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# THE RIGHT TO LIFE IN LAW: THE EMBRYO AND FETUS, THE BODY AND SOUL, THE FAMILY AND SOCIETY

STEPHEN C. HICKS\*

## I. INTRODUCTION

The question of the moral and legal status of the fertilized egg, embryo, and fetus is the key to the continuation of many modern experimental and therapeutic practices. In this Article, I propose to analyze the meaning of the proposition that "life begins at conception," and more generally what is colloquially called the "right to life" argument, which have been attached to political movements that threaten the continuation of the modern practices.<sup>1</sup> I assume a knowl-

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1. My aim is to bring together all the arguments—scientific, legal, philosophical, ethical, and religious—that have been used for and against the personhood of the embryo and fetus, terms which themselves are not unambiguous. The fetus is aged eight weeks. The embryo describes the developing life form from implantation to eight weeks. Before implantation there exists the pre-embryo or fertilized egg. I shall use the word "embryo" to mean the fertilized egg, implanted egg, early embryo up to about eight weeks, and fetus of a certain age if nothing of importance depends upon the difference, because it more accurately describes the subject of modern medicine without the emotional overload that "fetus" now has. The word "embryo" is derived from Greek meaning "swelling out from within." The word "fetus" is Latin and means "offspring." Gary M. Atkinson, *Persons in the Whole Sense*, 22 AM. J. JURIS. 86, 87 (1976).

It is clear that there are two fundamental alternatives for the sense of a person: biological and cultural. The former rests on the nature of the species as *homo sapiens*. The latter rests on the attributes that characterize *homo* or man as *sapiens* or knowing man. However, these two do not really divide so neatly. The uniqueness of the species is bestowed by God to some. Sentience and consciousness, on the other hand, depend upon the biological organism. Biology may only establish a necessary though not sufficient basis for personhood, but it is a fallacy to claim that whatever extra is sufficient can be separate from the biological life form. If so, then personhood becomes a question of biological development of capacity to acquire cultural meaning. My purpose is to expose students and teachers of law to the facts, values, and theories underlying the positions to be taken in this most important and challenging social problem.

For a general theoretical background to the question of personhood and its claim on us today, see Stephen C. Hicks, *On the Citizen and the Legal Person: Toward the Common Ground of Jurisprudence, Social Theory and Comparative Law as the Premise of a Future Community, and the Role of the Self Therein*, 59 U. CIN. L. REV. 789 (1990) [hereinafter *On the Citizen and the Legal Person*]. For a brief overview of the problem of personhood in scientific experimentation generally, see Stephen C. Hicks, *Law, Policy and Personhood in the Context of the Techniques of Human Experimentation in Modern Medicine*, 19 CAP. U. L. REV. 255, 286 (1990) [hereinaf-

edge of the background law regarding scientific experimentation upon human "pre-embryos," embryos, and fetuses.<sup>2</sup> I further assume that we can only speculate about the effects of *Webster v. Reproductive Health Services*<sup>3</sup> upon such practices as *in vitro* fertilization (IVF), embryo research, and fetal tissue experimentation. Therefore, I simply account for the state of the law with regard to abortion, IVF, and embryo experimentation by examining the legal and moral status of the embryo. I will argue that some resolution of the issue of what is in effect the personhood of unborn humans is unavoidable.<sup>4</sup> I set up the right to life thesis presuming it to be established already, to examine its substantive meaning, because it is without exception and lays claim to a bright line dividing life from something else. There is no burden of proof that I shall suggest it thereby fails to meet. My analysis is straightforwardly substantive, not procedural.

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ter Law, Policy and Personhood].

Since writing the latter article and during the research and writing of this Article, I have come to doubt the certainty of my earlier position. I hope that my presentation of the issue here will make others doubt their certainty so that a genuine public debate may begin freed of dogma, prejudice, and ignorance. Consistently with the argument developed here, I argue in favor of capital punishment in Stephen C. Hicks, *The Only Argument for Capital Punishment: A Frank Appraisal*, AM. J. CRIM. LAW. (forthcoming) (manuscript on file with author).

2. For an overview of both the law and experimental techniques to which the status of the fertilized egg, embryo, and fetus are relevant, see Stephen C. Hicks, *Law, Policy and Personhood*, *supra* note 1; Theodore M. Hess-Mann, Note, *Human Fetal Tissue Transplantation Research: Entering a Brave New World*, 23 SUFFOLK U. L. REV. 789, 801-10 (1989).

3. *Webster v. Reproductive Health Services*, 492 U.S. 490 (1989). The most thorough analysis of the likely effect of *Webster* may be found in John A. Robertson, *In the Beginning: The Legal Status of Early Embryos*, 76 VA. L. REV. 437 (1990). See also Jeffrey A. Parness, *The Legal Status of the Unborn After Webster*, 1990 DICK. L. REV. 1, 16 (an illustration of the inconsistent state of the law because of the failure to discuss directly the issue of status). Note also that one of the challenges to reproductive freedom has been in the form of requiring doctors to lecture pregnant women seeking an abortion on the developmental age of their fetus, such as the 1988 and 1989 amendments to Pennsylvania's Abortion Control Act. See 18 PA. CONS. STAT. ANN. §§ 3201-20 (1991). The statute was challenged in *Planned Parenthood v. Casey*, 686 F. Supp. 1089 (E.D. Pa. 1988), later proceeding, 744 F. Supp. 1323 (E.D. Pa. 1990), *aff'd in part and rev'd in part*, 947 F.2d 682 (3d Cir. 1991), cert. granted, No. 91-744, 1992 WL 6735 (U.S. Jan. 21, 1992).

4. There are those who disagree that characterizing the embryo as a person or not is useful or necessary to the determination of its protection in law. See Charles H. Baron, 'If You Prick Us Do We Not Bleed?' *Of Shylock, Fetuses, and the Concept of Person in the Law*, 11 LAW, MED. AND HEALTH CARE 52 (1983); Michael Lockwood, *Warnock versus Powell (and Harradine): When Does Potentiality Count?*, 2 BIOETHICS 187, 192 (1988) (British report of the Committee of Inquiry into Human Fertilization and Embryology (1984), known as the Warnock Committee Report); Donald H. Regan, *Rewriting Roe v. Wade*, 77 MICH. L. REV. 1569, 1640 (1979). But see Jed Rubenfeld, *On the Legal Status of the Proposition that 'Life Begins at Conception'*, 43 STAN. L. REV. 599, 614-16 (1991) (arguing against avoiding the personhood debate). Rubenfeld focuses on the constitutional law aspects of the right to life, not on the philosophical premises of such a right.

I think that the idea of a right to life is problematic even in the case of adults, who may, for example, arguably deserve the death penalty. Regarding fertilized eggs, embryos, and fetuses, I will argue that a right to life is incoherent, self-contradictory, and at best thoughtlessly sentimental or at worst deliberately confusing. The right to life applied to these stages of development is composed of a series of distinct associations, none of which singly nor all of which cumulatively, suggest—let alone prove—that early abortion, use of the drug RU-486 (which causes the uterine wall to deteriorate as in a normal menstrual cycle, preventing implantation or causing the egg to be discharged), or embryo research involve killing unborn children. These activities involve the taking of life. They may in some circumstances involve the taking of *a* life. But the idea of an unborn child has as much meaning as the idea of a dead person, with the obvious difference that the latter has lived and the former may yet. These distinctions, therefore, need to be borne in mind: the distinction between life and a life, harm and not being born, the unity of something such as a person's life, and the continuity of its stages of development.<sup>5</sup>

By assuming that the right to life argument is established, I do not mean to grant it the status of a given or a natural fact. It is largely an unexamined but attractively simple theory. But it remains a normative proposition. The argument says that there are good reasons for describing the fertilized egg, embryo, and fetus as if they were children, albeit unborn. The reasons are not persuasive, as I shall show. Moreover, it is not abortion alone that constitutes the agenda of those who use the idea of a right to life as an ideological weapon in a legal and political battle. Abortion is a symptom of profound changes in sexual expression, gender relations, the family, and the authority of traditional moral demand systems, such as the Church. The fundamental reason why the personhood debate is unavoidable is patently clear.<sup>6</sup> It

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5. The most straightforward list of the possible stages of the acquisition of personhood can be found in Atkinson, *supra* note 1, at 87-91. These are classified according to their biological, psychological, rational, social, or legal nature in Jane English, *Abortion and the Concept of a Person*, 5 CAN. J. PHIL. 233, 234-35 (1975).

6. Cf. Gary M. Atkinson, *supra* note 1, at 99, 112-13. Atkinson says that any distinction or stage demarcating personhood from its absence is bound to be circular or question begging, yet he concedes that no explanation other than a lack of personhood will suffice to justify abortion. See *supra* note 1, at 114. Cf. Jeffery L. Lenow, *The Fetus as a Patient: Emerging Rights as a Person*, 9 AM. J.L. & MED. 1 (1983). Lenow argues that very modern surgical procedures performed on preivable fetuses unavoidably involve issues of their personhood. For the practical consequences of defining the unborn as persons, see David Westfall, *Beyond Abortion: The Potential Reach of the Human Life Amendment*, 8 AM. J.L. & MED. 97 (1982). For the legal consequences of leaving the question of abortion to the states, or restated, conceding that the fetus is not a constitutional person, see Ronald Dworkin, *The Great Abortion Case*, N.Y. REV.

has less to do with reason or common sense and more to do with practical politics. The limited right to terminate a pregnancy is being challenged squarely on the ground that it is the killing of a human person.<sup>7</sup> This freedom offends many, though its implications for embryo research and fetal tissue transplants are not always consistently applied.<sup>8</sup> Specifically, right to life advocates claim that human life begins at fertilization, and, as a result, embryo research brutalizes us by sacrificing innocent life to uncertain therapeutic ends. Therefore, not only does the embryo or fetus have an absolute right to life, but there are no meaningful stages to demarcate its status from that of an actual person.

Thus, if life begins at fertilization, as the preamble to the Missouri statute in *Webster*<sup>9</sup> declared, then fertilized eggs are unborn children.

OF BOOKS, June 29, 1989, at 50. Generally on the relevance of personhood to these moral disputes, see Ruth Macklin, *When Human Rights Conflict: Two Persons, One Body*, in *DEFINING HUMAN LIFE* 225, 228 (Margery W. Shaw & A. Edward Doudera eds. 1983) [hereinafter *DEFINING HUMAN LIFE*].

7. For examples of official Catholic pronouncements to the effect that life begins at conception, exists only as a continuum and cannot be exploited, sacrificed, or interfered with, see Brendan Soane, *Roman Catholic Casuistry and the Moral Standing of the Human Embryo*, in *THE STATUS OF THE HUMAN EMBRYO* 74, 78-79 (G.R. Dunstan & Mary Seller eds., 1988) [hereinafter *THE STATUS OF THE HUMAN EMBRYO*]. Insofar as the belief is not mandated by an institutionalized religion, I would hope that my arguments to the contrary will not fall on deaf ears. Moreover, the position of the Catholic Church is not without its own detractors nor without internal inconsistency. See *infra* text accompanying notes 55-76. For an overview of religious attitudes, see E. Donald Shapiro, *New Innovations in Conception and Their Effects Upon Our Law and Morality*, 31 N.Y.L. SCH. L. REV. 37, 56-57 (1986). For an analysis of this phenomenon, see Sidney Callahan, *The Impact of Religious Beliefs on Attitudes Toward Abortion*, in *DEFINING HUMAN LIFE* *supra* note 6, at 279. It is not clear, however, that Catholics generally are any different from the population as a whole with regard to support or opposition to abortion. George P. Smith II, *Procreational Autonomy v. State Intervention: Opportunity or Crisis for a Brave New World*, 2 J.L. ETHICS & PUB. POL'Y 635, 640 (1986).

8. Consider the following:

The Catholic Church accepts the idea of some use of fetal tissue. [According to] Richard Doerflinger, director of the Office for Pro-Life Activities at the United States Catholic Conference, "We need to be morally certain that the donor is dead and the standards for brain death in a fetus are not very clear. There's a danger of collusion with abortionists.

Tamary Lewin, *Medical Use of Fetal Tissues Spurs New Abortion Debate*, N.Y. TIMES, August 16, 1987, at L30. See also Lisa S. Cahill, *In Vitro Fertilization: Ethical Issues in Judeo-Christian Perspective*, 32 LOY. L. REV. 337 (1986); Shapiro, *supra* note 7. The position with regard to genetic engineering is even more complicated.

9. *Webster v. Reproductive Health Services*, 492 U.S. 490, 491, 509 (1989). At least seven other states have similar declarations. Larry Tye, *Fetal Viability Tests Already in Effect at Most Local Hospitals, Doctors Say*, BOSTON GLOBE, July 4, 1989, at 5. Utah recently joined the list by enacting the toughest antiabortion statute in the nation. Peg McEntee, *Utah Enacts Tough Law Restricting Abortion*, BOSTON GLOBE, January 26, 1991, at 32. An amendment to the city ordinance stating that life begins at conception was defeated on January 19, 1991, by 62% to 38% in Corpus Christi, Texas because of opposition to its religious basis. 3 *Reprod. Rts. Update* No. 2 at 2 (January 25, 1991).

From this stance arise the moral difficulties of *in vitro* fertilization, such as whether excess eggs can be fertilized; if so, whether they must all be implanted; if not, whether they may be donated to research or discarded; if not, whether they must be adopted, and if so, whether freezing and thawing them causes harm. Other questions follow from the assertion that life begins at conception. These questions involve modes of contraception that prevent the fertilized egg from implanting in the uterus.<sup>10</sup> The use of such contraceptives constitutes the same taking of human life if life begins at fertilization. Abortion, embryo research, and reproductive technology could all be proscribed if personhood begins at fertilization and the embryo has an absolute right to life.<sup>11</sup> The way would then be open to reverse the recent shift in social values regarding gender roles and return to the traditional model of family relationships that has been undermined by the right to choose in all matters of reproduction.<sup>12</sup>

## II. ON THE ABSOLUTENESS OF A RIGHT TO LIFE

Although the right to life/life begins at fertilization argument forms the baseline for current debate, it is only one extreme, as may be seen by contrasting it with its opposite.<sup>13</sup> To say never to abortion because there is always life is as extreme as to demand abortion at any time before birth because of maternal autonomy.<sup>14</sup> To the latter we say that

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10. See Mindy J. Lees, *I Want a New Drug: RU-486 and the Right to Choose*, 63 S. CAL. L. REV. 1113 (1990). RU-486 causes the uterine wall to deteriorate as in a normal menstrual cycle, thus either preventing implantation or causing the egg to be discharged. Prostaglandins similarly cause the uterus to contract expelling the fertilized egg. *Id.* at 1116-17. See generally John A. Robertson, *Technology and Motherhood: Legal and Ethical Issues in Human Egg Donation*, 39 CASE W. RES. L. REV. 1 (1988).

11. Consider that Justice O'Connor says there is no indication that the preamble to the Missouri statute might be applied to prohibit *in vitro* fertilization. 492 U.S. at 509 (O'Connor, J., concurring). See also Robertson, *supra* note 3, at 493.

