

Institute For Theological Encounter With Science and Technology

Volume 53 - #4

Fall 2022 Bulletin

Autumn Greetings!

This bulletin considers several topics: Death and Dying, the Roe v. Wade Decision, as well as Science and Climate Change. Thus, we are inter-weaving theological topics with scientific topics over five excellent articles that we hope you will read and ponder where you stand on these important issues that affect us all.

How often have we encountered death? If we are old enough, we have often watched as a parent faces death and ultimately hopes for eternal life. Maybe we lost a close friend. The Death and Dying articles tackle the life issue. We focus on life and that only God determines when we die, as opposed to some that advocate for Physician Assisted Suicide (PAS) or Medical Assistance in Dying (MAID). We explore how to face death while living.

In another article, we provide suggestions on how to counter Roe v. Wade arguments when dealing with the liberty versus free-will concepts while upholding the dignity of women. The Church does not want to control women! Exactly the opposite is true - the Church wants to uphold the dignity of women. See what you think about this opinion piece that suggests we engage in dialogue rather than scream at those who disagree with us.

From an author who frequently writes on climate change, read the article where he posits that the Church must stand up for the energy rights of people. He argues that the media's rapid focus on quickly ridding the world of coal may not be in the best interest of the world's people.

We wrap up this bulletin with an article written over 20 years ago, but which still holds true today. The author writes about how science and religion are complementary. ITEST has held this position for its entire 54 years of existence.

As we release this bulletin on November 15th, I am reminded that it is the feast of Saint Albert the Great. This great man is the patron saint of scientists and philosophers and is a Doctor of the Church. His most famous student was Thomas Aquinas, who also became a saint and a Doctor of the Church. It only seems fitting to include these topics and to release this bulletin on this great feast day! After you read this issue, we encourage your feedback and opinions. Please consider writing a letter to the editor which may be printed in a future *ITEST Bulletin*.

Ralph Olliges, ITEST Bulletin Editor

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Announcements

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Watch our most recent webinars on demand.

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Watch at www.faithscience.org/post-roe/

Bioethics and Law: Understanding the Nexus with presenter Fr. Thomas Davis

Watch at www.faithscience.org/catholic-bioethics

Two Wings: How Science & Theology Read One Another with presenters Dr. Stacy Trasancos and Dr. Thomas Sheahen

Watch at www.faithscience.org/two-wings/

Register now for these ITEST webinars.

Saturday, November 19, 2022

In Vitro Fertilization and the Sanctity of Human Life with presenters: Mary Anne Urlakis, PhD and Craig Turczynski, PhD

Register at www.faithscience.org/ivf/

Saturday, December 10, 2022

Faith That Makes You Think with presenters: Gerard Verschuuren, PhD and Stacy Trasancos, PhD Register at www.faithscience.org/faith-think/

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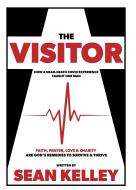
Wanted: New ITEST Board Members

ITEST is seeking new board members interested in applying their skills in the following areas.

ITEST Bulletin Co-Editor

Development Director

These are volunteer positions.
For more information, visit our webpage at www.faithscience.org/board-positions/ or email Sheila Roth at ITEST@archstl.org.



New Book

The Visitor

A Near-death Covid Experience Taught One Man: Faith, Prayer, Love, and Charity are God's Remedies to Survive and Thrive

By Sean Kelley

Sean Kelley, a healthy father, husband, and business owner, contracted COVID. Like so many, Sean assumed a week off work was the remedy. Sean didn't realize he was

in a fight for his life and would perish alone unless he trusted in others. Join Sean in his battle for survival as he takes you on a journey that shows God's truth.

Purchase at www.enroutebooksandmedia.com/thevisitor/

#iGiveCatholic

This year, ITEST will participate in #iGiveCatholic on #GivingTuesday, our nation's Catholic day of giving! This year it will be November 29. Watch your email for details or contact us for more information. Go to our giving page at www.stl.igivecatholic.org/organizations/institute-for-theological-encounter-with-science-and-technology.

