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THE CHALLENGES THAT DEVELOPMENTS IN GENETICS AND ARTIFICIAL REPRODUCTIVE TECHNIQUES PRESENT TO INTERGENERATIONAL SOLIDARITY

by Jorge Nicolás Lafferriere

ABSTRACT

New developments in genetics threaten, in different ways, the goal of intergenerational solidarity. With artificial reproductive techniques, the transmission of human life has shifted from the mutual donation of man and woman to the fields of desire and production. Concomitantly, advances in genetics afford the possibility of selecting the desired traits of children. This can be accomplished by the selection of gametes (e.g., the choice of a sperm donor with desirable genetic traits), the selection of embryos early in pregnancy (pre-implantation diagnosis followed by the elimination of embryos with unwanted characteristics), or the selection of embryos later through eugenic abortion. The problem of who should pay for "bad genes" raises additional questions and generates new pressure to eliminate people who present genetic disadvantages. These developments render intergenerational relations ambivalent. The exercise of this genetic mastery gives the adult generation a new power over the offspring and subjects them to a new form of genetic dependency. The power to shape the genetics of the next generation raises many new issues for the juridical sciences. This article aims to analyze the ways in which these challenges to intergenerational solidarity occur and their implications for the value of intergenerational solidarity.

I. STATEMENT OF THE QUESTION

With the advent of new bio-technologies, the link between sexual relations and procreation has been broken, a new eugenics has become possible, and the
“consumerist” mentality decried by Zampetti threatens even to affect attitudes towards children. The increasing ability to exercise human control over the processes and “products” of human reproduction will affect the very meaning of having children in ways that are difficult to foresee. What are the implications of allowing reproductive activities to become increasingly technological and commercialized? What will it mean for one generation to design, redesign, “improve,” or select the genetic characteristics of the next generation?2

In 1996 and 2002, two cohabiting deaf women, Sharon Duchesneau and Candy McCullough, resorted to artificial reproductive techniques in order to conceive deaf children by using sperm donated by a friend who was specially selected because there had been five generations of deaf people in his family.3 The women saw deafness “as a cultural identity and the sophisticated sign language that enables them to communicate fully with other signers as the defining and unifying feature of their culture.”4

This dramatic example shows how the use of reproductive biotechnologies is not confined to situations of infertility or sterility. It is common today to resort to techniques that enable human procreation by means that are different from sexual union between man and woman in order to pursue a wide variety of purposes, among them the selection of desired characteristics of the offspring. This may be attempted by the selection of gametes or by the selection of embryos. Choice of descendants may also be made in a negative way through abortion when adverse outcomes are predicted through prenatal diagnosis. So we are able to verify that, owing to a number of complex factors, some scientific developments have facilitated the development of a eugenic mentality that aims to model the characteristics of descendants.

In this article, we intend to consider the ways in which such practices could affect intergenerational relationships. We will analyze whether the use of reproductive biotechnologies creates or undermines solidarity between generations. Finally, we will make some proposals to limit negative consequences in order to generate a fairer and more supportive society.

2 Mary Ann Glendon, A New Role for the Family in the State, in INTERGENERATIONAL SOLIDARITY 102, 106 (2002).
II. THE NEW EUGENICS

A. Description of the New Eugenics

The selection of the genetic characteristics of descendants can be achieved through:

a. Selection of the donor of a gamete (sperm or egg) based on donor traits, such as intellectual capability, physical appearance, race, and age, or based on health characteristics and predisposition or lack of predisposition to certain illnesses.

b. Selection of the pre-implantation embryo based on genetic diagnosis. Embryos deemed undesirable may be eliminated; embryos deemed desirable may be implanted.5

c. Selection of post-implantation embryos based on prenatal diagnosis: those deemed undesirable may be aborted.

Often, but definitely not always, practices such as these are adopted in order to avoid illness or defect.6 These practices have given rise to what some people call a new eugenics. As Hubbard and Wald state:

The idea of “race purity” may have died; the idea of building a strain of supermen may have died; but the idea that it is more beneficial for certain people to have children than others, and that a vast range of human problems can be cured once we learn how to manipulate our genes, remains very much with us.7

Among the reasons that lead to selective eugenics, Roberto Andorno identifies, and denounces, the slide towards a “medicine of wish,” the loss of consciousness of the ineffable worth of each individual human life and the techno-

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5 See generally REGULATING PRE-IMPLANTATION GENETIC DIAGNOSIS: A COMPARATIVE AND THEORETICAL ANALYSIS (Sheila A. M. MacLean & Sarah Elliston eds., 2013).
6 See generally Gordana Kovaček-Stanić, State Regulation of Surrogate Motherhood: Liberal or Restrictive Approach, 4 INT’L J. JURIS. FAM. (forthcoming 2013).
scientific utopian belief in a supposedly unlimited power to improve the human being.8

Sonia Suter articulates the differences between eugenics as proposed by the eugenics movement in the early twentieth century and today’s new eugenics related to biotechnologies. “Neoeugenics” is not imposed by the state but is voluntary; it is not implemented in a racist context with the aim of eliminating some ethnic groups; it is not based on a simplified vision of the inheritance of characteristics and behaviors. Nevertheless, for Suter neoeugenics is troubling owing to its “focus on the hereditability of traits,” “tendency toward genetic determinism,” “privileging of science,” “focus on the societal benefits of genetic technologies,” and because of “societal pressure to increase the chances of having ‘well-born’ children or to decrease the incidence of ‘less fit’ children.”9

It is usual to distinguish between what might be called “promotive eugenics,” which seeks to improve the human species by encouraging marriage between selected people and by the facilitating the selection of gametes originating from people with wanted features, and what might be called “restrictive eugenics,” which seeks to avoid the transmission of genetically unwanted features, for example by banning reproduction between disabled people or by sterilization, abortion, and embryo de-selection.