12. Advances in reproductive technology have undermined the cultural dependency of the family upon the biology of motherhood. John A. Robertson, *Embryos, Families and Procreative Liberty: The Legal Structure of the New Reproduction*, 59 S. CAL. L. REV. 939, 1029-32 (1986). On the other hand, of course, surrogacy and embryo transfer reduce the woman to a reproductive machine and threaten autonomy as much as a husband wanting his wife "barefoot and pregnant." *Id.* at 1026-29. See also *infra* notes 140-43 and accompanying text.

13. This obvious point seems easy to miss. As a result, the debate is conducted as if no one could disagree with the fundamental premise that concern for life is reasonable. Not all killing of humans is murder. But killing animals may be wrong. Even if the fetus is a person, therefore, killing may be justifiable. Even if the fetus is not a person, killing it may be wrong. English, *supra* note 5, concludes that the concept of personhood cannot bear the weight put upon it. A better way to put this may be that the embryo cannot bear the weight of personhood, i.e., at different stages of development, different values determine different rights and interests. Personhood follows from humanness, which follows from individuality.

14. Autonomy is ambiguous. It may mean the condition for being a functioning person, or

there is no significant difference between a baby, a seven-month-old fetus, and a premature baby of six months.<sup>15</sup> When pressed, we might say that the similarity arises because of appearance, survivability, and consciousness. We may also say that the difference between a fetus and a baby—that one is inside another's body and therefore subject to the mother's dominion whereas the other is not—is not conclusive because that interest or control one claims over one's own body, as if a quasi-property interest, is not without limit.<sup>16</sup> Thus, the state has a right to protect life. But this right is not without limit either.<sup>17</sup>

Not only, therefore, might this claim of an absolute right to life beg the question about the person thus living, in the case of the fertilized egg, embryo, or fetus, it illogically purports to assert such an embryo's right to life absolutely against that of the mother or whomever controls its circumstances.<sup>18</sup> It is as if only such an egg, fetus, or em-

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it may mean the right to decide for oneself about private matters. See Gary C. Leedes, *Liberalism, Republicanism and the Abortion Controversy*, 35 VILL. L. REV. 571, 607 (1990). For a different perspective on the role of autonomy in Liberalism, see Robin West, *Jurisprudence and Gender*, 55 U. CHI. L. REV. 1 (1988). In effect, therefore, there are two arguments for abortion, one based on autonomy and privacy and the other based on equality and freedom from subjugation. See LAURENCE H. TRIBE, *AMERICAN CONSTITUTIONAL LAW*, 1337, 1353 (2d ed. 1988).

15. Note that this cuts both ways. Potentiality may prove too much. The sperm and the egg separately have the potentiality to become a person. Actuality also may prove too much. If by consciousness we mean self-awareness, then the lack of it in the fetus that justifies abortion also justifies infanticide. For a full discussion, see Lockwood, *supra* note 4, at 197.

16. Generally, for a discussion of forced caesareans and fetal abuse liability, see Dawn E. Johnsen, *The Creation of Fetal Rights: Conflicts With Women's Constitutional Rights to Liberty, Privacy and Equal Protection*, 95 YALE L.J. 599 (1986); Catherine Tolton, *Medico-Legal Implications of Constitutional Status for the Unborn: 'Ambulatory Chalice' or 'Priorities and Aspirations'*, 47 U. TORONTO FAC. L. REV. 1, 39 (1988).

17. For example, compulsory organ donation to save lives is unthinkable. See Tolton, *supra* note 16, at 54. The first major appellate decision to consider the rights of fetuses relative to rights of mothers came down in favor of the latter. *In re A.C.*, 573 A.2d 1235 (D.C. Cir. 1990). Judge Terry wrote for the majority, "a fetus cannot have rights . . . superior to those of a person . . . already born." The caesarean performed on the dying mother in an attempt to save the viable fetus was an improper and intrusive procedure violating the mother's right to bodily integrity. Without her competent refusal, the hospital should have determined what the substituted judgment would have been rather than weighing the mother's rights against the interests of the state in preserving life.

18. The essential interest here to be protected is the freedom from bodily or gestational burdens. This combines both autonomy and equality. John A. Robertson, *Gestational Burdens and Fetal Status: Justifying Roe v. Wade*, 13 AM. J.L. & MED. 189, 192-93 (1988). The underlying theory is that regardless of the personhood of the fetus, no one, such as the mother, is forced to be a Good Samaritan. See Regan, *supra* note 4. Robertson has said elsewhere that "[T]he mere fact [of personhood] would not give that fetus-person a right to nine-month use of [a woman's] body. To impose that burden . . . would be to impose burdens that we impose on no one else in society, and I think would raise real equal protection problems." *Audience Discussion, in DEFINING HUMAN LIFE, supra* note 6, at 220. This point is repeated in terms of conscription of a woman's body by Justice Blackmun in *Webster v. Reproductive Health Services*, 492 U.S. 490, 577 (1990).

bryo has a claim, superior to that of all other things, to absolute freedom. The argument against the mother's right to terminate her pregnancy at any time is that another's rights are in conflict with hers, and so she must accommodate them.<sup>19</sup> The survivability of the fetus expresses the point at which a mother must compromise. Whether it is the state's interest in preserving life, society's interest in the practice of medicine, or the developed fetus's interest in being carried to term, the point is conceded that a woman's rights are balanced with others. In fact, circumstances control the extent of a woman's rights. The same must apply to the embryo. Even assuming that we think the embryo has the ability to be a bearer of rights, then it logically follows that it too must accommodate other interests and the rights that protect them, such as the relief of suffering and the scientific research necessary for it, or the freedom of choosing whether to and how to have a child, or the bodily integrity that grounds the sense of self. No rights are absolute in law.

The point is that usually we search for some middle ground between always and never, or between the very beginning and the very end. Moreover, this is not a matter of compromise but one of mutual respect between the state and society. The discussion should take into account the many values that we hold sacred. Thus, the real question is what is it about the argument that there is a right to life that presents it as "the" fundamental principle rather than one extreme point of view. The answer is that conception represents the most obvious and exceptionless line to be drawn. However, that turns out not to be the case in science, philosophy, or religion. It also lays claim to an assumed given: the value of life, which upon examination turns out not to be something to which a right can attach, being neither obviously given in the lives of many people nor assumed by all except those for whom religion is important. "Life," therefore, does not relativize all other values.

### A. *On the Absoluteness of Life*

The essential tenet of the right to life argument is that life begins at conception—specifically fertilization—so there are no stages to the development of the life of a person, and the right to life of the fertilized egg is absolute. We must see what this tenet entails. To begin with, it cannot refer to human life generally—only to a particular life—for human life generally has no beginning. Life in this general sense refers

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19. For the implications of the Good Samaritan principle with regard to viability, see Robertson, *supra* note 18, at 202-05, where he argues that abortion ought to be permitted after viability and that termination of gestational burdens does not include the right to kill the fetus, but that the state should not have the power to delay abortions until viability.



to the species. We cannot say when the species began, but we can say it does not begin all over again each time with conception, for what is conceived is a member of the species. The sperm and the egg separately—the gametes—represent human life in this general sense as much as their combination—the zygote—does. The zygote carries on the process already begun by a procreative act.<sup>20</sup> If this is the case, then masturbation is the destruction of human life, and vasectomy is an interference with the species' right to reproduce itself as life. Life in this general sense or in the sense of the species as a whole cannot be the subject of rights. Rights attach to existent members of the species. Taken literally, the idea that life itself has a right is nonsense.

Moreover, if the right to life belongs to the human species, then we need to know how it can be said that the species has rights to life over nature or other species. In fact, we may talk of other animal species only because humans are the species that categorize all nature into species. Therefore, we cannot be the same abstraction to ourselves as is everything else, for who we are depends on a distinction we draw. Thus, what constitutes being human for the human species cannot just be "life." Finally, even if there is such a right to life of the human species because of nature or God, when the species claims that right over itself in particular cases some other values will be necessary to determine the accommodation of hard choices, such as survival amid limited resources. In our actual lives the human species' right to life is not exceptionless. To talk of life, therefore, in this sense is an abstraction. We need to know what life might refer to other than the species' instinct for self-preservation even at the price of killing other members of the species.

### B. *On the Beginning of a Life*

If, on the other hand, what is referred to as human life is taken to be a particular life, then the point at which it comes into existence is in fact a stage of development that delineates a meaningful distinction between before and after, namely the presence of an individual member of the human species with life. Therefore, any right to life argument cannot be based on the premise that development is stageless. Rather it must be that conception, instead of other stages—such as implantation, responsiveness to stimuli, quickening, ability to survive outside the womb, or neocortical functioning—is the meaningful

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20. G.R. Dunstan, *The State of the Question, in THE STATUS OF THE HUMAN EMBRYO*, *supra* note 7, at 13. Additional analysis of the meaning of "life" may be found later in this Article. *See infra* text accompanying note 44.

stage, because conception defines the occurrence of individual life. But not only does this meaningfulness beg the very value it set out to assert—that there is an individual to be valued as of conception, rather than life in the abstract—but the idea that this is a simple, easy, and fundamental line to draw is quite mistaken.

The process of fertilization takes about twenty-four hours.<sup>21</sup> Only at the end of that process, which is syngamy, rather than at the beginning when the sperm enters the egg, can it be said that a pre-embryo or fertilized egg has come into existence.<sup>22</sup> There are three arguments against syngamy as the defining moment of fertilization. All three generally favor characterizing fertilization of the egg as the occurrence of individual life. Note that individual life is not the same as being an individual or having personhood. The argument, so far, is simply that life exists from the time of fertilization in an individual form. I suggest that this is not the case and that an individual life form does not exist until implantation some ten days later. But it can be argued that a new individual emerges (1) when the sperm loses its separateness, or (2) because the egg gains a new capacity from the moment of its penetration, or (3) it can be said that genetic uniqueness occurs from the moment the egg is occupied by a single sperm.<sup>23</sup> But none of these is accurate.

### 1. *The Individuality Argument*

First consider the thesis that the discontinuity of fertilization and the continuity of the result mark the emergence of individuality. Although the sperm is henceforth inside the egg, its genetic content in the pronucleus of the sperm remains intact for some twenty-two

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21. Karen Dawson, *Fertilization and Moral Status: A Scientific Perspective*, 13 J. MED. ETHICS 173 (1987).

22. That this distinction may be material is highlighted by the Victoria, Australia Infertility Medical Procedures Act of 1984. The Act prohibited "fertilization" of eggs for any reason other than implantation of the resulting embryo into the uterus of a woman. It was subsequently amended to permit research on the micro-injection of a single sperm into an egg so as to perfect a procedure for subfertile males to become biological parents. Such a procedure necessitated destroying the embryos experimented upon until a healthy embryo was created and until the procedure itself was deemed not to have side-effects. However, the experiment did not have to proceed beyond testing whether the egg was damaged by the micro-injection. Thus the question arose whether the experimental procedure was outlawed even though fertilization had not completely taken place. The Act did not define fertilization. The question was whether fertilization should refer to the penetration of the egg by the sperm when the success of the experiment could be tested, or to their unification in syngamy. The Parliament of Victoria determined it should refer to the latter. For details, see Stephen Buckle et al., *The Syngamy Debate: When Precisely Does Human Life Begin?* 17 LAW, MED. & HEALTH CARE 174 (1989).

23. Buckle, *supra* note 22, at 176.

hours.<sup>24</sup> The sperm in fact only loses its identity at the end of the process of fertilization in the brief process of syngamy. Thus, there may only be one cell up to this point, but its two parts are not cojoined or intermixed; one is inside the other. It is as if the egg and the sperm were the mother and the embryo. In the latter case the right to life position demands we see them separately, but in the former case the same argument demands we see them as one.

If syngamy marks the end of the process of fertilization and therefore shows that a human life cannot be said to have begun before the completion of fertilization, it remains to be seen whether syngamy marks the beginning of a human individual. The argument supporting the definition of life as syngamy is that one egg and one sperm produce one zygote that equals one individual. But if two sperm enter the egg, which occurs one percent or more of the time, then embryonic development may not even begin.<sup>25</sup> Also, identical twins may develop from a single zygote as late as two weeks after fertilization.<sup>26</sup> Numerical continuity is not a sufficient basis, therefore, for signifying syngamy as the beginning of individuality. Moreover, no essential continuity exists, for in identical twinning, which occurs in once in every 270 pregnancies coming to full term, the original zygote ceases to exist.<sup>27</sup> Furthermore, two zygotes derived from the independent fertilization of two eggs can fuse to form a chimaera.<sup>28</sup> Here too the developing entity is not the one formed at fertilization.<sup>29</sup> Therefore, continuity of identity does not necessarily result from fertilization alone.

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24. *Id.* at 177.

25. Dawson, *supra* note 21, at 174.

26. *Cf.* Dawson, *supra* note 21, at 176 (12 days). Clifford Grobstein, *A Biological Perspective on the Origin of Human Life and Personhood* in *DEFINING HUMAN LIFE* *supra* note 6, at 27 (stating that a single stable, multicellular individual has not been biologically determined until approximately two weeks of gestation). Lockwood explains, *supra* note 4, at 190, that two weeks is the limit of the period during which the embryo can implant in the uterine wall and at around 15 days the 'primitive streak' appears, which is the precursor of the spinal column. The streak represents the beginning of the nervous system; embryonic fission cannot thereafter occur. A detailed account of the development of the embryo follows. *See infra* notes 100-127 and accompanying text.

27. Dawson, *supra* note 21, at 176.

28. *Id.* *See also* T.H. Milby, *The New Biology and the Question of Personhood: Implications for Abortion*, 9 *AM. J.L. & MED.* 31, 40 (1983).

29. The continuity argument, that the fetus and the embryo and the fertilized egg are one continuous entity, holds that from the first cell division after fertilization through multiple cleavages there is an organization of cells commensurate with development rather than a mere undifferentiated collection of cells. *See Audience Discussion*, in *DEFINING HUMAN LIFE*, *supra* note 6, at 26. This is surely beside the point if the outcome of that organization is still contingent on other circumstances that determine whether the organized cells will be singular or plural.

## 2. *The Potentiality Argument*

The second argument—that the capacity of the cell to multiply its divisions and implant and henceforth be born—indicates that the cell is a human life and calls for a complicated response. It purports to show that an entity with the potential to become what we expect it to become should be allowed to exercise that potential because it already is in essence that actuality and because it is natural for it to become what it should. These two explanations are different and inconsistent. What something will become or should become cannot be inferred from what it is. To define a thing by its potential rather than by what it actually is requires an act of denial. To see what is actual, such as an acorn, as already in essence something else, an oak tree, misidentifies what should more accurately be termed a potential oak tree; the interpretation confuses actual and potential. Additionally, it requires an act of faith that what is only potential already is actual. Thus, the argument also interchanges potential and actual. We ought not mistake the one for the other.

Prospective actuality and retrospective capacity are not the same. Moreover, they do not describe what something is, only what it might have been or what it was. By separating them we may focus our thinking on the values attached to each. The embryo has an actual and a potential value. The person has a value. The embryo's value is not based on the fact that the embryo will become a person any more than the person's value is based on the fact that it was an embryo. The value of the embryo as an actuality is two-fold. It stands symbolically for human life generally, that is referring to us as a species, and it stands symbolically for persons as individuals because we attribute to it qualities of our actuality. The value of the embryo as a potentiality lies in its actual capacity to become something else. Here lies the idea that must be unraveled. The right to life argument makes of the embryo a symbol of what it is not: a person.