In Memoriam

Sister Rose Marie Przybylowicz

Franciscan Sister of Our Lady of Perpetual Help October 6, 1939 - September 9, 2022

Sister Rose Marie worked with ITEST in the 1990's doing accounting and bookkeeping. She was a long-time faithful ITEST member often volunteering her services organizing the twice yearly conferences and preparing notes on the recorded proceedings. For the past 16 years, she worked as administrative assistant for the Glenmary Fathers in Fairfield, Ohio. Let us pray for the repose of her soul.

We also ask your prayers for ITEST members who are ill. May they feel the restoring hand of the Lord.



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Is That All There Is? Thoughts on Death and Dying Some Considerations for Believers and Non-Believers

By Sister Marianne Postiglione, RSM

Most of us who have reached that "revered graying age" have at one time or another sat at the bedside of a dying person. For many it is a time of anxiety and sadness accompanied by a sense of loss that truly "breaks your heart."

I have experienced that event several times in my life; the first with my father's death resulting from a brain aneurysm leading to a stroke that immobilized his right side leaving him without speech or ability to communicate. In those days, (1972) doctors were still caring for their stroke patients in the hospital until the patient died or indeed survived. That was before the prevalence of nursing homes where now many stroke patients reside, some in less than optimum circumstances.

My two older sisters and I were at my father's side when he died, a very quiet death. You could almost feel the life leaving his once virile body, now a mere shell of what had once been. And then he was gone! We knew he was in the Lord's hands, yet that deep sense of loss lay heavily on our hearts as we left him behind to meet the too bright glare of the corridor lights. One consolation sustained us. The funeral Mass and family support would help to ease the pain of loss my mom felt after more than 50 years of marriage. How do people cope who have no faith? We asked ourselves that evening.

Another dying event I witnessed was slightly different. A married couple who were friends of mine had suffered the ups and downs of the husband's diagnosis of cancer of the esophagus. Toward the end of his months of suffering, Hospice assumed his care preparing him physically and spiritually for the final part of his journey to God. As he neared the end of his earthly life while his son administered palliative care, his wife and I prayed the *Memorare* over and over. The repetitiveness of that prayer seemed to bring him comfort in his last minutes, and then he too was gone!

"Is that all there is?" a famous singer/composer of the 60's asked in a poignant song. Yes, for those who have no faith, that **is** all there is. There is nothing beyond life on earth.

The two stories above illustrate my experience of ministering to the dying. The two men cited had lived productive lives, raising families, and enjoying grandchildren into their seventies. They both died a "natural death" and went to the Lord with arms full of the gifts of their lives.

Physician-Assisted Suicide (PAS) or Medical Assistance in Dying (MAID), Hospice and Palliative Care

There is a movement today titled MAID, Medical Assistance in Dying, a euphemism for helping someone to die before God's time. It is a less honest title than "Physician-Assisted Suicide" which certainly paints a graphic picture. MAID seeks to soften the true intent of the procedure: to take one's life in the face of severe physical or mental trauma.

What kind of dying involves too much for a person suffering severe pain leading to death or who has learned that he or she has only months, perhaps weeks to live all the while at times enduring excruciating pain? Would a family want to live with that situation while watching the suffering of a loved one? Would the sufferer? Is there an answer or solution to this problem?

One "solution" has already been adopted into law by Canada and ten states in the United States. MAID or Medical Assistance in Dying is a proposal whereby a person, assisted by a physician or family member, or self-administered, takes a prescribed medication with the purpose of ending one's life. Isn't it more merciful to help that person die?

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a poignant song. Yes, for those who have no
faith, that is all there is.

It may seem to be a very humane action at first glance, but it is inherently dangerous. Without denigrating or judging the decision of those who have used MAID---Let God judge that--we must look at the deeper question. Is a person not any different from a beloved pet we might have to "put down" because of severe suffering or old age? If you have ever seen someone die in agony without palliative medication, would you choose MAID for yourself or assist someone else? You would if you did not believe in the concept of suffering as redemptive, a Christian

belief. Or if you had no faith at all! Still the pain remains.

But there is an answer among others to this seemingly unanswerable question. **Hospice** is a compassionate group of medical professionals who provide physical, emotional, and often spiritual comfort to the patient who has a terminal illness, and is either home bound, hospitalized, or in a nursing home. A simple online search for hospice will provide more detailed information on both hospice and palliative care outlining the similarities and differences between the two approaches. We should be aware of services for our loved ones who may be nearing the end of life on earth; hospice and palliative care are available to those who qualify.