Both sorts of eugenics have serious limits. Eugenics in its most ambitious form tries to completely eliminate human vulnerability and to create a perfect, pure, and superior man. Historical experiences suggest that such ambitions end in oppression. Nevertheless, discoveries about the human genome seem to open great possibilities for innovation and invite a rebirth of eugenic pretentions. Genetics today, it seems, may be used to determine normality and abnormality with something approaching mathematical rigor.

B. Critical Assessment of the New Eugenics

These eugenic tendencies deserve serious critical attention. They implicate fundamental juridical principles, related above all to the dignity of the human being.


Challenges of Genetics and Artificial Reproduction

Francesco D’Agostino emphasizes “the absolute lack of ethics of all eugenic projects” and states that “the logic of eugenics is necessarily related to the logic of centralized or arbitrary social power, which aspires to regulate in a radical way not only life but also its future subject’s ... individual identity.”

It has been maintained that vulnerability to genetic defects is the price we must pay for participation in the great procession of genetic inheritance. The same mechanism that originates and transfers genetic illness underlies the wonderful reality of human diversity. As Gonzalo Herranz states: “It has a price to make all of us different and at the same time the children of our parents: the risk of making us vulnerable to occasional molecular pitfalls, to genetic flaws, which are transmitted with the same constancy as normal features. A not too high fee.”

Spaemann asserts that genetic technology projects are objectionable for two important reasons. First, “it is a mistake to think that rational planning is superior to ‘natural’ development resulting from millions of diminutive steps.” Second, the “human person is a figure, a whole. All of her characteristics are related to other characteristics and only in this context have a precise meaning.”

1. The New Eugenics as an Affront to Human Nature and Dignity

In this section, we will deal with the problem of eugenics as a threat to human dignity. First we will consider human dignity as a basic human good. Then we will ask whether eugenics threatens or augments human dignity and in what ways.

Human dignity has played a central role in human rights, including the area of bioethics, notably in the Universal Declaration on Bioethics and Human Rights.

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11 Gonzalo Herranz, Medical-Ethical Problems in Prenatal and Pre-Implantation Genetic Diagnosis, in HUMAN GENOME, HUMAN PERSON AND THE SOCIETY OF THE FUTURE 190, 194 (Vial Corfrea, Juan de Dios & Elio Sgreccia eds., 1999).
Rights adopted by the United Nations Educational, Scientific and Cultural Organization (UNESCO), although there is an increasing debate on the importance and usefulness of founding principle on dignity. While Ruth Macklin says that “dignity is a useless concept in bioethics,” Andorno emphasizes that the notion of human dignity is beginning to be seen as the last barrier against the alteration of some basic features of the human species that might result from practices such as reproductive cloning or germ-line interventions.

The key issue is the meaning of dignity and there are several ways dignity can be understood. We understand that human dignity involves the intrinsic value of each human being and also the value of humanity as such. Every

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Dignity refers to the minimum dignity which belongs to every human being. The notion of dignity is used to mark a threshold, a kind of respect and care beneath which the treatment of any human being should never fall. Unlike merit as an embodiment of publicly recognized personal achievements, a person is dignified as a human being as such. Human dignity appears to perform a distinct role, as the source from which human rights are derived, or as a reason for promoting human rights. The rights are needed and expected to secure and uphold the dignity of the human person.


human being has an inherent value and should never be used solely as a means to obtain benefits, nor be subject to experiments that undermine his or her integrity. Human dignity is the root of fundamental rights, especially the right to life and the right to personhood.\textsuperscript{19} Roberto Andorno explains that the UNESCO Declaration on Bioethics and Human Rights (2005)\textsuperscript{20} emphasizes the priority of the human being over science and emphasizes two ideas: “First, that science is not an end in itself but only a means for improving the welfare of individuals and society. Second, that people should not be reduced to mere instruments for the benefit of society.”\textsuperscript{21} He also says that there are two different dimensions of the notion of dignity: On the one hand it is an overarching policy principle and on the other it is a standard of patient care.\textsuperscript{22}

The paradoxical aspects of the notion of human dignity help us understand the problem of eugenics. Indeed, as Andorno says, the paradoxical features of the notion of human dignity may, in a first stage, explain the difficulty in grasping its meaning and role; those same paradoxes, if well examined, far from obscuring the meaning of human dignity bring to light its full significance.\textsuperscript{23} One of those paradoxes is related to “the idea of a human’s mastery of nature by means of technological developments, which in the end leads to dominion over human nature itself.”\textsuperscript{24}

Some authors think that eugenics may be a way to augment human dignity. For instance, Bostrom argues that “it is possible that through enhancement we could become better able to appreciate and secure many forms of dignity that are overlooked or missing under current conditions” and suggests “that, in a posthuman world, dignity as a quality could grow in importance as an organizing moral/aesthetic idea.”\textsuperscript{25}

\textsuperscript{19} See Charles I. Lugosi, Respecting Human Life in 21st Century America, 48 ST. LOUIS U. L.J. 425 (2004) (arguing that the unborn are human beings and persons from the time of conception and that the legal distinction between a person and human being must be abolished if we are to live in a society of equals).

