

Chapter 3

NaProTECHNOLOGY and the New Humanism

Renée Mirkes, OSF, PhD

It is a combination of mystery and serendipity when what you read, sometimes a single statement, changes your life or—more modestly—changes the way you think about something. It’s as if that simple sentence manages to stop you from fixating on the individual tree so you can, finally, survey the whole forest.

The latter precisely describes a recent experience of mine. A statement issued by the Pontifical Academy of Sciences (PAS) in June of 2003¹ revolutionized the way I had formerly been thinking about **NaProTECHNOLOGY** (NPT).² The Academy (comprised of distinguished scientists from around the world appointed by the Pope) echoed a plea and a challenge that John Paul II has repeatedly extended to scientists and people of faith. “What is required more now than ever before,” the PAS urged, is “a new humanism,” a new system of thinking, believing and acting that evolves from and is nurtured by dialogue, rather than opposition, between science, ethics and faith. This, I imagine, is the apparition that forms the backdrop of the PAS statement: The “breath” of a cooperatively honed, integrated scientific worldview—best known for safeguarding “what is human in people” and for allowing us humans to “be” more³—would be capable of resuscitating our morally exhausted world.

I had originally intended in this chapter of *The Medical and Surgical Practice of NaProTECHNOLOGY* to demonstrate why NPT represents sound medical science, that is, science as it should be; science with a conscience; science that neither deifies itself nor defies faith. But then I read that simple PAS statement and realized that my original thesis was entirely too narrow and even naively myopic.

A deepened appreciation of the PAS statement unveiled the breathtaking horizons of the “expanded” thesis I needed to explore: NPT is a prolepsis of the positive societal impact of a humanistic science. In other words, it is an already existing model of reproductive health care that *anticipates* biomedicine’s role in the new humanism envisioned by the Pope and PAS membership. NPT was and is and will be a part of a much larger movement, of a more formidable objective than that of merely being an example of how faith and reproductive medicine can be in harmony. With its neo-humanist culture, NPT is, in my opinion, the flagship of natural procreative initiatives that are, even as you read, producing the “good fruit” of a truly human culture where knowledge, belief and behavior will be ordered to the good of present and future generations of the family of mankind.



To prove my thesis I want to explore with you the culture of NPT from five perspectives: the vision of its pioneer, the vision of its science, the vision of its ethics, the vision of its faith, and the vision of its ecclesial supporters. Taken together, these perspectives share one feature in common: They attest, from different points of view, how the culture of NPT is a robust response to the call for science, ethics, and faith to build a new humanism.

I. NPT: The Vision of Its Pioneer

Since the perspective of this section could be construed as gratuitous flattery on my part or a kind of blatant self-service on the part of the textbook's author, I have a suggestion for the reader. Be clear from the outset why neither construal would be justified. First, the many who know and work with Dr. Hilgers would agree with me that it is fact not flattery to argue that the positive humanistic impact of **NaProTECHNOLOGY** is all of a piece with his character. Second, that Hilgers never directed me to approach the subject from a biographical perspective—and even objected to it for fear it appear self-promotional or obscure the collegial nature of his research—definitively disproves any sort of self-service on his part.

Like every other human being, Thomas W. Hilgers has had to decide what it is that gives ultimate meaning to his life. And, just as importantly, he must then behave—that is, make choices—accordingly. And, as with every other clinician involved in research, Hilgers has had to adjudge, and then act on, what gives meaning and value to his work.

Relying on many private discussions with him over the years as well as on his published articles and lectures, I would like to reconstruct what, in my mind, constitutes this man's vision—the goals and principles by which he lives and works. And the best way to do that, it seems to me, is to highlight, first, some of his more prominent personal virtues and characteristics (those habits and attitudes that make him a good man) and, second, his intellectual skills (those habits that make him a good medical researcher). Not surprisingly, these moral and intellectual virtues frequently overlap and fertilize one another and, together, recapitulate the genuine humanism of his person and of his brainchild, NPT.

Personal Virtues

Man of Wisdom

John Paul II maintains that scientists do a good or bad job of deciding on the ultimate meaning and value of their lives depending on whether they do so with or without “the reflective depth” of “theological wisdom.”⁴

But why would John Paul make wisdom the pivotal virtue for a good scientist? The answer is found in the fact that wisdom is “the intellectual virtue which considers the highest causes” of things and above all focuses on *the* ultimate cause or God.⁵ For that very reason, Aristotle called wisdom the “first science” or the premier way of knowing and understanding everything that exists.

Being wise and acting wisely is part of the genius of T. W. Hilgers. He is, in Aquinas's definition of things, a wise man because he “systematically relates all things to God.” This is to say that Hilgers is a “consummate realist”; he

sees that as a matter of fact all things *are* related to God, and therefore he is but acknowledging the basic truth of things. The wise man sees that nothing can be adequately explained unless it is related to the first cause of all that is. He sees that nothing can even be understood in itself unless it first is understood in terms of the Being to whom it owes its being.⁶

I can say, based on exchanges with him, that he consciously works off the premise that he will never understand the meaning and the workings of the human reproductive system and of the menstrual and ovulatory cycles unless and until he reverences the mystery of the whole person, the whole patient. And, in the final analysis, he recognizes that appreciating the worth of the whole patient will only come when he views her against the person of God and his life-giving love.

Man of Humility

Dr. Hilgers' unassuming ways make you feel he's just a regular guy. And, to my mind, that impression is directly connected to the truth that he's someone who is comfortable in his own skin. He neither grossly exaggerates nor severely underestimates his abilities. He avoids the extremes of pride⁷ and immoderate self-depreciation. Describing him as a man of humility, then, is the same thing as defining him as a man of God. For, as John Paul notes, “whoever labors to penetrate the secrets of reality with a humble and steady mind is, even unawares,

being led by the hand of God, who holds all things in existence and gives them their identity.”⁸ No wonder, then, that the correct definition of humility is knowing the truth about one’s self, knowing one’s “true position with respect to God and ... neighbour.”⁹

Of the many ways that Hilgers demonstrates honest self-estimation, none is more striking than when he refers to himself as the pioneer of NPT, as a trailblazer who looks forward to the contributions of his contemporaries and those who come after him. In other words, he knows his work of ploughing, planting, and watering represents the springtime of NPT and that it will be for others to bring in its autumn harvest. Just as Hilgers’ findings are an integral part of the research that is precedent to his own, so his work will be “an integral part of the future as one whose thoughts have fertilized science.”¹⁰ One historian of science astutely observes that it is entirely appropriate “to praise the first initiator not only for what he had actually put in his [research] but also for what he had left there in potency.”¹¹

A pertinent example: Nothing pleases the pioneer of **NaProTECHNOLOGY** more than the thought that, down the line, researchers other than him will conduct the double-blind randomized clinical trials that could well be critical in winning over doubting Thomases to the merit of NPT.