The inaccuracy of the symbolism has two aspects. One aspect concerns the continuity of the process of maturation. The continued maturation of the embryo is contingent not only upon circumstances, such as implantation, but it is actually discontinuous because identifiable changes, such as brain cell growth or lung growth, depend upon earlier developments. The other aspect concerns the nature of the process of maturation. It is not a single process of the realization of a general natural potential but rather different realizations of the basis of different potentials, something separate from potential as such. Potentiality, therefore, fails to direct us to the continuity between fertilization and birth any more than it does to the continuity between birth and death. Potentiality focuses our gaze on the conditions upon which specific developments arise.

These conditions are various and discontinuous. Maturation is not linear; it is cumulative. It is not even and uniform; it is measured by the appearance of wholly new qualities and attributes in successive stages that transform and eclipse what was and generate further specific developments of what will be according to those conditions until they are realized. Thus, the skeleton, heart, respiratory system, brain, and nervous system appear at different times, and each has its own potential upon which other potentialities depend. The growth of a human is more analogous to the growth of a crystal than the growth of an oak tree. What appears in the development of the embryo are formations of interdependent parts that only come together in stages to function together, even though the overall structure remains the same.

A potentiality-based approach begs the question of how the acorn becomes an oak tree. Acorns do not become oak trees directly. They become saplings. The acorn goes through many stages before it becomes an oak tree. The fertilized egg has the potential to become an opera singer, physicist, or football player, but only if it implants, is not spontaneously aborted, and is safely delivered. The potentiality argument rests not upon the idea of developmental stages but in fact defines potential as the capacity to reach the next stage. The potential that exists is determined by the identifiable contingencies on the horizon.<sup>30</sup> I do not have the capacity to become an opera singer. Nor in fact does my eight-year-old daughter, though her range of potential lungs and voice developed adequately. That is exactly the point. We cannot say that she will be able to sing because humans have voices. Similarly, the fertilized egg only has the potential to traverse the hazards of the fallopian tube, scan the wall of the uterus, embed itself, and begin implantation. After this first stage of some eight to ten days, the cell mass will separate into what will become the placenta and what will become the embryonic plate, upon which will develop the primitive streak as the basis for organogenesis. Then the embryonic disc will develop, and finally the embryo proper.<sup>31</sup> We can-

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30. John Bigelow & Robert Pargetter, *Morality, Potential Persons and Abortion*, 25 AM. PHIL. Q. 173, 178 (1988):

As development takes place the basis of the potentiality of personhood continually changes. We see no reason to believe that the value we place on the final categorical basis should be passed up the chain, especially given the enormous change in the intrinsic properties of the actual as we move along the developmental chain.

See *infra* text accompanying note 100 for an explanation of the different "stages."

31. This developmental process will be considered in detail at *infra* note 100 and accompanying text. See Mary J. Sellers, *The Chronology of Human Development*, in THE STATUS OF THE HUMAN EMBRYO, *supra* note 7, at 18. It is important to realize that the earliest developmental

not say that the embryo will be able to be born. Therefore, we cannot unequivocally say that it should be.

That the fertilized egg has the capacity to become an adult is not true except in the weakest sense in which the future is unbounded so all things are possible and possibly true. In any other sense the fertilized egg only has the potential to implant. What is significant is the value we ascribe to the basis of potentiality at any stage of development. The "embryo" will be able to be born only after it is viable. Moreover, this basis of valuation is dependent not only upon a fact but a contingent fact. For example, my potential to become an old man depends not only on what we mean by "old" but on what we mean by "become," for while I may discount statistical evidence about incidence of auto accidents or heart attacks when I think of becoming old, others may not when they think of my becoming old. In the same way, the statistical evidence of the incidence of spontaneous abortions is relevant to the potential maturation of the fertilized egg or embryo into a fetus and a viable fetus.<sup>32</sup> What will be is not inevitable. Therefore, we must evaluate the potential of what is actual according to itself, not according to a later form it may have.

There is also the obvious difference that potentiality has no meaning to the egg or embryo itself. The significance of its potential can only be the meaning it has for us. The value of any particular stage of development must be argued for independently of potentiality. Because the fertilized egg or embryo does not have meaning for itself, this value can only be symbolic when a later stage of development has been reached, at which a different value arises for itself of its individuality, bodily development, or consciousness. The potentiality-based argument obscures this. In referring generally to the embryo's potential to become a person, we attribute to it the stages of our existence as though it were already a person with meaning to itself, that is, as a being with self-awareness. To talk of an egg's potential to become a person, and from that deduce its individuality, is all the more confused. Not only does the argument interchange actual and potential

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stages after fertilization result not in an embryo but the environment out of which the embryo will emerge when the embryonic axis is formed, which roughly corresponds with implantation. For details, see John A. Robertson, *Embryo Research*, 24 W. ONT. U. L. REV. 15, 21-22 (1986).

32. Once probability rather than possibility is introduced into the potentiality argument, one must recognize that the embryo is less a potential person than the fetus because the embryo is statistically less likely than the fetus to reach its next stage of development. For a discussion of how the chance of being born increases from around 25 percent at two weeks after fertilization to around 85 percent at six weeks after fertilization, and the significance of these figures when using a model that assigns moral status depending on whether the developing embryo's chances for survival exceeds 50 percent, see Peter Singer & Karen Dawson, *IVF Technology and the Argument from Potential*, 17 PHIL. & PUB. AFFAIRS 87, 96-101 (1988).

and depend upon stages of development, but the fertilized egg or embryo's potential is just like my potential: very specific, contingent, and dependent upon something else. The potentiality of the egg or embryo to become a person, therefore, is not what makes its potentiality valuable. It is valuable because of its intrinsic nature at different stages of its development. But this value and the moral status resulting from that value must be established at each stage.

We cannot establish a value in the embryo itself by its being a symbol of life or of actual individuality, nor can we do so through picturing its maturation as a single, continuous process. We are misled in this view by a metaphor. We picture life in the womb unfolding like a flower blossoms from a bud on a plant. But there are stages to this unfolding, beginning with germination, the appearance of buds, their blossoming, withering, and the appearance of other buds. A better metaphor for the interpretation of the biological process of embryonic development with its combination of continuity and discontinuity, stages, accretion, and wholeness is to picture the way a crystal grows from within itself, yet in different directions, on top of other formations, the same yet different parts and whole. We can see through any layer at any one time to what is beneath and has been built upon, yet the completeness of the development at any stage exists. While we can see that it will get bigger, what it is remains defined by itself at any stage. The analogy with crystal growth reinforces the fact that while the embryonic, fetal, and infant structure may remain the same, the embryo and fetus change in form through stages of development. The potential to become bigger, better, or different is in addition to, not determinative of, what something is.

### 3. *The Genetic Argument*

The third argument for the occurrence of individuality at the beginning of the process of fertilization is essentially that genetic uniqueness is assured when the sperm enters the egg. This is because the tail of the sperm breaks off and a hormone signals that the process of pregnancy has begun and closes off the egg. However, one percent of all human conceptions are triploid, that is zygotes with twenty-three chromosomes from the egg and twenty-three from each of the two sperm that have penetrated the egg.<sup>33</sup> By the two-cell or three-cell stage of development, some have reverted to forty-six chromosomes, some stay at sixty-nine, and some reject lesser amounts of genetic ma-

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33. Dawson, *supra* note 21, at 174.

terial.<sup>34</sup> Some of these embryos even survive to birth and shortly thereafter. But it is clear that genetic identity is not necessarily fixed by the mere penetration of a single sperm, because more than one may enter, and because even then some genetic material may be rejected. In fact, it is only at the completion of the process of fertilization with syngamy, that is, when the genetic material of the sperm and the egg have condensed into chromosomes to form a new genotype—a single cell—that genetic uniqueness can possibly be fixed. But genetic uniqueness cannot be determined on the basis of the number of chromosomes. Nor can it be determined because of the invariability of the human gene. Molecular genetics reveals quite wide variation in chemical composition in different people of the equivalent form of the gene.<sup>35</sup>

Moreover, uniqueness is not certainly fixed at fertilization. The genetic makeup of the eye and the liver change later.<sup>36</sup> Spontaneous mutation also may occur. So too may chromosomal nondisjunction—i.e., the failure of chromosomes to separate during cell division—occur after fertilization, resulting in various syndromes such as Down's.<sup>37</sup> Thus, many geneticists argue that a truly unique genetic code is not fixed until the point at which twinning can no longer take place, which may be up to two weeks after fertilization.<sup>38</sup>

Finally, it is surely odd that the encoding of genetic information is thought to be the factor that constitutes individuality and determines personhood insofar as such encoding lays down the program of physical development. It would seem more reasonable to consider genetic encoding in conjunction with physical development itself. Genetic endowment, even were it to be fixed at fertilization, could not constitute individuality without the presence of the body or the locus of that individuality in the form of the embryo.<sup>39</sup> The argument from genet-

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34. Buckle, *supra* note 22, at 179.

35. Dawson, *supra* note 21, at 174.

36. *Id.* at 175.

37. *Id.* For a counter-argument to the effect that such a zygote is not nonindividuated but rather "multi-potential" so that the unity of cells and their organization may be thought of as a "colony" and not a single organism, see JOHN GALLAGHER, IS THE HUMAN EMBRYO A PERSON, 27, 38 (1985). See also *supra* text accompanying note 29. This approach misses the mark in that it reverts to characterizing as human the species rather than an individual. Such an approach will not ground the right to life of a fertilized egg or embryo. See *supra* text accompanying note 20.

38. Robert M. Veatch, *Definitions of Life and Death: Should There be Consistency?* in DEFINING HUMAN LIFE, *supra* note 6, at 105.

39. In effect, genetic endowment as the origin of individuality denies the significance of the changes needed in the constitution of the being in possession of this endowment before it can become an individual. Peter Byrne, *The Animation Tradition in the Light of Contemporary Philosophy*, in THE STATUS OF THE HUMAN EMBRYO, *supra* note 7, at 105. Fertilization may usually mark genetic identity, but implantation marks biological individuality. Robertson, *supra* note 31, at 22.



ics, therefore, presupposes the earlier arguments of potentiality and individuality by way of continuity, because either there is an individual that has a genetic identity, or genetic identity is like a scientific soul that endows something with humanness. Just what that something is remains an open question.

In this regard it is also important to appreciate that characterizing the fixing of genetic endowment as critically determinative of individuality is inconsistent with our sense of death, for living cells survive long after the death of the individual.<sup>40</sup> Thus, the genotype of an individual may be different than that formed at fertilization, and genetic identity cannot be equated with the beginning or the end of individuality.<sup>41</sup> Our genetic endowment obviously differentiates us as a species and thus defines the fertilized egg and embryo as human, but it does not, without more, distinguish between the human being and human cells. Each cell is genetically complete, yet it is not the equivalent of a person. It cannot be our genes that constitute our humanness except as a species. But the simple virtue of humanness is insufficient to establish our right to life as a species or as particular individuals of the species. We should treat all species and all living things equally or identify what it is about humans that is different.<sup>42</sup> Thus, it has been suggested so far that neither genetic endowment, potentiality, nor continuity from fertilization constitute individuality, still less personhood.

### III. ON THE VALUE OF LIFE AS LIVING A LIFE

So far then, the determination of when personhood begins remains an open question. An individual being may exist at implantation some time after fertilization, but it is not clear that continuity of identity exists from fertilization on. Rather, it has been suggested that there are stages in the developmental process of becoming. This suggestion is consistent with our experience of grief in its evolving intensity with respect to the time at which a pregnancy is terminated. From the loss—if noticed—of an implanted egg, to an early miscarriage, to a later miscarriage, to a stillbirth and the death of a baby—whether premature or not—the level of grief visited on the mother and those close to her is respectively greater.<sup>43</sup> This suggests that the existence of these stages depends on some hitherto unargued-for value. Recall that the right to life argument means that becoming a person is stageless and

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40. Veatch, *supra* note 38.

41. Dawson, *supra* note 21, at 177. For a thorough description of the constitution of the human genome, see George J. Annas, *Mapping the Human Genome and the Meaning of Monster Mythology*, 39 EMORY L.J. 629, 635 (1990).

42. Atkinson, *supra* note 1, at 97, 117. Rubinfeld, *supra* note 4, at 625.

43. G.R. Dunstan, *The Human Embryo in the Western Moral Tradition*, in *THE STATUS OF THE HUMAN EMBRYO*, *supra* note 7, at 15.

that the right to life is absolute. It has been argued that "life" must mean individual life and that the emergence of the individual life form is in fact a stage in the developmental process of our becoming, though it does not occur at fertilization but some time later. The underlying value here is personhood. The underlying value in the right to life argument is life itself. The life itself position is discussed next.

I suggest that there is no such thing as a right to life.<sup>44</sup> Even if there is, no living person has an absolute right to life such that embryos and fetuses would have greater protection than anyone or anything else. The end assertedly protected by a right to life is not life but living.<sup>45</sup> Thus, life as such does not exist for us; living beings exist. Search as we may for life, we only find living.<sup>46</sup> We may translate life into con-

44. Life, therefore, is a universal that we do not experience. We experience the particularities of living. As such an abstraction, "life" serves to organize for us a certain conceptual landscape. It has meaning in this enterprise, for it refers to the unity of concepts, such as living beings, living a life, consciousness, the mystery of why there exists a world, without actually referring to any one thing with specificity. In the sense "life" may be said to exist as such, we do not have life; life lives us. Therefore, we cannot determine or discover the value of life. We may simply recognize that we have value for it. It follows, as was suggested earlier, that we can only talk meaningfully of particular lives when an issue concerns us individually rather than the range of concepts we use to describe particular qualities about us collectively. *See supra* text accompanying note 20.

Not only is there no such thing as a right to life, without predicating it on someone or something, but there is no such thing as life without living entities. The difficulties that any other view encounters are easily shown. If life as such exists, then there is a sense in which the "ontological person" rather than the psychological or phenomenological person must actually exist. Gallagher calls this a kind of first being or a being in itself separate from and regardless of the characteristics it possesses. *See GALLAGHER, supra* note 37, at 20-21. As a result, the coming to be of a person must happen all at once. *Id.* at 21. But there is no such event as "all at once," even in fertilization. *See supra* text accompanying note 22.

Furthermore, even if we do assume a realm of essences or universals, then the ontological person not only must be an all at once occurrence but an all or nothing thing. *See Audience Discussion, in DEFINING HUMAN LIFE, supra* note 6, at 341-44. Thus an adult, a child, a fetus, an embryo, and a fertilized egg are all the same ontologically.

In addition to the problem of the all or nothing approach—as spiritual or something else—there is another problem. If life in this sense is not an abstraction but something presupposed by various senses of personhood—legal, moral, and psychological—then surely it demands consistency in application across self defense, capital punishment, war, or euthanasia. It also creates difficulties for the determination of death, because we do not use the loss of ontological being as a relevant criterion.