\textsuperscript{20} Id. at n.15.

\textsuperscript{21} Andorno, supra note 17, at 228.


\textsuperscript{23} Roberto Andorno, Four Paradoxes of Human Dignity, in MENSCHENWÜRDE UND MODERNE [HUMAN DIGNITY AND THE MODERN AGE] 131 (J. Joerden et al. eds., 2011).

\textsuperscript{24} Id. at 137.

We think that eugenic enhancement inevitably affects the fundamental human goods that are implied in the notion of dignity, which “are the actualizations of our basic potentialities, the conditions to which we are naturally oriented and which objectively fulfill us, the various aspects of our fulfillment as human persons. They include such fulfillments as human life and health, speculative knowledge or understanding, aesthetic experience, friendship or personal community, and harmony among the different aspects of the self.”\(^{26}\)

Leon Kass responds to proposals for genetic enhancement and strongly affirms that:

\[\ldots\text{we cannot evaluate any proposed enhancements or alterations of our humanity unless we have some idea of human dignity, some notion of what is estimable and worthy and excellent about being human. In order to know whether change is progress rather than degradation, we need a standard of the undegraded and the admirable. We need to understand the nature and worth of human flourishing in order to recognize both the true promise of self-improvement and the hazards of self-degradation; we need to understand the nature and worth of human agency and human activity in order to recognize both enhancement and corruption of our ways of encountering the world and one another; we need to understand the nature and worth of human aspiration and human fulfillment in order to assess not only the means but also the ends that we will be pursuing in the coming age of biotechnology, both for ourselves as individuals and for our society. We need, in short, wisdom about human dignity and what sustains and enhances it—and what destroys it.}^{27}\]

We think that eugenics clearly threatens human dignity,\(^{28}\) because the newly created child is created as a product and has his or her genetic characteristics fixed by adults. This creates a new form of subordination: one incompatible with human dignity. Furthermore, eugenics treats human life as a commodity and in this undermines the intrinsic value of each human being.

Eugenics is often employed in order to overcome genetic disorders. As to this, Herranz states that genetic disorders make us human: First, because they remind us of our vulnerable nature; second, they offer us a lot of opportunities to help those who suffer and invite us to compassion; third, because they

\[^{26}\text{Patrick Lee & Robert P. George, The Nature and Basis of Human Dignity, in Human Dignity and Bioethics, supra note 25, at 409, 427.}\]

\[^{27}\text{Leon Kass, Defending Human Dignity, in Human Dignity and Bioethics, supra note 25, at 297 & 303–304.}\]

\[^{28}\text{There is a great deal more that might be said about the difficult but academically fashionable concept of dignity. See generally Ronald M. Green, Babies by Design: The Ethics of Genetic Choice (2007); George Kateb, Human Dignity (2011); Gilbert Meilander, Neither Beast Nor God: The Dignity of the Human Person (2009); Steven Pinker, The Stupidity of Dignity, New Republic, May 28, 2008, at 28, 30.}\]
generate social solidarity as people search for more humane and efficient treatments for those affected by genetic illnesses and avoid falling into the temptation to abandon them.29

A fundamental concern about the new eugenics is that it may undermine the respect owed to each human, affront his dignity, or undermine his equality. When one person determines the genetic characteristics of another, a relationship of domination and dependency is established that undermines the other’s dignity and detracts from the value that each person should be recognized as possessing just as a result of being human: the entitlement not to be treated as a mere means.

Jürgen Habermas denounces the plausible excess of the possibility of “fixing” the characteristics of the person who comes into existence:

Looking at a possible future for human nature makes us aware of the present need for regulation. Normative barriers in our dealings with embryos are the result of a point of view taken by a moral community of persons that fends off the pace-makers of a self-instrumentalization of the species in order to safeguard ... its communicatively structured way of life.30

For Habermas:

Eugenic programming of desirable traits and dispositions ... gives rise to moral misgivings as soon as it commits the person concerned to [a] specific life-project or, in any case, puts specific restrictions on his freedom to choose a life of his own. The irreversible choice a person makes for the desired makeup of the genome of another person initiates a type of relationship between these two which jeopardizes a precondition for the moral self-understanding of autonomous actors.31

Eugenic practices damage the equality basic to human relations. Charles Foster thinks that there will always be concerns about equality and there may be concerns about whether genetic enhancement means that the enhanced person is being “undignified” or “dehumanized.”32 Martin Rhonheimer explains this as follows:

... we cannot live together without difficulty with persons on whose desires and conditions, and indeed on whose causal will, our existence depends, because the