Man of Long-suffering

Every time I read the passage from Isaiah that describes the Servant of the Lord as a man accustomed to suffering and infirmity (Is. 53:3), I think of Dr. Hilgers. Choose any negative response¹² you can think of—rejection, apathy, ridicule—and be rest assured that he and those associated with his work have felt its sting.¹³ The observations of Solzhenitsyn give credence to the importance of bearing up under such adversity. In describing the inequality between the freedom for excellence and the freedom for evil that typifies Western society, the political dissident makes a case for the long-suffering and strength of soul that will be needed by people who, like Hilgers, are intent on the excellence of a new humanism. “A statesman [substitute medical researcher],” Solzhenitsyn says,

who wants to achieve something highly constructive for his country [substitute his profession and his church] has to move cautiously and even timidly; thousands of hasty (and irresponsible) critics cling to him at all times; he is constantly rebuffed by parliament [substitute medical community] and the press.

He has to prove that his every step is well founded and absolutely flawless. Indeed, an outstanding, truly great person who has unusual and unexpected initiatives in mind does not get any chance to assert himself; dozens of traps will be set for him from the beginning.¹⁴

There is a resurrection side to long-suffering, of course. As Solzhenitsyn also attests, people who are no stranger to sorrow and rejection are, for that same reason, persons who oftentimes achieve “a spiritual development of such intensity” that they’re eminently able to stay the course over the long haul. What else but a strong spiritual rudder accounts for the fact that, amidst all sorts of adversities, Hilgers is cruising into his 28th year of research and still counting?

Man of Faith

Dr. Hilgers’ faith is universal (small-c catholic) because it is concrete and particular (capital-C Catholic).¹⁵ In the first place, the universal sense (or small-c catholic) that permeates his faith and, thus, the scientific culture of NPT, comprises these important facts: man has a delegated dominion over the world, and God has dominion over man. Second, he directly links his concrete and particular sense of those (small-c) universal facts of stewardship and divine providence to the greatest (capital-C Catholic) fact of history: the Incarnation, and the life-giving love that Jesus Christ came to reveal.¹⁶

So, as a specialist in reproductive medicine, Hilgers gets it; he takes the universal/parochial nature of the Incarnation as the touchstone fact of his life and his work. Practically speaking, this seminal insight inspires obedience in him. He is faithful to what is universally true and good by assenting to (and guiding his research by the light of) the particularization of that truth and goodness taught by the concrete successors to Jesus Christ, the magisterium.

This, to my mind, is Hilgers’ *modus operandi*—even if sometimes at a sub-conscious level. He thinks through the myriad of unanswered questions and yet-to-be-explored avenues of his clinical research in a manner that can only be described as thinking with assent.¹⁷ Rooted in those universally true principles of the Roman Catholic Church, he is firmly convinced that “Catholic answers can be given to such questions.”¹⁸ With Marconi (1874-1937), one of the great scientists of the 20th century, Hilgers knows that science cannot explain many things, especially, the greatest of mysteries, human existence. For that reason, he resonates with

Marconi's profession: "I believe, not only as a Catholic but also as a scientist."¹⁹

And that's precisely why, moved as he is by a combination of a feisty independence and religious conviction, Hilgers joined the small coterie of Catholic professionals who responded to Pope Paul VI's plea for the development of a science-based, moral method of family planning.²⁰ That's also why, in his infertility research, he responded to the call of *Donum Vitae*. He resisted "the temptation to go beyond the limits of a reasonable dominion over nature" and made "service of persons and of human procreation"²¹ the cachet of the medical and surgical components of his reproductive technology. He understands and believes that either the anthropological vision behind NaPro conforms to the natural truth about the human person and human procreation enshrined in magisterial teaching, or NPT is simply bad medicine and bogus science.

No one should doubt that it was his Roman Catholicism that suggested "lines of scientific investigation that would not otherwise have occurred to him."²² He realizes that the ultimate touchstone of the validity of his clinical research is its conformity with *the* Truth, Jesus Christ, and the Church that he founded.²³ And it is precisely because of the truth and validity of NPT that Hilgers is able to offer women's health care that is small-c catholic, that is, universally applicable to women everywhere.

Man of Piety

Piety sums up the "full circle effect" in which Hilgers lives the Christian life with all its demands. His is a piety that renders God his due and then radiates outward toward neighbor, rendering others their due. The faithful obedience and loving worship that he renders to God animate, and find their perfection in, his fraternal love for others. As he makes "an honest and responsible use of [his] own ingenuity and of the great and small achievements which spring from it,"²⁴ Hilgers' service of God is of-a-piece with his service of patients and professional colleagues.

Research Skills

Independence

You don't need to speak to T. W. Hilgers for any great length before you realize that his ability to think things

through—to pinpoint problems and to find solutions—is directly related to his internal freedom. He is neither a slave to medical fashion nor a cavalier iconoclast of what is worthy in traditional contemporary obstetric and gynecological medicine.²⁵ He refuses to be a sychophant to dominant mentalities of the medical community, particularly to the sometimes noxious tenets of so-called "standard of care" in early 21st century OB/Gyn. He has demonstrated repeatedly that, first, he sees through the thin façade of a politicized science and medicine promoting so-called reproductive freedom and pro-choice women's health care, second, resists what Solzhenitsyn called "the censorship of fashion," and, third, has the temerity to announce that the emperor of so-called assisted reproductive technology is stark naked!²⁶

Note well: Hilgers' freedom to seek the truth without encumbrance from ideology is an intellectual ramification following from his union with the truth of Christ and his Church. And, by the way, this stance explains why he is not shy about defending the right of other physicians and health care workers to invoke conscience clauses. He has championed their right to free exercise of religion, particularly in situations that would require their participation in morally offensive practices such as contraception, sterilization or abortion.²⁷

Energy and Care

Give me the name of the company that produces his vitamins because they, together with what *must be* a large dose of actual graces, produce energy levels that rival those of the old "Energizer Bunny" himself. It makes sense to say that the cause of the actual graces is the fact that Hilgers expends as much energy and care on the humanistic side of his research and medical practice—what JP II calls "the human potentialities"²⁸ of science—as he does on the technical.

