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Essay

The ethical concept of the fetus as a patient and the beginning of human life

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Abstract

»When does human life begin?« is not one question, but three. The first question is, »When does human biological life begin?,« and is a scientific question. A brief review of embryology is provided to answer this question. The second question is, »When do obligations to protect human life begin?,« and is a question of general theological and philosophical ethics. A brief review of major world religions and philosophy is provided to answer this question has no settled answer and therefore involves irresolvable controversy. The third question is, »How should physicians respond to disagreement about when obligations to protect human life begin?« and is a question for professional medical ethics. A review of the ethical concept of the fetus as a patient is provided to answer this question. Physicians should manage the irresolvable controversy surrounding the second question by appealing to the ethical concept of the fetus as a patient. It is philosophically sound, respectful of all religious traditions and the personal convictions of patients and physicians alike, and clinically applicable.

INTRODUCTION

One of the most controversial topics in modern bioethics, science, and philosophy is the beginning of individual human life *(1–19)*. In the seemingly endless debate, strongly stimulated by recent technologic advances in human reproduction, a synthesis between scientific data and hypothesis, philosophical thought, and issues of humanities has become a necessity to deal with ethical, juridical, and social problems. Furthermore, in this field there is a temptation to ask science to adjudicate among competing opinions and beliefs, including religious beliefs. However, the issues at stake are not just scientific, although science has a great deal to contribute. This is because the question of when human life begins is really three questions: (1) When does human biological life begin?, which is a scientific question; (2) When do obligations to protect human life begin?, which is a question for theological and philosophical ethics generally; and (3) How should physicians respond to disagreement about when obligations to protect human life begin?, which is a question of professional medical ethics. Based on a previous publication *(20)* we address these three questions and identify their implications for the clinical practice of perinatal medicine.

MATERIALS AND METHODS

The materials and methods we use in this paper are those of philosophical ethics: conceptual analysis and argument. Conceptual analysis aims to clarify concepts. Argument then uses clarified concepts in a

consistent fashion to provide reasons that together support a conclusion about how we should think and act. Because good ethical analysis and argument require a reliable factual foundation, we also provide a brief review of embryology.

The Biological Concept of Life: A Cluster Concept

To begin our conceptual analysis, it is first necessary to gain some clarity about the biological concept of »life,« which, in the philosophy of science, is known as a »cluster concept.« A cluster concept is defined by a related set of criteria, only some of which are used in particular applications. The cluster concept of »life« when applied to the human species usually includes such criteria as genetic uniqueness, physiologic autonomy, self-regulating, capable of reproduction, and awareness.

There are living human beings to whom at least one of the criteria in the cluster concept of »life« do not apply. For example, a post-menopausal woman or a man with aspermia is undoubtedly alive but both are incapable of reproduction. A patient who is on a dialysis machine is clearly alive but, in terms of renal function, not physiologically autonomous. A patient with insulin dependent diabetes is not physiologically self-regulating in terms of glucose homeostatis, but is clearly alive. A comatose patient lacks awareness but is clearly still alive. These examples illustrate the distinctive feature of a cluster concept: it is clinically useful even when only some of the criteria that constitute apply.

Human Embryology: A Brief Review

A human being originates from two living cells: the oocyte and the spermatozoon, transmitting the torch of life to the next generation. The oocyte is a cell approximately 120 μm in diameter with thick membrane, known as the zona pellucida. The spermatozoon moves, using the flagellum or tail, and the total length of the spermatozoon including the tail is 60 μm *(10)*.

After singamy, the zygote undergoes mitotic cell division as it moves down the fallopian tube toward the uterus. A series of mitotic divisions then leads to the development of the preembryo. The newly divided cells are called blastomeres. From 1 to 3 days after singamy, there is a division into two cells, then four cells. Blastomeres form cellular aggregates of distinct, totipotent, undifferentiated cells that, during several early cell divisions, retain the capacity to develop independently into normal preembryos. As the blastocyst is in the process of attaching to the uterine wall, the cells increase in number and organize into two layers of cells. Implantation progresses as the outer cell layer of the blastocyst, the trophectoderm, invades the uterine wall and erodes blood vessels and glands. Having begun 5 or more days after fertilization with the attachment of the blastocyst to the endometrial lining of the uterus, implantation is completed when the blastocyst is fully embedded in the endometrium several days later. Even during these 5–6 days, modern medicine introduces the possibility of making preimplantation genetic diagnosis.