Finally, the all or nothing approach demands a theory of the supernatural or the unknown because, being presupposed yet existent, it envelops this material plane of living individuals with a before and an after. It is, therefore, fundamentally and only a religious belief. *See infra* text accompanying note 53.

45. "No one can live a morally good life without living. The good of life can only be pursued in community with others . . ." Germain Grisez et al., *Practical Principles, Moral Truth and Ultimate Ends*, 32 AM. J. JURIS. 99, 139 (187).

46. "Life is something we are part of, and instead of individuals having life, life has individuals. Life is a continuum, but individuals are discrete, and that means that we can define the beginning of personhood if we can answer the question, 'When does the individual begin?' ",

sciousness or the soul, but these definitions will not sustain the fertilized egg's right to life. If there is a right to life it means a right to go on living; this means either the right to become a person, which is the potentiality argument, or that living is what rights are for, in which case we need to know what it is that is living. We need a subject. The hidden premise in the idea of a right to life concerns the existent quality of the subject bearer. It is to this existent quality that the value argued for attaches.<sup>47</sup> Hence the problem of accurately defining the beginning of life or the life form itself is an important background to this discussion.

In fact, we signify by the idea of a right to life a person's right to go on living. Not only does this assertion assume the given status of the being to whom the right is attributed, but it clarifies that the attribute is a concrete interest rather than an abstract conception.<sup>48</sup> Life is not the basis of all values. It does not prioritize all else. Moreover, our living is very determinable; it is not abstract but circumstantial. It is far from a totality. We begin to know life only by looking out from within our living through our senses. Living is also social. Persons exist only in interaction with others. The lack of interaction, as opposed to dependence on the part of the embryo and fetus, points in

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*Audience Discussion, in* DEFINING HUMAN LIFE, *supra* note 6, at 330. The speaker then goes on to argue that the indivisibility of individuality does not occur until the umbilical cord is cut, when the two components present from fertilization—the embryo and the placenta—are finally severed, thereby marking personhood.

47. Lockwood, *supra* note 4, at 199, puts it slightly differently. In questioning the significance of potentiality we think it important to consider valuable the kind of life a human being can enjoy. But this, Lockwood says, is "an impersonal reason, grounded in the desirability of promoting worthwhile life in general. It is not, so understood, a reason that speaks to the individual possessor of potential, and what is right or good *for it*. Moral decisions and rights are, by contrast, grounded in individual interests." See also *id.* at 208; Michael Lockwood, *Hare on Potentiality: a Rejoinder*, 2 *BIOETHICS* 343 (1988).

48. Directly on point here are the dissenting opinions of Justices Brennan and Stevens in *Cruzan v. Director, Missouri Department of Health*, 110 S. Ct 2841 (1990). At issue is the meaning of the state's interest in the preservation of life. "The only state interest asserted here is a general interest in the preservation of life. But the state has no legitimate general interest in someone's life, completely abstracted from the interest of the person living that life, that could outweigh the person's choice to avoid medical treatment." *Id.* at 2870 (Brennan, J., dissenting).

Justice Stevens makes clear that the idea of life generally is intended to be abstract from the quality of life of the particular person, but that the value of the sanctity of life nevertheless only attaches to a particular person. *Id.* at 2887 (Stevens J. dissenting). Therefore, the real question concerns the biological or spiritual meaning of personhood. *Id.* at 2884. "[A]bsent some theological abstraction, the idea of life is not conceived separately from the idea of a living person. Yet it is precisely by such a separation that Missouri asserts an interest in Nancy Cruzan's life in opposition to Nancy Cruzan's own interests . . ." *Id.* at 2887. "The opposition of life and liberty in this case are thus not the result of Nancy Cruzan's tragic accident, but are instead the artificial consequence of Missouri's effort, and this Court's willingness, to abstract Nancy Cruzan's life from Nancy Cruzan's person . . ." *Id.* at 2889. I thank my colleague Gerry Clark for bringing these passages to my attention.

the other direction, away from personhood.<sup>49</sup> Not only is our living contingent upon circumstances and dependent upon relationships, but the claims we make for it are claims of quality, such as our sense of dignity, freedom of expression, and basic needs, all of which are interests balanced against other interests and others' rights. There is no sense in which a right to life forms a logically necessary prerequisite to these basic rights, nor is there any sense in which a right to life means anything other than a right to a given aspect of living or its continuance. Individual lives are contingent and circumstantial, interpersonal and mutual, relative and qualitative. Talk of "life" obscures this realization and produces confusion. The argument that there is a right to life, therefore, is just that, an assertion backed by reasons, in exactly the same way as is the thesis that personhood begins with viability, or individuality with implantation.

That fertilized eggs, embryos, and fetuses do need special protection or respect in law as part of social control of reproductive technology and scientific experimentation goes without saying. But when we unpack the language and the meaning of the argument that the embryo has an absolute right to life because there are no determinate stages to human development, we discover many problems. The argument is fundamentally inaccurate because there are stages. The argument is inconsistent because it does assume a stage that is significant. The argument is meaningless because that stage of fertilization is not a determinate all or nothing event. Additionally, the argument is abstract because life does not refer to anything, and it is even prejudicial because other rights are not treated equally with life or living itself.

Finally, the argument is self-contradictory. If the right to life is absolute, then there can be no valid reason to terminate a pregnancy. In particular, the mere manner of its occurrence by incest or rape is incidental. The only exception admitted is that which is necessary to save the life of the mother.<sup>50</sup> Note that this exception entails exactly the balancing of two lives that is in theory ruled out. The right to life itself cannot determine the choice. Moreover, the mother's right pre-

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49. St. Augustine stressed this aspect of human being exactly because it breaks with the traditional concept of a person as a substance, for substantial meant logical independence. A person is thus logically dependent for existence as a person on others. A.C. Lloyd, *On Augustine's Concept of a Person*, in AUGUSTINE, 191, 203 (Robert A. Markus ed. 1972). See also Gary Wills, *Mario Cuomo's Trouble With Abortion*, N.Y. REV. OF BOOKS, June 28, 1990, at 9.

50. Note that this doctrine has in fact been proscribed theologically. THE MORALITY OF ABORTION 47 (John T. Noonan ed. 1970). For a justification of the endangered mother exception in cases of ectopic pregnancy or cancerous uterus, see *id.* at 47, 49. The justification is based on a balance of good over bad effects or by distinguishing between indirect and direct killing. For discussion of the contrary principle that the fetus should be saved at the expense of the mother,

vails. But why, exactly, should that be? If the fetus is not viable then perhaps the mother's life is more favored because the fetus has no right to go on living. If the fetus is viable, then perhaps it should be saved, even at the mother's expense. Either way, rights are balanced because they are not absolute and because the right to life does not constitute the baseline of all other rights. Consistency would require that we let fate take its course and neither be actively saved. In fact, however, we accept that a choice is forced. The only issue, therefore, is the pressure forcing the choice. In the particular case of having to choose between the fetus and the mother, the only reason for admitting the exception of the mother's life is exactly that: she has a life. She lives, while the fetus does not have "a life." It is alive but not a living person. Therefore, the principle of an absolute right to life is compromised. The living are the bearers of rights and the carriers of our values.

Moreover, we are even forced to choose, not just when an individual comes into being, but about the very meaning of life, insofar as it is affected by new reproductive technologies and recent experimental surgeries. It seems unavoidable that we struggle to make new sense of this philosophical confusion because the idea that personhood may not be assumed or is unclear is quite new to us. Therefore, we must construct its meaning and we can only do so in light of our world: religious, philosophical, scientific, and political. We must see the outcome as the result of a confluence of interests: medical, religious, practical, social, and individual.

Also, on the one hand it is important to see the pursuit of a uniform understanding in this area as a constructive effort, neither given in advance nor closed to input. On the other hand it is important not to avoid the issue, as politicians want to and as scientists appear to, by suggesting the personhood debate is irrelevant to research. Fetal tissue experimentation and embryo research are problematical for the same reason abortion is: our lack of clarity about the legal and moral status of the entity involved, whether that entity is a fertilized egg, an embryo, or a fetus.

There is more. The question of personhood concerns the way we are, the nature of our being, that is, as present participle not substantive noun, not what we are but the way we constitute ourselves in our own eyes as human. Obviously the respect we accord the unborn is a

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see *supra* text accompanying notes 18-19. Nothing is more offensive to me personally or more revealing of the values implicit in this latter principle than the proscription against abortion in cases of rape and incest. Such instances are not the thin edge of the wedge but the source of deeper feelings about the living that the right to life obscures and its adherents deny.

vital part of that, as is the respect we accord the condemned criminal, the terminally ill, and the emotionally, intellectually and physically incapacitated in our world. We may legitimately question whether our answer to the problem of personhood in the contexts of inheritance, damage awards for injuries, and prosecutions for criminal acts directed at the unborn must be consistent. However we look at the whole range of problems of personhood, we return to the nature of the relationship between the person and life. The life of the embryo or fetus cannot be separated from the person of the mother until it is viable, even if we grant it individuality. Therefore, it is not so much what a person is as what we mean by identity that defines personhood.

What do we mean when we identify something as an individual or a person? We usually think of identity as being that aspect of a thing that makes something itself. The identity of anything as a thing means it is whole, separate, and different from other things. The embryo or fetus is not such a thing. But the identity of something, as a thing, entails more. For the way that anything has an identity is the way that it is whole, self-subsisting, and the way that it refers to itself internally. This internal coherence makes us look for similarities as well as differences in uncovering the identity of something. On the one hand the fetus is not separate or different from the mother. It is dependent and within her person. On the other hand it is similar to nothing in its nature, constitution, form, or appearance until certain stages of development.<sup>51</sup> It is unique. All that it has in common with other things, particularly human things, is life in the abstract and potentiality. Neither of these without much more identify it as a person.

Being inseparable from a person and yet *sui generis* means we cannot so easily picture the embryo as a single blossoming bud on a plant. It is a mistake to describe its identity as the same thing as a person or a human life. The bud is not a plant. It is a bud. Likewise, the embryo's identity is partly constituted by its dependence on the mother and its similarity to her and partly by what it is itself as different from all other things, because it has meaning only for the already living. Because the embryo has symbolic value, we need to be careful with the use of metaphoric language. Because of the embryo's uniqueness, we need a new descriptive term. It is a life form, as I have called it.

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51. MARTIN HEIDEGGER, *IDENTITY AND DIFFERENCE* 12 (1969). For the view that "it would be a legal fiction to treat the (five-month-old, subsequently born alive) fetus as a separate legal person with rights hostile to and assertable against its mother," see *Stallman v. Youngquist*, 531 N.E.2d 355 (Ill. 1988). See generally Johnsen, *supra* note 16.

## IV. ON THE VALUE OF LIFE AS SUCH

I have argued that we should not think of life, only living beings, when we discuss "rights," as in a right to life. Life and the person cannot be separated. But insofar as "life" is meaningful, as an abstraction that serves to organize a landscape of various concepts for us, then it must obviously be open to analysis at that level. Therefore, we should also look at the meaning of life as an abstraction in its own terms. If it cannot refer to the species and does not refer to living beings, or to living a life, then it may refer to God, the soul, or the spirit. In fact, to Catholics and perhaps others, it is the presence of the human soul that confers human status. Its departure marks death and its assumption into the body marks the beginning of the human being.<sup>52</sup>

But it seems odd that the presence or absence of the soul should mark life. It is unexpectedly materialistic of religious thinkers to identify the soul with the fertilization of the egg because it marks the beginning of human life, rather than to identify the soul with some more spiritual quality, such as the embryo's perception, sensation, quickening, or even reason. The explanation for this materiality is revealing. It shows that the embryo's own faculties do not define it, but rather something we attribute to it. We attribute to the embryo that which makes us, the already alive, human in a religious sense. Then, once the humanity of the embryo is accepted, we can love it as a neighbor. This materialistic focus also seems odd in another way too, for the adherence to the principle of an absolute right to life is straightforwardly dispassionate: the living are sacrificed for the yet to be born, and their suffering yields to the claim of the soul to be born. Not only is this unjust, it is oversimple, confused, and purely a matter of belief that cannot be justified politically or even rationally so as to justify placing constraints upon another's different belief.<sup>53</sup>

If one were to take one's mysticism undiluted and believe that the soul reincarnates when the fetal body is fully formed, having chosen its designated human and earthly program, then that person's belief may differ drastically from a person who embraces another faith, yet

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52. Carol Tauer, *The Tradition of Probabilism and the Moral Status of the Early Embryo*, 45 THEOLOGICAL STUD. 3, 8 (1984). Referring to a person's life, therefore, may refer to his activities or history, as in "he lived well;" it may refer to his contribution or spirit, as in "the life and soul of the party;" or it may refer to his soul, as in that essence redeemed from damnation by the sacrifice of Jesus and by believing in "Him." *Acts* 10:43; *Romans* 3:24 (King James).

53. The Establishment Clause of the First Amendment directs courts not only to strike down public acts that promote one religious group at the expense of another but also those that promote religion as a whole at the expense of nonbelievers. *A.C.L.U. v. City of St. Charles*, 794 F.2d. 265, 270 (7th Cir. 1986).

both positions stand as equally valid in the search for a rational and political basis for acting upon our faiths and beliefs.<sup>54</sup> Nevertheless, the premise that the soul exists from the moment of conception, neither before nor sometime after, is not a natural fact nor a given premise. If by conception we mean fertilization, then at what point in the day-long process of fertilization does the inanimate tissue become be-souled or human?

Moreover, within religions generally, and in particular within the Roman Catholic Church, the teaching about the infusion of the soul into the body has been varied in the past and is still not settled.<sup>55</sup> For example, the beliefs outlined above were accepted teaching before Origen's concept of the preexistence of the soul was declared heretical at the Second Council of Constantinople in 553 A.D.<sup>56</sup>

In particular, recognized positions on the origin of the soul included Traducianism, which claimed that the soul was generated by the parents along with the body of the child at conception, the Platonic theory of the preexistent soul joining the body after conception, and Creationism, which held that the soul was created *ex nihilo* and infused by God at some time between conception (Pythagoreans) and birth (Stoics).<sup>57</sup> The most common view was that the soul entered the male fetus at about forty days and the female fetus later.<sup>58</sup> Thus, a

54. Two aspects of this principle bear discussion; one concerns the origin of the soul and the other concerns the relationship between the soul and the body. See *infra* text accompanying note 80 for a discussion of the origin of the soul. As to the relationship between the body and the soul, because reference to a person's life means more than biological existence, there must be a relationship. The position in the text emphasizes the body. However, unlike the views considered *infra* note 75, this position is dualistic. The soul is conceived as separate from the substance of the body. It also preexists and survives death to reincarnate in another body. However, the religious idea of redemption or deliverance from sin in this life undermines the more ethical imperative of a deserving reincarnation in this life for past deeds and thus future lives.

55. On Jewish and Islamic law, see Bernard M. Dickens, *Comparative Legal Abortion, in* DEFINING HUMAN LIFE, *supra* note 6, at 241. According to Jewish Law, after 40 days the egg is the equivalent of a child in situations when its death is caused. But even then there is a 30-day postpartum interim period before full personhood is acquired. According to Islamic Law, animation occurs at the completion of the fourth month of pregnancy. The origin of this focus on the gestational age of the fetus is considered in G.R. Dunstan, *The Human Embryo in the Western Moral Tradition, in* THE STATUS OF THE HUMAN EMBRYO, *supra* note 7, at 39, 42. For the Greek, Roman, and early Christian views, see *id*; GLANVILLE WILLIAMS, *THE SANCTITY OF LIFE AND THE CRIMINAL LAW* 148 (1957); *THE MORALITY OF ABORTION, supra* note 50, at 4-18.