Rigor and Intellectual Honesty

I could not give a more concise account of the intellectually rigorous way he conducts research than the one outlined by the Pope for the academic community of the University of Fribourg. "For his work to be wholly credible," the Pope says,

the researcher must for his part respect those requirements which generally derive from the logic of science itself. It means fidelity to the reality which has to be examined [for Hilgers, the human person and the human reproductive system], constant self-

discipline and freedom from self-seeking interest, readiness to cooperate, which leads to comparison of one's own results with those of colleagues, eventually even to bring them into question if they meet with competent criticism.²⁹

The same rigorous standards that must be consistently applied in scientific research are upheld in his work, especially in respect to: the collection, collation, and interpretation of data; the experimental design of the research project, and the ethical rules that govern biomedical research and its applications to clinical medicine.

Originality and Creativity

Dr. Hilgers is the first to admit that he is eternally indebted to the work of Drs. John and Lyn Billings whose prodigious research on the Ovulation Method began in 1953, and to Dr. Erik Odeblad whose research efforts had a double foci: the biophysical characteristics of cervical mucus throughout the menstrual cycle and the mapping of the endocervix.³⁰ Hilgers' originality began with the insight that standardization (uniformity of service delivery) of the Billings Ovulation Method of family planning would greatly enhance its precision and flexibility and, hence, its effectiveness in helping couples achieve or avoid a pregnancy. His originality continued as he transformed what was initially known as the **CREIGHTON MODEL** of Natural Family Planning into, first, the **CREIGHTON MODEL FertilityCare™ System** and, second, into NPT.

Love of Truth

As a clinical researcher, he is keenly aware that he has a vocation in common with every other human being: to be a philosopher, a seeker or lover of (*phil-*) wisdom (*sophia*). Which is to say that, in reference to the truth of the natural world, Hilgers does not limit his understanding of existing things to their physical facticity. For to limit knowledge of the human person and the human reproductive system to physical facts and only physical facts would denigrate the truth of the reproductive matters under consideration and diminish his science. He recognizes that genuine science will simply not be had unless and until it is open to correlation and confirmation from meta-physical or super-natural facticity.³¹

Whether by the light of faith or commonsense, he understands that people willfully choose evil and that those bad choices have consequences. Knowledge of these two facts protects Hilgers from the hubris of many sci-

entists who deny, at their own peril, some very important truths about the effects of sin: e.g., the human intellect is handicapped in its search for the truth; the human will is hindered from consistently choosing the genuine good, and human freedom is tilted toward license.³²

Putting love of truth as his first priority, he knows that, rather than viewing themselves and others as beings who are somehow *beyond* history or *beyond* the Fall, medical researchers ought to look to the Source of truth, goodness and beauty as a Font of enlightenment that is *beyond* their puny human intellects.

Sense of Mission

Dr. Hilgers is a man with a mission. More precisely, he is a man with a mission within a mission. His overarching responsibility is that which is given every human being in the book of Genesis: to have dominion over the earth. As the acronym NaPro reveals, the heart of his secondary mission is to pursue clinical research and medicine that work cooperatively with a woman's natural procreative system.

His most basic mission is not Nietzschean in character. He does not share the view that the human being and human procreation are things that must be overcome but, rather, someone and something, respectively, that can be understood and revered. Nor is his mission post-humanist. He neither rejects objective truth nor the intrinsic goodness of the human "biological form"³³ nor nature's "normative pointings."³⁴ He is not willing to enter into a Faustian bargain that would remodel the human being in man's image rather than in God's. No, he clearly understands the distinction between dominion and domination over nature, between respect for and cooperation with, rather than the suppression, replacement and/or total control of the procreative *ordo rerum* (order of things).

Hilgers' secondary and more specific mission is to have dominion over (as in having a fuller understanding of) the complex workings of the menstrual and ovulation cycles. With this knowledge, the medical and surgical services of NPT will, ever more surely, work toward the integral procreative good of his patients. In the end, we have his authentic sense of mission to thank for a blue-ribbon guarantee that natural procreative medicine is and will be a technology that serves, rather than betrays,³⁵ those who use it.

II. NPT: The Vision of Its Science

Undergirding and permeating mainstream reproductive technology is a scientific theory about the human person and human procreation. It is a view freighted with materialism, pragmatism, progressivism³⁶ and individualism. The science of NPT, in contradistinction, avoids all of these reductionistic errors. As a result, it distinguishes itself as a technology that is in dialogue with, not divorced from, ethics and faith.

The resultant contrasts between mainstream reproductive science and NPT are, theoretically and practically speaking, stark. The science behind contraception and assisted reproductive technologies (ARTs) constitutes scientism; the body of knowledge that grounds NPT is genuine science. Logically, then, the culture of ARTs and contraception promotes the “isms” that collectively constitute the old reductionist humanism. The culture of NPT, in contrast, advances the new integrated humanism envisioned by the PAS. Let me unpack these rather sweeping conclusions.

The principal assumption grounding ARTs is that of a value-free or morally neutral science. Moral norms and ethical values arise not from an objective source—the nature of the human person and human dignity—but from societal consensus: the culturally acceptable, ever-shifting individualistic preferences that surface at any given point in time.³⁷ Value-free science views human beings as “the by-products of an evolutionary process” that has no intrinsic finality.³⁸ People are, by nature, nothing but material beings, material entities which lack not only a moral or spiritual dimension but that also lack a nature “deeply desirous of knowing the truth”³⁹ and of choosing the good.

The main premise behind the reproductive science of NPT, on the other hand, is rooted in the *imago dei* doctrine of Scripture and Tradition (human beings are created in the image of God) and the comprehensive psychosomatic vision of the human person to which it gives shape. Accordingly, God’s purposes for male and female sexuality are connatural. Human sexuality is meant to foster a covenantal life-giving love between a married man and a woman, who “by a mutual personal gift, proper and exclusive to themselves,”⁴⁰ mirror God’s own inner, tri-personal, love-giving life.

Moreover, the anthropological vision of NPT—the divine plan for our sexually bifurcated human race—is not only discernible by human reason and our human experience of natural (moral) law but is also supported by the best available scientific data. The law of human

nature teaches (and psychological and sociological studies attest) that, first, children find a much-needed security in the knowledge that they were conceived within acts of their parents’ committed sexual love. Second, for children to be conceived, gestated and brought into and within marriage is important not just for the wellbeing of those children but also for a healthily functioning familial and social order. Third, it is critical to a sound society that parents who conceive their children within a permanent monogamous marriage are also supported by public laws that outline parental responsibilities for those children.