A noted author once said in answer to the question: "Are you afraid of death?" After a slight pause, he replied with a knowing smile, "It is not death I fear; it's dying!" Would both believers and non-believers echo that sentiment if asked the same question? Dying is hard, tough, and difficult. In addition to the physical pain, there can be mental anguish. Who would want to endure that? As Christians we turn to the cross where Jesus suffered agonizing wounds and mental torture knowing that only a few had the courage to follow Him to the cross. His only "palliative" care at the end was a sponge soaked in sour wine. Our assurance that Jesus rose from the dead is a promise to all who suffer and die in His love, the promise of the Resurrection.

What the Catholic Church Teaches

Now we examine what the Catholic Church offers to help those involved in decision-making leading up to the end of life.

In a rather lengthy document, Samaritanus Bonus,* (the Good Samaritan) on the care of persons in the critical and terminal phases of life, the Vatican sets forth a comprehensive yet compassionate position on how to approach situations that may arise for the patient, family, and friends when death is near. Although there are many categories treated in this document, I will highlight those that are consistent with the more immediate aspects of death and dying.

Since human life at all stages is a sacred and inviolable gift, the document notes that any form of euthanasia or assisted suicide is unacceptable for the Christian believer. Acknowledging the neuralgic implications of this stage of life, the authors of this document stress that any form of euthanasia--PAS, MAID, or

others — most importantly ruptures the relationship between God and the person as well as with others. (A caveat here: God is the ultimate Judge.)

Does this mean that the Church is telling the person to — as in the old days — "Offer it up!" Far from that! The person on this journey is never alone. This document outlines the role of hospice, pastoral accompaniment with the strength of the sacraments, and presence of family and friends who help not only to ease the person's physical suffering, but often the mental ones as well.

Another timely aspect of this document is that of nutrition (food) and hydration (water). According to some health care personnel, as the body dies, it starts to shut down and no longer needs food and water. Its administration may even further complicate the process of dying. However, that is quite different from withholding food and water if the person is clearly benefitting from it. The document notes further: "Obligatory nutrition and hydration can at times be administered artificially provided that it does not cause harm or intolerable suffering to the patient."



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In the paragraphs concluding the document we see the compassion and concern of the Church for the critically ill and of those who care for them. It speaks of a "Redemptive suffering" and of its incalculable value. Yet there is still the mystery! Yes, we do "offer it up," but in the spirit that Christ will take that suffering and transform it into a gift of His choosing. Shouldn't we leave that final choice to Him?

^{* &}quot;The Sovereign Pontiff Francis on 25 June 2020 approved the present letter, adopted in the Plenary Session of this Congregation, the 29th January 2020, and ordered its publication." (from the Offices of the Congregation for the Doctrine of the Faith, the 14th of July 2020).

Opinion Dobbs vs. Jackson Decision

By Clayton Huck

College IV Seminarian, Kenrick-Glennon Seminary

In light of the recent Supreme Court decision to overturn the precedent set by Roe vs. Wade, I would like to share some of my thoughts to bring about reasonable discussion. "My body my choice" and "A person's a person no matter how small" do nothing to capture the depth of this issue. I hope here to present some truths reasonably and in a way that is open to rational discussion.

How tremendous it was that this decision came on the day it did. It was the day when the Solemnity of the Sacred Heart of Jesus and the Feast of the Birth of John the Baptist happened to coincide. Jesus' still-beating Sacred Heart, present in heaven, formed in the womb of the Virgin Mary, shows precisely how great is the dignity of the human person. God himself took on human flesh in the womb and thus elevated our humanity into the Godhead!

Beyond this, the story of John the Baptist shows the great significance of the child in the womb. When Mary conceived our Lord, she was young, poor, and just recently betrothed. She nevertheless recognized the immense gift she had received, and she "went out in haste" to share it with her cousin Elizabeth. At the sound of Mary's greeting, the infant John *leaped* in Elizabeth's womb in recognition of Jesus' presence in Mary. He knew his vocation to be a herald for the Lord before he was even born. Whether we begin from this point of faith or from a scientific analysis of life, it is beautiful how clearly we can see that life begins at conception and has tremendous dignity and importance.