However, at this time, these cells are not yet totally differentiated in terms of their determination to specific cells or organs of the embryo. The term preembryo, then, includes the developmental stages from the first cell division of the zygote through the morula and the blastocyst. By approximately the 14th day after the end of the process of fertilization, all cells, depending on their position, will have become parts of the placenta and membranes or the embryo. The »embryo« stage, therefore, begins approximately 16 days after the beginning of the fertilization process and continues until the end of 8 weeks after fertilization, when most major organs have been formed *(11)*.

The pre-embryo is the structure that exists from the end of the process of fertilization until the appearance of a single primitive streak. Until the completion of implantation the pre-embryo is capable of dividing into multiple entities, but does not contain enough genetic information to develop into an embryo: it lacks of genetic material from maternal mitochondria and of maternal and parental genetic messages in the form of messenger RNA or proteins.

A key stage in embryonic development is the emergence of an individual human being. »Individual« means that an entity (1) can be distinguished from other entities and (2) is indivisible, i.e., it cannot be divided or split into two members of the same species. An entity meeting the first criterion, but not the second, is a distinct but not individual entity. The pre-embryo, because it can divide into monozygotic twins is a distinct but not individual entity. The embryo, by contrast, no longer divide into monozygotic twins and so it meets both criteria for being an individual.

Distinct Human Life and Individual Human Life

Distinct human life begins when there is a distinct entity, the pre-embryo, resulting from the process of conception. There is no »moment« of conception, a phrase that has no biological application. Individual human life begins later, with the emergence of the embryo. There is no »moment« at which this occurs either. The beginnings of human life involve complex biological processes that occur over time.

The Concept of Moral Status

This question has to do with moral status. To say that a human living entity has moral status is to say that other human beings have an obligation to it to protect and promote its interests. Human beings can have either independent or dependent moral status *(21)*.

Independent Moral Status. Living human beings can generate their own moral status: some feature or features of the human entity originates the obligations of others to it. This is called independent moral status. This concept is usually captured by the language of personhood or human persons (in the ethical sense). Virtually all global philosophical traditions in the discipline of ethics agree

that only individual human beings can generate independent moral status. Independent moral status means that other human beings do not get to choose whether they should act in ways that protect and promote the interests of human persons; other human beings are morally obligated to do so. Sometimes, independent moral status is enforced by the power of the state and in these cases human persons gain legal status.

Dependent Moral Status. Living human beings can also have dependent moral status. By this we mean that the human being in question occupies a social role that is structured by obligations to protect and promote the interests of any human being in the social role. A crucial feature of dependent moral status is that a human being does not have to be an individual human being in order to be given dependent moral status. Human beings that are distinct but not yet individuated can be given dependent moral status. It is also possible that distinct but not yet individuated human beings can be given legal status.

Legal Status and Legal Persons. Here we emphasize the importance of appreciating that the status of being a legal person can be given to both distinct but not yet individuated human beings and individuated human beings. The scope of applicability of legal human persons could therefore be broader than the scope of applicability of human persons in its ethical sense.

Controversies about Independent Moral Status of Prenatal Human Beings: A Brief Review of Major World Religions

There have been controversies for centuries about whether human life from conception to birth should be judged to have independent moral status. The world's religions have offered competing accounts of the moral status of prenatal living human beings, appealing to both independent and dependent moral status, sometimes without being clear which.

Roman Catholic moral theology has deep roots in the philosophy of Aristotle. For almost two thousand years the opinions of Aristotle, the great Greek philosopher and naturalist, on the beginning of the human being were commonly held. He argued that the male semen had a special power residing in it, pneuma, to transform the menstrual blood, first into a living being with a vegetative soul after seven days and subsequently into one with a sensitive soul 40 days after contact with the male semen *(17,18)*.

