WHO DECIDES WHAT NUMBER OF CHILDREN IS “RIGHT”?

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I agree with Professors Cahn and Collins that “eight is enough.” I am perhaps more skeptical than they are about assisting Nadya Suleman, a mother who already has six children, to have more. I wonder whose funds financed fertility treatments for a single, unemployed mom on disability benefits, and, perhaps even more critically, who will fund the children’s ongoing care. I am certainly concerned about the dubious ethical standards of the doctor who provided the reproductive care. But I also have serious reservations about anyone choosing to impose my views—or those of others—on the country as a whole.

I therefore applaud Professors Cahn and Collins for leading with the question, “Should we regulate?” and for framing their proposals in the context of a principled distinction between regulations of the type that tend to be federally regulated in other contexts (how many embryos to implant in a single in vitro procedure, for example) and personal decisions better left to individual autonomy (such as whether a single mother ought to have more children). I fear, however, that although the distinction they draw is principled and in many ways persuasive, it is a line unlikely to stick and unlikely to fully address the ethical framework for reproductive technologies if in fact it does take hold.

My concerns do not proceed from any reflexive libertarianism. I do not reject government regulations per se, nor do I believe that the market, through the magic of the unseen hand, will necessarily correct misguided decisions to implant six embryos in an unemployed thirty-two-year old. Instead, I question the framework Cahn and Collins develop for determining when and what type of regulation is appropriate. I argue for a dynamic theory of regulation, informed by the concept of evolutionary economics, that would ask not just what kind of regulations are needed, but also how regulatory implementation is likely to affect who becomes a patient, what kinds of doctors are likely to provide the services they seek, and where and when medical treatment is likely to occur. This analysis is dynamic—and evolutionary—not in a biological sense, but in the sense that it anticipates

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how change in one arena, such as the expansion of insurance coverage, might affect another area, such as the number of embryos likely to be implanted or the need to regulate issues not of concern in today’s fertility practices. In short, I am more concerned about whether fertility clinics locate in Detroit or Windsor, whether President Obama or a Georgia governor appoints the regulators, and whether Ms. Suleman can afford in vitro fertilization at all than I am with having a government official stop the next doctor willing to implant too many embryos.

I. STATIC REGULATION: BAD MOTHERS, GREEDY DOCTORS, AND CHILDREN AS EXTERNALITIES

Two types of discourses justify regulation—and both tend to be relatively “static” forms of analysis. That is, they diagnose a problem, explain why the existing decision-makers are unlikely to get it right, and then propose regulation as the solution, without comparing the differences between how a regulated versus unregulated system might evolve over time. The first of these forms of analysis, grounded in bioethics, informs Cahn’s and Collins’s arguments. It proceeds from the premise that medical decision-making should respect patient autonomy.2 It then justifies restrictions on that autonomy in terms of the interests of third parties—the children of reproductive technology and the public who may ultimately pay for their care—that are otherwise unrepresented in private decisions between doctors and prospective parents.3

The second discourse parallels the first. Conventional economic analysis also justifies regulation when market decisions impose costs on third parties.4 The economic analysis focuses on “greedy” doctors; they may gain patients if their success in producing babies improves, but if birth defects also increase, they do not report or bear the consequences of the defects.5 The analysis also considers “bad” mothers and prospective parents,

2 Id. at 505.
3 Id. at 506 & n.29.

Optimal regulatory policy must therefore focus on the principle that the very justification for government intervention is the presence of an externality that the market has failed to correct on its own. In brief, “externalities” are any benefits or costs caused by one party but borne by others. If a factory produces socially useful widgets but emits pollution that is not reflected in the cost of the product, a negative externality is imposed on all of the people living near the factory. The only way to reduce or eliminate such an externality—assuming the market cannot—is to shift the cost back to the polluter through government regulation.

especially those who have already undergone unsuccessful fertility treatments, who may discount the risk of birth defects due to their fear that they will have no children at all and their concern that they will be unable to afford additional rounds of in vitro fertilization if the current effort fails. The discourse concludes that children with birth defects are “externalities”—the doctor and prospective parent who make decisions in the current system about how many embryos to implant do not bear the full costs (and therefore do not internalize) the costs of the birth defects that may result from multiples. Because private decision-making cannot fully account for all of the interests affected by reproductive technologies, it should not be trusted to regulate the field.