29 Herranz, supra note 11, at 194.
31 Id. at 84 & 87.
32 CHARLES FOSTER, HUMAN DIGNITY IN BIOETHICS AND LAW 152 (2011).
humanity of human coexistence ... presupposes the unconditional reciprocal recognition of the other as “equal to me.” Similarly, we cannot expect that persons whose existence depends on our merely conditional acceptance—conscious of having been selected from among a number of embryos according to eugenic criteria, or proven healthy by prenatal diagnosis and only because of this alive—can live with us in a relationship of unconditional acceptance.33

2. The New Eugenics as Threatening the Best Interests of the Child

It has been argued that the new eugenics, or some of the techniques that it involves, threatens the best interests of the child who results from its use.34 Some writers use the acronym BIRC (best interests of the resulting child).

I. Glenn Cohen calls this argument a smokescreen, stating that:

Unless the State’s failure to intervene would foist upon the child a life not worth living, any attempt to alter whether, when, or with whom an individual reproduces cannot be justified on the basis that harm will come to the resulting child, since but for that intervention the child would not exist.35

In her response to Cohen, Helen Alvaré says that:

... the BIRC rationale makes sense as a public and private effort—albeit neither a consistent nor a particularly robust effort—to remind parents, before the moment parenting begins (conception) to be what the law later (after-birth) needs them to be and assumes that they are: fit parents who act in their children’s best interests. ... What matters is that the state find some way of expressing to adults that important aspects of a potential child’s future are established at the moment of conception. The

33 MARTIN RHONHEIMER, ETHICS OF PROCREATION AND THE DEFENSE OF HUMAN LIFE: CONTRACEPTION, ARTIFICIAL FERTILIZATION, AND ABORTION 170–171 (Joseph T. Papa trans. of quoted material, 2010). The quoted passage continues:

And furthermore, conscious of being born only to fulfill my parents’ desire for ‘a child’—‘I’ additionally am under constraint not to allow the initial fulfillment of this desire to become a frustration for my parents—like a vacation in the Canary Islands that started out well but was rained out.

Spanish translation titled ÉTICA DE LA PROCREACIÓN 166 (José Mardomingo & José Ramón Pérez-Arangüena trans., 2004).


child’s genetic makeup, the presence or absence of a stable relationship between his or her biological parents, the family’s economic situation for at least some portion of the child’s minority, and other matters are discernible at the moment of conception.36

3. The New Eugenics as a Violation of the Right to Life

The third deep objection to the new eugenics relates to the deliberate elimination of human beings. Some new eugenic practices involve eliminating unwanted persons. This of course violates the right to life, a fundamental human right, rooted in the juridical culture and founded on natural law.

4. The New Eugenics as a Wrongful Departure from Natural Means of Transmitting Life

A further objection to the new eugenics, going beyond the prohibition of taking life, is that one must respect the natural procedures of human life transmission. Artificial reproductive techniques go far beyond those steps that aim to resolve problems of infertility and sterility and tend to establish themselves as alternate mechanisms for producing people.

Roberto Andorno is clear when he states that “in vitro fertilization began with a merely eugenic purpose.”37 He poses some fundamental questions:

... have we the right to fix a list of “quality” requirements to recently conceived human beings in order to decide who of them deserve to continue living and who doesn’t? ... Is it possible to suppress some human beings (human embryos are human beings) just because they are carriers of certain illnesses? Wouldn’t that suppose a return to practices of primitive times, like ancient Sparta, where newborns who were not capable of waging war were suppressed? Does not the elimination of “not in accordance to the rule” embryos lead surreptitiously to a disdain for adults who carry the same defect? ... Who has the right to decide which are the “good” genes that must be promoted and which the “bad” ones that justify their carrier elimination?38

Those new eugenic procedures that involve pre-implantation selection raise special concerns. Some have expressed well-founded fears of the application of

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38 Id. at 27–28.
abusive or discriminatory selection procedures.\textsuperscript{39} Besides, as Jacques Testart observes:

\ldots the abundance of eggs necessary to the medically assisted procreation programs' (MAP) success becomes the indispensable means for the new eugenics: Before rejecting the worst by eliminating him (PND—prenatal diagnosis), there will be chosen the best by selection (PID—pre-implantation diagnosis). While the PND allows the evaluation only of a future child by couple and by year, based on an already initiated pregnancy, PID allows the evaluation of several hundreds of [children], since there may be five, ten, or twenty embryos several times a year. We must admit that this abundance will have consequences for the tolerance of anomalies, because the aim of each couple is to have just a few kids in the course of their lives.\textsuperscript{40}

The ability to program the genetic characteristics of the child is increased by pre-implantation diagnosis and consequent selection. That means the elimination of those embryos who lack the desired characteristics and the retention of those who possess them.