St. Thomas Aquinas, one of the »Doctors« of the Roman Catholic Church, adopted Aristotle's theory but specified that rational ensoulment took place through the creative act of God to transform the living creature into a human being once it had acquired a sensitive soul. The first conception took place over seven days while the second conception or complete formation of the living individual with a complete human nature lasted 40 days *(17,18)*.

Since the nineteenth century the Roman Catholic Church has asserted central teaching authority in the Pope. This makes Roman Catholicism unique among world religions. Current teaching is clearly described in the Introduction to the Papal Encyclical (a major form of moral instruction of Roman Catholics by the Pope) Donum Vitae (The Gift of Life): »A human creature is to be respected and treated as a person from conception and therefore from that same time his (her) rights as a person must be recognized, among which in the first place is the invaluable right to life of each innocent human creature.« *(22)*.

In 1997 the third Assembly of the pontifical Academy for Life was held in Vatican City. It concluded that »at the fusion of two gametes, a new real human individual initiates its own existence, or life cycle, during which – given all the necessary and sufficient conditions – it will autonomously realize all the potentialities with which he is intrinsically endowed. The embryo, therefore, from the time of gametes fuse, is a real human individual, not a potential human individual. It was even added that recent findings of human biological science recognize that in zygote resulting from fertilization the biological identity of a new human individual is already constituted *(22, 23)*.

Protestant Christian moral theology displays very wide variation on the moral status of prenatal human beings. Some, for example some Southern Baptists in the United States, are very close to the Roman Catholic position. They accept the concept that prenatal human beings from conception have independent moral status, although they would not accept the teaching authority of the Roman Catholic Pope. Others, for example, such as Lutherans, Calvinists, and Anglicans hold a wide variety of views on the moral status of the fetus. As a consequence, it is impossible to say with confidence that there is »the« Protestant account of the moral status of prenatal human beings *(24)*.

In Jewish moral theology the moral status of the fetus is understood in relationship to the mother. Moreover, as in other world religions than Roman Catholicism, there are different schools of Jewish moral theology, reflected in the diversity of the rabbinic tradition. As a general rule, priority is given to the moral status of the mother. This does not mean that prenatal human beings have no moral status. They do have moral status but not moral status that is functionally equivalent to that of the pregnant woman, as is the case for Roman Catholic moral theology. With some qualifications, it appears that the fetus has dependent not independent moral status in Jewish moral theology. At the same time, Jewish moral theology is pronatalist and therefore does place restrictions on termination of pregnancy. Jewish moral theology does support interventions to facilitate pregnancy, e.g., assisted reproductive medicine. Given the differences among Roman Catholic, Protestant, and Jewish moral theology, one should be careful in claiming that there is a shared, »Judeo-Christian position on the moral status of prenatal human beings *(25)*.

Islamic moral theology is based on scripture, the Quran, and the haddiths, the sayings of the Prophet Mohammed. Furthermore, Islamic teaching also reflects the different schools of Islam. Islamic views on the moral status of prenatal human beings appeal to such is based on prophet Mohammed description: »The creation of each of you in his mother's abdomen assumes a »nufta« (male and female semen drops) for 40 days, then be becomes »alaga« for the same (duration), then a »mudgha« (like a chewed peace of meat) for the same, then God sends an angel to it with for instructions. The angel is ordered to write the Sustenance, life span, deeds and whether eventually his lot is happiness or misery, then to blow the Spirit into him.« *(26)*. The summary of this poetic and sacred description is: Soul breathing or »ensoulment« occurs at 120 days of gestation from conception. Islamic moral theology can be understood as claiming that prenatal human beings are given moral status by God during gestation, but not from its beginning, a form of dependent moral status.

Imams or religious leaders in Islam issue teachings called fatwas. To make this religious principle applicable to clinical practice, the Islamic Jurisprudence Council issued a fatwa in 1990 that said: »Abortion is allowed in the first 120 days of conception if it is proven beyond doubt that the fetus is affected with a severe malformation, that is not amenable to therapy and if his life, after being born, will be a means of misery to both, him and his family and his parents agree.« This position permits prenatal diagnosis and for possible termination of pregnancy within the expressed limits.