Once this analysis has been conducted—one Cahn and Collins, for example, balance “an individual’s interest in becoming a parent” against “society’s interests in healthy children” and conclude that the number of embryos to be implanted should be limited—the discussion usually ends. I give Cahn and Collins credit for their suggestion that with greater regulation should come more assistance with financing, and for their proposal for more generous insurance coverage. I am also impressed that they consider the possibilities that more regulation will either go beyond the limits they set or inspire a flight to less regulated locales. What their analysis does not do, however, is create a dynamic framework for considering the implications of their regulatory approach.

II. DYNAMIC REGULATION: GEORGIA ON MY MIND

A dynamic approach to regulation would ask not just whether regulation can be justified, but also how the adoption of regulation may transform the nature of the transactions being regulated, and how that transformation might compare with the continued evolution of the unregulated market. Evolutionary economics, which sees markets as complex adaptive systems that change over time through a process of trial and error, provides tools that can be used to consider what the process might look like. Evolutionary analysis differs from other forms of dynamic analysis in that it focuses, in particular, on the mechanisms that produce variation and the processes likely to select and reinforce some variants over others. Accordingly, such analysis considers the creation of reinforcing virtuous and vi-

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7 Id. at 169–70.
8 Cahn & Collins, supra note 1, at 507.
10 See, e.g., WILLIAM N. ESKRIDGE, JR., DYNAMIC STATUTORY INTERPRETATION (1994).
cious cycles,\textsuperscript{11} and pays particular attention to how a particular regulation will change the composition of who (agents such as doctors and patients), what (processes), where (jurisdictions), and when the affected activities occur. Ironically, considered in terms of evolutionary economics, Cahn’s and Collins’s almost offhand suggestion of expanded insurance coverage becomes significantly more important than the proposals to limit the number of embryos, because expanded insurance is more likely to change the mix of patients, doctors, and regulators involved with treatment. To explain, I reverse the order of analysis, starting with the question of where regulation is likely to be enacted, and how it may affect where fertility treatments occur.

\textbf{A. Where?}

Deliberations in the Georgia legislature on a bill to limit the number of embryos implanted illustrate the concerns that underlie Cahn’s and Collins’s approach. Senator Ralph Hudgens, a Georgia legislator known for his anti-abortion stance, introduced the legislation, with comments on Suleman: “She is not married . . . . She is unemployed . . . . She is on government assistance and now she is going to put those 14 children on the back of the taxpayers in the state of California.”\textsuperscript{12} Critics characterized the bill, which would have both limited the number of embryos implanted (two for women younger than forty) and restricted the use of embryos in stem cell research, as a backdoor effort to outlaw abortion. Fertility industry lobbyists quickly derailed the measure, emphasizing that it would increase costs and decrease success rates. One Atlanta fertility doctor, for example, told the press, “What this bill will effectively do is shut us down . . . . Patients seeking reproductive care in Georgia will go to Tennessee or South Carolina or Alabama. They will just leave.”\textsuperscript{13}

The Georgia debate underscores the fact that fertility treatments take place in a decentralized, competitive industry—and that legislatures respond to a variety of constituents who may not necessarily have infant health as their primary concern. Doctors implant multiple embryos because it increases the likelihood that at least one baby will be born, and higher ini-

\textsuperscript{11} See, e.g., Dan M. Kahan, The Logic of Reciprocity: Trust, Collective Action, and Law, 102 MICH. L. REV. 71 (2003) (discussing the role of reciprocity and trust in creating reinforcing cycles). Karen Alter refers to a vicious cycle in the legal context as one that creates reinforcing patterns that undermine law enforcement, explaining that “[t]he more the law is flouted, the more law is instrumentalized to justify state actions, the less legitimate law and the judicial process are in the eyes of individuals or governments and the less states and individuals believe in the sanctity of law or the rule of law.”\textsuperscript{12} KAREN ALTER, ESTABLISHING THE SUPREMACY OF EUROPEAN LAW 211 (2001). In contrast, in the virtuous cycle, “[t]he more rules are respected by all, the greater the willingness of citizens and governments to play by the rules.” Id. at 218.


\textsuperscript{13} Id.
tial success rates lower costs.\textsuperscript{14} If the Georgia legislation had the effect of either lowering the success rates or raising the costs of Georgia clinics, they would lose out to clinics elsewhere. Indeed, some clinics already have multiple offices in different states and even different countries, and could easily shift their practices to other jurisdictions to accommodate the demand.\textsuperscript{15} Accordingly, even regulation at the national level, if it made U.S. clinics less competitive, could simply fuel the movement of more clinics to the Caribbean.