There is a fundamental difference between libertas (liberty) and liberum arbitrium (free will) ...

Many of the arguments for "pro-choice" have to do with bodily autonomy and freedom — ideals which people should rightly support, but which must be properly contextualized. There is a fundamental difference between *libertas* (liberty) and *liberum arbitrium* (free will) which the modern world fails to recognize. Liberty is a fundamental human right endowed to man by his Creator. It is true freedom, properly speaking — the freedom to excellence which frees one

from evil and the fear that is caused by sin and death. It is the freedom to live and to be joyful – the freedom proper to human dignity by which one is recognized as a person who has a life of infinite value.

Evil takes away this freedom. It traps a person in the chains of sin and death. We can see this, for instance, when a person's free choice to use drugs places them into the slavery of addiction. The mere recognition of free will allows the individual to choose between evil and good indiscriminately. Rather



than the freedom for excellence that comes from choosing the good, the ability to choose evil is the bondage of oneself into slavery masquerading itself as "freedom."

Elective abortion is not a matter of real liberty. No one has the right to end an innocent life because of their own desires. Killing does not free you from anything at all except from true freedom. Our Constitution has never guaranteed a right to license – pure, indiscriminate choice – but to liberty. This applies to everything from theft to abortion to running for president under a certain age. Just as when doing something as simple as playing a game, rules make us free. They provide structure and sense to the world.

I have seen many arguments which hinge upon the "inhumanity" and "audacity" of "forcing" someone who has engaged in consensual sex to carry a pregnancy to term. (I am not here talking about rape or medical emergencies.) The world is governed by a pattern of cause and effect. It is the very nature of things. If you drop something, it falls. If you plant a tree, it grows. The end of sex, in every species that performs the act, is reproduction. Though sex may fail to result in reproduction due to infertility, contraception, or miscarriage, we can nevertheless see that reproduction is the primary reason for its existence from both a religious and Darwinist/secular perspec-

tive. This procreative *end* of sex must always be considered along with the sexual act itself. Any engagement in sexual activity which is not at least open to the reproductive end of sex is intrinsically disordered and severely irresponsible. It is not civil law, but the very law of nature which imposes this reproductive end to the sexual act.

Thus, if a couple is not in a position to raise a child, they must take this circumstance into consideration *before*, and not after, the sexual act. Once conception has occurred, though, it is never justified to kill the child. The failure of two people to recognize the reproductive nature of sex does nothing to negate the intrinsic dignity of the person they conceive. Abstinence from sex is a real and viable option to prevent unwanted pregnancy. Abortion is not. The acts of sex and reproduction are scientifically and philosophically inseparable. This is not some convoluted ploy to control women's bodies. It is a matter of taking responsibility for one's own actions.

The Church doesn't want to control women. In fact, it is exactly the opposite: the Church wants to uphold the dignity of women.

I also want to address the arguments that pro-lifers are merely "pro-birth" and will do nothing to help children once born. I agree that some have failed to follow through and be truly prolife, but many have not. In the state of Missouri alone, we have 76 pregnancy centers which serve thousands of women in need. On a secular level, we are trying our best to set a precedent of a truly pro-life state, and we hope others will follow.

From the beginning, the Catholic Church's primary concern has been with the poor and the downtrodden. Nobody in history has provided more support to the poor, more hospitals, orphanages, soup kitchens, prison ministry, aid to mothers in need, more charity than the Catholic Church. Jesus ate with prostitutes and sinners, lived his life as a poor carpenter, and found the most downtrodden of society to show the coming of his kingdom. The apostles sold what they had,

bought what they needed, and gave the rest to the poor. Any great saint, any person who has truly lived Christian values, has always loved the poor above all else. This is our chance, here in the modern world, to "step up to the plate" and show people the love of Jesus.