Definitely, "\textit{in vitro} fecundation with transfer of embryos has become one of the fundamental means for reducing the human condition to that of objects and has extended the range of eugenic conception."\textsuperscript{41}

III. THE EFFECTS OF THE NEW EUGENICS ON INTERGENERATIONAL RELATIONSHIPS

The issue of human life transmission directly affects intergenerational relationships. The term \textit{intergenerational solidarity} has been coined in order to characterize close intergenerational relationships. It refers to strong bonds between generations, which are needed in order to guarantee the welfare and education of future generations and care for the generation that is growing old.\textsuperscript{42} This solidarity is one of the most important elements of the unity of the


\textsuperscript{40} Jacques Testart, \textit{La Procreación Artificial [Artificial Procreation]} 99, (1994).


human family and is bidirectional: it looks forward, guiding those who make important decisions that respect the well-being of future generations; it also looks backward, honoring and preserving the accomplishments of ancestors and demanding support of the elderly. Family solidarity “is about the ties that bind families together, an issue of tremendous concern over the last quarter century as family forms have become more diverse and family norms more ambiguous.”

In a recent article, Professor Lynn Wardle, a leading American family-law scholar—the President of the International Academy for Study of the Jurisprudence of the Family and a past president of the International Society of Family Law—provides an extensive exploration of the many benefits that a well-bonded extended family affords to its members and to society. Wardle says that:

Extended families generally (when not rigid or authoritarian) enlarge and deepen kinship identity, providing children, youth, and adults with relational groundings: with what can be called “root paradigms.” They foster trust in others and in the future. Nurturing of trust by natural extended families undergirds the well-being of rising generations by creating social capital, enhancing trust-based strong economies, and increasing trust-based liberty.

Bengtson and Roberts proposed six constructs of intergenerational solidarity, with definitions and examples of empirical indicators, in the following table, quoted from their article:

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You are in a position to integrate him [your son], well or poorly, into the order of your extended family and thence to afford him his place in society. You are his link to the affiliational chain of his ancestors and the ancestors of his descendants. You are a major determinant of how he “gets the idea” of systems of honor and a major guide to how he in later life will appraise merit and demerit, apportion praise or blame, and recognize the standing and role of others.

45 Id. at 171 (footnotes omitted).
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<th>Construct</th>
<th>Nominal Definition</th>
<th>Empirical Indicators</th>
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| [1] Associational solidarity | Frequency and patterns of interaction in various types of activities in which family members engage | 1. Frequency of intergenerational interaction (i.e., face-to-face, telephone, mail)  
2. Types of common activities shared (i.e., recreation, special occasions, etc.) |
| [2] Affectual solidarity    | Type and degree of positive sentiments held about family members, and the degree of reciprocity of these sentiments | 1. Ratings of affection, warmth, closeness, understanding, trust, respect, etc. for family members  
2. Ratings of perceived reciprocity in positive sentiments among family members |
| [3] Consensual solidarity   | Degree of agreement on values, attitudes, and beliefs among family members          | 1. Intrafamilial concordance among individual measures of specific values, attitudes, and beliefs  
2. Ratings of perceived similarity with other family members in values, attitudes, and beliefs |
| [4] Functional solidarity   | Degree of helping and exchanges of resources                                         | 1. Frequency of intergenerational exchanges of assistance (e.g., financial, physical, emotional)  
2. Ratings of reciprocity in the intergenerational exchange of resources |
| [5] Normative solidarity    | Strength of commitment to performance of familial roles and to meeting familial obligations (familism) | 1. Ratings of importance of family and intergenerational roles  
2. Ratings of strength of filial obligations |
| [6] Structural solidarity   | Opportunity structure for intergenerational relationships reflected in number, type, and geographic proximity of family members | 1. Residential propinquity of family members  
2. Number of family members  
3. Health of family members |

Bengston endorsed the perspective of intergenerational solidarity and compared it with the conflict and ambivalence in intergenerational relationships.\textsuperscript{47} Bengston and his colleagues thought that:

... the solidarity framework represents a nomenclature for family integration in its various aspects. It is about the ties that bind families together, an issue of tremendous concern over the last quarter century as family forms have become more diverse and family norms more ambiguous. The evidence gathered using solidarity as a common metric for assessing the nature of intergenerational relationships suggests that, indeed, structural location and sociocultural changes affect families.\textsuperscript{48}

Bengston stated that family multigenerational relations will be more important in the twenty-first century for three reasons: "(a) the demographic changes of population aging, resulting in 'longer years of shared lives' between generations; (b) the increasing importance of grandparents and other kin in fulfilling family functions; (c) the strength and resilience of intergenerational solidarity over time."\textsuperscript{49}

Issues related to life transmission have to do with several of the major elements on the table above: affectual solidarity, functional solidarity, normative solidarity, and structural solidarity. "Many of our decisions have indirect effects on how many people will live and who they are, for many of our decisions affect who meets whom and who decides to have children with whom."\textsuperscript{50} This article now turns to an exploration of some of the ways in which new eugenic procedures may adversely affect intergenerational solidarity.