Cahn and Collins propose increasing insurance coverage expressly to deal with that concern. They reason that if insurance coverage makes multiple cycles more affordable, it will make regulation limiting the number of embryos implanted more feasible.\textsuperscript{16} Indeed, empirical evidence suggests that greater insurance coverage may prompt fewer high-order multiples even without express limitations.\textsuperscript{17} They are right that a change in the source of financing may facilitate effective oversight of the number of embryos implanted, but the tail is wagging the dog. Comprehensive insurance coverage has dramatically further-reaching implications than a restriction on the number of embryos to be implanted. A proposal for more extensive insurance coverage should therefore stand or fall on its own merits. Let us start an investigation of the issues expanded insurance coverage might raise with the question of where it is to be made available.

Today, regulation of medical procedures takes place at the national level, but insurance regulation is a state activity. Some states already compel coverage for fertility treatments, or require that employers at least offer such coverage.\textsuperscript{18} These regulations, however, cannot be comprehensive because, among other things, they vary in what they cover and are often preempted by federal legislation. Therefore, the regulations do not cover all health plans even in those states in which they apply.\textsuperscript{19}

To be effective, insurance coverage would have to be mandated nationally. Yet, in vitro fertilization involves expenses that can start at between $10,000 and $15,000 per cycle, cost up to $100,000 per patient, address the needs of only a small percentage of women with infertility issues, and disproportionately benefit the most privileged Americans (who

\begin{itemize}
\item \textsuperscript{14} Monahan, supra note 6, at 169–70.
\item \textsuperscript{15} For a discussion of fertility tourism generally, see G. Pennings, Reproductive Tourism as Moral Pluralism in Motion, 28 J. Med. ETHICS 337 (2002) (link).
\item \textsuperscript{16} Cahn & Collins, supra note 1, at 511.
\item \textsuperscript{17} Monahan, supra note 6, at 171 (summarizing evidence showing declines in the number of multiples in states with insurance mandates).
\item \textsuperscript{18} Id. at 183. Eleven states require varying degrees of coverage: Arkansas, Connecticut, Hawaii, Illinois, Maryland, Massachusetts, Montana, New Jersey, New York, Rhode Island, and West Virginia. Id. at 183 n.221.
\item \textsuperscript{19} See generally Amy B. Monahan, Federalism, Federal Regulation, or Free Market? An Examination of Mandated Health Benefit Reform, 2007 U. ILL. L. REV. 1361, 1371–74 (describing the preemptive effects of ERISA) (link).
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http://www.law.northwestern.edu/lawreview/colloquy/2009/33/
are more likely to defer childbearing and are the most likely to seek out treatment).\textsuperscript{20} The justification for such coverage, particularly without comprehensive health care reform, has to be based on something more than a desire to regulate the number of embryos implanted more effectively.

\textbf{B. What?}

Underlying Cahn’s and Collins’s approach is a sensible notion: more extensive regulation should lead to more extensive subsidies. Right now, the fertility industry rests on an implicit tradeoff. On the one hand, we lack comprehensive regulation in part because whenever restrictions are proposed that might command consensus, such as some limit on the number of embryos implanted, the debate quickly expands, as it did in Georgia, to include intractable issues such as the moral status of the embryo or limits on reproductive access for single women.\textsuperscript{21} On the other hand, with little regulation—and no subsidy—the industry is limited to wealthier (and relatively sophisticated) patients and doctors in small practices willing to forego the more secure income that comes with insurance coverage.\textsuperscript{22} These doctors and patients operate largely below the public radar (at least until a Nadya Suleman garners publicity) with limited oversight. The result is a flourishing industry in which many clinics discriminate against same-sex couples, AIDS sufferers, and single men, while others cater specifically to gays and lesbians, and others still aid anyone who walks in the door—and can pay.\textsuperscript{23} It is also an innovative industry that often experiments with new techniques earlier than other places in the world. Nonetheless, as Jaime King observes:

The absence of federal research funding has pushed reproductive genetics out of the laboratory and into medical practice. Advances in reproductive technology, such as PGS [preimplantation genetic screening], have been widely achieved on the basis of theory-driven rather than data-driven hypotheses, given the lack of funds for research and the absence of legislation that requires safety and efficacy research prior to clinical use. As a result, couples often have to make treatment decisions with little evidence of

\textsuperscript{20} See Debora L. Spar, Where Babies Come From: Supply and Demand in an Infant Marketplace, HARV. BUS. REV., Feb. 2006, at 133, 135 (reporting that “[o]nly thirty-six percent of infertile women in the United States seek medical assistance in conceiving, . . . and only one percent of women try IVF or other high-tech treatments”) (link to abstract).