Many infertile couples resort to ART because they see it is a quick-fix science. It provides what looks like the most pragmatically effective way for them to have their own biological child. Moral considerations within this schematic are predictable. The choice of IVF, or one of its variations, is presented as the “right” choice for two reasons: it works (it’s pragmatic) and it’s ostensibly the most expeditious way of conceiving (it’s useful or utilitarian). And, since a “good” choice is one that produces “good” consequences and maximizes “human happiness,” the pragmatic choice is thought to be necessarily “ethical.”

What’s behind a couple’s choice of NPT, in contrast, is the conviction that there are such things as objective truth and objectively good and bad choices. To choose well in the arena of reproductive medicine is, first, to choose a treatment or method that fully respects what is objectively true about personhood and human fertility and, second, to choose what fully respects the couple’s dignity and their procreative capacities.

I suppose, by way of summary, you could say that the science of NPT is a both/and science. The science of ARTs, on the other hand, is a reductionistic, either/or science. Proponents of ART argue that, for ART to be a reason-based science,⁴¹ it must necessarily exclude an appeal to faith. ART’s designers insist that the empirical observations of reason and experience are the *sole* criteria for finding solutions to the problem of infertility.

But NPT tries to get at the objective reality of what is being studied—female fertility, the complexities of the menstrual cycle and conception—through “a subtle combination of faith and experience, intuition and reason, imagination and deduction, personal insight and communal wisdom.”⁴² Stated differently, while the radical empiricist science behind ARTs refuses to admit facts other than those observationally verifiable, the science of NPT admits metaphysical truths. The latter truths, what John Paul calls the “realities of the spirit,”

though not able to be viewed under a microscope, are real nonetheless and form “part of the whole truth”⁴³ about human fertility and fertility treatments. In short, the science of NPT necessitates the march of human reason as it ought to be: “with [its] eyes fixed on divine revelation.”⁴⁴

III. NPT: The Vision of Its Ethics

Since ethics and science are wedded in NPT, you have probably noted that I cannot describe its science without, at the same time, explaining the vision of its ethics. But, because I now want to concentrate on that moral vision, I need to probe further. What is the *ground* of those already discussed human goods and norms honored by NPT?

Neil Postman provides an innovative way of answering that question.⁴⁵ The author and Chair of the Department of Culture and Communication at New York University avers that what our hyper-techno/scientific age most desperately needs is the “loom” of a story or narrative that helps human beings to weave or connect the (informational) dots of our lives. So, borrowing Postman’s imagery, the applied science of a reproductive technology would also stand in need of a *transcendent* narrative. Without this “loom,” the myriad of medico-technological facts of infertility and infertility treatments are just “strands” or “dots” of unconnected data that have no integrated meaning.⁴⁶ With this loom, the human interface of that data emerges. In short, it takes a transcendent story to show the human significance of scientific and technological facts; it takes a story-loom to weave them into a whole piece of cloth.

Let me be clear. I am not arguing that NaPro is the *only* reproductive technology whose ethical sensibilities are grounded in a story. Quite the opposite. ART also has its story-loom, the difference being that it’s not a transcendent narrative. The philosophical infrastructure of ART is a finite, secular, narrow, partial, provisional, subjective and reductionist story. To appreciate the contrast, consider this: the narrative grounding NPT is a transcendent one—infinite, supernatural, expansive, complete, comprehensive, and objective. These respective narratives dictate drastically contrasting agendas: NPT links science to ethics and faith; ART severs its science from theology or natural moral philosophy, creating a “crisis of meaning.”⁴⁷

As I have already pointed out, the worldview or culture of ART hawks a value-free, morally indifferent science,

a science divorced from ethics and faith. Consequently, although the scientism of ARTs deifies itself, this self-proclaimed science-god⁴⁸ has no answers to those important existential questions that intelligent people ask, such as, “Why are we here?” and “What moral instructions do you give us?”⁴⁹ In the marketplace of ideas, the failure of a truncated rationalism to provide answers to life’s important questions turns out to be an absurdity squared. Such a philosophy directs the designers and providers of ART to flee not only from “the transcendent mystery of God,”⁵⁰ but also from the mystery and truth of the human person and human procreation

So-called “assisted” reproductive techniques, then, are part of a rationalistic biomedicine that closes off reason “to the existence of ultimate and objective truth.”⁵¹ Despair and irrationality, the flotsam and jetsam of the old humanism in general, typifies the mindset of many infertile couples in particular. After all, if there is no way that human reflection and intelligent thought can discern the deeper meaning of procreating a new human being, or the meaning of human sexuality, or of the marital act, why bother deriving moral norms to protect these human values? And if that’s the case, how can one find moral direction in matters of family planning and infertility treatments? Why should a couple even try?

Given that proponents of ART answer these questions negatively, you can readily see why the worldview or culture of NPT is poles apart from that of ART. NPT recognizes that the only way to understand marriage, human sexuality, and procreation is to do so within the “horizon of truth” found in the personhood of God, the divine prototype for understanding all things human. Never abandoning the “sapiential horizon” of an informed conscience, the developers of NPT realize that its scientific and medical achievements are inextricably wedded to ethics and, in turn, to moral theology. The persons responsible for the ethical culture of NPT trust “in the power of human reason” to grasp a total view of the human person: “body and spirit, individual and community, a rational being and one ennobled by love.”⁵²

In sum, NPT acknowledges that our human reason is able to grasp the primordial truth of the dignity of the human person which, in turn, is explained and confirmed by Divine Revelation. Every human being, created in God’s image, is dignified by sharing not only in the divine spiritual powers of intellect and free will but also in the divine capacity for life-giving communion. As *Humanae Vitae* points out and as NPT recognizes, to understand responsible parenthood is to understand that husbands and wives bear the image of the Creator in their whole being and are called to mirror God’s

generative love in the mutual self-gift of their sexual “one-flesh” union.⁵³ Based on human dignity, every human being has a right to life and a right to be conceived, gestated, born into and born within a family. Hence, the science of NPT also fulfills the moral principles laid down by *Donum Vitae*: “. . . reproductive technology that assists the conjugal act to achieve its natural end of pregnancy could be morally licit. Reproductive technology that does not destroy newly developing human life and that does not dispense with a personal act of intercourse between husband and wife is morally licit, all other things being equal.”⁵⁴