In achieving intergenerational solidarity, family has a key role. As Lynn Wardle remarks:

... extended family provides more persons and more resources, and therefore more physical protection for dependent and other needy family members. The extended family provides a larger network of family members to facilitate opportunities, including acquisition of education and employment. It affords richer resources for strengthening marriage and for assisting with rearing of children. Extended families

\textsuperscript{47} See Bengston, Giarrusso, Mabry & Silverstein, supra note 43.  
\textsuperscript{48} Id. at 572.  
\textsuperscript{49} Vern Bengston, Beyond the Nuclear Family: The Increasing Importance of Multigenerational Bonds, 63 J. MARRIAGE & FAM. 1, 1 (2001). More recent materials on intergenerational solidarity can be seen at MISA IZUHARA, AGEING AND INTERGENERATIONAL RELATIONS: FAMILY RECIPROCITY FROM A GLOBAL PERSPECTIVE (2010).  
provide wider and deeper internal networks for settling family disagreements and for enforcing those settlements.\textsuperscript{51}

The decline in birthrates in many parts of the world, especially Europe, has been widely noted.\textsuperscript{52} It poses an obvious risk to intergenerational solidarity. The trend to eliminate less able children through eugenics increases this problem. It might be argued that some people will have more children owing to their ability to have the sort of children they want. But that argument fails to distinguish between a negative selection, through the elimination of the less able, and an active selection, through the composition of an optimal child. It is easier to eliminate the less able than to create the best, a project that is likely to fail.

Pierpaolo Donati includes the demographic problem within generational issues: “Families are less and less committed to having children to an extent that overshadows the demographic transition from a traditional to a modern society; today, in some countries (e.g., Europe) even the model of the typical nuclear family with two children is at stake.”\textsuperscript{53}

As a result of decisions based on eugenics, there will be fewer young people to assure a good income level to older generations:

Our society cannot discharge the filial debt (the aid of younger people to the older) on generations that are not generated; if the replacement of the population should go on at the depressed levels which have occurred in the last two decades, around the middle of the next century only a few social security systems will be able to assure a fairly good income level for the older generations.\textsuperscript{54}

\textsuperscript{51} Wardle, \textit{supra} note 44, at 174.

\textsuperscript{52} See Organization for Economic Cooperation and Development (OECD), \textit{OECD Factbook 2013: Economic, Environmental and Social Statistics: Overview}, http://www.oecd-ilibrary.org/sites/factbook-2013-en/01/01/02/index.html?contentType=&itemId=/content/chapter/factbook-2013-2-en&containerItemId=/content/serial/18147364&accessItemIds=&mimeType=text/html

Total fertility rates in OECD countries have declined dramatically over the past few decades, falling on average from 2.7 in 1970 to 1.7 children per woman of childbearing age in the 2000s. In all OECD countries, fertility rates declined for young women and increased at older ages. A modest recovery in total fertility rates started in the early 2000s, to an average level of 1.7 in 2010. The total fertility rate is below its replacement level of 2.1 in most OECD countries except Israel, Iceland and New Zealand, and in India, South Africa and Indonesia.

An extensive review of the statistical literature is presented in Wardle, \textit{supra} note 44, at 177–80.


\textsuperscript{54} \textit{Id.} at 62 (emphasis omitted).
It might be argued, per contra, that the strain on social service funds will be diminished by eugenic practices because fewer so-called defective children lead to fewer medical costs and higher employability. But eugenics implies the idea of fewer and better children. Eugenic decisions are an additional cause of the decline in birthrates, although one cannot determine how great their effects may be.

Another consequence of the selection out of those with undesired characteristics is to promote a lifestyle centered in the wishes of adults. Donati observes a general trend according to which “families stick to a cultural process of privatization in their choices, feelings, and expectations, so that narcissistic and selfish orientation prevails on behaviours of internal solidarity and civic participation.” This trend can only be enhanced when procedures are implemented by which parents may determine characteristics such as the height, temperament, and gender of their offspring.

As Margaret Somerville points out: “Since reproductive technologies came on the scene, as both individuals and societies, we’ve faced issues unprecedented in human history with respect to children’s parentage and family structure. On the whole, adult-centred decision-making has prevailed in this regard.”

Intergenerational relationships are based on the idea of family, which has to do with an identity that has different aspects: genetic, biological, and social. (The biological aspect is emphasized by Carlos Martínez de Aguirre, who has pointed out the importance of biology and law in determining filiation. He recognizes that in some cases there is no perfect correspondence between biological parenthood and legal parenthood—“instances of nonalignment,” in his terminology—but he emphasizes that “biological filiation establishes, so to speak, the *template*.”)

Artificial reproductive techniques disrupt the identity of the family, giving priority to the procreational will in configuring family structure. “Today a family may be a group established more on the basis of choice than on the basis of biogenetic ties, including single-parent households and blended, adoptive, and

55 Id. at 60 (emphasis omitted).
58 Id. at 318.
59 Id.
The consequences of the new family structures have not been identified, but there are some concerns about the identity of children conceived by gamete donation and children of surrogate mothers.

George Dent acknowledges that "no society has ever disparaged the natural family," and so "we have no real examples of what such a society would look like. However, there are several literary visions (in philosophy, fiction, and film) of a world in which the legal and social significance of the natural family has been partly or totally eliminated.

After a rich analysis of those visions, Dent says: "The natural family acquired its prestige because it has always been central to the creation and nurturing of human beings. When this edifice is destroyed under a regime of 'families we choose,' what forces will build a new one?"