Hinduism has an account of embryologic and fetal development, in which conscious awareness emerges during the fifth month of gestation. This can be interpreted as the view that independent moral status emerges over time during gestation but does not exist from its beginnings.

Buddhism is characterized by a general prohibition against doing harm to or killing other human beings. The scope of human beings includes prenatal human beings and human beings are understood to be interconnected. This appears to invoke at least dependent moral status and perhaps a variant of independent moral status, as well.

Controversies about Independent Moral Status of Prenatal Human Beings: A Brief Review of Philosophy

There is also a centuries-old controversy in philosophy about the moral status of prenatal human beings *(21)*. This controversy, especially in the last half-century, has been framed in terms of independent moral status. There has been sharp disagreement about which characteristics are thought to generate independent moral status – from biological individuation, through the capacity to experience pain, to the emergence of awareness or, an even more demanding criterion, the emergence of self-awareness – and when these characteristics come into existence during gestation.

The philosophical controversy is thus often framed by asking, »When does a prenatal human being become a person?« When such a human being is a person, it generates and therefore possesses independent moral status and therefore rights. In particular, it possesses the right to life. This right, however, has three meanings: (1) the right not to be killed, without qualification; (2) the right not to be killed without sufficient ethical justification (e.g., in self-defense); and (3) the right to resources (biologic, nutritional, financial, etc.) required to sustain life. Each of these rights is, respectively, less demanding in its requirements. In the philosophical, as well as in the theological, literature, those who invoke the »right to life« fail to identify in which of these three senses they are invoking the right, which results in considerable confusion and further fuels the controversy, especially over abortion.

Recent developments in fetal imaging and assessment, especially 4-D ultrasound *(27,28)*, provide a scientific foundation for these philosophical debates. Unfortunately, not all philosophers attend closely to the science of prenatal human development.

Despite an ever-expanding theological and philosophical literature on the subject of the moral status of prenatal human beings, there has been no closure on a single authoritative account of the independent moral status of prenatal human beings. This is an unsurprising outcome because, given the absence of a single method that would be authoritative for all of the markedly diverse theological and philosophical schools of thought involved in this endless debate, closure is impossible. For closure ever to be possible, debates about such a final authority within and between theological and philosophical traditions would have to be resolved in a way satisfactory to all, an inconceivable intellectual and cultural event. There is no common intellectual ground on which Roman Catholics, Protestants, Jews, Muslims, Hindus, Buddhists, and secular philosophers could ever hope to meet. Appeals to independent moral status fail to produce a stable account of the moral status of prenatal human beings. We therefore abandon these futile attempts to understand the moral status of prenatal human beings in terms of independent moral status and turn to an alternative approach that makes it possible to identify ethically distinct senses of the fetus as a patient and their clinical implications for directive and nondirective counseling. Instead, we pursue the question of when prenatal human beings should be regarded by physicians as patients, human beings to whom physicians have an obligation to protect and promote health-related interests.

The Ethical Concept of the Fetus as a Patient

Our analysis of the ethical concept of the fetus as a patient begins with the recognition that being a patient does not require that one possess independent moral status. Rather, being a patient means that one can benefit from the applications of the clinical skills of the physician. Put more precisely, a human being without inde-

pendent moral status is properly regarded as a patient when two conditions are met: that a human being 1) is presented to the physician, and 2) there exist clinical interventions that are reliably expected to be efficacious, in that they are reliably expected to result in a greater balance of clinical benefits over harms for the human being in question *(29)*. This is a form of dependent moral status.

Two of the authors (FAC and LBM)have argued elsewhere that beneficence-based obligations to the fetus exist when the fetus is reliably expected later to achieve independent moral status as a child (a form of dependent moral status after birth) and person (a form of independent moral status after birth) *(21)*. That is, the fetus is a patient when the fetus is presented for medical interventions, whether diagnostic or therapeutic, that reasonably can be expected to result in a greater balance of clinical goods over clinical harms for the child and person the fetus can later become during early childhood. The ethical significance of the concept of the fetus as a patient, therefore, depends on links that can be established between the fetus and its later achieving independent moral status.

