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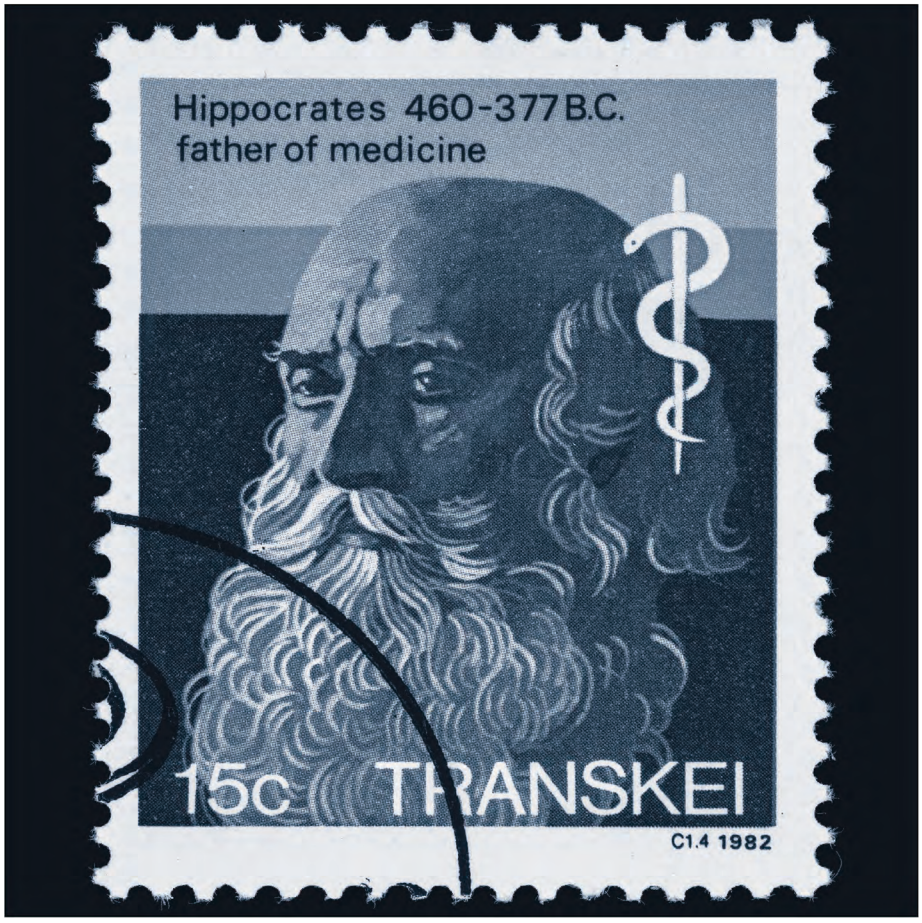

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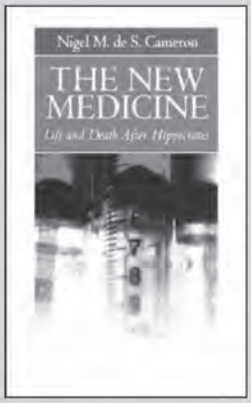
Bulletin Board

THE NEW MEDICINE : LIFE AND DEATH AFTER HIPPOCRATES

By Nigel M. de S. Cameron



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In the reprinting of a very important book for our current times, Dr. Cameron links the rise of the "new medicine" and the fall of the Hippocratic tradition to society's increased acceptance of the practices of euthanasia and assisted suicide. He states that "the medical profession is liable to follow any fundamental shift in society's values" and point to the relationship between Nazi Germany and the Nuremberg "medical crimes" as an example. In the absence of the Hippocratic prohibition against the killing of patients by their physicians, the fundamental value of protecting life is displaced. "the desire of society to avoid suffering, financial burden, and the inconvenience then lead to increasing support for physician-assisted suicide and euthanasia. The author contends that it is imperative for the medical profession to return to its Hippocratic roots.

"In the post-WWII era physicians began to water down the basic tenets of the Hippocratic tradition, and then they abandoned them. That's what this important book is all about: the rise and fall of Hippocratic medicine."
C. Everett Koop, Former US Surgeon General

"In **The New Medicine,** *Dr. Cameron has done much to earn the title of a second Hippocrates."* **Harold O.J. Brown, Professor of the Theology and Philosophy Reformed Theological Seminary**

"The New Medicine *is a persuasive manifesto that should be welcomed by those who have the courage to join a movement to reform aimed at restoring medicine to its healing mission."* **Richard John Neuhaus, Director Religion and Public Life**

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EDITORIAL

The Patient as Person, the Diagnosis as Personal

C. BEN MITCHELL, PHD

In her splendid little volume, *Medicine as Ministry: Reflections on Suffering, Ethics, and Hope* (Pilgrim, 1995), Margaret E. Mohrmann, MD, argues for the importance of paying attention to patients' stories. Over against the temptation to view a patient as a diagnosis, it's crucial, she maintains, to listen carefully to what patients are saying when they present with an illness or injury.

To illustrate her point she recounts a scenario from John Updike's fictional story, "From the Journal of a Leper." The story is about a man who suffers with psoriasis. The diagnosis, "psoriasis," is what Updike calls "a twisty Greek name it pains me to write." The person with the condition, however, describes his suffering in less technical, more vivid, language:

> I am silvery, scaly. Puddles of flakes form wherever I rest my flesh. Each morning, I vacuum my bed. My torture is skin deep: there is no pain, not even itching; we lepers live a long time, and are ironically healthy in other respects. Lusty, though we are loathsome to love. Keen-sighted, though we hate to look upon ourselves. The name of the disease, spiritually speaking, is Humiliation.

As Mohrmann points out, it is important to get diagnoses right, whether it's abdominal aortic aneurism, zygomycosis, or some other twisty Greek name. But it is just as important that physicians and nurses listen to the patients' stories. Says Mohrmann, "for the sufferer the name of the disease, spiritually speaking, is humiliation or fear or malaise or endless pain or loneliness or despair or the end of a career or the end of a life (p. 69)." The illness has caused the patient to experience *dis*-ease. When the great American writer Flannery O'Connor spoke of the lupus that took her life at the age of 39, she did not name her diagnosis, she lamented, "The wolf, I'm afraid, is inside tearing up the place." Lupus was too benign a label for what she felt.

Treating patients as persons is at the heart of Christian-Hippocratism. But the pressures to do otherwise are great, especially in the age of high-tech biomedicine. Patients present with problems to be solved or battles to wage or conditions to fix. Physicians in turn become counselors, warriors, or engineers. Yet, at the end of the day, the medical covenant is the promise of one person to another person. The physician promises to use the science and art of medicine for the patient's good, and never to harm, even when the patient has nothing to offer in return but a personal narrative of *dis*-integration.

Physicians and other healers owe it to patients to treat them as persons and to treat their diagnoses as personal, not just some twisty Greek name. E&M

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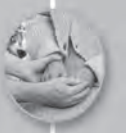

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GREY MATTERS

The Elemental Ethicon

WILLIAM P. CHESHIRE, JR., MD

Deep down within the atomic nucleus, deeply within the paradoxical richness of empty space, deep inside the synapses of the great scientific thinkers of the twentieth century—this is the territory of particle physics.

– Bruce A. Schumm[1]

Abstract

It is the nature of ethics to hold in tension contrasting ideas. Their relationship may be complementary, in which case inclusion of differing perspectives enriches and enlarges understanding. Elsewhere ideas may conflict, resulting in a dilemma, resolution of which involves deciding in light of first principles or predicted consequences. At the heart of many ethical dilemmas is the question of how to bridge the gap between fact and value. Attempts to derive an "ought" from an "is," or a principle of value from an empirical fact, are open to accusations of committing the naturalistic fallacy. This crucial distinction resembles the seemingly unbridgeable mathematical divide in physics between theories of the subatomic and cosmic realms. Both disciplines, ethics and physics, rest on an uneasy balance of two theoretical frameworks that, although having logical integrity within their own domains, yet are mutually incompatible. This leads in ethics to the enigma of whether there is a moral aspect to reality and how it can be reliably known and objectively demonstrated. This leads in physics to the enduring puzzle of the seeming impossibility of explaining the law of gravity in terms of quantum field theory. The latest reconciliatory effort in physics seeks evidence of the graviton, a hypothetical fundamental particle which, if found, could combine the physical sciences into a single formulation to explain all natural phenomena. A corresponding project in ethics might be to locate the "ethicon," the fundamental explanatory particle, the behavior of which would provide a factual basis for weighty matters of morality, make sense of right and wrong, and answer objectively questions of origin, meaning, and purpose. Ultimately, however, the particular answer to moral questions might not, after all, be a particle.

Introduction

Deep underground near Geneva, Switzerland, teams of physicists studying collisions of high-energy particles propelled to nearly the speed of light recently reported that they had detected traces of what may be a new fundamental particle of nature. The discovery, which the news media reported as "tantalizing,"[2] occurred at the Large Hadron Collider, the world's largest and most powerful particle accelerator, operated by CERN, the European Organization for Nuclear Research. One physicist participating in the project commented, "we have looked more deeply into the heart of matter than ever before."[3]

Confirmation of the identity of the novel particle awaits the analysis of further data. Meanwhile physicists at the Laser Interferometer Gravitational Wave Observatory

in California have reported the detection of ripples in the fabric of spacetime that, at the time of this writing, are rumored to be possibly the very first evidence of gravitational waves.[4,5] Speculation abounds that the "little wiggle"[6] produced by colliding protons in Switzerland might have been a graviton, the hypothetical quantum carrier of gravitational force. If confirmed, the graviton would join the list of bosons, the fundamental entities that have both particle and field properties and mediate interactions among fermions, the elementary building blocks of matter and antimatter.

The graviton is not just any particle to be added to the list of photons, electrons, gluons, and other punctate entities. Researchers anticipate that the graviton, if found, would be an historic step toward the holy grail of physics, a crucial missing link in the long sought-after unified field theory.

Theory of Everything

"The eventual goal of science," explained physicist Stephen Hawking, "is to provide a single theory that describes the whole universe."[7] A theory of everything would unite into one theoretical framework all natural phenomena, even those that seem to be unrelated, and describe completely all possible observations.[8]

Through a combination of dedicated research, mathematical genius, serendipity, and generous funding, the physical sciences have achieved incremental progress toward that goal. Following Michael Faraday's discovery in 1831 that magnetic field flux could induce electric currents, James Clerk Maxwell in 1864 provided the first example of a theory that linked electricity and magnetism – phenomena that had previously been thought to be fundamentally dissimilar.[9] Then, during the late 20th century, physicists successfully combined equations describing the strong and weak nuclear interactions with quantum electrodynamics in what is known today as the Standard Model. Based on quantum field theory, the Standard Model describes and accurately predicts interactions at the molecular, atomic, and subatomic levels.

An intractable difficulty with quantum field theory is that it is incommensurable with gravity. Nature behaves very differently at the galactic scale, where gravitational forces predominate in the interactions between massive objects separated by great distances. In 1915, Albert Einstein introduced his general theory of relativity, which revolutionized the conceptualization of gravity as a geometric property of space and time, the curvature of which is related to the matter and energy present. Einstein spent his later years searching for a unified field theory that would reconcile general relativity with quantum field theory, but his efforts were unsuccessful.[10]

As the search for a theory of everything continues, quantum field theory explains observed interactions at small scales involving subatomic particles, atoms, and molecules, whereas general relativity explains gravitational interactions involving massive structures at a large scale, such as planets, moons, comets, stars, and galaxies. These two theoretical frameworks, one probing the minuscule, the other considering the cosmic, have been experimentally confirmed to describe physical interactions to highly precise degrees of accuracy.

The problem is, they remain fundamentally incompatible with one another. They work only as partial theories, true within their own domains. Gravitational

phenomena cannot be expressed by the wave function equations of quantum field theory. Likewise, quantum behavior makes no sense from the perspective of classical physics, which does not recognize the uncertainty principle. Attempts to explain either theory in terms of the other generate absurd infinities or, if tweaked, their mathematical formulae collapse into nonsense.[11] The mutual incompatibility of these two theoretical frameworks of reality leads to a mathematical stalemate.

Pragmatic Convolutions

The pragmatist might question whether it is necessary that gravity and quantum physics be logically consistent as long as they work when applied to their specific domains. For the pragmatist, pursuit of unresolvable inconsistencies serves no useful purpose, and in order that things get done, the tolerant mind accepts a certain amount of contradiction. For the pragmatist, predictive power takes precedence over truth.

A pragmatic approach to constructing models of the universe may be seen in the work of the ancient Greek astronomer Ptolemy. 1500 years before Isaac Newton formulated his universal law of gravitation, Ptolemy devised an ingenious system of complex epicycles, extants, eccentrics, and deferents, all of which were finely adjusted to approximate the observational data and model the planetary motions around Earth, which was placed at the center of the universe. For Ptolemy, it mattered not whether his model conformed with heavenly reality, only that it made accurate predictions.[12]

In contrast to pragmatism, the urge to understand the true nature of things represents a higher level of inquiry. For those who seek an accurate understanding, inconsistencies are troubling and are not satisfactorily resolved by introducing extra epicycles or other crafted corrective factors. No less a thinker than Einstein did not consider it justifiable to surrender the effort to gain a comprehensive understanding and ask only "what would physics look like without gravitation?"[13] When science omits data that inconveniently do not fit current theory, it risks reaching wrong conclusions. In everyday life as well, gravity is ignored at one's peril. An understanding of the universe based on quantum physics cannot reasonably disregard general relativity, nor vice versa, because in each case, on independent grounds the other has been shown to be consistent with empirical observations and to make accurate predictions about the behavior of natural phenomena. A genuine search for truth must take both into account.

The history of scientific discovery, by having shown that phenomena can be explained, raises expectations for attaining an understanding that exceeds predicting the what and where of things but corresponds meaningfully with the how and why of reality. The modern mind has, in fact, become so accustomed to the explanatory success of science that it takes for granted that the scientific enterprise is able to discover the laws of nature. It is quite astonishing that the human brain has the capacity to understand models that conform to the way nature works. Einstein is reputed to have said that, "The most incomprehensible thing about the universe is that it is comprehensible."[14] Indeed, the brain's capacity for engaging in science and developing mental models of the universe that correspond to reality far exceeds the requirements for strictly Darwinian survival.

The usefulness of mathematical concepts has repeatedly extended beyond the contexts for which they were originally developed, as the physicist Eugene Wigner

pointed out in his paper on the "unreasonable effectiveness of mathematics in the natural sciences."[15] Many others have been struck by how mathematical theories that fit most closely with experimental observations are not chaotic but have remarkable simplicity, symmetry, and esthetic elegance surpassing practical utility.[16,17]

Underlying the persistent effort to realize a theory of everything is the metaphysical assumption that the universe is coherent, that it is unified in its dynamic structure, and that it is knowable. A corollary is that mathematics is more than just a perception in the mind but, insofar as its equations fit experimental observations and accurately predict natural phenomena, actually corresponds to reality. The universe has shown itself to be comprehensible thus far. The human mind may not ultimately have the capacity to solve all its mysteries, but the cumulative success of mathematics suggests that an intractable incoherence cannot be the endpoint of cosmic intelligibility.

The Harmonizing Particle

Desiring to reconcile the two theoretical frameworks of quantum physics and general relativity, neither of which has been able to stretch its mathematics to accommodate the other, some scientists await nothing less than a new physics.[18,19] To find this new physics, new experiments are sought that penetrate more deeply into the nature of things and probe the boundaries of what is known.

Theories of quantum gravity represent one approach toward reformulating a theory of gravity in terms of the hypothetical particle called a graviton.[20-24] Whereas quantum effects are not observable among stars, nor gravitational effects among atoms, the graviton would be a particle with a sort of dual citizenship. Its nature, consisting of both particle and wave aspects, would manifest behaviors describable by a unifying law of physics that encompasses interactions at both quantum and gravity levels.

Ironically, the particle explaining why mass attracts mass would itself be massless. No graviton has ever been detected, and many physicists are skeptical whether one could be. This is because measurable quantum gravitational effects are predicted only at extremely high energy, such as that which existed during the earliest moment in the beginning of the universe. Current theory holds that, during the first 10^{-43} seconds after the singularity that marked the beginning of the universe, during the brief period of time known as the Planck epoch, quantum and gravitational forces were indistinguishable, and the four fundamental forces were one unitary force.[11,25] If a coherent theory of everything in the universe were to be discovered, its logic might point to a grand primordial mathematics present at the beginning of time.

An intriguing further question is whether the initial mathematics of the nascent universe might have contained within its exquisite equations the genesis of moral reality. This question provides the segue into the next part of this paper, which is a discussion of parallel challenges in ethics. Ethics, like physics, straddles a seemingly unbridgeable gap. Just as models of the physical universe currently are divided into two empirically successful yet mutually incompatible theoretical frameworks, ethics also is divided into two disparate realms of knowledge, that of facts and that of values. Neither of these has been adequately described solely in terms of the other. In the

discipline of ethics are many approaches that either separate or attempt to bridge these two realms of knowledge.

From Graviton to Ethicon

Starting from the premise that physics is unitary, a theory of everything would combine currently separate theories of natural phenomena into a comprehensive framework. To the extent that moral behavior is a natural phenomenon, a complete theory would have implications for ethics – and not just that the possibility of new technologies raises ethical questions. A new and complete physics might also touch on moral valuations.