IV. NPT: The Vision of Its Faith

Out of the gate, the single most important thing I could say about the faith vision behind NPT is what it is not. It is *not* fideism.⁵⁵ That is, the faith which grounds NPT does not pit “faith against reason, belief against knowledge, or religious experience against critical intelligence.”⁵⁶ The science of NPT recognizes that faith is the “great friend of intelligence.”⁵⁷ The Roman Catholic faith that inspires NaPro guarantees that the knowledge base of this reproductive technology maintains the right relationship between faith and human reason as it honors their “autonomy and mutuality.”⁵⁸ The faith vision of NPT admits that, although “science and faith represent two different orders of knowledge, autonomous in their processes,” they converge, in the end, upon “the discovery of reality in all its aspects, which has its origins in God.”⁵⁹ The vision of the faith behind NPT links “scientific thought with man’s power in faith to seek truth” and “to bring the whole fullness of human capabilities to realization.”⁶⁰

As a result, the Catholicism behind NPT has confidence in reason and its human intellectual component is open to Catholic theology. The vision of its faith puts reason and faith at the service of the human family. Hence, it is a faith that will not deteriorate into the truncated rationalism typical of scientism. What’s more, NPT is not at risk for the temptation that plagues a functional science like ART: to serve ideology (rather than humanity).⁶¹

In short, the faith behind NPT stands in the right relationship with reason envisioned by the Second Vatican Council: “If methodological investigation within every branch of learning [substitute reproductive medicine] is carried out in a genuinely scientific manner and in accord with moral norms, it never truly conflicts with faith. For earthly matters [substitute family planning and infertility] and the concerns of faith [substitute the

deeper meaning of procreation] derive from the same God.”⁶²

In sum, the faith vision of NPT, fully admitting that science must work in harmony with faith, makes an invaluable contribution to human culture and participates fully in the new humanism.

V. NPT: The Vision of Its Ecclesial Supporters

While there is a small coterie⁶³ of bishop-, archbishop-, and cardinal-advocates of NPT, there is no doubt in my mind that the current bishop of Rome, John Paul II, is and has been **NaProTECHNOLOGY**’s most serious and sincere supporter. I close this article with a montage of selected public⁶⁴ statements of the Pope that apply to and confirm my thesis that **NaProTECHNOLOGY** anticipates biomedicine’s role in the new humanism envisioned by John Paul and the Pontifical Academy of Sciences membership.

In respect to the vision of the pioneer of NPT:

“All of us who bear in our hearts the treasure of a religious faith, must share in the common work of man’s development, and we must do it with clearheadedness and courage.”⁶⁵

In respect to the vision of the science and faith back of NPT:

“Is the community of world religions, including the Church, ready to enter into a more thorough-going dialogue with the scientific community, a dialogue in which the integrity of both religion and science is supported and the advance of each is fostered? Is the scientific community now prepared to open itself to Christianity, and indeed to all the great world religions, working with us all to build a culture that is more humane and in that way more divine? We must ask ourselves whether both science and religion will contribute to the integration of human culture or to its fragmentation. It is a single choice and it confronts us all. . . . Yet the unity that we seek . . . is not identity. The church does not propose that science should become religion or religion science. . . . We are asked to become one. We are not asked to become each other.”⁶⁶

In respect to the vision of the ethics behind NPT:

“For science develops best when its concepts and conclusions are integrated into the broader human culture and its concerns for ultimate meaning and value. Scientists cannot, therefore, hold themselves entirely aloof

from the sorts of issues dealt with by philosophers and theologians. . . .”⁶⁷ “You will always find an ally in the church, each time that you strive to promote man and his authentic development.”⁶⁸

In respect to the vision of the ecclesial supporters of NPT:

“The concept of a morally correct regulation of fertility is nothing other than the rereading of the language of the body in truth. . . . All efforts directed to an ever more precise knowledge of those natural rhythms which are manifested in relation to human procreation, all efforts of family counselors and indeed of the couple themselves, are not aimed at making the language of the body merely biological (at reducing ethics to biology, as some have mistakenly held). But they are aimed exclusively at ensuring the integral truth of that language of the body in which husband and wife should express themselves in a mature way before the demands of responsible parenthood.”⁶⁹

“The various *techniques of artificial reproduction*, which would seem to be at the service of life and which are frequently used with this intention, actually open the door to new threats against life. Apart from the fact that they are morally unacceptable since they separate procreation from the fully human context of the conjugal act, these techniques have a high rate of failure:

not just failure in relation to fertilization, but with regard to the subsequent development of the embryo, which is exposed to the risk of death, generally within a very short space of time. Furthermore, the number of embryos produced is often greater than that needed for implantation in the woman’s womb, and these so-called ‘spare embryos’ are then destroyed or used for research which, under the pretext of scientific or medical progress, in fact reduces human life to the level of simple ‘biological material’ to be freely disposed of.”⁷⁰

Codicil

As an old maxim points out, ‘The whisper of truth can have an amazing resonance.’ Proof positive is that, within the neo-humanist spheres of **NaProTECHNOLOGY**, our national and international communities have access to a procreative culture that celebrates the priority of ethics over medical technology, the primacy of the person over things, and the superiority of the spirit over matter. In short, the hallmark of the new humanism—seizing the hidden dynamic behind reality—is interchangeable with the scientific and cultural charisms of **NaProTECHNOLOGY**. What an achievement for our generation and those to come! What a bold, versatile, and kinetic model of procreative medicine! What a blessing for society and the family of humankind!