\textsuperscript{21} For discussions of the lack of regulation, see, e.g., Francis Fukuyama & Franco Furger, BEYOND BIOETHICS: A PROPOSAL FOR MODERNIZING THE REGULATION OF HUMAN BIOTECHNOLOGIES 293–300 (2006); Lars Noah, Assisted Reproductive Technologies and the Pitfalls of Unregulated Biomedical Innovation, 55 FLA. L. REV. 603 (2003).

\textsuperscript{22} On the characteristics of the industry, see generally Spar, supra note 20, at 133–35.

safety and efficacy, and policymakers have little data to suggest a need for regulation.  

Cahn’s and Collins’s proposal to expand insurance coverage rejects this tradeoff. They write that “[i]nfertility is one of the most difficult life challenges an individual can encounter, and we believe we must do more to facilitate access to treatment.” But why, what, and for whom? I am sympathetic to the claim that insurance coverage should extend to reproductive procedures on at least the same basis as the coverage of Viagra as a matter of basic equality for women. Nonetheless, I am bothered at least as much as Senator Hudgens by the prospect that my health insurance premiums might rise in order to cover fertility treatments for a woman who already has six children, and though I agree with Cahn and Collins that the government should not restrict the ability of any man or woman to reproduce, I am not so sure that insurance funds should be available irrespective of “preexisting family size, the financial resources available to care for any children born as a result of ART, or the marital status or sexual orientation of potential patients.” Moreover, with mandated insurance coverage and no additional funds for research, the question of what treatments will be covered, and which deemed experimental, will likely become more intense.  

Current regulations restricting the implantation of multiple embryos rest on the health implications for the children that may result from in vitro procedures. Extending insurance coverage to fertility treatments on a comprehensive basis at either the federal or the state level necessarily involves a more complex calculus—such regulation must also consider whose reproduction should be subsidized (or more accurately cross-subsidized by those contributing to the premiums). And if the interests of children can be taken into account in making a decision about overseeing medical procedures, why should the interests of taxpayers (or other healthcare consumers) not be considered in deciding whose reproduction should not only be tolerated, but encouraged and paid for by others?

C. Who?

Comprehensive funding for reproductive technologies must address the types of technologies that should be encouraged, and defining types of coverage raises the issue of for whom they should be encouraged. The issue of “who,” as the subject rather than the object of the sentence, however, raises a different set of issues. Expansion of insurance coverage could potentially

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25 Cahn & Collins, supra note 1, at 511.
26 Id. at 511–12.
change the dynamics of the industry in fundamental ways, and it would do so in large part because it would change the character of the medical practice, the patients, and the level of oversight appropriate and possible for both.

First, consider the doctors. With comprehensive insurance coverage, fertility physicians, once considered the cowboys of the medical profession,\(^28\) would become much more like other doctors. On the one hand, this should make them more responsive to professional norms. On the other hand, it may also make them more risk averse when dealing with controversial patients. Doctors who willingly treat single women today, for example, might hesitate to do so if they were associated with a religious or community hospital embarrassed by the association with an unemployed single mother, even one who gives birth to a single child instead of octuplets.\(^29\)

Second, the effects of broader insurance coverage would vary with changes in the composition of the patient group. Existing insurance mandates appear not to have increased access to ART to a significant degree, apparently because those with access to employer-funded health insurance already have the resources to pay for treatment.\(^30\) If Cahn’s and Collins’s reforms are similar in scope to those already existing in some states, the net effect would be to disproportionately benefit the most advantaged of those already using fertility services. If, on the other hand, the reforms succeeded in expanding the patient population, many people who today would not consider fertility treatments because they could not afford them would seek access, increasing the importance of issues that may be of less concern today. For example, an expanded patient group might be less sophisticated than the current one, raising the need for more consumer protection measures. Or, it might be less healthy, raising issues about the effectiveness of treatment.\(^31\)

Third, a new set of actors will be introduced into the ART process—most notably, insurance companies. Insurance companies will likely want to restrict eligibility, as they already do with respect to existing policies, arguing that “(1) infertility is not an ‘illness’; (2) artificial insemination is not a ‘treatment’; and (3) infertility treatment is not ‘medically necessary,’” or

that specific treatments are experimental.\textsuperscript{32} Moreover, insurers are likely to define single women and same-sex partners as not suffering from an illness and therefore not eligible for coverage. The more that access depends on insurance coverage and the more that it becomes a matter of routine for some, the more that coverage for others is likely to become a matter of contention.