This expectation presupposes that morality is something about which one can acquire not only opinion but also information. That is, if moral claims are grounded in reality and not just subjective preferences, it might be possible to investigate them in ways not previously imagined. Assuming that the tools of physics can inform that pursuit, then those who gaze into the windows of particle colliders might be on the lookout not only for the graviton but also for the "ethicon." If the graviton is the particle that would bridge previously irreconcilable models of nature, then the ethicon is the particle to bridge the physical and moral realms of knowledge.

The hypothetical ethicon would be the unique fundamental particle that unifies theories of physics and ethics into a single comprehensive framework. However such a particle would be specified, it would probably not be the following: Existing both as it is and as it should be, the ethicon—metaphorically—would have a mass that precisely corresponds to weighty moral matters, a spin that is always in the direction of what is right, and a virtuous velocity that exceeds the rate of cultural decay. The epitome of nuance, its waveforms would emanate in exclusively deontologic directions, reconciling moral certainty with quantum uncertainty. Its humble hypermathematical field equations would illuminate the very moral fabric of the universe.

Hume's Fork

Hyperbole aside, this writer does not believe that such an ethicon exists or that ethics can properly be reduced to particle physics. Whether an investigation of nature confined to physical processes could discover an objective basis for morality is debatable. The categories of physical interactions and moral judgments are evaluated by separate criteria and do not, as far as anyone has been able to show, interact directly or according to a common set of laws. Once one steps beyond the role of observation and prescribes what should be done on the basis of information derived from nature, even human nature, one commits what the philosopher G.E. Moore called the naturalistic fallacy, which is an attempt to define what is good in terms of natural properties.[26] Similarly, the philosopher David Hume famously cautioned against drawing moral inferences from empirical facts, asserting that "the distinction of vice and virtue is not founded merely on the relations of objects, nor is perceived by reason."[27] Moral value for Hume was nothing more than a mental perception or preference. "Vice and virtue," wrote Hume, "may be compar'd to sounds, colours, heat and cold, which, according to modern philosophy, are not qualities in objects, but perceptions in the mind."[27]

This gap between "is" and "ought," between "can" and "should," divides descriptive ethics from normative ethics. Descriptive ethics concerns facts, whereas normative ethics concerns values in relation to right and wrong. The descriptive component might, for example, survey the beliefs that are held by communities regarding ethical questions on matters such as what percentage of people prefer to tell the truth, protect innocent life, or sacrifice on behalf of others. Descriptive ethics categorizes the reasons given for why people choose as they do among moral options. Descriptive ethics utilizes functional neuroimaging to map out the brain correlates of ethical decisions in the neuronal networks that subserve moral reasoning in the cerebral cortex. Descriptive ethics describes what and how people think and behave.

By contrast, the normative component of moral theory concerns, not what people do, but what they *should* do in making moral choices. Normative ethics seeks to determine whether it is right or wrong to tell the truth, protect innocent life, or sacrifice on behalf of others. Whereas descriptive ethics measures, normative ethics judges.

If ethical knowledge is unitary, then there might be an epistemological perspective from which the junction of "is" and "ought" is intelligible. One perspective answers this conundrum dismissively by denying the reality of the "ought." The philosophy of eliminative materialism confines thinking about ethics to the material or physical. This bias, which has its origin in the Enlightenment, systematically excludes from consideration any claims that do not have their basis in empirically observable, quantifiable, physical interactions. From within this narrow, reductionistic framework, one need not worry about the difficult questions of discerning good from evil, because such categories ultimately do not exist. Reality, according to the materialist, consists solely of physical entities knocked about by blind physical processes, whereas morality ultimately is an illusion, a puff of opinions, subjective sentiments conjured up by the flux of neurochemicals in the brain. Thus materialism attempts to account for altruism by supposing that it evolved from hidden self-interest as individuals rationally sought to maximize personal gain, obtain romantic partners, and secure long-term reciprocators.[28] Materialism attempts to explain away the most horrifically evil acts as nothing more than a neurochemical deficiency in the brain pathways subserving empathy.[29]

Insistent physicalist assertions are fraught with irony. The materialist, as a moral skeptic, would like to claim that the "is" is all there is and the "ought," being unobtainable on the basis of empirical fact, therefore does not exist. In other words, the materialist insists that it is true that one ought never derive an ought from an is. That claim, of course, is itself a statement of value. Similarly, to claim that one should reject moral absolutes because they do not exist is itself an absolute statement that is logically self-defeating.

The claim that moral principles do not exist transgresses the naturalistic fallacy the moment it is declared that moral judgments ought not to be considered or brought into discussion. Philosopher J. Daryl Charles writes, "Philosophers tell us—with increasing certitude, mind you—that there is no epistemological foundation for making moral judgments."[30] Materialism, therefore, lacks the competence to make moral pronouncements, including the claim that materialism ought to be believed.

The materialist position is not unlike that of quantum physics lacking the mathematics to account for gravity. But gravity indisputably exists.

Greene's Trolley

Efforts to formulate ethical decisions on the basis of facts alone frequently appeal to utilitarian ethical theory. Drawing from data, the utilitarian calculus estimates as completely as possible the potential outcomes that would result from each possible choice. Utilitarian theory holds that the best choice is the one that maximizes the consequences in terms of pleasure or other measures of utility.

Difficulties arise if utilitarian ethics is taken to be the sole approach to resolving moral dilemmas. One problem is the multiplication of uncertainties when attempting to predict outcomes from a succession of events. Because long-term consequences resulting from a successive chain of probabilistic events are exceedingly difficult to forecast, moral guidance is also needed along the way, including consideration of the means toward desired ends. Utilitarian ethical theory also has the problem that there is no equitable common scale by which to evaluate and decide among dissimilar goods. Which should be maximized: pleasure or justice? Privacy or safety? Health or freedom?

Naked facts cannot answer these questions. They require a moral evaluation, and that evaluation must reach deeper than assessments of pain and pleasure or personal preferences if moral obligations to others are to have a universal basis beyond voluntary, limited, negotiable social contracts.

A more recent approach to deriving ethical guidance from physical facts utilizes functional neuroimaging. Advocating for a brain-based ethical theory, psychologist Michael Gazzaniga writes, "I would like to support the idea that there could be a universal set of biological responses to moral dilemmas, a sort of ethics, built into our brains."[31] This approach assumes that a naturalistic process of evolution selected over many generations the patterns of moral thinking and behaviors that achieved the greatest advantage for survival. Whichever neural pathways of moral reasoning light up on functional MRI brain scans must, therefore, correspond to the correct moral judgments.

Scientists, like ethicists, as human thinkers are often tempted to look beyond facts and interpret data through the lens of their own values. At Princeton University, psychologist Joshua Greene utilized functional MRI to examine the brain regions associated with abstract moral reasoning. While positioned in the scanner, subjects were asked to solve the trolley dilemma, a hypothetical scenario in which one must choose between allowing a runaway trolley to kill five people in the path of its current course or flipping a switch that would redirect the trolley's path so that it kills only one person. Greene and colleagues found evidence of competing moral subsystems in the brain, one emotional and the other rational, with the dorsolateral prefrontal cortex being recruited to resolve dilemmas in which utilitarian judgments and personal moral violations conflict.[32] They termed their subjects' utilitarian responses to the dilemma "appropriate" and their non-utilitarian responses "inappropriate."[32] The very choice of language reflects an obvious utilitarian bias in the research.

A problem with a strictly utilitarian brain-based approach is that it would seem to permit or even justify a Machiavellian philosophy of ethics. A pragmatic ethics that merely works in answer to an immediate problem but does not correspond to truth, like Ptolemy's clever epicycles, cannot endure.

Fruitful Oughtologies

Exclusively physical descriptions of the moral realm fail us. Further knowledge beyond facts is needed to complete the physical model of the ethical universe and inform moral decisions. Moreover, the source of values should be acknowledged so that they, too, may be assessed. Conversely, moral principles require the context of facts to complete the ethical picture.

In contrast to arguments that deny or suppress appeals to the "ought," several philosophical approaches have sought to bridge the "is" and the "ought." One such perspective is that of nonreductive physicalism, which accounts for mental phenomena as nonlocalizable emergent properties that arise from the brain's physical complexity and exert top-down causation on material processes.[33] Nonreductive physicalism does not satisfactorily account, however, for how a property could actualize agency. Ethics presupposes the existence of moral entities having the freedom to evaluate, choose, and act.

Another perspective is that of moral realism. Moral realists believe that genuine moral knowledge is attainable. Accordingly, a number of philosophers have exposed the incompleteness of materialism and the fallacy of accepting the naturalistic fallacy. For example, Aristotle saw in nature a purposeful aspect, a category of final cause, toward which change was directed.[34] For Aristotle human virtue was a kind of knowledge with theoretical and practical aspects. Whereas Aristotle attributed the tendency of heavy bodies to fall toward the Earth to their nature, gravity is now understood to be the result of an external force specified by universal laws of nature. Once one appeals to scientific theories that describe the dynamic yet coherent laws of nature, one has already moved beyond facts to ideas. A universe organized by principles, wrote physicist James Jeans, "begins to look more like a great thought than a great machine."[35] In such a universe, a universe knowable to the mind, the "ought" begins to look a lot nearer to the "is."

Analogously, St. Paul wrote of moral laws that God has written on the heart,[36] defiance of which leads to futile thinking.[37] St. Thomas Aquinas likewise regarded human purposes to have been implanted by their Creator.[38]

Among contemporary philosophers who are further developing the case for natural law is Arthur J. Holmes, who argues that context connects facts with value. As Holmes explains, "While, in the abstractions of pure logic, the bare fact of some natural property may not entail a value judgment, yet in concrete situations all facts have value-potential."[39] Relevant contexts include narrative ethics, which finds rich value in the life of a community, the experience of human flourishing, and esthetic possibilities of nature, all of which can point to the divine Logos.

In further defense of natural law, J. Budziszewski expounds on moral truths that one cannot not know: "They are a universal possession, an emblem of rational mind, an heirloom of the family of man. That doesn't mean that we can know them with

unfailing perfect clarity, or that we have reasoned out their remotest implications: we don't, and we haven't."[40] Whereas the mathematics of physics does not translate directly to morality, it provides an analogy. For Budziszewski, "our common moral knowledge is as real as arithmetic, and probably just as plain."[40]

Explanations that seek to reconcile the "is" and the "ought" remain inconclusive, as they tilt either toward reductionism or transcendence. Some physicists speculate that a new paradigm of scientific method may eventually be discovered that opens metaphysical questions to investigation. In that spirit physicist Hyung S. Choi writes, "The Dark Age of materialism will pass away, and a new Renaissance will arrive when scientists talk freely of their imaginative ideas of the unseen."[41]

A Theory of Not Quite Everything

Returning to the purely physical, prospects for a tidy universal theory of all natural phenomena have in recent years receded further. Following Professor Hawking's 1980 forecast that "a complete, consistent and unified theory of the physical interactions which would describe all possible observations" was close at hand,[8] Princeton University granted him an honorary doctorate in 1982. By coincidence, earlier that same month a Princeton student in his undergraduate thesis refuted Hawking's claim, arguing that it was unscientific on the grounds that science is inexhaustible and that it violated Gödel's incompleteness theorem. "History is replete with similar illusory expectations of the formulation of great truths," wrote the graduating senior and future neurologist. "Yet as science discovers in time, nature evidences a greater wisdom in its order, a sweeter elegance in its design, than the imaginative speculations of its beholders."[42]

Gödel in 1931 had demonstrated that no nontrivial formal system can have in itself its proof of consistency, which means that any deterministic theory of everything must necessarily be incomplete. Physicist Stanley Jaki identified the fatal problem with theories of everything in his 1966 book *The Relevance of Physics*.[43] Hawking eventually recognized this insurmountable difficulty, writing in 2002, "Some people will be very disappointed if there is not an ultimate theory, that can be formulated as a finite number of principles. I used to belong to that camp, but I have changed my mind."[44]

The second reason Hawking has changed his mind is that, during the last several decades, neuroscience has revealed in astonishing detail the intricate complexity of the human brain. In response to this evidence, Hawking concluded that, "The trouble is that the human brain contains far too many particles, for us to be able to solve the equations."[44]

Ethicon-Shaped Void

In its quest for a theory of everything, science, having charted the cosmos, measured the vastness of time and space, demystified energy, and penetrated the intricate structures of subatomic matter, pauses at the moral threshold between two small words. Between "is" and "ought" a categorical barrier delimits the scope of the scientific method, but not the moral reach of the human mind, which discerns—often imperfectly but never unknowingly—dimensions of right and wrong.

Physics continues its search for the graviton, the elementary particle that would unify currently incompatible theories of natural phenomena. A search for the "ethicon," the fundamental particle to reconcile the gap between "is" and "ought" and to objectify moral judgments, would be, it must be concluded, a search in vain.

In the opinion of this writer, the answer to moral dilemmas is not an ethicon particle, but rather that which fills an ethicon-shaped void. Pascal knew this when he wrote of the God-shaped void within us that can be filled only by a relationship with the inscrutable and infinite.[45] St. Augustine knew this when he wrote, "Thou hast made us for Thyself, and restless is our heart until it comes to rest in Thee."[46] The magnificent moral dimensions of this ethicon-shaped void can be outlined only by metaphor, for it is larger on the inside than on the outside. C. S. Lewis understood this when he wrote that "a stable once had something inside it that was bigger than our whole world."[47]

For Christians, the particular answer to moral questions is not a particle, but a person, and not just any person. The ethicon-shaped void may be found, not in tiny collisions of accelerated particles underground in Geneva, but in the collision of infinite love with the sin of the whole world on Calvary's cross in Jerusalem. He who alone holds the key to ethics is the one who was and is and is to come, the one in whom all things were created and hold together, the one in whom all grace and truth perfectly coalesce.[48] He who commands all of nature, from the quietest of quarks to the most explosive supernovas, is gentle and humble in heart. He offers rest for the weary and burdened.[49] He who alone can fill the ethicon-shaped void appears, not as a wave, but as a welcoming knock at the door.[50] He invites the listener to reason with him, receive his love and forgiveness, and respond to his gospel of peace.[51]

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Morality and Ethical Theories in the Context of Human Behavior

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Abstract

Life can present complex choices that are often in unpredictable situations. Our decisions are subject to multiple factors, some of which are uncontrollable. Preferences are influenced by education, culture, psychosocial environment, and genetic predisposing factors. Morality is a societal balance gained through popular consensus on how individuals should behave. The ethical decisions driven by the behavior should be morally and legally acceptable to the larger community. Discussion on morality raises various challenging questions. What is appropriate and what is inappropriate in the drive of one's actions and behavior? Are there any normative rules to be followed, and, if yes, how can one assess their rightness? This article attempts to explore three philosophical positions on morality: utilitarianism, deontology, and virtues-based ethics in the context of human behavior.

Key words: Behavior; Consequentialism; Deontology; Ethical theories; Morality; Utilitarianism; Virtue-based ethics

Morality and Ethical Theories in the Context of Human Behavior

A thoughtful, reflective exploration of various ethical theories could inspire clinicians to reflect on these important concepts and relate them specifically to health care or medical decision making. Ethics consultation at bedside, ethics deliberation in counseling, normative ethics as a tool for moral distress, or the ethics in end-of-life scenarios could all be reference points for characterizing a practical model for ethical theories in human behavior. Normative ethics, as a branch of philosophical ethics, attempts to provide the frameworks for living and investigate how one ought to act. However, this paper attempts to describe only a subset of normative ethics in human behavior.

There are three competing points of view that determine whether an action is right or wrong. Utilitarianism is part of a vast ethical theory called consequentialism, which conveys a set of moral theories that pertain to benefits, outcomes, and consequences. Utilitarians believe the only way to judge whether an action is morally correct is to determine whether it maximizes the best consequences and happiness for the greatest number of people. The act is justified as long as it leads to a majority-supported outcome that is perceived as a benefit. The outcome, however, could very well be an immoral result. For example, the Nazis' executions were a majority-supported program. In other words, utilitarians think the ends justify the means and the costs justify the benefits. Jeremy Bentham, an advocator of utilitarianism, argued that the nature of human behavior is governed by two dichotomous feelings: pain and pleasure. He claimed that maximizing the pleasure and minimizing the pain

bring happiness to mankind (Shannon, 2009). Many believe morality is much more complex than merely trying to maximize happiness. Happiness can also be a negative criterion for morality because the actions leading to happiness do not necessarily mean that an action is always just.

This concept is encountered fairly often in bedside counseling, when clinicians have to solve ethical dilemmas such as differences of opinion of family members regarding stopping the treatment of a loved one and switching to palliative care, disagreement in treatment options among family members who have the power of attorney for an incompetent patient, controversies over whether or not a psychiatric patient can refuse medical or surgical treatment, or discussions of treatment choices according to the religious beliefs of a patient. Quite often this process raises uncertainty, concerns, fears, and frustration. The evaluation of the situation using moral principles normalizes the clinician's concerns, brings structure to the thought process and understanding, and diffuses the emotional tension felt by family members when trying to reason through dilemmas. The decisions made must honor the prioritized values as much as possible, and ultimately bring comfort and happiness to the patient as well as family members (Jungers & Gregoire, 2012).