The Viable Fetal Patient. One such link is viability. Viability must be understood in terms of both biological and technological factors, because it is only by virtue of both factors that a viable fetus can exist ex utero and thus later achieve moral status as a child and then person. When a fetus is viable, that is, when it is of sufficient maturity so that it can survive into the neonatal period given the availability of the requisite technological support, and when it is presented to the physician, the viable fetus is a patient.

Viability exists as a function of biomedical and technological capacities, which are different in different parts of the world. As a consequence, there is, at the present time, no worldwide, uniform gestational age to define viability. In developed countries, we believe, viability presently occurs at approximately 24 completed weeks of gestational age *(30)*.

When the fetus is a patient, directive counseling for fetal benefit is ethically justified. In clinical practice, directive counseling for fetal benefit involves one or more of the following: recommending against termination of pregnancy; recommending against non-aggressive management; or recommending aggressive management. Aggressive obstetric management includes interventions such as fetal surveillance, tocolysis, cesarean delivery, or delivery in a tertiary care center when indicated. Non-aggressive obstetric management excludes such interventions. Directive counseling for fetal benefit, however, must take account of the presence and severity of fetal anomalies, extreme prematurity, and obligations to the pregnant woman.

It is very important to appreciate in obstetric clinical judgment and practice that the strength of directive counseling for fetal benefit varies according to the presence and severity of anomalies. As a rule, the more severe the fetal anomaly, the less directive counseling should be for fetal benefit. In particular, when lethal anomalies such as anencephaly can be diagnosed with certainty, there are no beneficence-based obligations to provide aggressive management. Such fetuses are dying patients, and the counseling, therefore, should be nondirective in recommending between non-aggressive management and termination of pregnancy, but directive in recommending against aggressive management for the sake of maternal benefit *(31)*. By contrast, third-trimester abortion for Down Syndrome or achondroplasia is not ethically justifiable, because the future child with high probability will have the capacity to grow and develop as a human being *(32, 33)*.

Directive counseling for fetal benefit in cases of extreme prematurity of viable fetuses is appropriate. In particular, this is the case for what we term just-viable fetuses, those with a gestational age of 24 to 26 weeks, for which there are significant rates of survival but high rates of mortality and morbidity. These rates of morbidity and mortality can be increased by non-aggressive obstetric management, whereas aggressive obstetric management may favorably influence outcome. Thus, it appears that there are substantial beneficence-based obligations to just-viable fetuses to provide aggressive obstetric management. This is all the more the case in pregnancies beyond 26 weeks of gestational age. Therefore, directive counseling for fetal benefit is justified in all cases of extreme prematurity of viable fetuses, considered by itself. Of course, such directive counseling is appropriate only when it is based on documented efficacy of aggressive obstetric management for each fetal indication. For example, such efficacy has not been demonstrated for routine cesarean delivery to manage extreme prematurity.

Any directive counseling for fetal benefit must occur in the context of balancing beneficence-based obligations to the fetus against beneficence-based and autonomy-based obligations to the pregnant woman. Any such balancing must recognize that a pregnant woman is obligated only to take reasonable risks of medical interventions that are reliably expected to benefit the viable fetus or child later. A unique feature of obstetric ethics is that the pregnant woman's autonomy influences whether, in a particular case, the viable fetus ought to be regarded as presented to the physician. It is therefore a conceptual and clinical error to think that the viable fetal patient is ethically a separate patient.

Obviously, any strategy for directive counseling for fetal benefit that takes account of obligations to the pregnant woman must be open to the possibility of conflict between the physician's recommendation and a pregnant woman's autonomous decision to the contrary. Such conflict is best managed preventively through the informed consent process as an ongoing dialogue throughout a woman's pregnancy, augmented as necessary by negotiation and respectful persuasion *(34)*.