Increasingly, the construction of this new edifice is left to the choices of the adults. This weakens the intergenerational bonds, since those bonds are weaker when based only on the procreational will. The individual autonomy principle, under these circumstances, becomes the main principle of family life. The foundation of family solidarity is weakened.

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See Elizabeth Marquardt, Norval Glenn & Karen Clark, *My Daddy's Name is Donor: A New Study of Young Adults Conceived through Sperm Donation* (Institute for American Values, 2010), http://www.familyscholars.org/assets/Donor_FINAL.pdf


... although children born through reproductive donation obtained SDQ [Strengths and Difficulties Questionnaire] scores within the normal range, surrogacy children showed higher levels of adjustment difficulties at age 7 than children conceived by gamete donation. Mothers who had kept their child's origins secret showed elevated levels of distress. However, maternal distress had a more negative impact on children who were aware of their origins ....

The authors note that “the absence of a gestational connection to the mother may be more problematic for children than the absence of a genetic link.” Both of the above quotations are from the abstract.


Id. at 61.

It has been suggested that in some instances the application of new eugenic techniques may strengthen rather than undermine family solidarity. See Sara Franklin, *Comments*, 42 CURRENT ANTHROPOLOGY 250 (2001), commenting on Finkler, supra note 60 (noting the
Lynn Wardle says that:

... the definition of marriage and family are the defining issues of our generation. How the issues are decided will have life-changing, world-changing consequences, for better or worse. The disintegration of marriage and other family relations has tsunami-sized "ripple effects" on all other communities in and comprising society. As goes marriage goes the family, and as goes the family so goes the nation, and the world. The boundaries of belonging matter immensely for our own families, our children and grandchildren, and our nation.\(^{66}\)

Further adverse effects of the new eugenics on intergenerational solidarity are presented in the following sections of this article.

IV. PRESSURES TO USE NEW EUGENIC TECHNIQUES

A. Pressures on Parents and Prospective Parents

The increasing pressures on parents and prospective parents to use new eugenic techniques so as to affect the characteristics of their offspring present a serious issue. These pressures are applied primarily in the healthcare system, which faces the temptation to use genetic information to exclude from coverage, or to impose high costs upon, those people who conceive and give birth to children with avoidable genetic characteristics.

Insurance companies rely on the concept of risk. Genetic information is a valuable basis for calculating risk. Despite some recognition of what is called "genetic exceptionalism,"\(^{67}\) there exist strong pressures to use genetic information for this purpose. This results in pressure on parents who, facing the possibility of having to assume the costs resulting from genetic defects, may choose to abort the child. Pressure may also be brought to bear on healthcare


\(^{67}\) This term, and some of the implications of genetic exceptionalism for law and policy, are explored in Michael J. Green & Jeffrey R. Botkin, "Genetic Exceptionalism" in Medicine: Differences between Genetic and Nongenetic Tests, 138 ANNALS INTERNAL MED. 571 (2003).
professionals, who may offer prenatal genetic testing in order avoid damages in wrongful life actions.\(^\text{68}\)

**B. Pressures in Regard to Disabled Persons**

New eugenic practices can lead to harm to disabled persons. This can come about in two ways: on one hand, through the progressive and systematic elimination of the disabled by eugenic abortion following an adverse prenatal diagnosis; on the other hand, because of the negative message sent to disabled people that have already been born.

1. Eugenic Abortion

The elimination of disabled unborn persons through eugenic abortion is a major concern in our era. A survey in eighteen European countries between 2002 and 2004, using data from 1.3 million births, showed that 68% of Down syndrome cases were detected prenatally, and that of those that were detected, 88% resulted in termination of pregnancy.\(^\text{69}\) From the perspective of intergenerational relations, there is a generation of disabled people that will not be born because it has been deliberately eliminated before birth.

2. Expressive Effect

In the United States, the Hastings Center has reported that prenatal diagnosis is ethically problematic because it can encourage negative and discriminatory

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attitudes towards disability traits and disabled people.\textsuperscript{70} It found that the detection of one unwanted trait can be the cause of aborting a baby who otherwise would have been accepted and pointed out that the attitude of parents in these cases is a form of intolerance of diversity (not only societal diversity but also familial diversity). Those parents who prefer to abort a child when they find a disability trait forget that there are other traits that are as valuable and positive. A similar point is made by Elio Cardinal Sgreccia, who notes that:

All of the international documents relative to the recognition of the rights of handicapped persons affirm the full dignity of human subjects with handicaps as equal to the dignity of those without handicaps and, if anything, they also establish the need to provide greater assistance to those who are less physically autonomous. The selection of fetuses represents a mindset and a practice of domination by those who are physically able over those who are less so, and it shares the seriousness of racism despite its roots in hedonism.\textsuperscript{71}

Another approach to these problems comes from the analysis of family relations. As Lynn Wardle says,

\begin{quote}
Of course the most basic objection to eugenic abortion is its offense against human life, a point that is forcefully presented by Cardinal Sgreccia in the text immediately preceding the passage quoted above and at page 445 of the translation, where he states that “the fertilized egg has an intrinsic connection and shares an intrinsic destination with the developing personal being in order to rule out any act of destruction or alteration of its integrity.”
\end{quote}
As family bonds are weakened, an important bastion against creeping statism and tyranny is eroded, since unwarranted or unjust interference with a family member is likely to be deeply resented and long remembered by the entire family (more vehemently and longer than would be the case where the victim is a stranger).\(^{72}\)

For these reasons, we can conclude that the eugenic selection of descendants affects social sensibility towards disabled persons, and, in this way, is contrary to intergenerational solidarity.

