another situation. It is their astonishing subjectivity, their place at the center of innumerable conditions and forces and ideologies — economic, social, religious, technical, political, philosophical — that makes embryos so eminently capable of teaching us something about our beliefs, if we can find the will to engage in thoughtful, good-faith probing.

If I am honest, any newfound wisdom I've gained along the way has not made it easier to figure out where my embryos belong; I am still deciding how I feel about their eventual fate. At the moment, it doesn't seem financially, logistically or, some days, even physically feasible to have a second child. And perhaps this context is what ethicists and lawyers and philosophers mean when they suggest that embryos are sui generis — ontologically unknowable, forever suspended in a gray zone of meaning and potentiality. Their meaning can only ever be contingent.

Maybe my remaining embryos will find their way to a lab, where they will help a scientist unlock the secret of miscarriage or spina bifida. Or perhaps the clinic will have an accident and their potential for life will be gone. Or I will receive an unexpected financial windfall and feel secure enough to try to turn one of them into a second child. Or maybe my body won't cooperate, the embryologist at the clinic will have an off day or something else will happen to affirm that they were only ever chances, no guarantees.

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Video editing by Addison Post. Additional reporting by Tenzin D. Tsagong. Some interviews have been edited for length and clarity.

The Embryo Question is a series about the cluster of cells at the crossroads of science, ethics and the law.



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Part Two <u>Should Human</u> <u>Life Be</u> <u>Optimized?</u>