The final goal of Utilitarians' actions is finding utility in whatever is instrumentally valuable. The consequences determine the morality of an action, while the path chosen affects our judgment of the person doing the act and not the act itself. Making choices favors a particular course of action, which does not necessarily mean doing good. When actions conflict with each other, it is difficult, if not impossible, to rationally weigh the moral dilemmas which occur. When unexpected events change the course of action and the results change unexpectedly, the utilitarian's action is deemed unethical since it did not bring the most benefit to others. In other words, a utilitarian does not reevaluate the situation in order to arrive at a good ethical course of action based on the new set of circumstances.

Deontology theory, on the other hand, focuses on the correctness or wrongfulness of one's conduct rather than the outcome of the conduct. Deontology deals with principles and rules that dictate the way one is behaving, focusing on means rather than results. It is imperative for one to act morally at all times in accordance with a set of rules and principles based on rational thought. Deontologists believe actions can be justified only if they turn them into laws and generalize them into a universal rule of nature where everybody is held responsible for their actions. The Hippocratic Oath is one of the most famous statements of ethical deontology in practice (Miles, 2005). It was taken by physicians to show respect for preservation of human life and required them to uphold specific ethical standards. The oath's values are echoed in modern views of professionalism as using the best ability to treat the ill, respecting patients' privacy, passing on the medical knowledge to future generations, etc.

Virtue-based ethics foster virtue as a way of shaping one's character and ethical behavior. Virtues are learned behaviors, and the richness of the virtues one possesses is influenced by personal beliefs of self and others, deliberative reasoning, environmental conditions, moral standards, and religious beliefs. Virtues such as accountability, bravery, commitment, compassion, courage, dignity, determination, endurance, fairness, loyalty, moderation, reliability, thankfulness, and trustworthiness

support the moral excellence and anticipate the societal wellbeing (Deakin Criclk & Wilson, 2005).

Life experiences enable one to consciously shape one's values and perceptions of the world. Personal virtues affect the behavior in many ways that are beneficial not only for the person but also to the society. Trustworthiness, discernment, integrity, compassion, and conscientiousness are valuable virtues a medical practitioner should have and have fundamental importance for one's character (Beauchamp & Childress, 2001). These virtues shape the character and help guide one's actions according to good reasoning. The habitual practice tempered by emotional reactions enables the clinicians to exercise character in behaving appropriately with all (Gardiner, 2003).

One can use utilitarianism, deontology, virtue-based ethics, or combinations of these in the decision-making process. The difference between these three ethical approaches lies in how moral dilemmas are handled. In virtue-based ethics, the focus is the person itself and what it encompasses from the point of generating good behavior. Deontology and utilitarianism are external to self; they focus respectively on means and ends.

The implications of these three theories in medical practice have different facets. The morality of care for the patient is based on the understanding of relationship between clinician and patient, prioritizing patients' wishes. Care ethics emphasizes the recognition of ones vulnerabilities and inequalities and the need to respond in an empathic and compassionate manner. This is in contrast with the individualistic approach of deontology and utilitarianism.

A common characteristic encountered in all three approaches is the moral judgment. Moral judgment emerges from the evaluation of someone's intentions, character traits, certain choices or potential choices, and freedom to choose alternatives (Inwood, 2014). When this moral judgment is made by a neutral third party, one might say that the most correct action is the one that brings the least negative consequences to all parties involved. In reality, there is not one best way of approaching a situation and one has to be flexible and prioritize the needs. There are situations when some give more value to the ends, having a more utilitarian approach, while others prioritize the means. However, in all situations, virtues play an important role. It is important to recognize the natural tendencies one is born with and to encourage, shape, and develop them through education and habituation. These virtues will strengthen one's moral character and will consistently and predictably manifest in different situations. Inner virtues as well as both ends and means are important. Understanding morality should combine elements of all three theories.

Decisions should be tailored for each specific situation. When facing a controversial situation, one must weigh the values and prioritize the possibilities of action. Chomsky (2005) argued that when taken in isolation, each value can be quite legitimate. On the other hand, in particular conditions, this status may change. For example, when values come into conflict with each other they are always contingent (Chomsky, 2005). Or, in the context of politics, the construct of morality tends to be toward the utilitarianism and serve the elite who have more power and money (Riesenfeld & Scarafile, 2013). Moral universalism, as the code of ethics, can cross borders, religion, culture, race, sex, or nationality. The United Nation Declaration of

Human Rights is rooted in the theory of universalism, which entails a synthesis of all three ethical theories: utilitarianism, deontology and virtue-based ethics (Sen, 2004).

Conclusion

Morality is fundamental for the existence of a civilization and establishes the pillars of the society. Universal morality shapes the content of laws and establishes rules and regulations that follow the principles of ethics: beneficence, least harm, respect for autonomy, and justice. Ethical theories are based on these ethical principles, which emphasize different aspects of judgment in different ethical dilemmas and offer solutions that are differently justified by each theory. While utilitarianism focuses more on the positive outcomes justifying the importance of life and pleasure, deontology shifts the focus on the process itself and stresses obedience to moral imperative. Virtue-based ethics is geared toward the character and to what generates good or bad behavior. Societal morality is built on a combination of ethical principles influenced by elements of all three basic ethical constructs.

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A Metaphysical Definition of Death

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Abstract

The following question is to be answered: What is the change in being of the human person that constitutes bodily death? A metaphysical definition of death is presented according to the anthropology of St. Thomas Aquinas. The arguments used are St. Thomas' proof of the unity of body and spirit, his doctrine on the requirement for sufficient bodily formation for spiritual Ensoulment, and the supernatural end of the human person's life on earth. The conclusion reached is that two conditions must be met to define bodily death: the body must no longer be capable of the most basic function of a material living being, which is to maintain its own energy supply; and the body must no longer be able to serve the spirit in its moral choices—that is, a permanent, irrecoverable state of unconsciousness is present. If these two conditions are found, then the form of the body is no longer sufficient for Ensoulment to persist and the body is dead. Medical diagnoses of brainstem death and death from cardiac arrest are discussed in the light of this definition.

Introduction

There are concerns that medical diagnoses of death, which denote a certain state of the human body, may not be consistent with real death of the body. In some cases, such as those of brainstem death (death here means both death of the brainstem and death of the body), organs such as the heart and kidneys and even parts of the brain still remain alive. In other cases, such as deaths from cardiac arrest, it is not known whether the potential for consciousness and breathing still remains when efforts to revive the patient are abandoned, the problem here being that it is only the heart that has failed to respond. A metaphysical definition of death will help clarify our thinking on the matter.

The Unity of Body and Soul[1]

The human being is one individual, one *substance.* A substance is a complete entity having a nature, or principle within it that regulates any changes in the substance. That is, changes in a substance are characteristic of the nature of that substance.

St. Thomas takes Socrates as an example of a human being—a human substance. Socrates, according to his human nature, eats, drinks, walks, and performs the characteristic animal functions of a human being, but he also performs the characteristic intellectual (spiritual) functions of which a simply corporal body is incapable. All entities (things that exist) have a *form*. Form is the mode of existence of the entity. For a living thing, this form is called a *soul*. Since the human being is one individual, the soul of a human being must be the form of a body-spirit unity.[2] It is a spiritual form, which is also the form of the body. This means that the animal actions of a human being are not the purely corporeal actions of an animal of another species—such as a cat, for example—they are those of a body ruled by a spirit, actions

which have spiritual consequences. As well as our intellectual activities, our eating, drinking, and so on are in accordance with our spiritual makeup. St. Thomas, in accordance with Aristotle, calls the human being a rational animal,[3] an animal that is distinguished from all the others by being rational in nature, having intellect and will.

The form of each entity, including that of a material entity, is immaterial in the sense that it is a pattern or design for its existence—an idea. Even so, the form of a material entity is material in that it is destroyed with the destruction of the entity: the pattern for existence of a living body that has died has been destroyed in that body at death. The form of an immaterial, spiritual entity is always immaterial and indestructible because the spirit does not die.[4] The spiritual soul of the human being survives the death of the body as an incomplete substance, since the proper substance of the human being is a unity of body and spirit.[5,6]

Here it is important to discuss *subsistents.* A subsistent is an entity that has an operation of its own and that can exist on its own or as an integral part of something else. It can have a nature, and therefore be a substance, or not. A human hand, for example, is a subsistent that has an operation of its own and can exist on its own at least for a time, given the right environment. It is an integral part of a human substance. If the hand has substance of its own, it is of the nature of a human hand, not of a human substance. A human substance is a human being with a human nature, having a body that is "a convenient organ of sense" for the intellectual soul[7] (there are minimal requirements of the body for this—see below), and the soul "must necessarily be in the whole body"—that is, in the body as a functioning unit—"and in each part thereof."[8]

Ensoulment of the Body[9]

St. Thomas' idea of conception, allowing for the science of his day, was not dissimilar to our own ideas in that he understood that material from each parent was needed to form the body of the new individual and that formation took time. Once sufficiently formed, the body was animated with its spiritual soul, for a new human body must be animated by a human soul, which is spiritual, as we have seen above because of the unity of body and soul. It is also worth remarking that the soul of a living thing is not only its formal but also its efficient cause, the cause of its developing as the living thing that it is.[10] For that reason it must be there at the outset of the creation of this new being.

With modern science, what do we know about the material from each parent, and what can we conclude about its status before it is sufficiently formed into a new individual of the human species? It is live matter that will remain alive for its natural term as long as it is in the right environment. It is subsistent in that it has an operation of its own, but if it has substance, it is of the nature of human seed, not of a human substance, which is the whole human being. Here we must note that the soul of a subsistent organ of the human body is an animal, not a spiritual, soul, which will be destroyed on the death of the organ.

The questions we must ask now are the following: If the body must be sufficiently formed to receive a human soul, surely it must remain sufficiently formed in order to keep it? And what does "sufficiently formed" mean?

"Sufficient Formation," The Finality of the Human Being, and the Metaphysics of Death

The finality of the human being, the purpose for which he is made, is happiness.[11] The only happiness that satisfies a human creature is the vision of God.[12] As a "rational animal," one with spiritual powers of intellect and free will working through his animal body, he makes the moral choices during his life on earth that will or will not bring him to his final purpose.[13] A sufficiently formed body is one that has the potential to serve him in his moral quest. In practice, what potential must this body demonstrate?

The minimum requirement for a body to be alive is that it is capable of maintaining its own energy supply.[14] A human body must be able to maintain respiration. It must be capable of taking up oxygen and clearing carbon dioxide.[15] For the mature body, one that is ex utero, this means that it must be capable of breathing. Artificial means are provided to maintain respiration for someone who still has the potential for making free choices. Where the capacity for intellect and will working through the body is no longer a possibility, it is clear that there is no point in continuing artificial means of breathing. A body that cannot serve a human being in its most basic functions of maintaining its own energy supply and of serving the soul in its moral quest is dead to its purpose. It is insufficiently formed to retain its spiritual soul. Organs that remain alive are subsistent and will remain alive as long as their natural term and the environment allows. If they have a nature, it is not the nature of a human substance since that requires a sufficiently formed body united to its spiritual soul.

Discussion

Due to the advances in medicine and technology of the last century, there are multiple issues, legal, moral, and ethical, surrounding the deaths of patients. These issues include the following: those of withdrawing treatment from patients who are gravely damaged or seriously ill to the extent that there is no reasonable hope of their recovery and, if their organs are suitable and the right consent has been given, inducing cardiorespiratory arrest in such a way that their organs can be used for transplantation (this issue is not being discussed here); those of taking organs—again, with proper consent—from people who have undergone spontaneous cardiac arrest when it is not usually known—but can only be reasonably guessed—whether permanent, irreversible brainstem damage (that would obviate further resuscitation efforts) has occurred; and those of withdrawing treatment from a patient who has suffered brainstem death and—again, if consent has been given—using his organs for transplantation. It is certainly right to withdraw futile treatments and to take organs for the good of another from someone whose will it is for his organs to be used when he has no further need of them. But when can a treatment be said to be futile? When can organs be taken? Certainly, it would seem in both cases to be appropriate if death has supervened in the patient-donor.

It has been my concern in this article to establish a metaphysical definition of death for the human person who is a being with both body and spirit, taking into account the end for which he is made and thus the purpose of his life here on earth, the unity of his body and spirit, and the requirement for sufficient formation of his body for it to be Ensouled, according to the anthropology of St. Thomas Aquinas. The

conclusion reached is that there are two necessary conditions that must be present for death to have occurred, and these two conditions, if present, are sufficient for death to be pronounced: permanent and irrecoverable loss of the power of the body to maintain its own energy supply, and permanent and irrecoverable loss of the body to serve the spirit in its moral choices.

These two conditions are filled both in the patient diagnosed with brainstem death and in the patient whose heart is diagnosed as irrecoverably unable to function—in the former because the capacity to breathe and the capacity for consciousness are permanently lost, and in the latter because the heart can no longer serve the lungs and the brain, enabling them to function.

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Endnotes

1. S.T. Vol I, Q 76
2. Ibid., Art. 1, Respondeo.
3. Ibid., Art.3.
4. S.T. Vol. I, Q.75, Art. 2,3.
5. This is an argument for the necessity of the Resurrection when the totality of the human substance, body and soul, will be restored.
6. S.T. Vol. I, Q. 91, Art. 4. "Now the soul, as a part of human nature, has its natural perfection only as united to the body."
7. S.T. Vol. I, Q. 76, Art. 5, Respondeo.
8. Ibid., Art. 8, Respondeo.
9. S.T. Vol. I, Q. 118, Art. 1
10. Ibid., Art. 3. "For this reason the soul needs to be united to the body, which is necessary to it for the operation of the sensitive part".
11. S.T. Vol. II, Q. 1.
12. Ibid., Q. 3, Art. 8, Respondeo.
13. If he does not reach his final purpose, happiness with God, he dies the second death (Rev. 2:11;

20:6, 14; 21:8).

14. See Weber, Bruce, 2015, end of paragraph 2 for his definition of a living thing.
15. We can note here the numerous references associating life with breath in the Bible.

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Virtue as Mediator: Informing Health Care Issues through Virtue Ethics and Scripture

STEPHEN MEAWAD, MTS

Introduction

While the wide gamut of end-of-life care issues has been discussed extensively from both Christian and non-Christian perspectives, Scriptural referencing among Christians has at its best been scarcely utilized and at its worst misused. This is demonstrated clearly when Vatican II "admonished moral theologians to draw more fully on the teaching of Scripture," as this disconnect has made itself rather clear.[1] This challenge can be extended beyond the "moral theologian" to all Christians who experience disconnects between Scripture and various components of daily life, among whom health care professionals are not the least. With the rapid advancement of medical science technology, it is becoming increasingly urgent to engage and present creative and effective ways of applying Scriptural insight to pressing health care issues and, in the case of this paper, end-of-life care issues. I suggest that an appropriate approach to the incorporation of Scripture in health care ethics is through a focus on the virtues. My argument will flow in three sequential steps. First, I will make a case for the usefulness of virtue ethics as a tool for the medical sciences generally and health care ethics specifically. Second, I will demonstrate one effective method found in the early Church that has often approached Scriptural exegesis with a focus on virtue. Virtue, in this way, will be the link between the sciences and Scripture; it will provide a means by which to accomplish the third step of this project—to allow Scripture to speak directly to health care issues.

Why Virtue? A Case for Virtue Ethics' Complementarity to the Health Sciences

To begin the discussion of methodology, it should be noted that the field of virtue ethics is not usually considered when discussing science or medicine, or in this case bioethics; this might very well be a major contributor to the disconnect between virtue theory and application. Moreover, "[f]rom the seventeenth century on . . . [prudence] became the virtue of caution, reluctance, and self-restraint."[2] This doubly distances virtue theory's probability of being considered in these cases. Other forms of ethics have often had the upper hand in modern scientific ethical consideration, and to these we shall briefly turn.

The unstated and largely unquestioned presupposition in scientific ethics today is that consequentialist ethics, "the view that normative properties depend only on consequences,"[3] stands as the accepted complementary model to the natural sciences.[4] For example, consequentialist ethics assume without further warrant that an agent's simple knowledge of consequences is sufficient not only to enjoin a particular kind of shift of activities, but to bring it about. For example, one might object that

a physician's knowledge of the adverse effects of smoking have not yet stopped her from filling her lungs with toxic waste three times a day, nor has a dietician's sophisticated consequentialist knowledge of the noxious outcomes of refined sugar consumption stopped him from having that extra slice of pie. Since simple knowledge of consequences is often insufficient to actualize ethical change, a more rigorous analysis that takes into account human particularity seems not only better but also more urgent.[5]

In the field of medical ethics, for example, this tradition provides resources that go beyond merely immediate decisions and engage human particularity in its wholeness, attempting to mend individual maladies and the structures which *ethicize* and thereby perpetuate systemic ill-being.[6] By calling into question not only the consequences but the moral intentionality of an agent as well as the background on the basis of which such an agent is said to "make" a choice, virtue ethics promises effective resources for contemporary dilemmas. By shedding new light on seemingly stale ethical impasses, it offers a voice that guarantees to make strange the seemingly familiar, thereby allowing us to see alternatives which our constructions of reality could not have envisioned otherwise.