The Previable Fetal Patient. The only possible link between the previable fetus and the child it can become is the pregnant woman's autonomy. This is because tech-

nological factors cannot result in the previable fetus becoming a child. The link, therefore, between a fetus and the child it can become when the fetus is previable can be established only by the pregnant woman's decision to confer the status of being a patient on her previable fetus. The previable fetus, therefore, has no claim to the status of being a patient independently of the pregnant woman's autonomy. The pregnant woman is free to withhold, confer, or, having once conferred, withdraw the status of being a patient on or from her previable fetus according to her own values and beliefs. She is free to determine for herself whether she wishes to view her fetus(es) as having independent or dependent moral status, e.g., by adhering to the moral theology of her faith community. The previable fetus is therefore presented to the physician as a function of the pregnant woman's autonomy *(21)*. It is therefore a conceptual and clinical error to think that the previable fetal patient is ethically a separate patient.

Counseling the pregnant woman regarding the management of her pregnancy when the fetus is previable should be nondirective in terms of continuing the pregnancy or having an abortion if she refuses to confer the status of being a patient on her fetus. For example, counseling about the disposition of a previable pregnancy complicated by Down syndrome should be nondirective. If she does confer such status in a settled way, at that point beneficence-based obligations to her fetus come into existence, and directive counseling for fetal benefit becomes appropriate for these previable fetuses. Just as for viable fetuses, such counseling must take account of the presence and severity of fetal anomalies, extreme prematurity, and obligations owed to the pregnant woman.

For pregnancies in which the woman is uncertain about whether to confer such status, the authors propose that the fetus be provisionally regarded as a patient. This justifies directive counseling against behavior that can harm a fetus in significant and irreversible ways, e.g., substance abuse, especially alcohol, until the woman settles on whether to confer the status of being a patient on the fetus.

In particular, nondirective counseling is appropriate in cases of what we term near-viable fetuses, that is, those that are 22 to 23 weeks of gestational age, for which there are anecdotal reports of survival *(30)*. In our view, aggressive obstetric and neonatal management should be regarded as clinical investigation (i.e., a form of medical experimentation), not a standard of care. There is no obligation on the part of a pregnant woman to confer the status of being a patient on a near-viable fetus because the efficacy of aggressive obstetric and neonatal management has yet to be proven.

The In Vitro Embryo as a Patient. A subset of previable fetuses as patients concerns the *in vitro* embryo. It might seem that the *in vitro* embryo is a patient because such an embryo is presented to the physician. However, for beneficence-based obligations to a human being to exist, medical interventions must be reliably expected to be efficacious.

Recall that, in terms of dependent moral status, whether the fetus is a patient depends on links that can be established between the fetus and its eventual, postnatal independent moral status. Therefore, the reasonableness of medical interventions on the *in vitro* embryo depends on whether that embryo later becomes viable. Otherwise, no benefit of such intervention can meaningfully be said to result. An *in vitro* embryo, therefore, becomes viable only when it survives *in vitro* cell division, transfer, implantation, and subsequent gestation to such a time that it becomes viable. The process of achieving viability occurs only *in vivo* and is therefore entirely dependent on the woman's decision regarding the status of the fetus(es) as a patient, should assisted conception successfully result in the gestation of the previable fetus(es). Whether an *in vitro* embryo will become a viable fetus, and whether medical intervention on such an embryo will benefit the fetus, are both functions of the pregnant woman's autonomous decision to withhold, confer, or, having once conferred, withdraw the moral status of being a patient on the previable fetus(es) that might result from assisted conception.

It therefore is appropriate to regard the *in vitro* embryo as a previable fetus rather than as a viable fetus. As a consequence, any *in vitro* embryo(s) should be regarded as a patient only when the woman into whose reproductive tract the embryo(s) will be transferred confers that status. Thus, counseling about preimplantation diagnosis should be nondirective. Preimplantation diagnostic counseling should be nondirective because the woman may elect not to implant abnormal embryos. These embryos are not patients, and so there is no basis for directive counseling. Information should be presented about prognosis for a successful pregnancy and the possibility of confronting a decision about selective reduction, depending on the number of embryos transferred. Counseling about how many *in vitro* embryos should be transferred should be rigorously evidence-based *(35)*.