56. The Anathemas against Origen are reprinted in REINCARNATION 321 (Joseph Head & S.L. Cranston eds. 1968). For an introduction to the context of the controversy and its resolution, see HENRY CHADWICK, *THE EARLY CHURCH* 100-14, 180-91, 209-12 (1967).

57. See Tauer, *supra* note 52, at 8; WILLIAMS, *supra* note 55, at 150.

58. The reason for the difference had to do with doubt about the formation of the anatomical difference between sexes. Dunstan, *supra* note 55, at 43. For a discussion regarding the point at which animation occurs, see Tauer *supra* note 52, at 7; WILLIAMS *supra* note 55. The precise time at which animation occurs became an issue in the fourth century. *THE MORALITY OF ABORTION, supra* note 50, at 15.



distinction was drawn between the formed and the unformed fetus. This distinction signified that conception was not completed until the time of ensoulment, and the human life of the fetus did not begin until then. The distinction was significant in that causing the death of an unensouled fetus was not homicide, and there were also certain distinctions relevant to determining canonical penances.<sup>59</sup> According to this doctrine, the fertilized egg is considered alive or animated, but humanization occurs later.<sup>60</sup>

According to Aquinas, there were the vegetative or nutritive soul of the earliest embryo, the animal or sensitive soul of the early fetus, and the intellectual or human soul of the quickening baby.<sup>61</sup> Each type of soul encapsulated the earlier, rather than replacing it. Thus, the intellectual soul was thought to be the formative principle of the human body.<sup>62</sup>

This process of animation was reflected in the common law by the identification of the beginning of life as that time when the woman felt her fetus quickening, because Aquinas had associated life with movement.<sup>63</sup> However, in 1869 the distinction between the ensouled and the unensouled fetus, or the formed and the unformed person, was removed from Catholic canon law so that abortion at any time became homicide, not contraceptive or contragestive.<sup>64</sup> Even if the fetus was not yet animate, it was nevertheless alive, and its right to be-

59. This belief was definitely accepted by the time of Gratian in his *Decretum* (circa 1140), though the time of animation remained uncertain. WILLIAMS, *supra* note 55, at 151; Tauer, *supra* note 52, at 8. For a discussion regarding popular theory during the period between Aristotle and Gratian, see *THE STATUS OF THE HUMAN EMBRYO supra* note 7, at 43-46.

60. Joseph Donceel, *Immediate Animation and Delayed Hominization*, 31 *THEOLOGICAL STUD.* 76 (1970).

61. Tauer, *supra* note 52, at 8.

62. Dunstan, *supra* note 55, at 47-48. The intellectual soul was thought to be the formative principle of the human body because the soul is the substantial form of the person. A substantial form can only exist in matter capable of receiving it. Hence the higher spiritual powers depend on a certain level of organic development for the possibility of their manifestation. Donceel, *supra* note 60, at 79, 83. Cf. WITTGENSTEIN, *PHILOSOPHICAL INVESTIGATIONS II*, iv (1958) ("The human body is the best picture of the human soul.")

63. WILLIAMS, *supra* note 55, at 151; Dunstan, *supra* note 55, at 46. For the details of the history of the Common Law's position as to the status of the fetus for various purposes, see Joseph W. Dellapenna, *History of Abortion: Technology, Morality and Law*, 40 *U. PITT. L. REV.* 359, 366-428, (1979); Clarke D. Forsythe, *Homicide of the Unborn Child: The Born Alive Rule and Other Legal Anachronisms*, 21 *VAL. U. L. REV.* 563, 580 (1987); Shelly Gavigan, *The Criminal Sanction as it Relates to Human Reproduction: The Genesis of the Statutory Prohibition of Abortion*, 5 *J.L. HIST.* 20 (1984).

64. Dunstan, *supra* note 55, at 52. For different explanations of the reason for this change, see *supra* note 63 and sources noted therein; *THE MORALITY OF ABORTION, supra* note 50, at 38.

come a person was worthy of protection.<sup>65</sup> The usual interpretation of this position is that the soul is infused at the earliest possible moment.<sup>66</sup> Thus, that the soul is infused, "once the body is sufficiently formed, is certain. It is, however, more probable . . . that it is infused at the very moment of conception; the rational soul . . . is the form which fashions the organic body."<sup>67</sup>

The Catholic position is not an ontological assertion about the nature of being human but a moral judgment that it is objectively a grave sin to risk killing a human being.<sup>68</sup> Even so, there are good reasons to believe that the argument about fertilization being the origin of personhood is not foreclosed, and a number of Catholic theologians permissibly dissent from that view, adhering to the view that personhood attaches at about two weeks, or even later, following fertilization.<sup>69</sup> The position of Catholic theology actually rests on a theory of decision making in situations of uncertainty, which turns on the probabilities of opinion for allowing freedom of choice or following canon law.<sup>70</sup> But the actual uncertainty about ensoulment is not a factual or empirical one such that the Church can decide it once and for all. It is rather equivalent to a legal uncertainty, for which probabilistic methods are most appropriate.<sup>71</sup> Rights of an uncertain subject are uncertain rights.<sup>72</sup> The most common method of decision making is equiprobabilism, in which one can act if the opinion favoring liberty is at least as probable as that constraining it.<sup>73</sup> The probability is that the fertilized egg is not ensouled because the capacity for twinning and recombination until about fourteen days after fertilization shows that no individual human life can be established before that

65. For details of the effect of Pius IX's Papal Bull of 1869 as seen in an 1896 edition of theological moral principles by Liguori, see *THE MORALITY OF ABORTION*, *supra* note 50, at 38.

66. Tauer, *supra* note 52, at 9. For the best succinct overview of the argument in favor of conception as the point of time at which a being is recognized as a person, see *THE MORALITY OF ABORTION*, *supra* note 50, at 51-59.

67. Dunstan, *supra* note 55, at 52. Note that the relationship between the soul and the body has not changed. See *supra* text accompanying note 62. The idea that the soul develops from vegetative to animal to rational, however, has been abandoned. This new unified conception of the soul is rather like the ghost in the machine or the efficient cause of being human, which is dualistic and inconsistent with the Catholic philosophy of man. Donceel, *supra* note 60, at 80, 83, 88, 94.

68. Tauer, *supra* note 52, at 9.

69. *Id.* at 3, 10.

70. *Id.* at 4.

71. *Id.* at 23, 27, 33.

72. *Id.* at 28.

73. *Id.* at 29.

time.<sup>74</sup> Also, it is emphasized that hylomorphism, i.e., that the body-soul composite form one substance, cannot admit that the early embryo is animated by an intellectual human soul because the life principle needs a human body.<sup>75</sup> Lastly, it is considered significant that an estimated fifty percent of fertilized eggs are lost before and during implantation so that, theologically, one must explain why half of all human beings with immortal souls never begin to develop.<sup>76</sup> Therefore, it is not more probable than not that the fertilized egg has a soul; the argument is a religious belief dogmatically asserted by the Catholic Church.

As a result, the appearance of a certain religious answer to the problem of when life begins is misleading. Even the Catholic Church is not united in its view that life begins at fertilization, and there are good reasons, consistent with its premise of associating ensoulment with humanity, for thinking that individual human life begins considerably later than fertilization or even implantation. What the embryo can claim, therefore, is respect for itself and for its symbolic value but not a duty. In fact, it cannot be said, even theologically, that it was a principle of conduct to accord an almost absolute value to the embryo because life existed at the moment of conception. This belief was contradicted and undermined by a consistent practice of justified abortion. Moreover, this western tradition was consistent with common sense that associated the beginning of life with quickening, such that the recognition of being human depended upon not only individuality and the idea of a formed body, and upon ensoulment or some such stage, but also upon respect for the autonomy of the woman and compassion for those procuring abortions and causing miscarriages.

## V. ON NOT DOING HARM

If the problem of the personhood of the embryo cannot be solved within a religious framework, as opposed to a secular one, and if rational argument about the beginning of individuality cannot be conclusive either, we should look to more emotional explanations regarding the beginning of a human life. What is it that we value? On one front we must consider the idea that life somehow exists apart from living beings. I have argued that life, according to such a definition, is an abstraction without an existent referent. It is not helpful in

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74. *Id.* at 29-31.

75. *Id.* These same facts are adduced by Donceel to make the same point. Donceel, *supra* note 60, at 97-99.

76. *Id.* at 100. Menstrual blood ought to be baptized, unless early embryonic loss is just that. A similar problem exists with IUDs as well as drugs, such as RU-486, which would be abortifacient under any theory of immediate hominization.

a discussion of the soul or spirit and has meaning only generally with reference to the species, not to people or a person.

On another front we must address the idea that the embryo has the potential to become an actual person and should be left to realize itself or that the person is preformed in the embryo. This assertion is either overbroad, for sperm and eggs separately have that potential, or else it in fact relies upon what it purports to negate, the significance of different stages of development. Recall also that the potentiality argument begs the question because it confuses potential to become something with what something is or is not. The potential to become a person is not being an actual person. The potential to become a person entails only contingent accessibility to the next stage of development and then its resulting potential.

Furthermore, one who asserts that things naturally become what they are meant to become has aptly stated the potentiality argument in religious form. Potentiality, from a religious analytical framework, collapses in the context of extracorporeal fertilized eggs or embryos, because without human medical intervention such eggs or embryos will die unless implanted at about three days.<sup>77</sup> After this time, therefore, they no longer have the potential to become fetuses, let alone persons, and those that have been implanted have that potential only because of human agency, not because of their nature.<sup>78</sup>

The final aspect of the more intuitive or emotional claim that the human being exists from the moment of conception concerns the assumption that we are doing harm, rather than doing wrong, by terminating pregnancies or discarding unused fertilized eggs or researching with early unimplanted embryos. There are three parts to this discussion. Part one addresses the argument that all there is to doing good is to bring people into existence. Part two addresses the subject of this harm. Who or what is it that is harmed? The respective developmental stages of the gametes into a zygote, blastocyst, embryo, fetus, viable fetus, and baby are relevant. The individuality of the life form and its claims on us to recognize its personhood will be covered. Part three, the easiest to deal with, concerns the view that the fertilized egg, embryo, or fetus is an innocent victim.

#### A. *On Innocence*

The status of the embryo as victim or nonvictim aside for a mo-

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77. Singer & Dawson, *supra* note 32, at 89-90.

78. *Id.* at 103.

ment, the notion of innocence needs examining. In what sense might an embryo be innocent? If we mean by innocence being free from guilt or sin, then the embryo being thus innocent cannot be ensouled or human because it is exactly that guilt that characterizes the human being in religious terms. Because "man" is fallen, then from the moment of conception, whenever that may be, the fertilized egg is a sinner whose soul seeks salvation.<sup>79</sup> The characterization seems unlikely. In the alternative, if we acknowledge that the embryo or fetus does not have a soul until later or until it has a formed body, then it does not have a soul, and it is not yet a person.<sup>80</sup> Therefore, innocence in this "pro-life" proposition must have a more conventional sense than simply "not fallen" or "not guilty."

If innocence means simply naive and unaffected, then not only does the assertion of innocence presuppose the potentiality argument again, but it admits that the embryo is underdeveloped and that it lacks any experience such that attributes of naivete or innocence can be attributed to it. Trying to think of an embryo as innocent raises still more confusion, for we cannot sympathize with it. We cannot put ourselves in its place. We can put ourselves in the place of another person, especially the mother, but we cannot so empathize with the embryo because it is not a person. We cannot imagine its experience. It cannot look out from itself and see or feel us sympathizing with it. Moreover, it has no expectations of us. Not only are we unable to put ourselves in its place, but because of just this inability to sympathize, the embryo or fetus cannot make any claims on us. It may make claims on the mother because, knowing she is pregnant, she sympathizes with herself until such time in her pregnancy as she can conceive of her fetus as a baby, which is both dependent yet separate, independent yet within her. Any contrary argument must revert to the abstraction of life as something other than a state that describes beings that are living, or else it must confuse potentiality with actuality.<sup>81</sup> The innocent

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79. Donceel, *supra* note 60.

80. This particular difficulty caused St. Augustine to equivocate. The time of animation is bound to the origin of the soul. Either the soul is generated by the parents or in every instance it is created by God. Creationists asserted that the soul entered the body sometime after conception. See *supra* text accompanying note 57. This concept engenders the distinction between the formed and unformed fetus. The problem becomes one of the manner of inheritance of original sin. If sin is inherited from the parents, creationism is undermined, and we are left with the problem of determining the exact time of fertilization, such that life might become individualized, which actually is only possible some two weeks after fertilization. *Supra* text accompanying note 22. For a discussion of St. Augustine's difficulty with this concept, see WILLIAMS, *supra* note 55, at 150-51.

81. Anticipating the evidence a little, arguments for the personhood of the embryo focus on fertilization, implantation at about two weeks, or at about eight weeks, when early brain activity

embryo or fetus is not yet developed so as to be anything to which human qualities can be attributed. It is in fact a symbol of the incomprehensibility of life in general, by which means we come to see ourselves as individuals connected with the species' history, God, or nature. Arguably, therefore, there can be no rational basis for a duty of more than symbolic respect owed to it, for the premise of a legal duty of respect is either autonomy or mutuality. The former assumes individuality, if not personhood, and the latter assumes the bond of sympathy.<sup>82</sup> One could surmise that compassion, allegedly felt regarding the embryo's right to life, is not only misplaced but irrational.<sup>83</sup>

Lastly, we may wonder if by innocence we simply mean something we wish not to abuse. If so, the question is one of harm to the embryo or fetus. At some stage we can be sure the embryo or fetus does have sentience, though probably not feelings.<sup>84</sup> But that is, of course, exactly the point. At some stage the embryo or fetus becomes a person, after having been a being respected in law with protection from harm by others, and after having earlier been the tissue of a human life form and no more. The issue is precisely, therefore, a legal question of the nature of the respect due to potential persons, actual embryos, living women, and society through scientific research. This respect is accorded either the embryo as an actual being, which I have argued against, or as an entity simply symbolic of our human existence, until

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occurs. See *infra* text accompanying note 114. Admittedly, at the latter stage of development one could speculate that there can be input into the lower brain stem and that the fetus is capable of storing experiences in the unconscious. Tauer, *Personhood and Human Embryos and Fetuses*, 10 J. MED. & PHIL. 253, 258-59 (1985). That we care what happens to the developing embryo or fetus does not mean we sympathize with it. We care because it may become a being for which we may have sympathy. The early embryo has the potential for becoming such a being, and it only represents something else to us that we value, namely life, which we value because as persons we are living. We do not value it for itself. See *supra* text accompanying note 44. The embryo's life, then, has symbolic value. Robertson, *supra* note 18, at 196; Robertson *supra* note 31, at 33; Robertson, *Fetal Tissue Transplants*, 66 WASH. U. L.Q. 443, 462 (1988).