It is also important to highlight the usefulness of virtue ethics in its efficacy in bringing about observable change in the ethical decision making of those who adhere to its principles. Virtue ethics focuses on ethicizing one to think a certain way about a certain situation and so to act that way when such a scenario arises.7 It goes beyond the merely intellectual suggestiveness of many ethical propositions (which often cloud the capacity for clear ethical vision), seeking to empower humans to become virtuous agents, able to look beyond their otherwise limited scope. Providing simple intellectual, epistemological knowledge of a certain situation presents a false and myopic dichotomy that focuses too narrowly on the issue and not enough at the societal systems that inform them. It is the problem of attempting to pin all the moral weight on a particular circumstance that is already the result of a great chain of events, to which moral deliberation has little to contribute. Virtue ethics depolarizes this kind of shortsighted focus and overcomes simple consequentialist ethical foci by reorienting its concern onto people. In this way it can underlie and inform the why of people's actions, or, stated differently, virtue ethics aims at empowering humans not only to know what is right, but to respond in a way congruent with their knowledge.

Virtue ethics is unique in its ability to connect the concept of truth with practical living because of its focus on enacting pragmatic change (as opposed to mere theoretical shifts) by creating agents able to morally deliberate.[8] Virtue ethics in its challenge of deontological and utilitarian ethics recognizes the oft encountered disconnect between theory and practice—the way things ought to be and the way things are. This is so because virtue is tied with the "ought" of life in its concern with defining what virtue—or, more specifically, what an *ethic* of virtue—should look like, and also with the "is," through its discussion of the reality of attaining or falling short of such a lofty aim.[9] The "ought" can then be assessed by analyzing how the expectations compare to the reality.[10]

Since the resurgence of virtue ethics in recent decades, beginning primarily with Elizabeth Anscombe's 1958 article "Modern Moral Philosophy" and continued by Alasdair MacIntyre's 1984 work *After Virtue*,[11] reactions, additions, and critiques have

flooded the field. In essays edited by Stephen M. Gardiner entitled *Virtue Ethics, Old and New*, Gardiner in his introduction discusses the relationship between historical/traditional and contemporary use of virtue in ethics. Yet, his historical/traditional description only lends itself to the philosophers, not to the early Church Fathers.[12] It is true that much Patristic thought was often based heavily on Greek philosophy, but there is much to be gained from looking specifically at how some early Church figures dealt with virtue in relation to morality and to Scripture.

Early Church Fathers on Virtue and Scripture

It would be too far a stretch to claim one harmonious and unanimous Patristic method, despite this possibility at times, since the Patristic era can be characterized in many instances as fragmented and discordant. But it remains that the thread of Patristic thought that utilizes a Scriptural focus on virtue proves helpful in bringing Scripture and health care ethics into conversation. This is leveraged on the aforementioned claim that virtue ethics is an appropriate modus operandi for health care ethics. For this reason, I will highlight a few brief examples of a strand of early Church thought to elucidate a particular vision of virtue that is helpful to this current project. As a result, the stage will be set for a Scriptural focus on virtue and how that focus can contribute to important end-of-life care issues.

To begin, an emphasis of St. John Chrysostom, a late 4th/early 5th century Antiochian monastic, Archbishop of Constantinople, evangelist, and exegete, proves to be of value here. His extensive concern with the intersection of the way things *should* be and the way things *are* moved him to grapple with the apparent disconnect aforementioned through what today would be referred to as "pastoral concerns."[13] It would not be difficult to mistake St. John for a teacher of morality instead of the teacher of faith that he was. As one of the most thorough and comprehensive biblical exegetes of his time and arguably of all Christendom even until this day, he demanded that humans should *act* in congruence with their *beliefs*. He did not focus on constructing a precise literary methodology for Scripture but focused on a pragmatic discussion of how one should *be* when reading the Bible. While Hume's empiricism may have been a bit too radical in its emphasis on knowledge only attained through *sensory* experience, to an extent, humans only do know what they experience.[14] Experience largely shapes belief and conviction.[15] St. John, who in his time was known as St. John "the monk,"[16] was known for his strict asceticism and successful attainment of a highly virtuous life. It is on this practice of virtue that he shaped his ideal for proper Scriptural exegesis, and it is on this basis that he succeeded in skillfully translating Scripture to praxis.[17]

With a similar Scriptural approach, St. Gregory of Nazianzus, a 4th century Cappadocian father, theologian, and scholar, discusses an aspect of the life of virtue when he asserts that it is "dangerous" for an impure person to study what is pure.[18] Without a life of purity, a number of interpretations of Scripture can be contrived according to each person's liking or "feeling."[19] But what good is a feeling if it derives from an impure heart trying to discuss matters of purity? Likewise St. Basil, another important Cappadocian father contemporary to St. Gregory, asserts that one must take on the task of "cleansing the eye of the soul" in order to properly approach Scriptural interpretation.[20] He continues with this notion of purity and presents an

analogy: "As the power of seeing is in the healthy eye, so the activity of the Spirit is in the purified soul."[21] Thus, to successfully interpret Scripture, one must submit to the Author of Scripture, God Himself, by advancing in the virtue of purity.

The virtues are oftentimes, if not always, reflections of a God who encapsulates the totality of virtue. For example, purity is "good," in virtue ethics language, because God is Purity itself. The same is true of holiness, humility, patience, and love, to name a few (Lev 11:45, 1 Pet 1:16, 1 Jn 4:8, 1 Cor 13:4, Phil 2:7). A virtuous agent is then formed by the emulation, albeit to a lesser degree, of the Paragon of virtues. This is also demonstrated by the personification of the virtue of wisdom in Scripture and the subsequent interpretation of Jesus Christ as Wisdom (Proverbs 8, Mt 11:25-30). But how is one expected to properly interpret Scripture through a life of virtue if the very description of proper virtue is to be taken from Scripture itself?

This paradoxical presentation of experience and knowledge as they relate to Scripture should be understood as needing simultaneous, complementary utilization. Christian knowledge and experience inform each other; one cannot proceed far without the other. Christianity by nature is inherently developmental; it requires constant growth and advancement. This dual focus creates Christians embodied with transformative experience in whom doctrinal teachings have become inseparable from their moral compasses.[22] Virtue ethics as presented above intends to produce ethical agents before presenting normative ethical guidelines.[23] As one's holistic view of the Bible is continually nourished through guidance by the Spirit, so should one continue to apply and reapply what is being read. This continuous and progressive application, in forming a virtuous agent, will at the same time create an individual more capable of extracting valuable information properly from Scripture. Such a person will subsequently be able to discern what should and should not be applied from Scripture to ethics, and how exactly it is to be applied. In this way, the person is moving from theory to practice to being.[24]

Thus, the stage, or at least a stepping-stone, has been set. We have seen that one early Church methodology to Scripture was a focus on virtue. Virtue is to be pursued in order to gain insight into Scripture, and Scripture is to be read as an instructor in the pursuit of virtue. This cycle was key for the early Church authors presented above, among others, and it is with this same focus that I suggest Scripture can speak to end-of-life care issues. This claim is furthered by the justification aforementioned regarding the suggestion to consider virtue ethics as a tool within health care ethics. These suggestions should be taken together in order to be effective. The claim here is not that there is no other useful way to proceed when considering end-of-life care issues, but that this method allows Christians to uphold claims of faithfulness to Scripture, allows the gap between Scripture and these issues to be bridged, and reveals fresh perspectives and levels of nuance into these bioethical issues that could otherwise be overlooked.

Implementation of Methodology: Virtue, Scripture, and End-of-Life Care

Physician-Assisted Suicide: King Saul & St. Paul

It is my contention that an individual's choice in the way she or he dies does not constitute a part of human dignity or freedom. Instead, my claim is that a lack of freedom that often leads to the predicament of suicide. There is sufficient evidence in Scripture to suggest that an incapacitation to a number of different possible agents may be an important factor in inciting suicidal desires that go beyond physical suffering. Bioethicist James R. Thobaben points to an instance in the Bible analogous to assisted suicide—the death of Saul, King of Israel, in 1 Samuel 31, 2 Samuel 1, and 1 Chronicles 10.[25] King Saul, in fear of the abusive death the Philistines would pay him, asks his armor bearer to slay him with a sword. In fear, his armor bearer rejects this request and kills himself, but only after Saul decides to take his own life as well. This is what 1 Samuel and 1 Chronicles recount. However, in 2 Samuel, an Amalekite is found running to King David and telling him that he found King Saul lying on the ground still alive but with his own sword thrust through his body. In deep agony, Saul requests of the Amalekite that he put his suffering to an end, to which the Amalekite obeys. The Amalekite, in retelling this event to David, considers his deed a righteous one, but much to his chagrin, David orders his immediate execution because he dared to kill the "Lord's anointed" (2 Sam 1:14). David does not reward the Amalekite for shortening the period of suffering experienced by Saul before his death. David loved Saul despite Saul's hatred toward him, but his communication of this love did not express itself in his wish to alleviate his end-of-life suffering even despite its definite imminence. While the argument here would not be that a proper expression of love is to approve of an individual's suffering before death, it does imply that the solution to that suffering is not necessarily death.

Not only is death not an expression of one's freedom, but Saul and the armor bearer's deaths illustrate that their enslavement helped *cause* their suicides. One of Saul's enslavements was his pride; it is his *honor* that would have been tampered with had he allowed events to run their natural course. 1 Chronicles 10 actually emphasizes Saul's misdeeds not as resulting from the actual act of suicide but from the misguided life he lived that led to that suicide.[26] The cause of his suffering was not to be alleviated by death but by a change to a life of virtue. At the very least, had Saul advanced in this life of virtue, it is unlikely he would have had to face this plight. In a similar vein, the armor bearer's attachment was to Saul himself; his life amounted to Saul's life, and Saul's death meant his own. He knew nothing else, and his inability to deal with the difficulties of life led him to think death was the only solution. But surely there are plenty of other solutions both in their situations and in present methods of alleviating pain.

The alleviation of pain and suffering is largely the responsibility of the advancement of pain management in medicine, not the misplaced deception that imposed death solves problems. The communal structure of Christian life being centered on the biblical description of the interconnectedness of humanity leads to the natural altruism, if it should even be called such, of not desiring the suffering of the other (Rom 12:4-5; 1 Cor 6:15, 10:17, 12:12-13, 27; Eph 4:15-16; Col 2:19). But

why has this understanding of suffering come to focus only on physical suffering? Is it not reasonable to desire the emotional, psychological, spiritual—in one word, holistic—well-being of all humans? While Fiona Randall and R.S. Downie assert in their work, *End of Life Choices: Consensus and Controversy*—and I agree—that this is not the medical professional's responsibility or training, I further argue that the physical distress experienced is not disconnected from other deep-seated, previously-experienced, constantly-occurring non-physical suffering, resulting from a basic perversion of virtuous life.[27]

If Saul and the armor bearer did not experience this perversion throughout their lives, moments of difficulty and suffering would not automatically have led them to the desire for suicide. This is demonstrated clearly in the life of St. Paul as presented in New Testament Scripture. Time and again, he described the physical torment he endured for Christ (2 Cor 1:5-7; 4:8-1, 16-17; 11:23-29; 2 Cor 12:7-10; Gal 2:19-20; Gal 6:14; Phil 3:8). Despite this suffering and despite asserting that he would much rather pass on from this life to the next with Christ, his cultivation of virtue and self-giving love led him to conclude that it was more needful for him to continue living (Phil 1:21-25). The request of death is seldom a result of physical suffering alone. In fact, the example of St. Paul extends this argument further in that other realms of suffering can be added to the physical suffering discussed in this section without causing one to resort to suicide. The habitual degradation of an un-virtuous life lies at the root of this problem, and a retrieval of Scripture-inspired virtuous norms can begin to address this bioethical issue systemically.

End-of-Life Suffering: Christ in Gethsemane

An insightful biblical passage to reference concerning end-of-life suffering is the scene in the garden of Gethsemane in which Jesus Christ is found in deep distress the very night before His death. Part of the passage from Luke 22:41-43 reads: "He […] knelt down and prayed, 'Father, if you are willing, take this cup from me; yet not my will, but yours be done.' An angel from heaven appeared to him and strengthened him. And being in anguish, he prayed more earnestly, and his sweat was like drops of blood falling to the ground." He continues by admonishing His disciples for not struggling to pray, as prayer is the only way to avoid temptation (Lk 22:46). Approaching an imminent crucifixion and being in significant anguish, Christ in this instance highlights the importance of prayer at all times, even and especially during end-of-life suffering. I posit and intend to demonstrate below that the submission by Christ to the Father seen in this passage is rooted in a fundamental practice of the virtue of humility required by all, and that it has specific implications on the way end-of-life care decisions should be made.

Christ's humility, understood most fully in His condescension from heaven, His assumption of human flesh, and the shame and suffering of His passion and death, is a summons to the acquisition of this virtue (Phil 2:1-11; Heb 2:14-18). While the coupling of humility with end-of-life care decisions may be a difficult request of those who are suffering (or has possibly already been attained somehow *through* suffering), the most critical transformation is that of family members or friends whose functions are fundamental in these often convoluted processes. A deficiency in humility demonstrates the relationship between absence of virtue and the resulting formation

of a detrimentally limited view of the circumstances at hand. Human interaction is inherently multifaceted and complex, and being unaware of this truth increases the likelihood of some inability in properly addressing end-of-life care issues.

Humility allows for the admittance of one's shortsightedness, subsequently leading to a more wholesome view of all factors involved and of which factors take precedence. It is a tendency to look only at the immediate effects of making a particular decision, but the clouded nature of a mind under stress and a mind that imagines itself most enlightened can often make a decision in opposition to the "best interest" of many.[28] Thobaben asserts that not only do the ends have to be taken into consideration, but so do the intentionality behind the means, the underlying character behind the actions, and, I would add, the character that is produced as a result of the means.[29]

Christ's submission to the Father in humility as He suffered at the end of His life was an acknowledgment of the all-knowing power of the divine perspective in contrast to human weakness. He was showing humans that they must acknowledge their limitation in understanding life's difficulties, suffering being among the most difficult. The closer one gets to the emulation of God—that is, the attainment of virtues—the clearer one sees. Even if virtuous agents take time to develop, and if it is unrealistic to expect that everyone be virtuous before proceeding to consider end-of-life care, at the very least the practice of humility is a promising starting point and stepping-stone. The humility that Christ exhibited can be an avenue for family and friends of suffering patients to consider. It can open up the opportunity for them to acknowledge that their views are limited because of deficiencies of virtue that all humans possess, allowing them to consider a wider range of possibilities. This will work to prevent the unfortunate reality that the focus of many "decision-makers" today is to "assuage their consciences as much as resolve dilemmas."[30]

Death with Dignity: Creation of Humanity

One need not be an expert medically or theologically to make a convincing case for heightened attention to the dignity of the dying. Yet there still remains ambiguity in what is exactly meant by the coined phrase "death with *dignity*"—the apparent assertion that there is a (more) suitable circumstance for one's death, whatever that suitability is determined to be.[31] While a general definition of dignity presents its basic interpretation as "value,"[32] Randall and Downie maintain that this term has been discussed by the majority in bioethics as necessitating the idea of freedom or choice. They maintain, "Even when no choices are possible, life can be given significance."[33] I suggest that this claim—that dignity is not dependent on choice—is Scripturally sound, attested to by the creation narrative, offering promising insight into how "death with dignity" should be understood.

Humanity is said to have been created in the "image and likeness" of God, arguably the highest "dignity" or "value" a person can possess (Gen 1:26-27). Understood this way, "[l]ife […] is an end in itself."[34] According to St. Gregory of Nyssa, humans were created in the image and likeness of God so as to make humanity "an animate likeness of the eternal Divinity."[35] If this description of the image and likeness is accepted, and if God is perfect—two assertions that are held to be fundamental to, formative for,

and true within Christianity—it naturally follows that no greater dignity could be bestowed on humanity.

Notice here that the only requisite for this endowment is the possession of human nature, whether or not a human desires it. It is not the choice of any human whether or not she or he wants to be imparted with this dignity. While choice may impart some special grace or a part of what it means to be "like" God, it is not necessarily the "choice" aspect of freedom that constitutes one's highest dignity. If God is described as the absolute free, in whose "image" humans were created, the understanding of His freedom will illuminate aspects of the freedom of humans. God has absolute freedom not because He has absolute choice, but because He is absolutely *unbounded*. He has nothing hindering His will, and whatever He wills, He does; He is all-virtuous.

St. Paul describes the human struggle to attain divine freedom in Rom 7:15 when he says, "For what I will to do, that I do not practice; but what I hate, that I do." He is bound by something—a force, energy, desire, or weakness, etc.—outside of himself, limiting his ability to act freely. He continues, "But now, *it is* no longer I who do it, but sin that dwells in me." Freedom's antithetical category then is enslavement to sin (Jn 8:34; Rom 6:16-18, 7:5; Gal 5:16-21, 24; 1 Cor 9:27). Because sin is separation from God (Isaiah 59:2, Eph 2:11-22; 4:17-24) and its enslavement is in direct opposition to freedom, proximity to God—that is, attainment of the virtues as described above—is true freedom. Furthermore, if a person is always able to know and do the good, without much need for deliberation between choices and without being inhibited by the weakness of the flesh, this is the unreservedly free person.