References

1. “Statement of the Pontifical Academy of Sciences on the Cultural Values of the Natural Sciences,” *Zenit*, 6/17/2003 (available at zenitenglish@zenit.org).
2. *Natural Procreative Technology*, an emerging science of women’s health care, is a complex of medical and surgical interventions promoting gynecological health that obviates the need for either reproductive techniques that exclude marital intercourse or the prescription of oral contraceptive for therapeutic or contraceptive purposes. First, it is reproductive health care that assists and optimizes, rather than obviates and/or suppresses, the natural procreative system. It allows a woman to maintain her obstetric and gynecological health and helps couples to understand and respect the full psychosomatic truth of their fertility. Second, it is obstetric and gynecological medicine that accurately evaluates and effectively treats a host of abnormalities (whether on an endocrine or anatomic level) which could be the causes of infertility or, in the case of a pregnant woman, the cause of miscarriage. Third, it promotes fertility awareness that enables couples to avoid and achieve a pregnancy in a way consonant with the comprehensive meaning of their conjugal union.
3. John Paul II, “Moral Choices of the Future,” *Origins* 10 (Mar 12, 1981): 622.
4. Letter “To the Reverend George V. Coyne, SJ, Director of the Vatican Observatory,” in *John Paul II On Science and Religion: Reflection on the New View from Rome*, ed. Robert J. Russell, William R. Stoeger, SJ and George V. Coyne (Rome: Vatican Observatory Publications, 1990), M13.
5. D. Q. McInerny, *A Course in Thomistic Ethics* (Elmhurst, PA: Privately printed, 1997), 158.
6. *Ibid.*
7. Wendell Berry describes the dangerous hubris of a reductionist scientist: “His humility is only etiquette, not a conviction or even an attitude.” (31) “Waving aside ignorance and mystery and human limitation as merely illusory or irrelevant, he claims not only all knowledge but all future knowledge and everything unknown as the property of science.” (31) (*Life is a Miracle: An Essay Against Modern Superstition* (Washington, D.C.: Counterpoint, 2000.))
8. “The Collaboration of Science and Religion,” *Origins* 21 (Oct. 10, 1991): 283.
9. Donald Attwater, ed., *A Catholic Dictionary*, 3rd ed. (New York: The Macmillan Co, 1961), 239.

10. Stanley L. Jaki, *Scientist and Catholic: An Essay on Pierre Duham* (Front Royal, VA: Christendom Press, 1991), 223.
11. Ibid.
12. Stanley L. Jaki offers sound advice to Hilgers and researchers of his vintage: "... the Catholic intellectual must not turn the truth of those answers [gleaned from research] into a function of the measure of their acceptance by secular academia, which is well nigh zero in most cases."
13. From the side of the medical community and some of the U.S. Catholic bishops, Hilgers experiences the unvarnished truth of Pascal's dictum, "Silence is the greatest persecution."
14. Aleksandr I. Sozhenitsyn, "A World Split Apart," 1978 commencement address at Harvard University, (reprinted at www.nationalreview.com, 6/7/2003 on its 25th anniversary).
15. Stanley L. Jaki, "The Catholic Intellectual," available at www.catholic.net/rcc/Periodicals/Dossier/Jan-Feb00/Intro2.html, 1-12.
16. Ravi Zacharias, a convert to Christianity who grew up in India and practiced Hinduism, is one of the first Christian apologists to come out of the Third World. His expertise on comparative religions has put him before audiences from Capitol Hill to Harvard. When asked "How can Christianity meet the needs of a place like India?" he replied with an answer that confirms why it behooves Christian scientists and intellectuals to take the Incarnation seriously: "The first thing Christianity does is raise the level of every individual. There's an essential dignity. Every human being is of essential worth. The second thing it does is give the impetus to love and reach out in a way that rescues the person, not just the function. ... From where came the impetus? It came from the love of Christ." (Interview conducted by Julia Duin, "Christian Worldview," *The Washington Times*, July 4, 2003, available at www.washingtontimes.com.) Importantly, *Donum Vitae* also states that the Church intervenes in the area of infertility "on the basis of her duty to protect and defend the human person and out of love for humanity and each human being, a love that has its source in Christ, the Incarnate Word." (Joseph Cardinal Ratzinger, *Donum Vitae*, [Ethics & Medicine edition of *DV* (Pope John Center: Braintree, MA, 1987)]: 7.)
17. John Paul II, *Fides et Ratio*, # 79. Dr. Hilgers looks forward to the day when the majority of the U.S. Catholic bishops encourage and actively support Catholic scientists and physicians who are courageous enough to take up the Church's challenge to uphold Catholic principles in their research and clinical practice. He expectantly awaits the day when the bishops respond with heartfelt gratitude to his announcements about a system of women's health care that responds to (1) the pleas of Pope Paul VI for a system of family planning that is moral and (2) to *Donum Vitae* for a system of reproductive technologies that (a) truly assist the conjugal act rather than replace it, that conforms to the dignity of the couple and their union and (b) intervene in developing human life only in ways that respect the inviolability of human life *in utero*.
18. Jaki, "The Catholic Intellectual," 9.
19. The premise of Guglielmo Marconi's profession is that found in an oft-quoted insight of fellow-scientist, Albert Einstein (1879-1955): "Science without religion is lame, religion without science is blind." (See "People of Faith—Famous Scientists" at <http://www.godandscience.org/apologetics/sciencefaith.html>.)
20. See *Humanae Vitae*, #24.
21. Ratzinger, *Donum Vitae* (Introduction, #1 and Part II, B, #7), 7 and 19. The Irish Bishops' Committee on Bioethics morally assessed the various techniques of ART and declared: "NaPro is consistent with the meaning and integrity of human sexuality" and "with all three of the ethical principles" proposed by *DV* regarding the meaning of human life and human procreation. (*Assisted Human Reproduction: Facts and Ethical Issues* [Dublin: Veritas Publications, 2000], 27.)
22. Avery Dulles, SJ, "Science and Theology" in *John Paul II On Science and Religion*, 12.
23. However, to dispel any notion of a faith that demands blind obedience to irrational dogma, Father John Neuhaus points out (and Hilgers would agree), "to think with the Church begins with thinking." (*First Things*, "The Public Square: Passion for Truth: the Way of Faith and Reason," 88 [December, 1998]: 73.)
24. John Paul II, "The Links Between Science and Faith," *Origins* 19 (Oct. 26, 1989): 340.
25. I would define "traditional contemporary obstetric and gynecological medicine" as the non-contraceptive and non-abortion OB/Gyn that had been known, practiced, and taught from roughly the 1940s until the 1960s.
26. As Steve Conner, science editor for the *Independent News* has noted, "Almost every day a scientific or medical development seems to bring new promise and controversy to mankind; none more so, perhaps, than in the field of human fertility." ("Era of 'unborn mother' looms as scientists use aborted fetuses to grow human eggs," July 1, 2003 available at http://news.independent.co.uk/world/science_medical/story.jsp?story=420607.) In other words, IVF and its stem cell and cloning spin-offs are the bioethics crises du jour.
27. See Thomas W. Hilgers, "Reproductive Medicine and Violation of the 'Free Exercise' Clause of the United States Constitution," *Linacre Quarterly* 69 (February, 2002): 79-86.
28. Letter "To the Reverend George V. Coyne," M13.
29. "Address at the University of Fribourg," *Origins* 14 (June 28, 1984): 108.
30. T. W. Hilgers, *The Scientific Foundations of the Ovulation Method* (Omaha: Pope Paul VI Institute Press, 1995), 1; 16-32.
31. Stephen M. Barr points out that what many people refer to as the conflict between faith and science is really a conflict between materialism and religion. "Materialism regards itself as scientific, and indeed is often called 'scientific materialism,' even by its opponents, but it has no legitimate claim to be part of science. It is, rather, a school of philosophy, one defined by the belief that nothing exists except matter, or, as Democritus put it, 'atoms and the void.'" ("Retelling the Story of Science," *First Things* 131 [March, 2003]: 16.)
32. Gilbert Meilaender suggests that human beings, including scientists and researchers, ought to keep crucial questions in mind: Is there "any limit to such free self-transcendence;" are we "wise enough and good enough to be free self-creators," or ought we "acknowledge destructive possibilities in a freedom that refuses any limit?" ("Bioethics and the Character of Human Life," *The New Atlantis*, 1 [Spring, 2003] available at www.thenewatlantis.com/archive/1/meliaenderprint.htm, p. 2.)
33. C. Christopher Hook, "In Whose Image?: The Remaking of Man with Cybernetics and Nanotechnology," (Mayo Clinic Foundation, written sometime after late spring of 2000): 5.
34. Richard John Neuhaus (quoting Leon Kass in), "The Public Square: A World of Our Own Making," *First Things* 87 (November 1998): 72. In the same article (74), Neuhaus points to the deleterious results of a revolution that swept aside the "normative pointings" of human sexuality: "Sex seemed such a pretty tinkertoy, and so maddeningly complex. Telling ourselves that we did not know what it was for, we took it apart to find