82. See Stephen Hicks, *The Revolution in Social Theory in the Early Nineteenth Century: From Sympathy to Disinterestedness with an Afterword on the Origin of the Tort of Negligence*, in LAW AND ENLIGHTENMENT IN BRITAIN 102 (Tom Campbell ed., 1990).

83. For an illuminating discussion of the values giving rise to religious beliefs in this area, see Callahan, *supra* note 7. A belief in a benevolent creator makes life seem a good, that is, a gift with value. Life has a purpose, and its natural processes not only have a beginning and an end but are perfect the way they are. Therefore, human values and this other order may be at odds. Suffering must be borne. All people have roles in the unfolding of this natural and divine drama, including those often devalued, such as the poor, the sick, and the victimized. By discounting differences in this manner, the embryo may be seen to be as full a person as the rich man, and women's choices as much the norm as men's. What is misplaced is the sympathy for the embryo rather than the woman. It is irrational to liken the dependent fetus to the once-dependent woman, as if they were the same, and then to argue that women should not associate with men in attacking it. *But see id.* at 286.

84. See *infra* text accompanying note 127.

such time as life having become human, that human life becomes a living being and that living being becomes a person.

### B. *On the Harm of Not Being Born*

What harm is done by in vitro fertilization, embryo research, and fetal tissue experimentation? The particular harm bolstering the argument that embryos have an absolute right to life is not just death but rather that they have lost the opportunity to experience living. To talk of death, purely and simply, begs the question of the sense in which they were alive. The argument is that taking life by terminating a pregnancy or destroying an embryo is an avoidable injury and an act that adversely affects the embryo's or fetus' interest in the continuation of its development. It is difficult, however, to grasp the sense in which embryos and fetuses are made worse off. We can, after all, say that they never lived though they had life. From there one should ask by what test or comparison is their death, or rather nonexistence, worse than their existence?<sup>85</sup> Note that this discussion cannot be transformed into an argument about fetuses or embryos as actual people, nor about their potentiality to become actual people because, for the reasons discussed above, neither of those arguments is conclusive or even coherent.<sup>86</sup> The topic at issue is not about fetuses or embryos but about the harm, injury, or losses suffered by them. This harm is the taking away of the right to live in the present and continue living, or more precisely, the right to develop and be born. This harm may be thought of as a harm to the embryo, to other people, or to the world. It will be argued that there is no harm to the fertilized egg, embryo, or early fetus, that the harm to the world cannot be known, measured or evaluated and that, therefore, the harm to other people is merely indirect and vicariously derived from offense taken at other people's beliefs.

The basic point, however, is that the personhood issue cannot be avoided. If there is harm, it is harm suffered by an actual being. Note an important distinction here with regard to the analysis. In contraception what is prevented from happening is the actualization of a nonactual. In abortion, performed at say the eighth week, what is prevented from happening is either the actualization of a nonactual, which is the personhood issue, or the benefit of existence.<sup>87</sup> The loss

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85. See *supra* text accompanying note 45.

86. See *supra* text accompanying note 30.

87. John Bigelow & Robert Pargetter, *Morality, Potential Persons and Abortion*, 25 AM. PHIL. Q. 173, 176 (1988).

or harm borne as a result of future nonexistence does not make sense unless it is attached to a person. In addition, it can only make sense if it attaches to a person who will be born, not to a person who would have been born if something like abortion had not happened. Therefore, the harm itself cannot establish that what is killed in abortion is a person. In fact, apart from the personhood issue, abortion visits harm upon no one except the mother. That is why, with informed consent, it must be her decision. Moreover, without abortion, harm to the baby would in fact be unavoidable in some circumstances, such as those involving genetic disease.<sup>88</sup> To evaluate this assertion one must try to quantify such intangibles as individual happiness, average happiness, or total happiness. There is no way to ensure that the choice of measure is not arbitrary. We try to balance all the interests. But regarding the future existence of an embryo or fetus, it is clear that we do not think of adding new persons to the world, whether through providence or family planning, without somehow evaluating the effect on those who actually exist.<sup>89</sup>

It is different with regard to contraception and the measure of the effect on a nonactual's never existing. The outcome is the same as before. Never existing is no better and no worse than not existing. Therefore, it is easy to improve the lot of a nonactual, by proscribing contraception, for example. All it takes is bringing it into existence. But this benefit cannot be so simply applied to fetuses or embryos whose loss is not never existing but future nonexistence. Precisely because the before and after, by which the harm is determined, is different but does not dictate the measure of its comparison, we cannot know what is lost by future nonexistence.<sup>90</sup> Note the suggestion here that nonactuals and possible beings, that is embryos and fetuses that cannot be proven to be persons, cannot be harmed or benefitted because there is no way to compare the before and after without arbitrariness or the personhood argument. Therefore, in the determination of harm and whose harm counts, only existing people can count, not those who would have existed if some event had not taken place. Not being brought into existence cannot be factored into the balance against the relief of infertility, progress in reproductive science, and the mother's decision about the benefit and harm to herself. This does not mean that the symbolic value of the fetus or em-

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88. Phillip Peters, *Protecting the Unconceived: Nonexistence, Avoidability and Reproductive Technology*, 31 ARIZ. L. REV. 487, 496, 510 (1989).

89. Bigelow & Pargetter, *supra* note 87, at 179-80. See also *infra* note 94.

90. *Id.* at 177.



bryo is irrelevant. It only means that the embryo enjoys no absolute right to go on living, both because it is not an actual person and because it is not harmed. Any hypothetical interest in living the embryo has must logically be balanced against other interests and values, but it cannot sensibly outweigh them.<sup>91</sup>

That the embryo's interest is inferior to that of others can be argued for in another way. The harm to the embryo or fetus is its death. What it has lost is life rather than living, or the development of the next stage, be it implantation or viability, rather than birth. But even the harm of not being born is not the same as the harm of being killed, and it is certainly not the same as the harm of being born harmed. In so-called wrongful life or wrongful birth cases, the courts are generally reluctant to compare injured life with nonexistence.<sup>92</sup> But the courts' reluctance is a product of their inability to conceive that which is to be compared to living. So too in the case of a fetus or embryo; there is nothing other to its future nonexistence with which a comparison can be made. Just as the worth of a life lived with serious harm cannot be determined by comparing it with nonexistence, so the worth of a life not lived cannot be determined by comparing it hypothetically with something that does not now actually exist.

The killed embryo or fetus has lost nothing and has not been harmed unless it is already a person. The loss to the world is that of people who would have been born. But we cannot sensibly know if that makes the world a better or worse place. The only people who count are the actual living at any one time and those who will be born. Moreover, the only person directly affected is the mother or, in the case of IVF, the donors of the gametes. Short of arguing that the embryo or fetus has a right to life because of its personhood, there is, therefore, no basis for claiming harm except the moral outrage at others' morals.

The fundamental premise supporting the view that the embryo or fetus has lost something, independently of its status as a person, is the belief that being born is good. We have to be careful with this belief. It is a rationalization of the fact of being alive.<sup>93</sup> It does not necessar-

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91. Even if one were to claim that the embryo or fetus is harmed by its future nonexistence, one must still show that this harm should carry the same weight as harm to actual individual people. This assertion parallels the argument that advocates of the embryo's or fetus' right to life lack compassion for the already living.

92. See generally Peters, *supra* note 88, at 492-510.

93. Bigelow & Pargetter, *supra* note 87, at 175. See also *supra* text accompanying note 44. The assertion is usually stated: any life is better than no life. *Berman v. Allan*, 404 A.2d 8, 12-13 (N.J. 1979). But see James Bopp Jr. et al., *The "Rights" and "Wrongs" of Wrongful Birth and Wrongful Life: A Jurisprudential Analysis of Birth Related Torts*, 27 DUQ. L. REV. 461 (1989).

ily apply at all. It certainly does not apply, without radical qualification, to those who are not alive.<sup>94</sup> Also, it can be rational to prefer nonexistence to a life of misery, to wish one had not been born, even though one may or may not desire death or commit suicide. There is asymmetry at this juncture between life and nonexistence.<sup>95</sup> The interests of the living are different from those of the not yet living. To us, the only alternative is death, whereas to the embryo or fetus the alternatives are actual living or future nonexistence. Thus, intervention in the reproductive process may be necessary and justified, unlike intervention in the living process, to protect the interests of the fetus or embryo by screening for genetic injury or destroying frozen embryos, for if they are to be born they have a right to be born free from avoidable harm.<sup>96</sup>

The duty not to cause harm to the living has no parallel application to embryos or fetuses because the embryos or fetuses suffer no harm until they are persons. Thus, one cannot trade the actual interests of the living for the yet to be born, except those who will—not might—be born. In fact, if there exists a duty to the unborn previable fetus or early embryo, it is exactly a duty to avoid harm that might make later nonexistence preferable to living.<sup>97</sup> But any such harm caused by death of embryos and fetuses is unrecognizable unless their personhood is accepted. It is quite the contrary. This harm is the avoidable harm of bringing babies into the world thinking the only value is life in the abstract.

This critique supports, and is supported by, the argument that an undertaking arises on the part of the mother, like that of a laboratory to screen donors for genetic defects, to avoid substance abuse that will

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94. Note that this portion of the Article is intended to show primarily that the "life is good" view assumes personhood. Without personhood or actual individuality, there is no harm suffered by the death of the fetus or embryo. If the fetus dies, the result is purely the loss of "life" as defined in the abstract. It follows then that the "goodness of life," so defined, renders the universal "goodness" of birth debatable. Another argument to the same effect points out the potential environmental disarray that can be caused by unchecked population growth.

95. Peters, *supra* note 88, at 537-39, 547-48. For an argument that the continuation of life may be against a person's interests, see Ronald Dworkin, *The Right to Death*, N.Y. REV. OF BOOKS, Jan. 31, 1991, at 14, 17.

96. See generally Deborah Santello, Comment, *Maternal Tort Liability for Prenatal Injuries*, 22 SUFFOLK U. L. REV. 747 (1988); *supra* text accompanying note 51.

97. Here arises the difficult "quality of life" versus "life itself" argument. See Bopp, *supra* note 93; Peters, *supra* note 88, at 520. The dispute between the two arguments is a red herring if the difference between life and living is collapsed. Living is a qualitative phenomenon, not the acting out of a pure and simple, abstract separate essence. There is no such phenomenon as life without living and no living without its qualities or their absence. See text accompanying note 44, *supra*.

harm an embryo or fetus that will be born. There is a right to be born free of avoidable injury. But there is no right to be born. In this sense there is no right to life. It is a mistake to confuse life with living. It necessitates the hypothesis of a benevolent creator whose will directs everything and makes our living meaningful according to a plan.<sup>98</sup> This religious hypothesis cannot undergird specific legal enactments.<sup>99</sup> We are responsible for our own meaning, even making sense of who we are and what it means to be. By avoiding our responsibility, we mistake life for living, the fetus and embryo for a person, and the different interests of the fetus' and embryo's loss of future existence for harm to the living. Moreover, there is no harm to the world generally by a fetus' or embryo's loss. Society's reaction to embryo research and abortion is not based on harm or injury as such to society, to the living, or to the embryo and fetus. It is an emotional reaction to others' morals, based on the misunderstanding of personhood, as if it were a unitary, all or nothing concept without regard to stages of its development.

### C. *On the Significance of Stages of Development of Personhood*

Although in abortion and experimentation the embryo will die, that harm *per se* is not what we initially think it is. Nor does the right to life thereby violated quite signify what it appears to on the surface. I have argued that the concept of a right to life is incoherent without the subject who lives. We must return to the problem of personhood, therefore, without deducing it from innocence, life, potentiality, or the loss of the opportunity to live.

It has been argued so far that there are developmental stages to personhood, only one of which—conception, understood as fertilization—is even relied upon by the argument for an absolute right to life. The different stages of development of the gamete, zygote, blastocyst, embryo, fetus, and baby respectively have significance and are meaningful to us with regard to personhood. The stages affect the moral respect and legal status of the entity concerned according to the differing aspects that attend its development. The question is which values give significance to the different stages. The idea of staged development is not inconsistent with that of continuity of development. I have suggested that embryonic development is contingent on circumstances; is discontinuous in that organs develop, function, and then finally grow; and is cumulative in that later accretions build upon and cover up earlier developments.

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98. See *supra* note 83.

99. See *supra* notes 48, 53.

I have suggested the metaphor of a flower is inapt and that embryonic growth is more appropriately likened to crystal formation. Embryonic development occurs in stages. These stages of embryonic development are changing the nature of its being, even though structurally it remains constantly human, alive, and endowed with some capacities. The stages evident in embryonic growth then are periodic intervals after which the continuous process of change takes up again, but in vastly different ways. A stage is not necessarily a qualitative or quantitative change. It is especially not a radical break, or sudden occurrence, or externally imposed event. The aspects of the entity that may change are the very basis for thinking of the identity of something as what it is. The type or size of an embryo may change in addition to its very being. The periodicity of development, however, depends upon one's perspective. The purpose of this discussion has been to develop this point. Thus, the perspective of life as a whole, which I have argued is meaningless, nevertheless rests upon the stage of fertilization. Other models presuppose other perspectives and their value orientations. But one's perspective must be defended.

The process that begins with fertilization has already been described.<sup>100</sup> After the unification of the two bubbles of chromosomes inside the egg, which occurs at the end of the first day of insemination or impregnation of the egg by the sperm, this single cell then divides into two cells some twelve hours later. In a little less time it divides again into four and then again into eight cells by about the third day.<sup>101</sup> During the next three to five days—toward the end of the first week—the fertilized egg or zygote cleaves until it has hundreds of cells as it descends the fallopian tube. During this time, the cells separate into a central cavity and peripheral layer. The peripheral layer develops first and attaches to the wall of the uterus around ten days after the end of fertilization.<sup>102</sup>

The blastocyst, as the fertilized egg is now called, produces a hormone upon implantation that signals the pituitary gland to stop menstruation. Obviously this hormonal activity is often experienced by women before the first missed period.<sup>103</sup> But it is worth noting that, by

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100. See text accompanying note 24, *supra*. For details of the ova and sperm themselves, see Mary Seller, *The Chronology of Human Development*, in *THE STATUS OF THE HUMAN EMBRYO*, *supra* note 7, at 18.