All this suggests that a subsidized industry, whether subsidized directly or through insurance premiums, will be one with different doctors, different patients, and different regulatory issues than the one that exists today. Cahn and Collins raise the concern that “opening the door to any kind of government interference in fertility treatments will also open the door to restrictions on ART access . . . .”\textsuperscript{33} In a transformed industry, however, decisions about access will be inevitable. Private clinics often discriminate now, but the refusal by any given clinic to treat a patient does not necessarily result in a total denial of care. For many, however, the denial of insurance coverage would preclude treatment, and give rise to calls for more legislation to prohibit—or impose—such limitations. What are now small-scale private decisions will become large, publicly debated ones, carrying higher stakes for the patient.\textsuperscript{34}

\textbf{D. When?}

Finally, any substantial expansion of medical insurance coverage in the context of a U.S. health care system that does not provide basic coverage for millions of Americans is likely to be exceptionally controversial. Accordingly, a comprehensive proposal should be evaluated in the context of the Obama Administration’s overall approach to comprehensive health care reform. The costs of such an expansion in coverage would almost certainly be weighed in terms of the affordability of other reforms—but overall provision for health care is the context in which these regulatory decisions take place, and it is the appropriate framework for such decisionmaking.

\textbf{III. CONCLUSION: SURVIVAL OF THE FITTEST POLICIES?}

Cahn and Collins are right to connect proposals for the regulation of assisted reproduction with expansions in mandated insurance coverage and limitations on the ability of doctors to determine their patients’ ability to reproduce. They are certainly correct that the issues are intertwined, and that changes in one area will increase the importance of changes in the other areas. They are also right that the American failure to systematically address either the reproductive needs of a significant part of the population or

\textsuperscript{32} Meltzer, supra note 27, at 826.

\textsuperscript{33} Cahn & Collins, supra note 1, at 511.

\textsuperscript{34} In addition, state legislatures that mandate insurance coverage may also condition it on marital status. For an examination of such efforts, see Daar, supra note 30, at 43–48.
the abuses that result from an industry with so little oversight is inexcusable.

At the same time, once the combination of expanded insurance coverage and systematic regulation is in place, the implications will be far broader than regulating how many embryos to implant. Left untouched in this discussion are such controversial issues as how and when to allow the adoption of new procedures. Will the new regulations, for example, permit use of preimplantation genetic diagnosis not only to determine potential diseases, but also to increase the chances of a successful pregnancy? Will the government help fund studies to determine the safety of new procedures? Will it address the storage, donation, and destruction of embryos—a politically incendiary issue in many legislatures?

The largest criticism I have of the Cahn and Collins argument is that their suggestion that we should regulate the number of embryos implanted is far too narrow a framework in which to decide whether to go down the path of comprehensive insurance financing and public regulation—a path that will transform the dynamics of the industry. The issue of embryo implantation may be one where the current world of lightly regulated practices works much better than press accounts indicate. As evidence that voluntary professional regulation is inadequate, Cahn and Collins cite statistics that 4% of IVF cycles still involve implantation of four or more embryos. What they do not say is that for women under the age of thirty-five, the percent receiving four or more has fallen from 64% of IVF cycles in 1996 to 3% in 2006. The number of triplets implanted also fell from a high of 50% in 1998 to 16% in 2006, while the number of singleton implantations has risen from the de minimis level to 7%. In other words, the current unregulated world of fertility practice is not static. Despite the incentives to implant multiple embryos, professional guidelines and the shift in medical practices have done a remarkable job in reducing the number of multiples who result from assisted reproduction. Suleman’s octuplets are the outliers; the difficult issue is that 75% of implantations are with two embryos, undertaken, in part, because many fertility patients want twins. I am dubious whether it is worth the transformation of the entire industry in order to limit the small remaining number of excessive implantations.

35 See King, supra note 24.
36 Cahn & Collins, supra note 1, at 510.
38 Id.
39 Astrid Højgaard, Lars D.M. Ottosen, Ulrik Kesmodel, Hans Jakob Ingerslev, Patient Attitudes Towards Twin Pregnancies and Single Embryo Transfer—A Questionnaire Study, 22 HUM. REPROD. 2673 (2007) (finding that most patients treated for infertility preferred to have twins (58.7%) rather than one child (37.9%)), available at http://humrep.oxfordjournals.org/cgi/content/abstract/22/10/2673 (link).
Instead, I would like to see the debate over financing reform conducted on terms of its own in accordance with an evolutionary analysis that takes into account the forces such measures are likely to unleash. Cahn and Collins are clearly troubled by the inequalities in access to fertility treatments. Broadening access as part of wholesale health care reform is a worthy objective, and it should be proposed together with calls for greater regulation. If more comprehensive financing were to become available, greater oversight would become easier, and to some degree inevitable. It would still leave room, however, for an intense—and I suspect quite different—debate on how to decide how many children are “enough.”