Thus, an important implication is deduced from Scripture concerning "death with dignity"—having the right to choose one's death is not an expression of human dignity, since the biblical understanding of freedom is not contingent on this choice. Humans are created to be free and to be dignified, but neither their death nor choices surrounding their death constitute their dignity. Experiencing a more dignified death can only be achieved by attaining a more dignified life, not by the opportunity to choose death. Human dignity is inherent entirely in a life of virtue, as this is direct emulation of God, and freedom in this case is epitomized in the ability to instinctively will the good, unhindered by deleterious passions or attachments.

Conclusion

In response to the calling of Christians to remain faithful to embodying Scripture, effective methods that allow Scripture to impact daily affairs must be uncovered and creatively discovered. With an ever-growing awareness of the contextualization of theology historically and contemporarily, Scripture is at a risk of atrophy due to misuse and lack of use. Certainly, the power of Scripture is not limited to its human use, but humans are a critical vehicle by which the word of God incarnates and propagates.

At this juncture, we should recall the three markers presented at the outset of this paper. First, a case was made for the application of virtue ethics to health care ethics. This hinged on the ability of virtue ethics to better address systemic ills that functioned as an undercurrent to some considerations in the health sciences broadly and bioethics specifically. It also hinged on the capability of virtue ethics to produce observable, pragmatic, and informed solutions for its adherers and the

systems to which it is applied. Second, an early Church practice of virtue informed *through* Scripture and *for* Scripture proved helpful. This practice encouraged the incarnation of Scripture as it was being read in hopes of producing virtuous agents whose continued enlightenment is fostered through the very act of acquiring virtue. Enabling a scientific and Scriptural focus on virtue produced the third and final marker of this project—a common denominator and platform through which health care ethics could be informed by Scripture. The conclusions were as follows:

A focus on the virtues addresses a number of the problems faced in end-of-life issues. Many factors beyond physical suffering influence one's request for physician-assisted suicide, but suffering—physical or otherwise—is insufficient ground for ending life. Scripture provides hope in any and all circumstances for fulfillment, joy, and purpose, as in St. Paul's case. Moreover, in the case of end-of-life suffering, while lack of virtue limits one's scope, humility, as shown most perfectly in Jesus Christ, can help in the present by convicting one of the likelihood of his or her limited and negatively influenced viewpoint and in the future by advancing the progression toward a life of virtue. Finally, concerning "death with dignity," Scripture informs that to be dignified is to infinitely grow in God's image and likeness, which is to be virtuous, which is to be free, which is to be not enslaved to sin (separation from God), which is to be like God, and so the cycle continues. Providing someone with the option of death, although possibly pertinent to other discussions, is not a matter of dignity.

While these suggestions are in no way comprehensive for these topics (nor are they intended to be), they do allow Scripture to inform new ways to solve these ethical dilemmas at their *roots* and to demonstrate ways in which a focus on virtue allows Scripture to speak to contemporary discussions, among which health care ethics is not the least. The endless controversy over so many ethical debates today, if approached in this light, may very well prove effective in creating a world in which virtue will overwhelm the immorality that is often the very cause for these undesirable predicaments.

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Endnotes

1. Daniel J. Harrington and James F. Keenan, *Jesus and Virtue Ethics : Building Bridges between New Testament Studies and Moral Theology* (Lanham, Md.: Sheed & Ward, 2002), 24.
2. Ibid., 26.
3. Walter Sinnott-Armstrong, "Consequentialism," in *The Stanford Encyclopedia of Philosophy* (2015).2003</edition><dates><year>2015</year></dates><urls><related-urls><url>http://plato.stanford.edu/entries/consequentialism/</url></related-urls></urls></record></Cite></EndNote>
4. For a good discussion of the appropriateness of considering virtue ethics instead of consequentialist ethics in the health sciences, see Gardiner, P. "A Virtue Ethics Approach to Moral Dilemmas in Medicine." *Journal of Medical Ethics* 29, no. 5 (2003): 297-302.
5. Benedict M. Ashley, Jean DeBlois, and Kevin D. O'Rourke, *Health Care Ethics : A Catholic Theological Analysis*, 5th ed. (Washington, D.C.: Georgetown University Press, 2006). While their approach is not entirely in line with virtue ethics proper, they acknowledge and discuss the potential of a shift in focus from duty-based ethics to an ethic based on virtue and character development. Possibly due to the difficulty of discussing health care ethics without a myopic overemphasis only on the final steps of decision making, it is arguable whether or not their focus on virtue is sufficiently achieved in all the ethical deliberations and studies that follow their opening two chapters on theory. Nonetheless, the "prudential personalism," or "prudent decision making" they present seems to be a step in an important shift that theological bioethics ought to take.
6. See Lisa Sowle Cahill, *Theological Bioethics : Participation, Justice, and Change*, Moral Traditions Series (Washington, D.C.: Georgetown University Press, 2005). Specifically, her presentation of "adverse virtue" is helpful in capturing the nature of ethical conundrums, or "stalemates" as I refer to them here. Often, ethical debates consist of parties speaking past each other, not *to* or *with* each other. The problem she identifies is that "agents must choose courses of action within adversity that is created and sustained by human actions, policies, and institutions"

(119). Human-made problems may not always have solutions in which all factors are remedied, and so opposing perspectives could each have their own merit. Her project of addressing systemic issues with systemic solutions attempts to get rid of bioethical dilemmas from their roots. The project of using virtue ethics in bioethics has a similar goal. For a detailed analysis of the nuances of this application, its potential, its limitations, and the particularities by which it could be implemented, see Stephen Holland, "The Virtue Ethics Approach to Bioethics," *Bioethics* 25, no. 4 (2009). My goal here is not to flesh out an exhaustive argument for virtue ethics' application to health care ethics but to suggest an ethical approach that is useful not only on its own but also by means of enabling a focus on virtue in Scripture which in turn allows Scripture and health care ethics to communicate.

7. Thomas Aquinas, whose thoughts have been cited often among those who have contributed to the development of virtue theory, elaborates that habituation in moral virtues allows an agent's appetitive powers to obey reason. In other words, it is a process that is intimately linked with forming an agent able to act congruently with knowledge, enabled by a habituated disposition toward freely and naturally doing the virtuous. See Thomas Aquinas, *Summa Theologiae Prima Secundae, 1-70*, The Complete Works of Saint Aquinas (Lander, WY: Aquinas Institute for the Study of Sacred Doctrine, 2012), 2.68.3-4. See also a related concept called "flow," in which deliberation is unmediated and is active as opposed to passive, in Julia Annas, *Intelligent Virtue* (Oxford; New York: Oxford University Press, 2011), 71-72, 77. A virtuous agent practicing such "flow" finds no interruption in the exercise of thought prior to acting virtuously.
8. Joseph Woodill, *The Fellowship of Life : Virtue Ethics and Orthodox Christianity*, Moral Traditions & Moral Arguments Series (Washington, D.C.: Georgetown University Press, 1998), 4.
9. Ibid., 8.
10. For a thorough discussion on the "ought" of virtue ethics and how that relates to virtuous agents and "right" actions, see Daniel C Russell, "That 'Ought' Does Not Imply 'Right': Why It Matters for Virtue Ethics," *The Southern Journal of Philosophy* 46, no. 2 (2010).
11. An important milestone in the renewal of virtue ethics, G.E.M. Anscombe, "Modern Moral Philosophy," *Philosophy* 33 (1958). Similarly, see Alasdair C MacIntyre, *After Virtue: A Study in Moral Theory* (Notre Dame, IN: University of Notre Dame, 1984).
12. Stephen Mark Gardiner, *Virtue Ethics, Old and New* (Ithaca, NY: Cornell University Press, 2005), 3.
13. For a more complete outline of St. John Chyrostom's life and works, see Georges V Florovsky, *St. John Chrysostom*, vol. 7, Patrology-Patristics (Belmont: Orthodox Research Institute, 1987).
14. For a discussion on experience and its insufficiency in determining causality, see Immanuel Kant, Paul Guyer, and Allen W. Wood, *Critique of Pure Reason*, The Cambridge Edition of the Works of Immanuel Kant (Cambridge; New York: Cambridge University Press, 1998).
15. David Hume and Tom L. Beauchamp, *An Enquiry Concerning Human Understanding*, Oxford Philosophical Texts (Oxford; New York: Oxford University Press, 1999).
16. Florovsky, *St. John Chrysostom*, 7.
17. A good example of this is Wendy Mayer, "The Audience(S) for Patristic Social Teaching: A Case Study," in *Reading Patristic Texts on Social Ethics*, ed. Johan Leemans, Brian J. Matz, and Johan Verstraeten (Washington, D.C.: The Catholic University of America Press, 2011), 85-99. Mayer demonstrates how St. John interwove Scripture, teaching, and a call to action regarding matters of social teaching. St. John is so often mentioned in early Christian ethics, despite his not thinking that he was doing ethics proper. Contemporarily, when he is cited, it is often in categories that we qualify as social ethics, but this categorical designation is not necessarily how the early Church viewed ethics. This is also rather apparent in Basil, *On Christian Ethics*, ed. John Behr, trans. Jacob N. Van Sickle, Popular Patristics Series (Yonkers, New York: St. Vladmir's Seminary Press, 2014). See also Francine Cardman, "Early Christian Ethics," in *The Oxford Handbook of Early Christian Studies*, ed. Susan Ashbrook Harvey and David G. Hunter (New York: Oxford University Press, 2008), 936. It is worth noting the difficulty of speaking about the early Church in relation to our conception of ethics without relating it to virtue. Also for another attestation to the vastness of St. John's writings and their socioethical implications, see Brian J. Matz, *Patristics and Catholic Social Thought : Hermeneutical Models for a Dialogue*, Catholic Social Tradition (Notre Dame, Indiana: University of Notre Dame, 2014), 47-48.

18. Gregory, *On God and Christ : The Five Theological Orations and Two Letters to Cledonius*, trans. Frederick Williams and Lionel R. Wickham, Popular Patristics Series (Crestwood, N.Y.: St. Vladimir's Seminary Press, 2002), 27.
19. For a notable synopsis of early Church exegesis and insight into its difference with contemporary methodologies and interpretations, see John J. O'Keefe and Russell R. Reno, *Sanctified Vision: An Introduction to Early Christian Interpretation of the Bible* (Baltimore: Johns Hopkins University Press, 2005).
20. Basil, *On the Holy Spirit*, trans. David Anderson, Popular Patristics Series (Crestwood, N.Y.: St. Vladimir's Seminary Press, 1980), 20.
21. Ibid., 99.
22. For an explanation of why in the early Church all things were considered "ethics," see Cardman, "Early Christian Ethics," 936. There were little to no second-level reflections on ethics as ethics as we understand it today. The aim of teaching and of most ecclesial rhetoric was to exact change and persuade one's listeners to further virtue and character development.
23. Walter Sinnott-Armstrong, "Aristotle's Ethics," in *The Stanford Encyclopedia of Philosophy* (2014).2001</edition><dates><year>2014</year></dates><urls><related-urls><url>http://plato.stanford.edu/entries/consequentialism/</url></related-urls></urls></record></Cite></EndNote>
24. This is my boiling down of Joseph Woodill's understanding of Orthodox ethicicst Stanley Harakas' portrayal of Orthodox ethics in Stanley S. Harakas, *Living the Faith: The Praxis of Eastern Orthodox Ethics* (Minneapolis, MN: Light and Life Publications, 1992). In a sense, this final stage of "being" is what I refer to above as a formed ethical agent that is the result of virtue ethics. The point here is that a Patristic virtue theory's emphasis on being as greater than simply doing is in line with a shift away from the focus on actions alone and towards a focus on the virtuous habituation of people able to utilize a more encompassing method beyond the systems that create ethical stalemates. This encompassing method can be seen clearly in David F. Kelly, Gerard Magill, and H. ten Have, *Contemporary Catholic Health Care Ethics*, 2nd ed. (Washington, DC: Georgetown University Press, 2013), 90-92. Also, a helpful discussion of these systems, their problems, and suggested solutions can be found in Cahill, *Theological Bioethics : Participation, Justice, and Change*. See endnote 5.
25. James R. Thobaben, *Health-Care Ethics: A Comprehensive Christian Resource* (Downers Grove, IL: IVP Academic, 2009), 294.
26. Ibid., 295.
27. Fiona Randall and R. S. Downie, *End of Life Choices : Consensus and Controversy*, 1st ed. (Oxford; New York: Oxford University Press, 2010), 186.
28. Ibid., 185-206.
29. Thobaben, *Health-Care Ethics: A Comprehensive Christian Resource*, 291.
30. Ibid., 415.
31. Iona Heath and John Berger, *Matters of Life and Death: Key Writings* (Oxford: Radcliffe Publications, 2008), 34-35.
32. Lukas Ohly, "The Metaphysics of Mercy Killing" (paper presented at the Balamond Theological Conference Balamond, 2012), 42.
33. Randall and Downie, *End of Life Choices: Consensus and Controversy*, 198.
34. Ohly, "The Metaphysics of Mercy Killing," 76. In this lecture, Ohly calls for a paradigm shift from the insistence on a non-metaphysical premise when discussing end-of-life care to a concession that metaphysics is inherent and necessary to this discussion. This shift is important especially when discussing Patristic texts but is beyond the scope of this project.
35. Florovsky, *St. Gregory of Nyssa*, 7.

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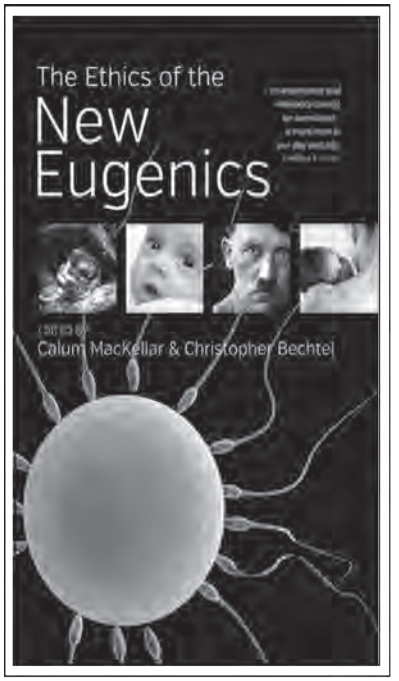

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Strategies or decisions aimed at affecting, in a manner considered to be positive, the genetic heritage of a child in the context of human reproduction are increasingly being accepted in contemporary society. As a result, unnerving similarities between earlier selection ideology so central to the discredited eugenic regimes of the 20th century and those now on offer suggest that a new era of eugenics has dawned. The time is ripe, therefore, for considering and evaluating from an ethical perspective both current and future selection practices. This inter-disciplinary volume blends research from embryology, genetics, philosophy, sociology, psychology, and history. In so doing, it constructs a thorough picture of the procedures emerging from today's reproductive developments, including a rigorous ethical argumentation concerning the possible advantages and risks related to the new eugenics.

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An Aristotelian-Thomistic Moral Analysis of Two Cases of Medical Induction for Previable Infants

RENEE MIRKES, OSF, PHD

Here, I analyze the moral object of the act of medical induction of a previable infant according to the Aristotelian-Thomist moral rationale articulated by Father Martin Rhonheimer in *Vital Conflicts in Medical Ethics*.[1]

In the book's preface, Rhonheimer shared important background information:

> This wide-ranging study was drafted for the Roman Congregation for the Doctrine of the Faith and completed and submitted to the Congregation in 2000. After it was carefully studied in the Congregation and by its then prefect, Cardinal Joseph Ratzinger, the Congregation in turn asked that it be published, *so that the theses it contains could be discussed by specialists.* [italics mine]

This CDF directive inspired the goal of my ethical analyses of the following OB cases.

I. First Case: Pregnancy following peripartum cardiomyopathy (PPCM+P)[2]

A 23-year-old woman developed peripartum cardiomyopathy. This is a rare condition in which the walls of the heart are damaged so that the heart cannot pump blood effectively through the body. The condition develops during the peripartum period, during the last months of pregnancy or within several months after delivery, and its cause is unknown.

The patient was placed on standard medications to control the myopathy, and was advised not to become pregnant again, since another pregnancy would exacerbate her condition and entail a significant risk of death.

The patient subsequently became pregnant, and had significant shortness of breath when seen by her obstetrician at six weeks gestation. Her obstetrician referred her to a maternal-fetal medicine specialist (MFM) who suggested adjustments to her medications. These changes successfully controlled her symptoms, and it was thought the mother could safely carry the baby to viability if not to term.

To be safe, the MFM specialist referred the mother to a cardiologist, and she underwent a chemical stress test (dobutamine echocardiogram) to evaluate the ability of her heart to function under the strain of the progressing pregnancy. During the test, she experienced ventricular tachycardia (rapid heartbeat), shortness of breath, cardiac ischemia (restricted blood flow to the heart), and test intolerance such that she could not finish the test safely.

The test results confirmed the cardiomyopathy and showed the mother's risk of death was greater than 93 percent. The medical literature recommends termination of the pregnancy when the mortality risk is so high.

The patient sought a second opinion from three more cardiologists and another MFM specialist. All agreed on the severity of her condition, and all agreed that no treatment changes would improve her prognosis. All the physicians concluded that an attempt to carry the pregnancy to viability would result in the death of the mother as well as the death of the baby.