out how it works, and could be made to work in different and exciting ways. After the deconstruction, this part of the anatomy was stuck into that part, and this kind substituted for that kind, until all memory of design was lost in the immeasurable expanse of desire. 'Sex is fun,' it was said ever more insistently, ever more desperately. Of course there were the spoilsports among us. They remembered, and they mumbled about *the nature of the thing*, and how it was somehow and inseparably tied up with the nature of us. '*Ontology*' they called it. They were tolerated, so long as they didn't get in the way of our doing what we wanted to do, even though we had grown tired of wanting to do nothing more than what we wanted to do." (emphasis mine)

35. "Betrays" (as in betrays the parents, the surrogate and the child) sums up the sad commentary of the mindset expressed in "surrogacy facts" published in *Parents* magazine: "If you're considering surrogacy, here are some things you should know. A surrogate can become pregnant in one of two ways: She can have her own eggs artificially inseminated by the father's sperm, or she can have another woman's artificially inseminated eggs implanted in her uterus. The latter, which is called gestational surrogacy and involves in vitro fertilization, costs around \$10,000 per attempt. Artificial insemination of the surrogate's eggs costs about \$5,000. Most insurance policies do not cover either. When surrogacy is arranged through an agency, the surrogate is generally paid for her services. She might undergo psychological screening to determine her motivation and whether she can cope with being pregnant and giving up the baby. Laws regarding surrogacy vary from state to state. Some require parents to legally adopt the child, even if it's biologically theirs. Others ban for-a-fee surrogate arrangements completely. Consult an attorney for the laws in your state." (Melba Newsome, "Meet a mom, Debbie, who volunteered to be a surrogate for her pal, Stacey, and gave birth to quads," March, 2003: 151.)
- The baldly mercenary theme of ARTs sings loud and clear—seemingly without anyone's protest—in this description of "egg giving." "The UK's Human Fertilisation and Embryology Authority (HFEA) has announced that it has started a review of the practice of 'egg giving'. Egg giving is a type of egg donation where patients waiting for IVF treatment undergo one cycle of egg retrieval and all the eggs collected in that cycle are donated for use by another woman. The woman then receives a second cycle at a reduced cost, keeping all the eggs retrieved for herself. This differs from 'egg sharing', a more commonly operated scheme, where half the eggs collected in one cycle are donated and the other half used by the patient, again in return for a reduction in the usual price of IVF." (available at BioNews@progress.org.uk: "Egg Giving Schemes Under Review," *BioNews* [7/21/2003]: 4.).
36. 'Progress at any cost' and 'the objectification of human beings' are the best ways to sum up the moral sensibilities of the following rosy report marking the 25th anniversary of the birth of the first IVF baby, Louise Brown. "Most infertility problems could be eradicated in ten years, according to Alan Trounson, from the Monash Institute of Reproduction and development, in Victoria, Australia. Trounson, one of the early pioneers of IVF, said that the key to many infertility related problems may be found by undertaking research on stem cells and combining stem cell technologies with existing fertility treatments. . . . Roger Pederson, a stem cell researcher at the University of Cambridge, UK, said the enormous potential of ES cells, for treatments for both infertility and disease, is 'all a legacy of 25 years of IVF', adding that '*every single embryo which can be studied is a result of IVF*'." (italics mine. Available at BioNews@progress.org.uk. "Scientist Predicts Solution to Infertility," *BioNews* [7/21/2003]: 3.)
37. I was reminded of just how vacuous and downright selfish human preferences can be when I read the following report recounting a woman's reasons for using one of IVF's spin-offs, prenatal genetic diagnosis: "Embryo gender selection is permitted in Spain for family balancing, as well as for medical reasons. Ms Chenery, who is now 17 weeks pregnant, *underwent a previous unsuccessful attempt* to conceive a baby girl at the Spanish clinic in January. She is now reported to be 'delighted' and cannot understand why the procedure is banned in Britain. 'I have always wanted to experience the mother-daughter relationship, which is totally different to the mother-son relationship, and I feel as I can, then why not?', she said." I would wager that the phrase in italics is a cryptic way to describe the abortion of a previously produced embryo whose ticket to extinction or cryopreservation was being of the wrong sex. (BioNews 214 available at <http://www.progress.org.uk/News/BioNewsSearch.html> 6/23/2003-6/29/2003, p. 6.)
38. Luke Gormally, "Luke Gormally on Human Dignity and Bioethics—Part I," *Zenit*, July 11, 2003 (available at zenitenglish@zenit.org).
39. John Paul II, "Raising the Level of Philosophical and Theological Reflection," *Origins* 28 (November 19, 1998): 404.
40. Joseph Cardinal Ratzinger, Congregation for the Doctrine of the Faith, "Considerations Regarding Proposals to Give Legal Recognition to Unions Between Homosexual Persons," # 2 (available at www.vatican.va).
41. C. S. Lewis (1898-1963) understood that, although scientific reason is valid, it is not the only kind of reasoning. He pointed out that, although "[N]oncontradiction, validity, truth, value, meaning, purpose, and obligation" are "necessary presuppositions of the scientific method" they are "not themselves scientific phenomena." (M. D. Aeschliman, "C. S. Lewis on Mere Science," *First Things* 86 [October, 1998]: 17.)
42. Dulles, "Science and Theology," 13.
43. "A Papal Address on the Church and Science," *Origins* 13 (June 2, 1983): 52.
44. Jaki, *Scientist and Catholic*, 278.
45. Neil Postman, "Science and the Story that We Need," *First Things* 69 (January, 1997): 31.
46. Edna St. Vincent Millay's poem, "Huntsman, What Quarry?" describes the "crisis of meaning" amidst the glut of our information age and the need for a story-loom:
Upon this gifted age, in its dark hour,
Rains from the sky a meteoric shower
Of facts . . . they lie unquestioned, uncombined.
Wisdom enough to leech us of our ill
Is daily spun, but there exists no loom
To weave it into fabric
47. The prescience of Rev. John Courtney Murray, the Jesuit author of the Second Vatican Council's teaching on religious freedom who wrote nearly a half century ago, is striking. He prophesied that contemporary society would be "a technical order of the most marvelous intricacy, which will have been constructed and which will operate without true political ends: and this technological order will hang, as it were, suspended over a moral confusion; and this moral confusion will itself be suspended over a spiritual vacuum." (John F. Cullinan, "Godless in Brussels," *National Review Online*, 6/16/2003 [<http://www.nationalreview.com>]: 4.)
48. Neil Postman labels this stand-in for religion as "a false god." It is a god that "speaks to us of power, not limits; speaks to us of ownership, not stewardship; speaks to us only of rights, not responsibilities; speaks to us of self-aggrandizement, not humility." ("Science and the Story that We Need," 31).