101. Seller, *supra* note 100. See also, Robertson, *supra* note 3, at 441.

102. Robertson, *supra* note 3, at 442.

103. There is about a two-week discrepancy, therefore, between the time of fertilization or the age of the fertilized egg, embryo, and fetus, and the time and duration of pregnancy, which is counted from the last menstrual period. Seller, *supra* note 100, at 21. In obstetrics, the menstrual age is usually used. In embryology, the fertilization age is used, as it is throughout this

various accounts, somewhere between eighty percent and ninety percent of fertilized eggs do not implant.<sup>104</sup> Even thereafter about one third of all implanted eggs spontaneously abort.<sup>105</sup> Medically, implantation—rather than fertilization—accounts for pregnancy, not only because of the statistically slight probability of implantation, but because without implantation no pregnancy is possible. Implantation is complete around the tenth or twelfth day. At implantation the cells begin to organize. Before that time, in fact, what has organized is the medium of the growth of the embryo, not the embryo itself. Not until three or four days later is this organization differentiated into anything like an embryo and a placenta.<sup>106</sup> This state is in accord with the plain meaning of “conception,” which is something that has been taken hold of or the condition of being taken hold of. A woman conceives, therefore, when the fertilized egg implants, not when the egg is fertilized.<sup>107</sup> Moreover, implantation itself is not a bright line between merely an egg and actually an embryo.<sup>108</sup>

The physical stages in the development of the implanted embryo are well documented and noncontroversial. Upon implantation the inner cell mass thickens and forms the embryonic disc, a two-layered mass, which by the end of the fourteenth day develops a third cell layer called the primitive streak. The disc then elongates and cells proliferate in the brief period of rapid “organogenesis” in the third week. The neural plate forms around the eighteenth day and the whole central nervous system is laid down by the middle of the fourth week.<sup>109</sup> By this time the embryo is one tenth of an inch long. This point is well past the optimum time of transfer from in vitro fertilization and also past the maximum possible time of lab cultivation of developing embryos.<sup>110</sup> The recommended and conventional practice is to limit embryo growth to fourteen days.<sup>111</sup>

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Article. The question as to when the woman is pregnant, has conceived, or is with child is still open. See Louis Elsas II, *A Clinical Approach to Legal and Ethical Problems in Human Genetics*, 39 EMORY L.J. 811, 833 (1990).

104. Robertson, *supra* note 31, at 22; Tolton *supra* note 16, at 9. See also *supra* note 32.

105. *Id.* Cf. Elsas, *supra* note 103, at 834. Elsas puts this figure as high as 50%.

106. Seller, *supra* note 100, at 19.

107. The word “conception” has no scientific definition. *Audience Discussion, in* DEFINING HUMAN LIFE, *supra* note 6, at 24, 30. A definition of “to conceive” is “to become pregnant with.” WEBSTER’S NEW WORLD DICTIONARY 293 (2d ed. 1980). Cf. *Webster v. Reproductive Health Services*, 492 U.S. 490, 563 (1989) (Stevens, J., dissenting) (Justice Stevens asserts that medical texts equate conception with implantation.). If pregnancy were to be otherwise defined there would be no way of knowing whether a woman was pregnant. Tolton, *supra* note 16, at 5-7.

108. It cannot be said with certainty, therefore, that IUDs and RU-486 are abortifacient in destroying an implanted embryo or contraceptive in preventing implantation. Lees is careful to convey this uncertainty. Lees, *supra* note 10, at 1116-17.

109. Seller, *supra* note 100, at 19.

110. Robertson, *supra* note 3, at 443; Singer & Dawson, *supra* note 32, at 90-91.

111. *Id.*

By the early fourth week the major organs exist, the rudimentary heart beats spasmodically, neural folds develop, and the embryo has a tail. In the fifth week, the buds that will form limbs segment, and the divisions of the brain are apparent. In the sixth week, although the embryo is only one-half inch long, it begins to look human. In the seventh week the tail disappears, the eyes begin to move from the side of the head to the front, the gender of the embryo can be discerned, and the brain cells begin to connect.<sup>112</sup>

By the end of the second month, when the embryo is technically called a fetus, it only weighs one-half ounce and is only one-and-one-half inches long, but all the organs are present in rudimentary form, the lower brain is more or less developed, there are responsive reflexes, and the earliest beginning of the nervous system may be measurable in electrical activity.<sup>113</sup> By the end of the third month, all the bones, nails, and bodily parts exist. The fetus has a human face, and its brain cells in the cerebral cortex are connecting.<sup>114</sup> By the fifth month, quickening of the fetus is perceived by the mother, which was originally thought to signify animation, though autonomous movement by the fetus has occurred since about eight weeks.<sup>115</sup> Even at this stage, the complex functional networks of the upper brain do not exist. Maturation of the cerebral lobes' nerve cells has barely begun, and their interconnectedness does not occur until the third trimester and continues into postnatal life.<sup>116</sup> By the sixth month the bronchioles of the lungs have developed so the fetus can survive on its own, and the neurons of the cerebral cortex and thalamus have begun to be linked with limited branching and few synaptic connections. There are enough connections, however, so that recognizably human brain wave

111. *Id.*

112. These details are derived from GERALDINE LUX FLANAGAN, *THE FIRST NINE MONTHS OF LIFE* (1965); 6 *ENCYCLOPEDIA BRITANNICA* 747-48 (1974); 12 *ENCYCLOPEDIA BRITANNICA* 995 (1974). See also the text and extraordinary photos in *The First Days of Creation*, LIFE, July 26, 1990, at 26 (excerpted from LENNART NILSSON, *A CHILD IS BORN* (1990)). The photos are taken at two hours of fertilization, 12 hours, 20 hours, 2 days, 4 days, 8 days, 3 weeks, 4½ weeks, 6 weeks, 7 weeks, 8 weeks, 11 weeks, and 13 weeks. Cf. Seller, *supra* note 100 (Seller asserts that gender cannot be determined until around 12 weeks.).

113. For details of neural development, see Joel R. Cornwell, *The Concept of Brain Life: Shifting the Abortion Standard Without Imposing Religious Values*, 25 DUQ. L. REV. 471, 476 (1987); Clifford Grobstein, *A Biological Perspective on the Origin of Human Life and Personhood*, in *DEFINING HUMAN LIFE*, *supra* note 6, at 8-10.

114. For a photographic representation, see *supra* note 112. Cf. John Marshall, *Experiment on Human Embryos: Sentience as the Cut-Off Point?*, in *THE STATUS OF THE HUMAN EMBRYO*, *supra* note 7, at 59 ("[M]ovement patterns which imply considerable interconnections within the nervous system can be seen by 14 weeks.").

115. Grobstein, *supra* note 113, at 8.

116. *Id.* Premature infants of 28 weeks exist in a state of torpor. Even at 34 to 36 weeks such infants are still unresponsive, though there are periods of wakeful alertness. *Id.* at 9.

patterns are discernible, though only randomly and intermittently, even until the end of the eighth month.<sup>117</sup> At twenty-three weeks there is a ten percent chance of survival of premature birth. At twenty-five weeks this increases to a seventy-five percent chance.<sup>118</sup> However, the lungs do not mature until at least the seventh month. Ultrasound can measure bone development, and amniocentesis can determine organ and lung maturity—but at a one percent risk of fetal mortality. Even so, it is very difficult to determine viability.<sup>119</sup>

The existence of distinctly identifiable steps in the development of the human being is indisputable. The question remains which one or ones have significance.<sup>120</sup> If “life” in an abstract means being human to us, then it is arguable that we exist as humans from the time of impregnation, or at least from the completion of fertilization. If the person as an “individual” human being is what has meaning to us, then we are that from the time of implantation. If to be recognizably “human” to each other in each other’s eyes is the critical aspect of our personhood, then we are that by the time of viability at about twenty-two weeks, at which point premature babies survive in the world; and certainly from about twelve weeks the fetus is recognizably human internally as well.<sup>121</sup> In this context it should be noted that ninety percent of all abortions are performed before the twelfth week.<sup>122</sup> The process that culminates in the fetus’ complete organic

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117. Gary B. Gertler, *Brain Birth: A Proposal for Defining When a Fetus is Entitled to Human Life Status*, 59 S. CAL. L. REV. 1061, 1061, 1068-69 (1986).

118. Cf. Lenow, *supra* note 6, at 10-11 n.70, 71 (Lenow provides even more conservative figures of survival. For example, Lenow estimates a 45% chance of survival at 26 weeks.).

119. On the various tests for viability, see Patricia King, *The Juridical Status of the Fetus: A Proposal for Legal Protection of the Unborn*, 77 MICH. L. REV. 1647, 1678 (1979). On the different weights and ages recommended in different commissions for viability between 20-24 weeks and 400-600 grams, see LeRoy Walters, *Ethical Issues in Fetal Research: A Look Back and a Look Forward*, 36 CLINICAL RES. 209, 211 (1988). See also Webster v. Reproductive Health Services, 492 U.S. 490 (1989). Amniocentesis is usually performed at the sixteenth week. Chorionic villi sampling (CVS) can be done between the eighth and twelfth week. Cornwell, *supra* note 113, at 477. The risk factor of CVS is two percent. A.K. Kamen & Ruth Marcus, *Justice Dept. Asks Supreme Court to Review Landmark Abortion Ruling*, BOSTON GLOBE, Nov. 12, 1988, at 3. The advantage of CVS is that results are available in two days rather than two weeks. CVS led to the discovery that the placenta does not block carbon monoxide from cigarette smoke inhalation. *Id.* Fetal examination through amniocentesis or CVS is significant in that the earlier the detection of defects, the greater the chance of aborting before viability, or whatever stage may be taken to mark personhood.

120. For a classification of the criteria determining such a choice, according to what the embryo or fetus is or does or is seen to be, see Atkinson, *supra* note 1, at 92, 112.

121. See also *supra* text accompanying note 112. Cf. Atkinson, *supra* note 1, at 87. (Atkinson asserts that the fetus appears human at eight weeks and has a formed body at ten weeks.).

122. Fifty percent of abortions are performed before the eighth week and 90% before the twelfth week. See Cornwell, *supra* note 113, at 477. Cf. Lenow, *supra* note 6, at 14 n.94 (stating

and structural proto-development has begun at about the eighth week.<sup>123</sup> If, however, we think of being human as having a spiritual and rational existence compared with other species, then our "consciousness" in the sense of processing stored information is only possible when the subthalamic cortical region of the brain matures, which occurs at thirty-two to thirty-six weeks.<sup>124</sup> Thus, a behavioral rudiment of awareness probably first appears after thirty weeks.<sup>125</sup> If by personhood we mean being merely "cognitively receptive," then the fetus attains personhood at about twenty weeks,<sup>126</sup> when the neocortex begins to produce evidence of organization. But neocortex activity at that stage is random. The major production of synapses or interneural connections necessary for full development of the neocortex occurs later, in the seventh month. If by consciousness we mean less, such as "sentience," then we can consider that the very early fetus, at around ten weeks, responds to external stimulus, though the reaction is autonomic.<sup>127</sup>

It can be argued that two important stages other than implantation stand out. By the end of the third month the fetus is structurally and

that 99% of abortions are performed before 20 weeks.); Ronald Dworkin, *The Future of Abortion*, N.Y. REV. OF BOOKS, Sept. 28, 1989, at 47, 49 (stating that 3.7% of abortions are performed after 16 weeks).

123. See *supra* text accompanying note 13.

124. LeRoy Walters, *Ethical Issues in Fetal Research: A Look Back and a Look Forward*, 36 CLINICAL RES. 209, 213 (1988).

125. Grobstein, *supra* note 113, at 9. On the idea of brain birth as the maturation of the brain to the point of sustaining characteristically human mental functions, as the criterion for personhood, see Lockwood, *supra* note 4, at 204-08.

126. Cornwell, *supra* note 113, at 476; Gertler, *supra* note 117, at 1061; Milby, *supra* note 28, at 41; Rubinfeld, *supra* note 4, at 622. Gertler argues for detectable brain activity on both its coherence internally and its consistency externally with brain death. Gertler, *supra* note 117, at 1071. The dispute today about the time of death is no longer between brain death and heart cessation but between whole-brain and merely higher-brain death. See Veatch, *supra* note 38, at 109.

127. Peter Byrne, *The Animation Tradition in Light of Contemporary Philosophy*, in THE STATUS OF THE HUMAN EMBRYO, *supra* note 7, at 106. Cornwell, *supra* note 113, at 476, argues for a standard based on identifiable electrical activity on the basis of its consistency with the whole-brain death. Tauer, *supra* note 81, at 258-59, argues for a sentience approach on the basis that the brain experiences inputs analogous to memory unconsciously imprinting the mental life of the eventual person. For a criticism of the sentience-based approach, see John A. Marshall, *Experiment on Human Embryos: Sentience as the Cut-Off Point?* in THE STATUS OF THE HUMAN EMBRYO, *supra* note 7, at 60-61. If inflicting pain is wrong, then procedures could call for anaesthetizing the embryo before experimentation. The question that must be faced is not whether a procedure causes pain. The question should be upon whom or what is the procedure performed. Sentience cannot determine personhood because of its subjectivity. We can measure the pain-producing stimulus but not its effect. Therefore, we cannot know at what point in its development the embryo might feel pain.



organically, though not neurologically, human. During the sixth month there is the coincidence of survivability, quickening, human appearance, audible heart beats, and measurable brain wave activity. These activities signify faculties constitutive of human experience, rather than mere human being, and all appear between twenty and twenty-four weeks. Therefore, I suggest that the embryo is simply a life form until the end of the third month when ontologically it acquires the capacity of human being in essence. I further suggest that this human essence ontologically changes after the fifth month to be a human existence, to whom particular interests can attach.

## VI. THE SOCIAL AND POLITICAL CONTEXT

It is not necessary to analyze the policy issues surrounding abortion to conclude this argument. It is sufficient to show that there are stages to the development of the human being and that the significance of those stages depends on individual premises about what it is that makes us human beings in our own eyes. Nothing mandates that we are not persons when we can survive on our own, or beings when humanness develops, or individual life forms when implanted. We must choose. The idea of an absolute right to life dating from the time of fertilization is simply abstract. Rights must at least depend upon the existence of an individual life form. Because there is no valid natural or divine justification for attaching rights to any one stage in particular, abortion policy is a question of the balance of interests between reproductive freedom, embryo and fetal protection, and the need for knowledge necessary to advance the relief of suffering.

A key issue is the scope of the fundamental right of reproductive decision making and the likelihood of its continued fundamental status. Another and related issue concerns the constitutionality of state regulation of embryo research. But there are multiple perspectives, and that is the point. No single source of law, morality, or policy can determine an absolute principle, even should such absoluteness be possible. The problem concerns the meaning we attach to the values associated with our concept of human personhood, because those values define the position from which our perspective on the embryo is formed.

This methodological point is more important than the outcome of the substantive argument I have made. No one can make the meaning of being human for another person. Each of us does for and to ourselves. We may take into account a multiplicity of interests, facts, beliefs, and arguments, or we may not. But the meaning of personhood is not a definition but a personal decision.

All these factors must affect our determination of the most operative stages of embryonic and fetal development and the meanings we place on them, just as the objective aspects of that process and its stages lead us to evaluate different criteria of personhood. We cannot avoid the necessity of interpreting the details of ever-increasing scientific knowledge. We may still want to think that life begins at conception. Just as thinking geocentrically confirms our common sense orientation to the universe, so too might the abstract idea of life serve a purpose. But we know that a different perspective is available. Moreover, the analogy to geocentric conceptions of the solar system works too, in that our scientific understanding of embryonic development threatens a religious conception of life and makes us wonder where to find the soul, just as a heliocentric solar system made us wonder where to put heaven and thus met with similar fears of religious displacement with its loss of autonomy and control. To dismiss a perspective because it rests on an article of faith rather than science will not make the problem go away. But it may force the issue of articulation of reasons for faith in this particular matter.