I would also like to address another claim that the Catholic Church hates women and only wants to control them. The Blessed Virgin Mary is the single greatest ideal of the Christian disciple, and many of the greatest saints are women. When the popes were corrupt, greedy, and not living in Rome, it was Saint Catherine of Siena – a woman and Doctor of the Church – who admonished them and brought about papal reform. Saint Teresa of Avila and Saint Thérèse of Lisieux are also Doctors of the Church, renowned for the significance of their teachings. The Church herself is referred to as "Holy Mother Church." The mysteries of motherhood and womanhood have always been held in the highest regard by the Church and are important spiritual metaphors. The Church doesn't want to control women. In fact, it is exactly the opposite: the Church wants to uphold the dignity of women. But killing their own children doesn't advance the dignity of women. It undermines the dignity of both woman and child.

I have no hatred for women or freedom, and I have no desire to see anyone suffer. What I desire, and what Holy Mother Church desires, is that the rights and dignity of every single human being, created in the image and likeness of God, be respected and upheld at all times and in all places and under all circumstances. Many people fear the consequences of banning abortion, and my heart goes out to them. But we should fear far more the consequences of continuing to allow it. Evil is a cancer. The killing of innocent children, left unchecked, will inevitably grow and spread, leading to greater and greater evil.

Overturning Roe vs. Wade is certainly not the end to this discussion. It is only a beginning. Nevertheless, *something* needed to be done to move us out of our stalemate. My hope for this country is that we might engage in dialogue, not just screaming matches, and seek, rather than killing unwanted children, to create a world into which we would generously bring a child.

Do you know a student who is interested in the complementarity of faith and science?

Thanks to a generous donation, ITEST now has a scholarship fund to enable college students to become ITEST members at no cost to them. Contact Sheila Roth at ITEST@archstl.org for more details.

A Beginner's Guide to the End: Practical Advice for Living Life and Facing Death

By B.J. Miller, MD and Shoshana Berger

Reviewed by Sister Marianne Postiglione, RSM

This article is more an overview than a review. I discovered the main author on YouTube as I was researching material on death and dying and found him to be optimistic and hopeful on the topic. As a young college student, he had suffered serious and life-threatening injuries in an accident, and emerged with severe electrical burns on his torso, the loss of both legs below the knees and part of his left arm. How did a young man like this get on with life? Not only that! After months of physical therapy, Miller went on to medical school, became a physician and eventually founded The Center for Dying & Living at UCSF where he is a hospice and palliative medicine physician. The second author, Shoshana Berger, contributes her insights and experiences as a caregiver for her father as he endured the ravages of a slowly advancing dementia.

This book, in one sense is a companion piece to the essay in this bulletin on *Death and Dying: Is That All There Is?* with one difference. Although the Miller book is certainly neither antithetical nor antagonistic to religious faith, there is very little mention of "God" as such. In fact, God does not even make an appearance in the index. Yet, there is something in this book for all of us who at some time in the future will experience that which comes to each person-dying and death.

Divided into five chapters with the usual afterword and acknowledgments, this book takes the reader on a journey from the onset of death and dying to the end of life. Starting with the basics in the first chapter, Planning Ahead, the authors urge you to clean up your mess, physical and mental, admittedly a serious topic. Yet we see hints of humor attached to some necessary yet unsettling activities. Don't leave a lot of "junk" for your long-suffering relatives or friends to clean up after you. Better that you consign the mess to the trash bin now! Mental baggage can also weigh on you: It may be that you have not spoken to a member of your family for years, perhaps over some insult or hurt that you may not even remember. Take steps, even if you are humbled by it, to repair those tears in the fabric of your relationship. Salutary advice!

In the second chapter, *Dealing with Illness*, we witness examples of the progression of sickness from diagnosis to prognosis and the steps in-between. Once you have taken stock and dealt with the reality that "I am seriously ill," coping privately or sharing the news with loved ones, relatives or close friends, the question arises, "Now what?" The book provides some helpful coping techniques, among them, a) setting (realistic) goals, for example, should the chemo therapy continue or "Have I had enough?"; b) allowing the "good stuff" to exist along with your pain or

misery. One patient with throat cancer decided that calling his friend who lived across the country, taking a ride in his 1954 Chevy pickup, and writing down what brought him even a glimmer of joy each day gave him a tremendous lift which sustained him during periods of loneliness and pain; and c) praying, a very powerful source of bringing comfort and hope to those feeling depressed. As I mentioned in the introduction, this book for the most part, is written for anyone, religious believer or not, but that God was missing from the Index. Never give up hope! I found "God" on pages 139-140. God may not have seemed important enough for the index, but the section on prayer or praying is very helpful. The Reverend Luke Jernagan of St. Peter's Episcopal Church in St. Louis defines prayer "Letting God do some of the talking allows patients to remember that they're in connection with something greater; something that exists beyond death."