I-A. Analysis of the morality of the act of medical induction[3] in the pregnancy following cardiomyopathy (PPCM+P)

The PPCM+P described here is a vital conflict[4] case: an example of a high-risk obstetric case *in extremis* where the previable child is lost in any case but at least the mother can be saved. This extreme situation leaves the doctor with only two options: do nothing, and lose both mother and baby, or intervene immediately by ending the pregnancy with a medical induction of labor and save the only life that is savable, that of the mother.

The moral question the OB faces in resolving the conflict or dilemma of *only* being able to save the mother's life is this: Is doing nothing—permitting both mom and baby to die—a morally acceptable act of omission? Or: Is performing a medical induction—saving the mother by means of a physically direct act of killing the baby (in the sense of physically causing the baby's death)—a morally good action?

Here are the subsidiary questions that the attending OB would have asked himself before he decided to save the mother's life through a medical intervention:

- What is the only way I can save the mother's life in this PPCM+P?

  Answer: To deliver the pregnancy.

- What specific method of delivery will accomplish that, given the gestational age of the baby?

  Answer: A medical induction.

- Is my physically direct act of killing the baby in a medical induction also morally direct? That is: Is the delivery of the pregnancy in the medical induction an act of direct abortion or murder?

  Answer: In delivering the baby by a medical induction, I am performing a single act that has two effects: the *unintentional* or non-intentional *physical effect* which lies outside my will—the death of the baby—and the *intentional* or willed *moral effect*—saving the mother's life—which, because I will it, decisively specifies the medical induction as a morally good action. Therefore, I am morally justified in using a medical induction to deliver my patient's pregnancy.[5]

In other words, the doctor is justified in doing the medical induction because he understands that what he directly (*deliberately, intentionally*) chooses to do in the medical induction is the good act of *saving the life of the mother.* While what lies outside his will—the death of the baby—is what happens merely *per accidens,* even

though the doctor is deliberately doing or causing it, as the *unintended consequence* or *effect* of his intentional life-saving act. The death of the baby, the prevention of its continued existence, is *not* the means the doctor chooses to save the mother, and, therefore, the doctor's will is *not* a life-negating or unjust will.

Stated differently: The moral object of the *intentional act of medical induction—delivering the previable baby to save the mother*—specifies the exterior act—the physically direct act of killing or causing of the baby's death through medical induction—as a good or just act: an act of saving life.

Objective proof that the death of the baby is an unintended effect, rather than the object of the medical induction, is the constellation of medical facts in this vital conflict case. At 10-12 weeks gestation, the baby's life is un-savable: the pre-viable infant cannot survive outside its mother's womb; *only* the mother's life is savable. Therefore, *because the baby's death can no longer be an object of choice, killing the baby cannot be the reason why the doctor does the medical induction*: the doctor's physical act of medical induction is *not informed by the choice to let the mother survive instead of the child*, but *is informed*, only and alone, *by the choice to save the mother.* Which is to say, Rhonheimer answers the question "Why is saving the mother rather than the death of the baby what the doctor intends in the act of medical induction?" with:

> Precisely because the *will* of the doctor, as a will that *chooses a means*, is not aimed at the death of the fetus, but exclusively at a treatment that saves the mother. But it is not in fact entirely opportune to say that the [doctor's] will is aimed "indirectly" at the fetus. Rather, it is *not* aimed at the fetus at all. Simply put there is *no* direct [moral] killing of the fetus here at all.[6]

In the case of PPCM+P, since causing the death of the baby in the medical induction, despite it being a physically direct act, is not the *reason why* the doctor does the medical induction, the death of the baby is accidental to his will. In short, the direct character of the act of delivery (the physical expulsion of the fetal body) is *not* what morally specifies the medical induction; only if the doctor would do the physically direct act of medical induction *with the intent to kill the baby* would the delivery be an act of moral killing.

In other words, the physician's action of medical induction, while it admittedly causes the death of the fetus, does not involve a decision to deprive the child of its life or the choice to kill the baby as a means to an end, and, therefore, the medical induction is not a direct or an induced abortion. Furthermore, in the vital conflict case under scrutiny, for the doctor to say he is intentionally doing the medical induction to kill the baby would be to contradict the reality of the medical facts on the ground.

It is of utmost important for our discussion here to reflect on the reason why not every physically direct act of killing (or why not every physically direct act of causing death) is murder. The act of killing a human being is absolutely forbidden (1) in the sense that one may never *will* or *choose* to kill another as a means or as an end, but *not* (2) in the sense that one may never, given appropriate circumstances, cause a death. As Aquinas teaches (*ST* II-II, q. 64, art 7, sed contra), neither the physically direct act of killing in a *just* war (where, today, the aggressor might be blown apart by a drone missile) nor the physically direct act of killing in *just* capital punishment (where, today, the criminal's entire body is destroyed by a lethal injection) is murder

or a violation of justice. Hence, it is not the physical directness of the destruction of the baby's body in the medical induction or that of the combatant's body in the war bombing or that of the criminal's paralysis, suffocation, and cardiac arrest in lethal injection that morally specifies their respective physical acts of killing.

It is the just intentionality with which the respective agents (doctor, soldier, public authority) do what they are doing—to save the life of the mother by delivering the baby or to restore justice either through just collective self-defense or through punishment—that defines the morality of the physically direct act of killing in medical induction, in war, and in capital punishment, respectively.

In other words, the directness and ferocity of these physical acts of killing do not essentially alter the reality that their lethal physical effect—death of the baby, the combatant, and the criminal—lies *outside*, not within, the respective wills of the doctor, soldier, or public authority.

To sum up: the *genus moris* or moral species of the doctor's physical act of medical induction in the PPCM+P—saving the life of the mother by delivering the baby—is what definitively specifies the morality of the medical induction.

Furthermore, and very importantly, the reasonableness of specifying the doctor's act of delivery as a morally good act of therapy is substantiated by the objective medical facts of this case. First, the mother's life is the *only* life that can be saved and, second, there is *nothing* the doctor can do to save the life of the previable baby; the latter will die whether or not he intervenes. Therefore, the good of saving the mom's life is the *only* thing the doctor could objectively (i.e., reasonably) intend in his act of medical induction.

Thus, the doctor's physically direct act of killing or causing the death of the baby in the medical induction can reasonably be judged to be good in terms of it being the simple delivery of the baby to save the mother's life, that is, without considering the lethal effect of the baby's death *as the reason why* he chose to induce. Given the regrettable medical fact of this PPCM+P—the maternal cardiomyopathy kills the baby—it would be contrary to good logic for the doctor to say, "The reason I am doing the medical induction is to kill the baby." And, given the other incontrovertible fact—the only savable life is that of the mother—it makes perfect sense for the OB to say, "The *only reason* I am doing the medical induction is *to save the life of the mother*."

It is *very important* to note that the credible explanation for saying the doctor is not intentionally killing the baby is not found in some kind of *subjective* "shifting" of his intention away from the consideration that his physical action directly results in the baby's death. The credibility of the doctor's intent is dictated by the *objective medical facts of this vital conflict case* which make it *impossible* for the OB to reasonably say he is choosing the baby's death (either as an end in itself or as a means to save the life of the mother). As Rhonheimer argues:

> The death of the child can be claimed to be *praeter intentionem*, not because the intention is related solely to the removal of the pregnancy with the end of saving the mother's life, but because the intention in the action here in question *can* be directed *only* at saving the mother's life, i.e., because the removal of the pregnancy in this case *cannot* include any decision against the life of the child, since the child has no

> known chance of survival. **No other outcome is even in question for the child, nor can any other outcome, (i.e., saving the child) be conceived of as a rational basis for action, nor can the action be criticized as an injustice against the life of the child.** Consequently, the death of the fetus *is not chosen;* rather, it is similar to an unintentional side effect, which is to say that it is not a "direct killing."[7] [bolding is mine]

In sum, **it is objectively impossible to argue that the doctor in the PPCM+P chooses to perform the medical induction as a means to kill the baby. Only the survival of the mother can be a matter of the doctor's choice, and this choice defines the object of the intentional action of medical induction as a good, that is, a life-saving, act.**

It follows, then, that the moral object of the doctor's act of medical induction in this PPCM+P is a non-direct abortion or, to use the terminology of the *Ethical and Religious Directive*[8] #47, is a directly curative intervention. ["Operations, treatments, and medications that have as their direct purpose the cure of a proportionately serious pathological condition of a pregnant woman are permitted when they cannot be safely postponed until the unborn child is viable, even if they will result in the death of the unborn child."]

Finally, from the perspective of a currently accepted, justice-inspired Judeo-Christian medical ethic, the attending OB in the PPCM+P would view his act of medical induction as one that *conforms to* the ethical norm requiring healthcare professionals to try to save every human life that is savable. And the same doctor would view any regulation that requires him to allow mother *and* child to die, *even though he can save the mother's life*, as a *direct contravention* of that same justice-based norm.

II. Second Case: A cerebrovascular accident pregnancy (CVA-P)

Melissa, a 27 year-old woman (G3P2), is currently at 11 weeks gestation. Her first pregnancy resulted in a 28-week fetal demise, cause undetermined. She delivered a five pound baby with her second pregnancy, but suffered an acute right parietal temporal CVA (cerebrovascular accident) at 9 weeks gestation that caused speech problems and left-sided numbness and weakness. These symptoms gradually resolved after the patient was placed on therapeutic anticoagulation therapy.

Despite initiation of full therapeutic anticoagulation before the start of her third pregnancy, the patient suffered another stroke at 10 weeks gestation which resulted in speech difficulties and left-sided numbness and weakness. An extensive workup did not reveal an underlying cause other than the risk associated with the hypercoagulable state of pregnancy and the fact that the patient is a smoker.

Although the current situation could have been managed, the significant risks for additional strokes, with the possibility of permanent neurologic damage or death, prompted the patient and her doctor to decide to terminate the pregnancy with a medical induction.

II-A: Analysis/Discussion of the morality of the act of medical induction in the cerebrovascular accident pregnancy (CVA-P)

The CVA-P just described is *not* a vital conflict case where the doctor is only able to save the mother's life. Which is to say, the medical induction in this case is not a dual-effect act like that in the PPCM+P where the good of what the doctor intends, saving the mother by removing the baby, defines the morality of the act, and the bad effect—the unintended consequence of the death of the baby—falls outside the moral content of the medical induction.

The induction in the CVA case is one where, despite the fact the baby *could survive* the situation, and despite the fact the doctor, through expectant management, could save the lives of mother *and* baby, the OB decides *not* to save the life of the baby who would otherwise survive. Therefore, despite his *ulterior* motive for doing the medical induction—to save the mother's life, the doctor's *immediate* reason for choosing the induction is *to terminate the pregnancy—to kill the baby.*

Although the physically direct act of medical induction is done *remotely* for the purpose of protecting the mother, it is true to say that the sole *immediate* effect of what the doctor in the CVA-P chooses to do in his physically direct act of delivery is to *kill the baby.* And the goodness of the doctor's remote or ulterior motive of saving the life of the mother cannot reverse the evil of *what he immediately chooses to do—the immediate reason why he does* the medical induction—namely, *to kill the baby.*

For this reason, the *moral object* of the act of medical induction in the CVA-P—the choice of the doctor to do the medical induction as a means of killing the baby—also makes his physical act of killing the baby in medical induction a *moral killing*: that is, a direct or intentional act of *abortion,* an act *against justice* by dint of depriving the baby *who would otherwise survive* of its equal right to life.

Proof that the doctor commits a moral act of killing lies in the incontrovertible, objective medical facts on the ground: because the CVA is not directly threatening the life of the child, the only way the doctor could terminate the pregnancy for the sake of the mother's health is to intentionally use the act of medical induction to kill the baby.

To fully appreciate the evil of saying the doctor's act of medical induction in the CVA-P is an act of intentional abortion, we must acknowledge what that means in terms of the virtue of justice. The OB is choosing or intending to end and sacrifice the baby's life for the sake of the mother's health and survival which, in turn, means the doctor is essentially choosing the intrinsic injustice of preferring the mother's life *over that* of the baby, thereby depriving the baby of its equal right to life.

As John Paul II explains in *Veritatis splendor,* 80: While it is true to say that the object of a doctor's act of induced abortion, like that in this CVA-P, is immediately chosen *for the sake of* "ending the baby's life" and therefore, *per se,* constitutes an intrinsically evil act, it is *not* true to say that the doctor's *ulterior or remote good intention* of saving the mother's health and life *can make that intrinsically unjust act of killing good or just.*

Consequently, in the CVA-P considered here, the doctor's physical act of killing the fetus is also a moral act of killing, an intentional abortion, an act condemned by ERD 45 ["Abortion (that is, the *directly intended* termination of pregnancy before viability or the *directly intended* destruction of a viable fetus) is never permitted. Every procedure whose sole immediate effect is the termination of pregnancy before viability is an abortion."] and by *Evangelium vitae,* 57.5 ["The deliberate decision[9]

to deprive an innocent human being of his life is always morally evil and can never be licit either as an end in itself or as a means to a good end."], and by *EV*, 58.2 ["Procured abortion by whatever means it is carried out" is defined as "the deliberate and direct killing . . . of a human being."].

Finally, from the perspective of a Judeo-Christian medical ethic, the attending OB in the CVA-P would have to view his intentional act of killing in the medical induction as *a contravention of* the justice-based norm that healthcare professionals are required to save every human life that is savable and are prohibited from depriving one patient of his right to life in order to save another.

I-B & II-B: Background Discussion

Key questions whose answers shaped the aforesaid conclusions about the morality of the act of medical induction in the respective PPCM+P and CVA-P:

- **What are the two effects of the act of medical induction in the PPCM+P? How does its exterior, physical level (its *genus naturae*) differ from its interior, moral level (its *genus moris*)?**

Rhonheimer employs appropriate English translations for the Latin terms Aquinas uses to designate the two effects of a single act (cf. *Summa Theologiae* II-II, q. 64, a.7). For the effect that the agent wills, that is, the moral effect (the Latin: *id quod intenditur*), Rhonheimer uses the English term *intended* or *intentional* and, for the effect that is not intended, that is, the physical effect which lies outside of, or accidental to, the agent's will (Latin: *praeter intentionem/per accidens*), he uses the English terms *unintended/accidental*.

Rhonheimer argues the designation "'indirect' willing" that is used in the traditional presentation of the Principle of Double Effect is a contradiction in terms. *There is no such thing as "'indirect' willing."* Either one wills something or one does not. Although Rhonheimer concedes one could use the term non-direct instead of "indirect" to more accurately reflect the idea of *praeter intentionem* (the physical effect that lies outside the agent's intention or will), he prefers the term *unintended*. In other words, for Rhonheimer, the clearest English terms to describe Aquinas's teaching regarding the dual effects of a single act (cf. *ST* II-II, q. 64, a.7)—the moral effect the agent wills and the physical effect the agent does not will—are *intended* and *unintended*, respectively.

The moral, interior effect of the dual-effect act, on the one hand, is *intended*; the physical, exterior effect of the act is *unintended*, that is, not what the acting agent intends or wills but that which lies outside of, or is accidental to, the agent's will. Of course, the morality of a dual-effect act can only be specified as good or evil by its moral effect, by its moral object, by that which the acting agent *intends* or *chooses* as a means or as an end. The moral effect, the reason *why* the agent is doing *what* he is doing, qualifies the dual-effect act as either good or evil.

In other words, the exterior act is related to the interior act in the same manner a human being's body is related to his soul. Just as the soul of the person informs his material, physical body, making it a specific kind of body, viz., rationally intelligent and free, so the interior, moral dimension of an act informs the exterior, physical act,

making it to be a *specific kind* of human act (i.e., a *specific* kind of a rational and free act), viz., a good or an evil act.

The act of the medical induction in the PPCM+P has *two effects*: an *unintended effect*, which from its exterior, natural, physical level is *a physically direct act of killing* (causing the death of a previable baby through medical induction), and an *intended effect*, which from its interior, formal, moral level is *a maternal life-saving act*. The physical act of medical induction is morally good because that which the doctor *chooses* or *intends* both as a means and as an end in performing it—*removing the baby* [the means] *in order to save the mother* [the end]—is a morally good act. The lethal effect of the act of delivery, the death of the baby, is *unintentional* or *accidental to* the doctor's intentional life-saving act. And that which is accidental to his will—the physically direct act of killing or causing the death of the previable baby—is neither good nor bad, but simply the unintended consequence or effect of what he does intend in his life-saving act.

- **Which of the two effects of the act of medical induction in the PPCM+P is decisive in morally specifying the act?**

In *ST* II-II, q. 64, a.7, Aquinas deals with killing in self-defense and the concept that not all physically direct acts of killing are murder. The principle Aquinas sets down is applicable beyond the case of self-defense: *What lies outside the intention (praeter intentionem) of the acting person cannot morally specify an action*. The essence of this passage:

> Nothing hinders one act from having two effects, only one of which is intended, while the other is beside the intention, which is *per accidens.* Now moral acts take their species according to what is intended, and not according to what is beside the intention." [*Nihil prohibit unius actus esse duos effectus, quorum alter solum sit in intentione, alius vero sit praeter intentionem. Morales autem actus recipient speciem secundum id quod intenditur, non autem ab eo quod est praeter intentionem, cum sit per accidens.*]

In the first sentence of this quote, the mention of a human act—"one act"—refers to *the physical act* (the physical effect or object) that *characterizes a human action of killing in a purely exterior way* (e.g., the act of a more or less well-aimed gunshot or, in Aquinas's time, perhaps a stab with a sword or a lance or, in our day, an immediately lethal act of medical induction in the PPCM+P and the CVA pregnancy, respectively) and *not yet* to the human or intentional act.