Professional and Individual Conscience

Professional medical ethics generates the ethical obligations that an obstetrician as a professional physician has to patients. Secular professional ethics transcends religious and other differences of morality because it binds the conduct of all physicians. Obstetricians, however, also have individual consciences, which are shaped by the moral beliefs and convictions of each individual. Individual morality is a function of such factors as personal experience, family upbringing, and religious tradition. In contrast to professional conscience, individual conscience is variable because of the striking hetereogeneity of its sources. Professional conscience governs the response to the abortion controversy of the obstetrician as a professional person bound by the obligations of a professional role, as described above. Individual conscience cannot bear on the professional role but governs only the obstetrician's responses in his or her non-medical roles of lay person and private citizen *(21)*.

Professional conscience governs the obstetrician's obligations to his or her patient. Individual conscience governs whether continuing to serve as an obstetrician to a particular patient obligates the physician to act in such a way as to produce intolerable burdens on his or her moral convictions, values, and beliefs, including those of theological origin. Respect for the integrity of the individual conscience of an obstetrician means that some human beings justifiably cannot become, or can cease for particular purposes to be, patients of a particular obstetrician. Thus, asserting respect for autonomy in the form of respect for the moral convictions, including religious convictions, of individual conscience can sometimes be a legitimate ethical claim on the part of obstetricians. That is, secular professional medical ethics underscores the legitimate role of religious belief in the formation of the individual conscience of the obstetrician.

There are important limits on such a claim. Matters of individual conscience do not govern the physician's response to the abortion controversy in obstetric ethics, only the morality of abortion in ones individual moral life, i.e., in terms of ones response to ones roles other than that of being an obstetrician. Thus, on the basis of individual conscience, an obstetrician has no intellectual license to judge the morality of pregnant women who contemplate termination or continuation of their pregnancies, or to judge adversely behavior of colleagues that is consistent with secular obstetric ethics as explained above. Individual conscience justifies only withdrawing from particular cases. When withdrawal is undertaken, professional conscience requires that the physician see to it that the pregnant woman's care is transferred in an orderly and safe manner to a colleague whose individual conscience is not violated by the pregnant woman's decisions. No judgments about the morality of those decisions should be expressed to the pregnant woman, for whom the obstetrician acts exclusively in the role of physician, not a private person.

While individual-conscience-based moral objections to a pregnant woman's decision should never be used to judge her, it does not follow that physicians as citizens have no freedom to add their private-conscience-based views on the morality of abortion to the ongoing public debates about abortion and public policy in our country. In doing so, however, when they invoke the professional mantle, their contribution must be governed in its moral content by secular obstetric ethics. Otherwise, obstetricians can join the political fray as interested lay persons or citizens, with no special or authoritative perspective as obstetricians on the abortion controversy. When obstetricians contribute as obstetricians to public debate on any topic, they are constrained by secular medical ethics and its response to the question, »When is the fetus a patient?«

CONCLUSION

The question when a human life begins is not one question, but three. The first question, »When does human biological life begin?,« is a scientific question. The second question, »When do obligations to protect human life begin?,« is a question of general theological and philosophical ethics. The third question, »How should physicians respond to disagreement about when obligations to protect human life begin?,« is a question for professional medical ethics. The first question has two answers, not one. Distinct human life begins when there is a distinct entity, the pre-embryo. Individual human life begins later, with the emergence of the embryo. The second question has no authoritative answer, because of irresolvable controversy in world religions and in the global history of philosophical ethics about acceptable methodology and conclusions. Expecting a definitive answer to the second question is an exercise in futility for physicians and professional medical ethics. The answer to the third question, we argue, is that physicians should manage the controversy surrounding the second question by appealing to the ethical concept of the fetus as a patient. It is philosophically sound, respectful of all religious traditions and the person convictions of patients and physicians alike, and clinically applicable.

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