The third chapter, *Help Along the Way*, most closely parallels the article in this issue, "Is That All There Is?" In "The Dynamic Duo: Hospice and Palliative Care," the authors' wealth of experience in this area of treatment or care is quite evident and powerful. The second author, Shoshana Berger, tells the heart wrenching story of shepherding her father, Stanley, a professor of engineering at Berkeley, through the years of his slowly advancing dementia. "All that mattered to him were his children and the inner workings of his brain," she noted. Hospice in this case may have made Stanley's last days less stressful for both him and the family, but his second wife felt that "...meant giving up..." and in her desperation for more time, she took him home to die.

The authors provide some helpful hints about hospice and palliative care. Although the two may overlap,

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they are not synonymous. Palliative care may be administered at any time of illness to ease pain and suffering from say, cancer or other serious illness; whereas hospice often applies to those diagnosed with perhaps six months to live. Some patients, however, receiving hospice may improve for a time, but the prognosis remains. "If you have medical insurance, including Medicare, you can rely on access to hospice services at no out-of-pocket cost to you," the authors assure us. "If you have no health insurance at all, emergency Medicaid may be obtained" (p.191).

In the fourth chapter, When Death is Close, the question of choosing to die arises. A thorny statement to say the least. On the one hand, the authors emphasize the importance of personal responsibility (see above, clean up your mess, or prepare!!), they remain "relatively" ambivalent on the question of taking your own life with MAID, medical assistance in dying. On the other hand, the authors make it perfectly clear that self-administering drugs that will end your life is not "a walk in the park" (italics mine). The book also outlines the steps used for physician-assisted suicide (PAS) and the hurdles to overcome. This process is already legal in Canada and at least in ten states in the U.S. A simple on-line search for "PAS" will reveal

that information.

Chapter five, *After*, deals compassionately with the details of the aftermath of death. Again, the authors, with that light touch, urge you to be kind to your relatives by having your estate in order. The chapter also gives suggestions for writing a eulogy, handling the funeral arrangements and how to submit an obituary to the local news outlet – print or electronic. They also recommend that you write your own obituary if you want to be sure that people reading it will recognize you!!

Finally, this book will be very helpful to anyone who has questions about everything from coping with a terminal disease prognosis to writing your own obituary! At the end of each chapter you will find a one page (blue) summary of the main points recommended. The authors make it easy for you to clip those pages for your files. Those pages provide a little reminder—even with a touch of humor--of all the necessary things to remember when preparing for your final days on earth. It is never too soon to begin!!

Purchase this book at www.amazon.com/Beginners-Guide-End-Practical-Advice/dp/1501157167

The Church Must Stand Up for the Energy Rights of People

By Vijay Jayaraj

(Reprinted with permission from the author)

In the Fall 2020 ITEST Bulletin, Vijay Jayaraj wrote an essay outlining how the poor nations are hurt by the United Nations' climate policy. This essay is a continuation of his thinking.

For many Christians, Jesus' commandments lay out the pathway for life and how Christians are to live in a world that is wrought with many challenges. Among them, are a set of clear commandments on how we should treat our neighbors. Jesus asks his followers to love their enemies, seek the good of neighbors, and care for those who are in need.

In fact, Jesus goes as far as to say that anyone who does not clothe, feed, and shelter the poor are doing that disservice to Him. In Matthew 7:12, Jesus calls us to do to others what we would want them to do to us.

Considering such an important call to seek the welfare of people, the Church must always be equipped with knowledge about the world around it. The influences of policies on the life of common people can be significant.

In recent decades, the policies on energy are threaten-

ing to reverse centuries of development.

In a time when the climate movement has engulfed the truth of reality, here is an imploration for the Church to stand for the basic needs of the poor in this world.

Energy, climate, and people

Since the end of World War II, economic development across the world has brought people out of poverty. An industrious economy helped societies become prosperous. A key factor for this achievement was a robust global energy system.

