

As reproductive technology charges ahead, legislative and ethical oversight flounders

We've come along way, baby... at least when it comes to making babies outside the traditional method. But along with advanced technologies available to help couples reproduce, serious ethical issues can arise. So far, [argues Alexis Madrigal at The Atlantic](#), our society is not addressing them. Our legal system has exerted even less influence, although a recent court case involving actor Jason Patric may represent the beginning of change.

Societal support for reproductive technologies could begin to accelerate, however, as the next batch of reproductive technologies emerge, as [Madrigal explains in his survey of upcoming techniques](#):

Some of the reproductive technologies on the horizon could test our flexibility. Here, drawn from interviews with scholars, doctors, and entrepreneurs, are a handful of guesses about how the future may change what's involved in making a person—from the ease of getting pregnant, to the mechanics of procreation, to our very definition of family.

Most new technologies could expand our notion of what constitutes a family. Instead of just mom and dad, grandmas (via a donated uterus), sperm donors, egg donors, mitochondrial DNA donors, surrogates and embryologists could all have a hand in conception. Anecdotally, I know of one family who used two sperm donors, an egg donor and a separate surrogate. Although their children have four potential parents, they clearly and purposefully only identify two as their parents.

There is even the potential, Madrigal points out, that we can create artificial gametes. Same sex couples could transition a sperm or egg into the opposite gamete using stem cell intermediaries, making it possible for same sex couples to have their own biological children and “saving the nuclear family,” Madrigal reports:

“For gay and lesbian couples, the synthetic gametes would eliminate the need for a third party,” Timothy Murphy, philosopher at the University of Illinois College of Medicine notes. This kind of assisted reproductive technology—“unnatural” as it might be—would allow same-sex couples to keep reproduction solely within the family.

Madrigal says that one reason our society as a whole is comfortable with these technologies is because the new techniques expand the number of people who can have children. Family is something we as a society value highly.

California has approved The Modern Family Act, which is designed to provide some legal framework for identifying who is and who is not a 'parent' to a child. The issue, in part, stems from a case involving actor Jason Patric who had a child via IVF with a former girlfriend. The actor has played a parental role in the child's life and is now suing for official parental rights and finding support.

But even the legal framework put into place by the Act, which [as Abby Phillip at the Washington Post reports](#), could amount to 'Check here if the sperm donor is a parent. Check here if not,' might not really stop these issues from coming to court. Presumably that form could be expanded to include all the other possible familial combinations.

"In the law there's this concept called 'psychological parenthood,' where someone establishes, or earns parental rights by establishing a parent-like relationship with a child," Georgetown Law Professor Jeffrey Shulman said. "There are multiple ways in the law to establish parenthood and it may be difficult for states to figure out ways to simplify it.

The legal system has not even begun to touch some technologies. Fetal genetic screening has come very far with the advent of free-DNA testing. A fetus releases some DNA into a mother's blood stream. That DNA can be separated from mom's in a blood stream and testing for many disease traits. And, when using IVF, it's now possible to screen the entire genome of a fetus. Now, families decide which to implant based on health, but other factors like sex can be taken into consideration.

[Ethicists worry](#) this type of screening will reduce the natural genetic variation in the population as parents screen out more and more harmless and easily remedied mutation, like an extra finger or toe:

"You start out offering these prenatal screenings for certain conditions that everybody agrees are very severe. It is not particularly eugenic, but about alleviating the suffering of the child and the parents. But there is slippage," sociologist Charis Thompson said. "The more you can test for and screen out, the more people do."

How, when and whether societies legal framework will address this issue is unknown. One place to look is countries like China and India who have outlawed sex-selective abortion because of cultural preferences for sons. But even in these countries, [lawmakers have trouble keeping up with the pace of technology](#).

Additional Resources

- [Call it what it is: Mitochondrial replacment does not make a three-parent baby](#), Meredith Knight, Genetic Literacy Project
- [Three parent baby debate: FDA ponders mitochondrial manipulation and, perhaps, germline modification too](#), Tabitha Powledge, Genetic Literacy Project
- [Deconstructing the polarizing debate over oocyte modification \(3-parent babies\)](#), Ben Locwin, Genetic Literacy Project