Aquinas answers our immediate question—which of the two effects of the physical act of medical induction is decisive for the species of the act viewed as a moral act—by arguing: *only the effect of the act which the agent intends* is morally decisive, not the effect which is *beside the agent's intention* (*praeter intentionem*) or *incidental* (*per accidens*) *to* the agent's intention. In the second sentence, "*Morales autem actus recipient speciem secundum id quod intenditur,*" the term "*actus*" refers to *the moral act* (the moral effect or object), the human act viewed according to its moral species (the *morales actus*).

To repeat: The principle set down by Aquinas in *ST* II-II, q. 64, a.7 teaches that acts are defined, informed, or specified by their moral species, that is, by that which is willed or intended on the level of both the end and the means, and *not by* what

is *praeter intentionem* or *per accidens* and occurs as the immediate effect of the intentional action. *Such an occurrence is, therefore, no longer the content of (the object of) the agent's action but an accidental event (per accidens accidit).*

In the PPCM+P, the moral object of the doctor's intentional act of medical induction—the good of what he intends both as a means and an end—is to deliver the pregnancy (the means) in order to save the mother's life (the end). In other words, the reason he does the medical induction is to save the mother's life, not to kill the baby. The death of the baby is simply the unintended consequence of his intentional maternal life-saving act; it is that which *occurs* as the immediate effect of the doctor's intentional act of delivery and, therefore, not that which is a part of the moral content of what he wills.

We must not lose sight of the fact that *the occurrence of the death of the baby is no longer the content of the doctor's act of delivery but its accidental effect.* Since the physical effect of killing the baby does not morally define the object of the act of delivery, the doctor's chosen means can legitimately be described as "removing the baby" or "delivering the pregnancy" rather than "killing or dismembering the baby."

As Rhonheimer explains:

> Human actions are not simply physical events that are causally stimulated or otherwise brought about by agents. Precisely the same holds for the so-called "object" of actions. …the objects of human actions are not "things," but rather activities, types of behavior. Thus, even in the classical manuals, which were oriented to St. Thomas, the object of "theft," for example, was not defined simply as *res aliena* (something belonging to another), but as *ablatio rei alienae* (taking a thing belonging to another), and thus as an action. The objects of actions must be indicated with verbs rather than nouns (*Vital Conflicts*, p. 53).

The "object" of the act of medical induction in the PPCM+P, then, is not simply the fetus or the fetal body. Therefore, even if the death of the fetus is caused immediately, *in a physical sense*, by the pharmacological intervention of the medical induction, one can still pose this question:

- **Is the object of the act of medical induction in the PPCM+P the intentional killing of the fetus with the purpose of saving the mother? Or, is the *whole act* to be viewed, regarding its object, as a maternal life-saving medical intervention?**

To answer this question, one must put oneself in the perspective of the acting person, and analyze precisely what the doctor actually *chooses* on the level of the concrete act of medical induction and not simply *what happens physically in*, or is *causally stimulated by*, this act.

As soon as the doctor *chooses* the action of medical induction, we cannot escape describing it as an object of reason, which again entails understanding it as a purposeful, intentional action oriented toward an end. Defining the act as a human act is only possible within an ethical context, a context through which the act can be grasped not only in its *genus naturae* or natural species but also in its *genus moris* or moral species.

Rhonheimer argues:

> Human acts are, according to Aquinas, acts proceeding from a deliberate will (the rational appetite . . .). This is why "moral objects," i.e., what morally specifies a human act as this or that kind of human act, are to be considered as objects of the will; they are the "proximate end" of an act of choice. The choice, informed by reason, refers (even if not in all cases) to *a describable external behavioral pattern*, which itself is a kind of "doing." This kind of doing, *conceived and ordered by reason* and presented to the will as a good, is what morally specifies the choice and the action performed on the basis of this choice.[10] [emphasis mine]

If one does not want to limit the definition of the act of induction in each OB case to a purely physical event or "a describable external behavioral pattern" or a physically direct act of killing, one must demonstrate *that through which* the doctor's act of medical induction becomes *this* kind of *human or intentional action*—that is, one must describe the *genus naturae* or natural species of the medical induction according to its *genus moris* or moral species.

The species or object of the physical act of medical induction in the PPCM+P—by virtue of the good intentionality of *both* its means and its end: delivering the pregnancy (the means, the "what") in order to save the mother's life (the end, the "why")—is morally good. And it is accurate to describe the doctor's choice of means as "delivery of the pregnancy" or "the removal of the baby" rather than "the killing of the baby" because the death of the baby is not *the reason why* the doctor does what he does, the medical induction; *saving the mother's life is the reason he delivers the pregnancy.* The baby's death, then, is the unintended consequence or accidental effect of his intentional *life-saving act of delivery.* The death of the baby falls back into the mere *genus naturae* of the moral (intentional) action of "saving the life of the mother."

It follows that what the doctor *chooses as a means* of saving the mother's life can be described apart from its unintended lethal effect as simply that of *delivering the pregnancy* or *removing the baby.*

- **How does the physical object of the act of medical induction in the CVA-P differ from its moral object? And which effect is decisive in morally specifying the act?**

The *physical object or effect* of the medical induction in the CVA-P is the physically direct destruction of the life of the 11-week-old baby. However, since the violent destruction of the infant could also be realized by an earthquake or by a computer-guided drone missile, the physical act of killing the baby is not yet qualifiable in a moral sense. And even when, as in these OB cases, the direct physical destruction of human life is done by human beings, their physically direct act of killing is not *in every case* a violation of justice or the deprivation of another person's right to life. For instance, the physical destruction of life in the respective cases of killing in a just war and capital punishment do not violate but restore justice and, therefore, do not constitute moral killing or murder. Similarly, the physical directness of the medical induction in the CVA-P is *not* the decisive criterion to judge whether the doctor also chooses the physical act of killing the baby in a moral sense.

What *decisively* defines the morality of the act of medical induction in the CVA-P is its *moral object or effect*—the doctor's *intent* or the sole, immediate reason why he does the medical induction. The only immediate *reason why* the doctor in

the CVA-P chooses to perform the medical induction is to kill the baby. It cannot be said the physician does the induction to save the mother's life because, even though the mother's life may be in some danger, the likelihood that the CVA would kill both the mother and the baby before the baby is viable would be small. Hence, the evil intentionality of the doctor's act makes his choice of the physically direct act of killing in the medical induction an act of moral (i.e., direct) killing, that is, an evil act that is against justice. By preferring the life of the mother over that of the baby *who would otherwise survive*, the doctor deprives the preborn of case #2 of its equal right to life. And, even though the doctor has the good remote motive of securing the health and life of the mother, the goodness of that further intention cannot expunge the intrinsic evil of his moral act of killing.

- **Is the object of the act of medical induction in the CVA-P the killing of the fetus with the purpose of saving the mother? Or is the *entire act* to be viewed, regarding its object, as a direct abortion?**

The act of delivery in the CVA-P is *not* a dual-effect act where the immediate intent of the doctor's act of induction is to save the mother's life and the death of the baby is the effect that lies outside his will. In the CVA-P, the sole, immediate reason the doctor chooses the act of medical induction is to kill the baby (that is, to terminate the pregnancy, to deprive the baby of his life). This evil intentionality specifies the physically direct act of medical induction as an act of direct abortion, an act of direct [moral] killing. The fact that the doctor does the medical induction with the ulterior or *remote* good end of saving the mother's life cannot erase the *immediate* evil of his intentional act of killing.

- **Does the act of a medical induction in either the PPCM+P or CVA-P violate the right to life of the preborn baby?**

A physically direct act of killing a baby is moral killing *only* when it violates justice. Thus, we must analyze the physical act of killing in a medical induction, however physically direct it may be, in its relation to the ethical context of the virtue of justice: Does the act of induction deprive the baby of what is due to him, that is, his right to life?

The delivery in the PPCM+P does not violate justice because it is impossible to deprive an unborn baby who has no prospects for survival of its right to life. In respect to the death of the fetus, there is no longer any willing needed: the baby will die in any event, whether the doctor chooses to do nothing or whether the doctor chooses to intervene with a medical induction. Therefore, in the PPCM+P, the doctor, in his act of delivery by medical induction to save the mother's life, is not, and cannot be, preferentially choosing to save the mother's life *over* that of the child's. The physician cannot intend to physically cause the death of a baby whose life is already judged to be non-savable. The physical action of killing through inducing premature birth is intentionally characterized *only* by the physician's will to save the mother's life.

On the contrary, the medical induction in the CVA-P—with its *direct intent to kill the baby who* ***would otherwise survive***—does violate justice: the doctor, in his medical induction, is preferentially choosing the mother's life over that of the child and, in so doing, deprives the baby of its equal right to life.

- **How can one argue the doctor in the PPCM+P is *not* intentionally killing the baby when he is very consciously and deliberately giving the meds that expel the body of the baby from the mother's uterus?**

It is clear the lethal removal of the baby in the medical induction is something the doctor in the PPCM+P deliberately and consciously does with full knowledge that the act will immediately cause the baby's death. But to say "the doctor consciously does the act of medical induction which foreseeably kills the baby" is not at all the same thing as saying that "the doctor consciously does the medical induction *with the intent to kill the baby*," in the sense that *killing the baby is the reason why he chooses to do the medical induction.*

The confusion originates from the failure to distinguish between "what is intentionally done" and "*what is intended* in what is intentionally done." In the first sense of the term, "intentionally" doing something means nothing other than doing it *on purpose and knowingly.* The physician in the PPCM+P is certainly doing the medical induction on purpose and knowingly, and the doctor also knows full well the immediate lethal effect he will bring about in purposefully doing the medical induction. Yet saying, "the doctor purposefully brings about the death of the baby" is *not* the same thing as saying, "the doctor *intends* the lethal effect of killing the baby." Nor is saying, "the doctor brings about or causes the baby's death" the same thing as saying, "the reason the doctor purposefully removes the baby is to kill it."

In other words, the question of what the doctor is really doing (directly willing) in the act of induction in either case under scrutiny cannot be deduced by viewing the act of induction from its natural species, that is, from the physical level of killing the baby which the doctor causes as a result of doing the induction. To know what the object of the act of induction is, we have to ask: What is "the good thing to do" that the doctor's reason proposes to his choosing will when presenting the delivery (or destruction) of the baby's body?

According to Rhonheimer: In vital conflict cases (like that of the PPCM+P), the practical good the doctor's reason presents to his will is not that of destroying the baby's body (killing the baby) but rather that of delivering the pregnancy or *removing the baby from the mother's womb.* That removing the baby causes the death of the baby *does not imply* that the natural effect of the baby's death is *the reason for which* he removes the baby. In other words, in the PPCM+P discussed here, *the doctor's choice* to remove the baby is *not* involved in the physical act of destroying the baby's body through a medical induction.

In the PPCM+P, the doctor performs the medical induction within a vital conflict situation and does it *in extremis*, that is, as an emergency intervention after exhausting all efforts to save both mother and baby. Simply, and sadly, put: the baby's life is unsavable and, therefore, doomed. As such, the doctor performs the medical induction *without having a will to end the baby's life* and that "lack of the will to kill the baby" informs his rationale for causing the baby's death, *despite* the fact he knowingly ends it. For this reason, the baby's death can be considered *praeter intentionem* and explains why *physically causing* the baby's death is *not* to be considered a *direct killing* in the sense of *EV, 57,* which describes "the direct and voluntary killing of

an innocent human being" as "the deliberate decision to deprive an innocent human being of his life . . . either as an end in itself or as a means to a good end."

And, following the Thomistic principle that the *genus moris* specifies the object of the physical act, we can then conclude that the *moral species* of the doctor's physical act of medical induction in the PPCM+P—delivering the pregnancy to save the mother's life—defines the medical induction as a morally good action.

In the CVA-P, where the doctor does the medical induction *with the sole, immediate intention of killing the baby*, the *genus moris* defines his physical act of medical induction as a morally bad action.

- **How should the Principle of Double Effect (PDE) be used to evaluate the morality of the intentional act of medical induction in the PPCM+P?**

- Only after one has fulfilled *the first criterion* of the PDE [*The act itself must be morally good or at least indifferent.*] as we have done here, viz., specified the act of medical induction in the PPCM+P as a morally good act of saving the mother's life, can one use its other criteria to verify that conclusion:

- criterion #2: [*The agent may not positively will the bad effect but may merely permit it.*] The doctor intends (i.e., wills) the good effect of removing the baby to save the life of the mother but does not intend the bad effect of the baby's death. As the unintended effect or consequence of the doctor's good act of saving the life of the mother, the baby's death lies outside of, or is accidental to, the doctor's intent. (Therefore, the physically direct act of killing in the medical induction is *not* also an act of moral killing.)

- criterion #3: [*The good effect must be produced directly by the action, not by the bad effect.*] The doctor does not choose the act of killing as the means of saving the mother's life; the doctor chooses to deliver the pregnancy as the good or reasonable means of saving the life of the mother.

- criterion #4: [*The good effect must be sufficiently desirable to compensate for the allowing of the bad effect.*] The doctor considers saving the life of the mother a proportionately serious reason to physically cause the baby's death.

Endnotes

1. *Vital Conflicts in Medical Ethics*, Washington, D.C.: The Catholic University of America Press, 2009.
2. This case, presented by a colloquium organized by Ascension Health, was analyzed in "Medical Intervention in Cases of Maternal-Fetal Vital Conflicts: A Statement of Consensus," *National Bioethics Quarterly*, 14.3 (Autumn 2014): 477-489. The case analyzed by the colloquium—and used here—is based on an actual case in which the mother's risk of mortality was about 50 percent. The colloquium authors admitted to raising the maternal mortality rate to 93 percent "for the sake of argument." My Rhonheimerian evaluation of this case, while it agrees with the conclusion of the consensus authors—it is morally acceptable to induce labor in PPCM+P,

diverges substantively from the latter in the way I argue to my conclusion. I invite readers to study the NCBQ article and mine and decide for themselves which discursion makes the most sense both medically and ethically.

3. Medical induction is the pharmacological stimulation of uterine contractions to deliver a pregnancy at any gestational age. The online physician resource, *UpToDate*, which relies on the most current clinical data from medical literature, defines medical induction thus: "Misoprostol administration in pregnancy induces cervical effacement and uterine contractions at all gestational ages, thereby facilitating uterine evacuation. The potency of misoprostol's effect, however, varies with gestational age, as well as with route of administration, dose, dosing interval, and cumulative dose." [http://www.uptodate.com/contents/misoprostol-as-a-single-agent-for-medical-termination-of-pregnancy?source=search_result&search=medical+induction&selectedTitle=1%7E150] Although not specified, I would estimate the gestational age of the previable infant in the first case to be within the 10-12 week period.

4. The common *assumption* behind the term "vital conflict" is that of a contest between two innocent human lives which requires the doctor to choose "either mother *or* child." Rhonheimer points out that, in vital conflict cases (like the PPCM+P under scrutiny here) where both "mother *and* baby" would most probably die as a result of doing nothing, but the mother could be saved through medical intervention, *there is no situation of conflict* in the sense that the doctor *should not be conflicted over choosing* "either the mother *or* the child." There is, after all, *only* one life that can be saved. Hence, when the doctor chooses medical induction in the PPCM+P, he does not choose to kill the child, but only to save the mother.

   However, by rejecting the option of expectant management, the doctor in the CVA-P does treat the case as if it were an "either mother *or* child" situation, *as a situation of conflict*. And, despite the fact only the mother's life is threatened by the CVA, the doctor decides to neutralize the threat to mom by terminating the baby. So, in his choice of a medical induction, the doctor in the CVA-P *does prefer* the mother's life over that of the child. In short, he resolves the perceived conflict by deciding in the mother's favor.

5. An important footnote to the doctor's conclusion: Given that Aquinas's notion of *praeter intentionem* implies justification through exculpation, the fact that the doctor in the PPCM+P has caused, *not willed or intended*, the death of the baby also means the doctor bears no moral responsibility for the death of the child.

6. *Vital Conflicts, p. 52.*

7. Ibid., p. 125.

8. The *Ethical and Religious Directives for Catholic Health Care Services* are concerned primarily with institutionally based Catholic health care services. They address the sponsors, trustees, administrators, chaplains, physicians, health care personnel, and patients or residents of these institutions and services. Since they express the Catholic Church's moral teaching, these Directives also will be helpful to Catholic professionals engaged in health care services in other settings. The moral teachings that are professed here flow principally from the natural law, understood in the light of the revelation Christ has entrusted to his Church. From this source the Church has derived its understanding of the nature of the human person, of human acts, and of the goals that shape human activity.

9. Rhonhemier points out that, with these formulations of *EV,* the act of "direct killing" or "direct (procured) abortion" is defined as an "intentional action," i.e., "it is defined without reliance on physical categories and independent of those elements of acting that exist *in the purely physical dimension of the act of killing.* Indeed, these are unsuitable for grasping the distinction between 'direct' and 'non-direct.'" *Vital Conflicts,* p. 34.