The 20th century energy sector harnessed naturally available resources such as coal, oil, and gas (collectively known as fossil fuels). This produced abundant electricity and copious amounts of fuel for transportation.

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However, over the past 30 years, fossil fuel use has come under severe disruption due to policies that are being drafted in the name of climate change. A section of our society insists that greenhouse gas emissions from human fossil fuel use are warming our atmosphere to dangerous levels.

The climate industrial complex is made up of politicians, scientists, businesses, nonprofits, and celebrities. It has devised policies that inhibit fossil fuel use and promote the use of alternative technology like wind and solar.

Big problems with the new climate & energy approach

Firstly, there is no evidence that sacrificing fossil fuel use will result in temperature reduction. Temperatures failed to rapidly rise in the past 20 years¹ despite a rapid increase² in atmospheric greenhouse gas concentrations. This mismatch is not new to geologists and paleoclimatologists as there were many non-greenhouse gas driven temperature increases³ in the past.

We have no existing mechanism to accurately predict future temperature levels. 90% or more of our current computer models are faulty⁴. They over-exaggerate the impact of greenhouse gases on atmospheric warming. Yet, these models are used as the go-to reference for international climate policy.

We do not have any existing scenarios where alternative technologies exclusively powered the nature of demand that exists in our cities. Neither can they provide on-demand electricity. Renewable champions like Germany, the UK, Netherlands, and France activated their coal plants⁵ this year due to energy shortages from a ban on Russian gas.

Over-reliance on new and expensive alternative technologies renders our energy system unstable. Besides, it makes power more expensive⁶ and causes complexities in the transmission network. Places like California and Germany faced blackouts⁷ and rises in power tariffs despite having a high proportion of renewable technology.

Overall, it causes immediate and life-threatening problems for hundreds of millions of people in a short time span. An anti-fossil stance by the U.S. administration caused a historic rise in gas prices⁸ across all American states.

In developing parts of the world, the situation is worse. A coal shortage due to policy failure in 2021 caused unprecedented blackouts in 17 Chinese provinces⁹ causing loss of jobs, livelihoods, and widespread poverty.

Further, billions in Africa and Asia do not have elec-

tricity. For example, one old refrigerator in the U.S. uses more electricity in a year than what 3.3 billion¹⁰ people consume in a year. That is the adverse state of energy poverty in our world. Their future is likely to remain the same if the use of fossil fuels is restricted further.

The call for the Church to stand for energy rights

The call to the Church is this: Stand for the energy rights of the poor. It will enable poor people to become industrious and climb up the socioeconomic ladder. Access to life-improving resources is possible in an economy that is supported by a strong energy sector.

And a strong energy sector is only possible with unrestricted use of abundant, reliable, and inexpensive fossil fuel sources. Hospitals and homes in Africa will have electricity sooner if the current ban on fossil fuel funding is lifted.

Stand against the lies of the world. For decades now, the political class and media have been exaggerating the nominal warming in our atmosphere. They have inculcated fear in people and utilized a doomsday theory to drive a climate agenda.

The Bible calls us to expose the lies and not partake in them. Empowering people to prosper is more ideal than keeping them poor and sending them occasional freebies. Besides, let us not deny third-world countries the same energy resources that made Western civilization prosperous.

The Church's stance on this matter will be crucial. The more God-fearing people understand the truth of energy poverty, the more clarity there will be in the love they share with the people of this world.

- 1. https://tinyurl.com/37rtpf55
- 2. https://tinyurl.com/3t7e3ry5
- 3. https://tinyurl.com/5n6w4vh2
- 4. https://tinyurl.com/mu92rma7
- 5. https://tinyurl.com/4cy9sxpv
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- 7. https://tinyurl.com/2p9dfvby
- 8. https://tinyurl.com/3a94wjwc
- 9. https://tinyurl.com/3pjcf5d5
- 10. https://tinyurl.com/mr4cx3jj



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Retrospective Science and Religion in the 21st Century

By Dr. Paul Davies

A speech delivered at Philadelphia by invitation of the John Templeton Foundation, 2000 (Reprinted with permission from the author)