V. THE INDIVIDUALISTIC DYNAMISM OF THE NEW EUGENICS

Instead of promoting intergenerational solidarity, fixing the desired characteristics of offspring implies a radical individualism that undermines the basis of intergenerational solidarity.

Michael Sandel has noted the deleterious consequences of eugenics for solidarity. He points out that social solidarity arises from the recognition that our genetic endowments are gifts:

Why, after all, do the successful owe anything to the least-advantaged members of society? One compelling answer to this question leans heavily on the notion of giftedness. The natural talents that enable the successful to flourish are not their own doing but, rather, their good fortune—a result of the genetic lottery. If our genetic endowments are gifts, rather than achievements for which we can claim credit, it is a mistake and a conceit to assume that we are entitled to the full measure of the bounty they reap in a market economy. We therefore have an obligation to share this bounty with those who, through no fault of their own, lack comparable gifts. ... A lively sense of the contingency of our gifts—an awareness that none of us is wholly responsible for his or her success—saves a meritocratic society from sliding into the smug assumption that success is the crown of virtue, that the rich are rich because they are more deserving than the poor. ... [P]erfect genetic control would erode the actual solidarity that arises when men and women reflect on the contingency of their talents and fortunes.\(^{73}\)

Similar insights might be developed as to the effects of the new eugenics on familial solidarity.\(^{74}\)

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72 Wardle, supra note 44, at 196.
74 Sandel also states:

In a social world that prizes mastery and control, parenthood is a school for humility. That we care deeply about our children, and yet cannot choose the kind we want, teaches parents to be open to the unbidden. Such openness is a disposition worth affirming, not only within families but in the wider world as well. It invites us to abide the unexpected, to live with dissonance, to
VI. SOCIAL POLICY IMPLICATIONS

Thus, those who reflect on intergenerational relations cannot ignore the new problems that arise from the use of artificial reproductive techniques.

To respond to this eugenic challenge, we propose some social and legal initiatives:

a. Laws should be enacted for the protection of human life, prohibiting the elimination of unborn human persons even if they are afflicted with genetic diseases or malformations.

b. The law should prohibit the use of artificial reproductive techniques in ways that involve the selection of descendants through gamete or embryo selection.

c. Policies should be adopted that encourage families to have children, so as to raise birthrates.

d. Laws should be enacted controlling the use of genetic information.

Pierpaolo Donati makes the following further suggestions for the achievement of intergenerational solidarity (suggestions which we endorse):

A bigger investment in new generations. Families seem to invest less and less in new generations. Some nation-states picked up this task increasingly, but without an explicit policy. It is nowadays more and more evident that, if they want to survive, governments must assume more responsibility for what one generation leaves to the next in terms of public resources, taking into account not only the economic, but also the cultural, social, and ecological dimensions of generational transfers. So far a few researches have been done on this topic.

Real freedom of choice in having babies. To rebalance the ratio among generations means putting families in the condition to have a number of children close to the replacement level. The point is not to adopt pro-natalist policies in the spirit of incrementing the population, but to take up policies oriented towards more social justice. Apart from the fact that incentives in favour of pro-natalist policies would have minimal effects, the problem is basically to fill the gap between the number of children that couples really have and the number of children they would like. With high probability, this means bringing the fertility ratio up to about 2.1 children per woman ....

... reign in the impulse to control. A ... world ... in which parents became accustomed to specifying the sex and genetic traits of their children, would be a world inhospitable to the unbidden, a gated community writ large.

Id. at 582–85.

Donati, supra note 53, at 76–77.
As Sandel says:

To appreciate children as gifts is to accept them as they come, not as objects of our design, or products of our will, or instruments of our ambition. Parental love is not contingent on the talents and attributes a child happens to have. We choose our friends and spouses at least partly on the basis of qualities we find attractive. But we do not choose our children. Their qualities are unpredictable, and even the most conscientious parents cannot be held wholly responsible for the kind of children they have. That is why parenthood, more than other human relationships, teaches what the theologian William F. May calls “openness to the unbidden.”

We conclude by endorsing Francesco D’Agostino’s statement:

... within the complex paradigm of life sciences, genetics, when it is seen as genetic engineering and forgets its constitutive links with medicine, projects ... towards a future so diffuse that is completely uncertain. ... a problematic future, even a threatening one ... . But genetics can have another symbolic value, that has to be rethought adequately. It reminds us of the links between generations, and, ultimately, the intergenerational unity of the human family. From this point of view, integrating bioethics with genetics can be very valuable: showing each person his essential and intimate legacy within a generative line which its beginning and its end none of us can even imagine; it contributes essentially to overcoming the individualistic sense that constantly tempts every man, especially if he is ill. There is a common destiny that [it] is necessary to be aware of.

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77 D’Agostino, supra note 10, at 81.