10. "*The Perspective of Morality* Revisited: A Response to Steven J. Jensen," *American Catholic Philosophical Quarterly* 87.1 (2013) p. 172 (emphasis mine).

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Book Reviews

Should We Live Forever? The Ethical Ambiguities of Aging

Gilbert Meilaender. Grand Rapids: William B. Eerdmans, 2013.

ISBN 978-0-8028-6869-5, 121 pages, paperback, $18.00.

Is there any reason why Christians should not condemn contemporary attempts to indefinitely extend life by forestalling aging as anything but narcissistic? We ought not rush to conclusions too quickly, warns Meilaender, for he rightly notes that if life is a gift from God then there is nothing intrinsically wrong with wanting more of it. Indeed, Meilaender—somewhat to his own surprise—suggests that the desire for an indefinitely extended life might be rooted in the virtue of love. At the same time, however, he observes that if there is a good reason not to try, it must come from the realization that no amount of "more of the same" can quench the heart's desire, for we have been made by God and *for* God, who alone (per Augustine) can "catch the heart and hold it still." (19) What we need, asserts Meilaender, is a fuller conception of what it means to be human, which includes a richer account of love.

In the remainder of the book, he takes up the question of life extension, mindful of this theological tension, displaying his typical intellectual gregariousness by engaging the best thinkers across the philosophical, scientific and literary traditions in an unhurried, though somewhat quixotic way. In the first three chapters Meilaender considers whether or not slowing aging is a worthy human enterprise, a question which requires a good deal of reflection on what it means to be human, including what our aim(s) should be, aims that science, for all its usefulness, cannot provide. In Chapter 3 he critiques common philosophical objections to indefinite life: Wouldn't an unending life eventually be overrun with boredom? Would the unending process of learning exhaust our intellectual capacities to engage life? Aren't the virtues themselves animated by human finitude? Here Meilaender engages these concerns on the human plane, so to speak, before concluding that there is no abstract vision of immortality that can guide us, much less metaphysically neutral ground from which to evaluate such claims. Reflecting however on aging from within the Christian tradition offers no respite from deep ambiguities, notes Meilaender. Indeed, when considered in light of the Beatific vision where love finds its ultimate fulfillment, we are left with the tension between pursing an indefinitely prolonged life with its possibilities for the cultivation of love and delight yet devoid of any clear shape or form, or we learn to love a life whose limits give it shape and form but which must inevitably come to an end.

In the final three chapters Meilaender considers the three virtues of "generativity," patience, and the notion of a "complete life" within this tension. Chapter four, which considers how indefinite life might impact our need to produce children, is perhaps the least satisfying. Though Meilaender may be generally right to argue that an indefinite life greatly reduces the need to have children, the reader may not be as convinced as Meilaender that the whole point of life extension is to avoid being replaced by our progeny. The final chapter is perhaps the best, where he takes up the concept of a whole life, revisiting the tension between the desire for "more life" and the notion of a "complete life." Here Aristotle, Augustine, and Barth prove excellent dialogue partners in deepening this tension. This chapter alone is worth the price of the whole book.

Some readers might be frustrated by Meilaender's unwillingness to resolve the tensions inherent to aging from a Christian perspective, while others may find themselves wanting to hear more explicit theology—whether, or to what degree, for instance, the doctrine of sin might muddle his focus on cultivating the virtue of love or somehow distort our desire for more life. Nevertheless, Meilaender's work frames aging exceptionally well, while

bringing his characteristic depth with his rare economy of words. This book is useful for those who think they understand the issues surrounding aging, but will perhaps be more deeply appreciated by those whose do not, and are willing to wrestle with deep ambiguity.

Reviewed by Todd T. W. Daly, PhD (Theological Ethics), who is an Assistant Professor of Theology and Ethics at Urbana Theological Seminary in Champaign, Illinois, USA, an associate fellow at the Center for Bioethics and Human Dignity in nearby Deerfield, Illinois and has served as an inaugural fellow of the Paul Ramsey Institute. He currently resides in Champaign, Illinois, USA.

Reproductive Medicine and the Life Sciences in the Contemporary Economy: a Sociomaterial Perspective

Alexander Styhre and Rebecka Arman. Surrey, England: Gower Publishing Limited, 2013.

ISBN 978-1-4094-5350-5, 232 PAGES, CLOTH, $119.95.

Our lives are so intimately embedded in a multiplicity of institutional structures that we seldom consider the nature or source of those structures. *Reproductive Medicine and Life Sciences in the Contemporary Economy: a Sociomaterial Perspective* by Styhre and Arman is an attempt to deconstruct and analyze one such structure--reproductive medicine--according to organizational theory. While their analysis of this limited area of medicine may be applicable to contemporary medicine in general, its pragmatic usefulness is questionable.

This book was part of a broader study that explored the commercialization of the life sciences. For this portion of their research, an observational case study methodology was utilized in which interviews were conducted with administrators, employees, and patients of 3 public and 4 private in vitro fertilization (IVF) clinics in Sweden, approximately half of the clinics in that country. The goal of this study was to understand the historical evolution and current organization of IVF clinics in Sweden, and the sociomaterial forces involved in their development. The authors do not specifically state which organizational theory they are utilizing, but their findings suggest that a "division of labor" theory guides their evaluation. Accordingly, they divide clinics into "front office" and "back office," corresponding to the clinical and laboratory aspects of reproductive medicine. Their findings also implicitly illuminate common problems with division of labor theory in a capitalistic society: lack of creativity, monotony, and lack of mobility. While they do not extend their findings to medicine in general, such division of labor is readily observable in the organization of contemporary health care into its clinical and laboratory branches.

The book was not specifically Christian, although it made some observational statements about religious objections to areas of reproductive medicine. It was also not specifically ethical, although it did raise critical ethical questions in passing. One such issue was the subjectivity involved in the choice of the single embryo to be placed in the uterus, a choice made on the basis of the appearance of the embryo in the eye of the beholder; another was the routine, and often un-indicated, use of intra-cytoplasmic sperm injection ICSI0 with the resultant creation of a "new race" of individuals by the iatrogenic inclusion of normally excluded paternal mitochondrial DNA in the embryo. The interplay of public and private clinics in the Swedish economy, as well as the criticism of Swedish specialists for the morality of American reproductive medicine was also of interest.

The book, however, was difficult to read, lacked clarity and depth, and would appeal to a very limited audience. The syntax was clumsy (perhaps due to the fact that English was not the authors' primary language) and the writing style was tedious. Throughout

the body of the book, every statement by the authors was supported by an insubstantial quote from an interviewee that was often poorly thought out and constructed. Moreover, the authors gave no specific premise and provided no background information for those unfamiliar with organizational theory. In the final chapter, they conclude that "it was hard to draw any specific conclusions…on the basis of the study," and so they merely provide justification for their research ("extending the conversation"). Ultimately, the book seemed to affirm and restate what is already practically known and would appeal primarily to those interested in organization theory as it is applied to clinical and laboratory medicine.

Reviewed by Susan M. Haack, MD, MA (Bioethics), MDiv, FACOG, recently retired from consultative gynecology at Hess Memorial Hospital and Mile Bluff Medical Center in Mauston, Wisconsin, USA.

Covenant Medicine: Being Present When Present

David H. Beyda, MD. Phoenix, AZ: Covenant Press, 2015.

ISBN 978-0-578-16734-3, 153 PAGES, PAPER, $14.95.

Covenant Medicine is a delightful mixture of instruction, narrative, and personal experience. The author is faith-based and freely refers to the strength and wisdom he has gained from his Christian convictions, but not intrusively. Anyone can adopt and apply the principles found throughout this small tome.

The idea of a covenant relationship in medicine between doctor and patient is not new. However, is it being widely implemented today? Or, has medicine and healthcare become so commercial and contractual that the "who" is being sacrificed to the "what?" Do physicians embrace the idea that every patient has a story, a history, and dreams and goals for the future?

This book is not easily divided into sections; it takes a more spiral approach—introducing a topic, illustrating it with narrative, then moving on to a new topic before revisiting previous ones. The format brings the material to life in a practical and relevant manner—the way life unfolds.

The prologue and first chapter set the stage for the rest of the book by relaying the story of "Jeffrey"—a patient who may have gone unnoticed when everyone was concentrating on the "what" of Jeffrey, the "broken pieces," and not the "who" of Jeffrey and the dreams his parents held for him. Chapter one asks, "Who cares?" Physicians and other medical workers grapple with caring—caring not only for themselves and their families, but also caring for patients, the many "whos" they encounter on a daily basis.

The main theme of the book follows the difference between covenant and contract. Beyda emphasizes, "The covenant rests on the concept of servanthood to those who are vulnerable. The covenant brings with it mutual caring: the physician cares about the patient (to do good) and the patient cares about the physician (to trust)." (5) A covenant entails action, listening and speaking, intentionality, and commitment on the part of the physician. It also embraces certain "value principles" (15), such as asking and answering questions concerning the relationship, personal commitment ("should" versus "want"), balancing the priorities of curing and caring, and assessing the use (or overuse) of technology.

Another theme running throughout the book is the mistaken view (sometimes held by physicians or patients) that doctors are gods in white coats. Sometimes caring does not result in healing. Not everyone can be healed, but everyone can be cared for. Physicians must approach their task with humility and an honest assessment of the person lying

before them. Other topics of import include truth telling, the power of faith and religion, introducing religious conversations, and praying with patients and their families.

Beyda also contemplates the middle ground between caring and curing—that expansive territory between helping a patient get better versus helping them die gracefully with dignity. Again, this is related to the idea of covenant relationship—only after establishing a relationship with their patient can a doctor make those grey-area decisions concerning "doing something 'for' the patient or 'to' the patient." (56) The relatively new ideal of patient autonomy can fit nicely into a covenant relationship where doctor and patient share in the decision-making process. However, things like mixed loyalties (e.g., loyalty to patient versus insurance companies), time pressures, cost, and malpractice concerns can interfere.

Woven into the discussion is the idea of humanism, "An unselfish compassion for another human being that becomes a way of life." (69) Three aspects vital to covenant medicine are preventing and controlling pain, ensuring patient comfort, and maintaining a patient's dignity. This brings us back to the idea of doing something "to" a patient versus doing something "for" a patient. Beyda writes plainly, "We need to do what we should do and not what we can do." (96)

One last topic is woven throughout the tapestry of this book—quality of life. This is a difficult subject to tackle and Beyda does a fine job. The physician must recognize patients as persons, knowing the patient well in order to understand *the patient's* concept of quality of life. Nevertheless, at its base, "Quality of life is simply the ability to give and receive love. No more, no less." (114)

Like all human endeavors, this one too falls short of perfection. First, it is too short. By the time I reached the end, I found myself wanting more—more stories and illustrations of the practical implications of the ideas discussed. Second, the spiral nature—the repetition and augmentation—of the various topics woven throughout the book may cause some readers to lose interest. Until recognizing this rhetorical technique, I thought portions of the book were incomplete. Finally, and related to the last criticism, we are often left with more questions than answers. I was pleasantly surprised to find the author admitting this shortcoming. (91)

This book would be profitable for every medical and nursing student, paramedic, EMT, and bioethics student. It imparts wisdom from a pediatric physician who is honest with his past mistakes and passionate about caring for people in a way that ensures their dignity. "It is not the 'what' but the 'who' that is most important. The patient, not always the disease. The person, not always the body. We should strive to focus on the dignity of the person, and in doing so, we will find ourselves caring enough to want to cure." (152)

Reviewed by Michael G Muñoz, MEd, MAR, MA (Bioethics), EMT-B, who has worked in fire fighting for over 30 years, is adjunct faculty at Grand Canyon University in Phoenix, Arizona, serves on the Ethics Committee at Phoenix Children's Hospital, and is a doctoral student in bioethics at Loyola University in Chicago, Illinois, USA.

Innovation in Medical Technology: Ethical Issues and Challenges

Margaret L. Eaton and Donald Kennedy. Baltimore, MD: The Johns Hopkins University Press, 2007.

ISBN 0-8018-8526-4, 155 PAGES, CLOTH, $35.00.

The rapid pace of medical innovation poses complex ethical challenges. In *Innovation in Medical Technology*, Eaton and Kennedy explore the case studies and reflections from the Lasker Forum on Ethical Challenges in Biomedical Research and Practice, held in

Washington DC, on May 15 and 16, 2003. Seeking to investigate the adjoining areas of innovative clinical practice and more formal research, the forum focused on informal ways to improve the process of medical innovation, such as nongovernmental oversight, better disclosure to patients, and better collection and distribution of data.

Eaton and Kennedy seek "to provide educational material about the nature and consequences of medical innovation and to contribute to the national discourse about how the value of modern technological development in medicine can best be served." (xii) They succeed in this objective, highlighting the need to question innovation, explaining the difference between innovative practice and research, and providing a brief modern history of human research ethics.

Innovations in four areas (off-label drug use, surgery, assisted reproduction, and neuroimaging) with accompanying case studies occupy the middle of the book. In each instance, the authors summarize the necessary information about each field and then provide a case study from the forum, which includes insightful questions pertaining to the various areas of concern.

The authors focus the discussion on four core issues deemed necessary for moving the discussion forward in their final chapter and conclusion. First, they recommend that a mediating category between research and practice be recognized, since in reality much innovation occurs in contexts that do not fit the formal definitions of either one. Second, they advise a cautious approach to oversight, one that recognizes both the burdensome nature and necessity of accountability. Third, patient disclosure must truly facilitate understanding rather than providing puzzling information that only confuses the uninitiated. Fourth, medical professionals must recognize their duty to both learn and educate other practitioners by keeping systematic records of innovative changes, so that colleagues can be guided by both success and failure.

This work provides both medical practitioners and academicians of various levels of experience with a helpful overview of the complicated dilemmas surrounding innovation in medicine. Views on the topic range widely, but the authors are correct in calling for enhanced discussion and consensus building. Such discussions will only prove more difficult as innovative technology becomes increasingly attractive for enhancement, as patients are able to learn about innovation on the Internet and pursue it in unregulated countries, and as access to health insurance continues to change, affecting the availability of new techniques to the greater public.

Innovation in medical technology will continue to move forward at a rapid pace, and books such as this one will aid ethical reflection in catching—and (hopefully) keeping up.

Reviewed by Jacob William Shatzer, MDiv, who serves on the staff of the *Kairos Journal* and lives in Louisville, KY.

Understanding Beliefs

Nils Nilsson. Cambridge, MA: MIT Press, 2014.

ISBN 978-0-262-52643-2, 168 PAGES, PAPER, $14.95.

*Understanding Beliefs***,** by Nils Nilsson, is one of 19 pocket-sized books in the MIT Press Essential Knowledge series designed to be concise, expert overviews of topics that range from "the cultural and historical to the scientific and technical." This particular book, however, is illustrative of the principle that if one begins with an erroneous or restricted premise, one can only expect an erroneous or restricted conclusion.

Nilsson's background in artificial intelligence and robotics informs his writing and is reflected in the language and style of the book: curt, concise, calculating declarative sentences—robotic in style—contain no "fluff." For emphasis, eighteen "take home points" are written, individually, in large white letters on black pages and scattered throughout the short book. The perspective from which he purveys this topic are those of a self-defined non-realist and atheist: beliefs are simply constructs—models and descriptions of our world but not reality itself; beliefs about God, the soul, or other untestable entities are mere fairy tales. His appraisal of human beings is likewise reductive and materialistic, reasoning backwards from what we know to what we don't know—from computers and robots to humans. Consequently, since robots have no magical, non-physical methods for obtaining information, neither do humans. Missing is any sense of awe or wonder at our unique ability to develop or hold beliefs.

The title of the book is also a misnomer: the book is more about evaluating beliefs than actually understanding them. According to Nilsson, the only valid means for evaluating beliefs are by testing them against the opinions of (otherwise unnamed) "experts" or by the scientific method. Consequently, his attitude toward earlier beliefs is hubristic and disrespectful.

Furthermore, Nilsson provides a reductionistic definition of belief by conflating it with "information" and "knowledge," claiming that we cannot distinguish between knowledge and beliefs in any meaningful way. In so doing, he is able to extend the concept of "belief" to robots, but neglects the personal aspect of knowing which integrates information into human existence. His definition provides a shallow and inadequate base for building a thorough understanding of beliefs.

Positively, Nilsson does make a valid point about the need to critically evaluate beliefs, maintaining that our beliefs should not be immune from discussion and debate. But such debate necessarily entails a respectful and non-defensive approach by all involved, something rarely possible in our divisive culture, and something he, himself, fails to do as repeatedly evidenced by his disdainful labeling of other "untestable" beliefs as myths and fairy tales.

In conclusion, Nilsson maintains that science is the only source of knowledge about the world in which we live. But science can only provide knowledge about the "what" and "how," but for humans, as "meaning-makers," the "why" is essential and something Scripture alone can provide. Nor does science give us final answers about how the world really is but only contingent patterns and regularities that are prone to biases in our interpretations of data. As such, his book is reminiscent of JB Phillips' *Your God is Too Small*; for Nilsson, by his reliance on restricted premises, portrays that his *world* is too small, and illustrates the danger of restricting valid beliefs to those that can be empirically proven.

Reviewed by Susan M. Haack, MD, MA (Bioethics), MDiv, FACOG, recently retired from consultative gynecology at Hess Memorial Hospital and Mile Bluff Medical Center in Mauston, Wisconsin, USA.

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