49. Ibid.
50. John Paul II, "Raising the Level," 403.
51. Ibid.
52. John Paul II, "Moral Choices of the Future," 622.
53. See *Humanae Vitae*, especially nos. 8-10.
54. Ratzinger, *Donum Vitae*, 9.
55. More complete citations explain the danger of depreciating reason. The first is from John Paul II: "If reason cannot attain ultimate truths, faith loses its reasonable and intelligible character and is reduced to the realm of the nondefinable, the sentimental and the irrational. The outcome is fideism. Detached from its relationship to human reason, faith loses its public and universal validity and is limited to the subjective and private sphere. In the end, theological faith is destroyed." ("Raising the Level of Philosophical and Theological Reflection," 404). The second is from M. D. Aeschliman: "... there is an opposite temptation that [C. S.] Lewis also criticized—the temptation to *defy* science, from the standpoint of either romantic/pantheistic Gnosticism or theological fideism . . . The appeal of pantheistic Gnosticism was something that Lewis understood and withstood; it lies at the heart of occult 'New Age' spirituality, 'deep Ecology,' and a good deal of 'eco-feminism' today." ("C. S. Lewis on Mere Science," 17).
56. Neuhaus, "The Naked Public Square: The Passion for Truth: the Way of Faith and Reason," 73.
57. John Paul II, "Address to Pontifical Academy of Sciences," *Origins* 13 (Nov. 12, 1984): 542.
58. Neuhaus, "Passion for Truth," 70.
59. John Paul II, "A Papal Address on the Church and Science," 51.
60. John Paul II, "Science and the Church: A Dialogue," *Origins* 10 (Dec. 4, 1980): 397.
61. Ibid., 396.
62. *Gaudium et spes*, # 36 (cited in "The Collaboration of Science and Religion," *Origins* 21 [Oct. 10, 1991]: 283).
63. The accent is on the word *small*. Getting support, spiritual or financial from the U.S. Catholic bishops is one of the greatest challenges to the Catholic acceptance of NPT, as noted in footnote #15. Pascal's reminder, "Silence is the greatest persecution," is germane to this discouraging situation. However, change is in the air. The 30th (1998) and 35th (2003) anniversaries of *HV* have precipitated some outstanding pastoral letters from bishops (e.g., Archbishop Chaput of Denver, Bishop Steinbock of Fresno, and Bishop Galeone of St. Augustine to name a few). Bishop Galeone was especially candid regarding the etiology of the crisis of the past four decades in respect to marriage. In his 35th anniversary letter, "Marriage: A Communion of Life and Love," he admits, "because of our silence we bishops and priests are to blame." (# 12) He compares the widespread use of contraception as a "spiritual cancer" and laments, "[c]onfronted with the spiritual cancer attacking the family today, how can one explain the reluctance of us bishops and priests in spreading the good news of the Church's full teaching on married love and life?" (# 15) His five concrete prescriptions for corrective action are worthy of duplication in every U.S. diocese. (see # 15)
64. Personal letters from John Paul II to Dr. Hilgers and the staff of the Pope Paul VI Institute always "make our day." His thoroughgoing support is as heartening as it is genuine. E.g.: "I am grateful for the contribution that the Institute makes in promoting faithful observance of the Church's teachings regarding marriage and the family. In a special way I wish to recognize and encourage the Institute's continuing efforts intent on building that culture of life which is so vitally important for today's society. As I wrote in the Encyclical Letter *Evangelium Vitae*, centres for natural methods of regulating fertility need to be promoted 'as a valuable help to responsible parenthood, in which all individuals, and in the first place the child, are recognized and respected in their own right, and where every decision is guided by the ideal of the sincere gift of self (No. 88).'" (Letter sent on the tenth anniversary of the Pope Paul VI Institute's founding: "From the Vatican, 24 August 1995.")
65. "Moral Choices of the Future," 623. Elsewhere John Paul refers to the mission of a scientist as the "practice of their own special priesthood." ("The Links Between Science and Faith," 340.)
66. Letter "To the Reverend George V. Coyne," M7.
67. Ibid., M13.
68. "A Papal Address on the Church and Science," 52.
69. *Life According to the Spirit: Reflections on "Humanae Vitae,"* in *The Theology of the Body: Human Love in the Divine Plan*, with a Foreword by John S. Grabowski (Boston, MA: Pauline Books & Media), 402.
70. *Evangelium Vitae in The Encyclicals of John Paul II*, ed. with Introductions by J. Michael Miller, CSB, (Huntington, IN: Our Sunday Visitor Publishing Div, 1996), 804.