Because of the extent of research with and experimentation on fertilized eggs, embryos, and fetuses, taking a position in this debate is unavoidable. The questions surrounding the meaning of personhood and its protection in law have the same import as did the historical question of the meaning of the state and the government. In its difference from religion, and its relationship to society generally and individuals in particular, the question of our personhood culminates the process of individualism begun with the establishment of representative government.<sup>128</sup> At last we are asking, "who are we?" instead of "where do we fit into society or God's plan?" There is no reason to think that the answer to the question of our personhood will contradict, subvert, or obscure our answers to the other questions. On the contrary, faith, practical reasoning, and subjective awareness should enlighten each other. However, we are left with the unfortunate fact that because there is no accepted scientific, religious, philosophical, or common sense stage for the beginning of personhood, the balancing of interests and whether interests are even sufficiently valid to be balanced, are subject to the whims of political power.

The reasons for this state of affairs can be fairly easily described: the confused and partial state of the law and the withdrawal of government from regulatory guidance in the area generally of human ex-

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128. THE MORALITY OF ABORTION, *supra* note 50, at 40. See generally Hicks, *On the Citizen and the Legal Person*, *supra* note 1.

perimentation.<sup>129</sup> Into this vacuum two opposing forces are injected, those for and against abortion, which try to educate public opinion and determine, through a Darwinian "survival-of-the-fittest" competition, the predominant social interest. But the problem is not abortion. Characterizing it this way oversimplifies, emotionalizes, and confuses what is at stake.<sup>130</sup> The problem is the meaning of life and the personhood of the fertilized egg, embryo, or fetus. What is at stake is scientific research into the relief of myriad conditions, among them Parkinson's disease and abnormal cell development in the fertilized egg, as well as personal choice about whether to and how to have a child.<sup>131</sup> The urgency of the need to lift the veil of distortion thrown over these interests by the single-minded focus on the "killing of babies" can be demonstrated by pointing to the immediate future. The development of recombinant life forms, patented human cell-lines, actual fetal surgeries, genetic selection and alteration, our own neural tissue deposits for us to draw up in old age, are all—to different degrees—imminent.<sup>132</sup> Of course it can be said that we are confusing medicine with science and letting both be driven by market desires. It can be said that the fact that we can do these things does not mean that we should let research and experimentation go uncontrolled. This proposition is valid. One answer has been to prohibit federal funding of in vitro fertilization, embryo research, and fetal tissue transplants.<sup>133</sup> Private research continues, however. The government, acting ostrich-like, denies that it has any role in letting *de facto* practices establish agendas or norms.<sup>134</sup>

Governmental policy for the last twenty years has only been reactive to developments occurring in the private sector. More importantly, successive governments have banned rather than studied scientific progress and even disregarded the one study on the ethical issues sur-

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129. See generally Hicks, *Law, Policy and Personhood*, *supra* note 1, at 269.

130. *Id.* at 279.

131. *Id.* at 256-59.

132. *Id.* at 265-69.

133. *Id.* at 270.

134. However, there is some deception involved here. Until 1988 the federal government was funding, through the National Institutes of Health, research into fetal cells in about 118 centers at the cost of \$11.8 million. Thomas M. Maugh, *Use of Fetal Tissue Stirs Hot Debate*, L.A. TIMES, Apr. 16, 1988, at I28. Furthermore, there is some hypocrisy involved here because the federal government is heavily involved in genetic research. In fact, it can be surmised that the hope is to find genetic cures to the same diseases as fetal cell transplantation. See Hicks, *Law, Policy and Personhood*, *supra* note 1, at 267. But of course part of this involves prenatal genetic screening and therapy. John A. Robertson, *Procreative Liberty and Human Genetics*, 39 EMORY L.J. 697 (1990). It also brings with it a host of ethical problems including one concerning personhood. *Id.* at 707-09. One ethical problem concerns personhood.

rounding fetal research commissioned in the entire 1980s.<sup>135</sup> The state of the law, therefore, is an uneasy mixture of federal and state statutes, cases, and regulations. There are differences of scope, application, and interpretation. There are also gaps within this checkerboard of policies and omissions at the edges.<sup>136</sup> Most importantly this lack of

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135. A moratorium on fetal research was imposed in 1974. It was not lifted until after the Federal Regulations for the Protection of Human Subjects were passed in 1975. 45 C.F.R. 46 §§ 46.201 -.211 (1987). In 1978 an Ethical Advisory Board (EAB) was established to review research proposals. It produced a report on fetoscopy and IVF in 1980. Thereafter its charter lapsed and its funding was not renewed. See generally Robertson, *supra* note 3, at 492; Neal D. Ferenc, Note, *Medical Breakthroughs in Human Fetal Tissue Transplantation: Time to Reevaluate Legislative Restrictions on Fetal Research*, 13 VT. L. REV. 373, 376 (1988); C. Ann Sheehan, Note, *Fetal Tissue Implants: An Explosive Technology Needs National Action*, 92 DICK. L. REV. 895, 907, 910 (1988). The absence of the EAB means no approvals are possible of federally funded fetal research. In theory, there is no moratorium; it was lifted in 1975. In fact, there is a moratorium, but, as stated above, it is only selectively enforced. Robertson, *supra* note 31, at 19.

Another event in the political drama was the attempt at establishing a congressional board to supervise the federal regulations. It took three-and-one-half years to choose the panel that was to select members for the Congressional Biomedical Ethics Advisory Committee and to name the members. The committee was established in 1985, never met, did nothing, and in 1989 the acting director's salary was eliminated. Phillip J. Hilts, *Abortion Debate Clouds Research on Fetal Tissue*, N.Y. TIMES, Oct. 16, 1989, at A19. When, in early 1988, the NIH was asked to approve fetal tissue transplant experimentation upon patients with Parkinson's disease, a commission was established to study the procedure. Before the Human Fetal Tissue Transplantation Research Panel reported in December 1988, such experimental surgery had been performed at Denver and Yale. The Panel called such experimentation acceptable public policy assuming certain conditions and controls. See Hicks, *Law, Policy and Personhood*, *supra* note 1, at 273-74. However, the Bush administration announced in November 1989 that the moratorium on federally funded fetal research would continue indefinitely. Phillip J. Hilts, *Citing Abortion, U.S. Extends Ban on Grants for Fetal Tissue Work*, N.Y. TIMES, Nov. 2, 1989, at A23. The Bush administration announced support for a permanent ban because the source of the tissue is from abortions, and the legitimacy of research use would encourage women to have abortions. John Robinson, *U.S. Officials Back Ban On Fetal Research*, BOSTON GLOBE, Apr. 3, 1990, at 17. Recently, the American College of Obstetricians and Gynecologists and the American Fertility Society announced their intention to establish a private board of experts to set national guidelines on embryo research and fetal tissue transplantation. In reply, the National Right to Life Committee called this an attempt to undermine current federal policy that protects the dignity of unborn children. *Doctors Plan to Review Fetal Tissue Research*, BOSTON GLOBE, Jan. 8, 1991, at 3.

136. See generally Hicks, *Law, Policy and Personhood*, *supra* note 1, at 269-78. The Federal Regulations apply only to federally funded "research, development and related activities and control only live post-implantation "fetuses." 45 C.F.R. §§ 46.203(c), 205(a) (1987). They do not cover dead fetuses or live preimplantation fertilized eggs or embryos. Dead fetuses are controlled in 25 states by the Uniform Anatomical Gift Act, which permits research and experimentation on or with dead fetuses. The other 25 states vary the act either with regard to the source of the fetus, the purpose of the research or experimentation, or trafficking in fetuses, and do so partially or totally. Only three states in fact have total bans that would cover all situations, such as embryo research in the lab. See Nicholas P. Terry, *'Alas! Poor Yorick,' I Knew Him Ex Utero: The Regulation of Embryo and Fetal Experimentation and Disposal in England and the United States*, 39 VAND. L. REV. 419, 462 (1986). One such statute was found unconstitutional in *Margaret S. v. Treen*, 597 F. Supp. 636 (E.D. La. 1984), *aff'd sub nom.* *Margaret S. v. Edwards*, 794 F.2d. 994 (5th Cir. 1986). See Hess-Mann, *supra* note 2, at 809. Regarding live fetuses, two states allow experimentation, 19 states prohibit nontherapeutic research on living

control results in our lack of knowledge as a society about the manner of collection and distribution of embryonic tissue, where and what kinds of research are being undertaken, who uses genetic testing services and what for, how many IVF clinic are there, and so on.<sup>137</sup>

In fact, the key to the extent of the social transformation of the last twenty years is not so much the practice of terminating pregnancies, but the practice of using artificial reproductive technologies.<sup>138</sup> Of course the development of this technology proceeded on the basis of research with fertilized eggs and early embryos. Moreover, its continuance proceeds on the basis of the engendering of extra fertilized eggs and their freezing, donation, or death.<sup>139</sup> Thus, not only does IVF bring together the issue of personhood with that of reproductive autonomy and privacy, but it separates both from their hitherto natural context, the family.<sup>140</sup> The antiabortion argument, therefore, misconceives its opposition. The antiabortion position is opposed not just to the denial of personhood to the embryo, but also to the detachment of procreation from sex and intimacy.<sup>141</sup> Values attached to the traditional family justify the critique of this detachment. Insofar as the traditional family is conceived of as a private, male-centered union, separate from work yet geared towards reproduction, socialization, and productivity, then indeed it is being undermined by the self's search for community with others, women's liberation from misogyny, oppression, and inequality, and by alternative moral demand systems outside the family in society.<sup>142</sup>

fetuses, and the rest follow the federal regulations that prohibit research on a live nonviable fetus *ex utero* unless the treatment is intended to enhance its survival and well being. Terry, *supra*, at 446-62.

137. For the general point with regard to all the examples, see John C. Fletcher & Karen J. Ryan, *What Are Society's Interests in Human Genetics and Reproductive Technologies?* 16 *L. MED. & HEALTH CARE* 131 (1988).

138. Shapiro, *supra* note 7, at 41, 46, 49, 52. These technologies include artificial insemination, test-tube babies via *in vitro fertilization*, and forms of surrogacy such as embryo adoption and artificial embryonation.

139. See generally Robertson, *supra* note 3; Robertson, *supra* note 31. With particular reference to the underregulation of IVF and the attending consequences, see George P. Smith II, *Intimations of Life: Extracorporeality and the Law*, 21 *GONZ. L. REV.* 395 (1985); Smith, *supra* note 7, at 642.

140. Smith, *supra* note 7, at 657; Robertson, *supra* note 12, at 1027-33.

141. Some feminists agree with conservative thought on this issue. See Robertson, *supra* note 12.

142. See generally CHRISTOPHER LASCH, *THE MINIMAL SELF: PSYCHIC SURVIVAL IN TROUBLED TIMES*, 185-86 (1984); PHILLIP RIEFF, *THE TRIUMPH OF THE THERAPEUTIC: USES OF FAITH AFTER FREUD*, 219, 243, 261 (1966); J. SMITH, *THE NEUROTIC FOUNDATIONS OF SOCIAL ORDER: PSYCHOANALYTIC ROOTS OF PATRIARCHY*, 78, 363 (1990); Margaret S. Hzero, *The Reinforcement of Social Cohesion: Humean Philosophy, the Therapeutic State and the Exclusion Ritual*, 68 *J. PSYCH. & L.* 377 (1978); Lauren Langman & Leonard Kaplan, *The Crises of Self and State Under Late Capitalism: A Critical Perspective*, 1 *INT. J. PSYCH & L.* 343 (1978).

Against the background of such cultural change, alternative reproductive technology, contraceptive and contragestive methods, and abortion—all of which implicate the problem of the status of the embryo, the forces that have historically sustained personal relationships within the family are in a state of flux. In the abstract, the family appears as a natural, continuous, and unassailable institution independent of its actual contours, depth, and characteristics, all of which vary widely in different societies at different times.<sup>143</sup> To challenge one's own social order is to unfold the myths that support it. In the same way, the abstract idea of life plays a role in the myth of the Catholic God that justifies our relinquishing to others our personal need for transcendence. Life is but a metaphor for our daily living, and the family a symbol for our belonging together. The politics of abortion have succeeded in making the fetus into a symbol of a person and in turn into a weapon used in defense of the cultural myth of the family. That cultural myth is currently under attack by new symbols of freedom of choice. It appears that the metaphor of life for living is being replaced by the metaphor of experience for living, signifying a shift from transcendence to authenticity in our thinking about our living and its mythical dependence on the individual, not God. To the reader who has followed this far: are such ideas much more than opinion?

The personhood of the fertilized egg, embryo, and fetus, however sincerely viewed, cannot be separated from views and attitudes that are even less disguisedly matters of principle or matters of fact, but quite simply belief. Belief, like opinion, shapes public policy through the use of power and its dissemblance in the form of information and influence. This is the context in which the debate about personhood must take place. It is no more about killing babies than it is about making money. It is about religious doctrine, patriarchal hegemony, and governmental control taking over rational doubt, personal responsibility, and scientific research in the determination of what it means to be human and who decides that for us individually, socially, and politically.

I have suggested that no principle, right, or interest is absolute or exceptionless and that the idea of a right to life certainly cannot be because it presupposes a living individual in some form that I have called a life form. I have further suggested that there are other stages,

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143. MICHAEL MITTERAUER & REINHARD SIEDER, *THE EUROPEAN FAMILY: PATRIARCHY TO PARTNERSHIP FROM THE MIDDLE AGES TO THE PRESENT* (1982). See also Jeanne L. Schroeder, *Feminism Historicized: Medieval Misogynist Stereotypes in Contemporary Feminist Jurisprudence*, 75 IOWA L. REV. 1135 (1990).

as well as implantation, that life in the abstract must accommodate in its manifestation as human existence, such as the stage when the embryo becomes a being possessing the full range of capacities of a person, and such as that stage when that being then becomes capable of surviving on its own in the world.<sup>144</sup> What makes these stages of a life form, human being, and person meaningful is not ensoulment, innocence, the harm and loss suffered by it and society, or the goodness of life on earth, but facts about the development of the fertilized egg, the embryo, and the fetus. These stages recognize the embryo as *sui generis*, not as potentially something else nor as a projection from somewhere else. In its uniqueness the embryo is partly us, partly of us, partly of nature, and partly thing. There is nothing about it, us, or nature that forbids anyone from deciding for themselves the meaning of life, human being, and personhood. As individuals we each choose our own religious transcendence of self in the invisible, and our ethical authenticity of self as regards others. As people we find our own place in social order through law. As citizens constituting political society through the representation of others' interests, we must respect such individual choices if they are compatible with social order.<sup>145</sup> But the law cannot become politicized so that religious and ethical beliefs constitute a separate community from society as a whole to which others must belong or suffer for their different beliefs, opinions, and reasons for acting.

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144. I realize of course that the 20-week age of viability may be reduced to meet the 12-week age of humanness and also that the lab cultivation of embryos may extend the life form stage one week to 12 weeks to permit harvesting of tissue for transplantation. But I think we have to clarify now, in the light of known scientific experimentation, where we stand in relation to the embryo. I still foresee the stage of being human at around 12 weeks as the most crucial one. It is the stage of humanness rather than the stage of viability that I referred to as the change in my views. See *supra* note 1.

145. For a full discussion of the relationship between law, politics, religion, and ethics in society as they are experienced in fact and in theory, see Hicks, *On The Citizen and the Legal Person*, *supra* note 1, at 789.