As we enter a new century likely to be dominated by sweeping scientific and technological developments, the need for spiritual guidance will be stronger than ever. Science alone cannot adequately cater for our spiritual needs, but any religion that refuses to embrace scientific discovery is unlikely to survive to the 22nd century. Religion faces extraordinary challenges in the 21st century. Dazzling advances in science and technology have transformed our world view and produced dramatic changes in lifestyle and material wellbeing. But this enormous progress has left religion behind. Few theologians have kept up with the revolutionary developments at the forefront of astronomy, physics, molecular biology, or genetics. Churches and other religious institutions seem ill-equipped to deal with the brave new world of big bang cosmology, quantum reality, genetic engineering, and nanotechnology. As a result, many people see religion on the defensive against the onslaught of scientific progress. They think of science as undermining or displacing religion.

Historically, it is true that major scientific discoveries, such as Darwin's theory of evolution, have proved profoundly unsettling in some religious quarters. And three hundred years of materialistic and reductionistic scientific thought has fostered the impression that scientists are cold, hard, soulless individuals who try to reduce the splendour of nature to sterile mathematical formulas.

For those religious thinkers prepared to engage the scientific agenda in a constructive spirit, the coming decades will be a time of excitement and renewal.

However, this view of two implacably opposed belief systems constantly at loggerheads is seriously misleading. For those religious thinkers prepared to engage the scientific agenda in a constructive spirit, the coming decades will be a time of excitement and renewal. Science need not be the enemy of religion. Indeed, far from threatening mankind's spiritual wellbeing, science is increasingly seen as positively inspira-

tional. As scientists unlock more and more secrets of nature, they reveal a universe of stunning beauty and ingenuity, a grand cosmic scheme truly worthy of our awe and celebration.

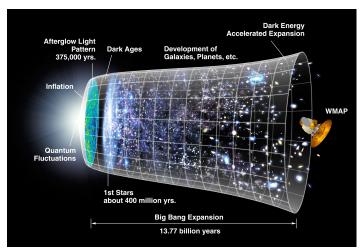
The predicted concordance between science and religion will not come without significant religious progress, however. To appreciate the fascinating synergies that are emerging in the science/religion field demands a level of theological sophistication far above that which characterises the simplistic wrangling of much public science-religion debate. For their part, if scientists were better educated in matters of religion and spirituality, they would be less inclined to dismiss them as anachronisms.

To illustrate what I mean, I shall take two examples from the scientific frontier that are often presented as threatening to religion, and argue that the reverse is actually the case. The first is the big bang theory of the birth of the universe, the second is the origin of life. My central point will be this. Neither of these events needs a miracle to explain it. Both happened, I believe, through natural physical processes, billions of years ago. But far from supporting a purposeless cosmos and a bleak atheism, as many have concluded, these scientific advances do just the opposite.

Let me start with the origin of the universe. Remember the furor when Stephen Hawking said, more or less, that God wasn't necessary to explain the big bang? I always took this remark of Stephen's to be a light-hearted jibe rather than a serious statement of theology. Hawking was in fact stating little more than St. Augustine, who had already concluded in the fifth century that, "the world was made with time and not in time." Augustine was anxious to demolish the naïve image of God as a sort of miracle-working superbeing emersed in the stream of time, waiting an eternity before whimsically making the universe at some arbitrary moment, and then sitting back to watch the action. If time itself forms part of creation, reasoned Augustine, then this embarrassing precreation eternity would not exist. He therefore placed God outside of time altogether, and interpreted "creation from nothing" to include the creation of

time. Today, when most Christian theologians talk about "creation," they don't mean the universe popping into being from nothing, but the holding-inbeing of space, time, matter and the laws of nature at all times. In this more sophisticated interpretation of creation, God is regarded not so much a cosmic magician, or pyrotechnic engineer, but as the rational ground in which all physical existence is timelessly rooted.

Remarkably, Albert Einstein came to more or less the same conclusion 1,500 years later. His theory of relativity makes it clear that time is inseparable from space and matter, and that all are part of the physical universe, subject to laws of nature. Personally, I find the idea of a god trapped in time and subordinated to its laws theologically very unsatisfactory. In Einstein's theory, the entire universe can originate from literally nothing in a big bang. There is no time before the big bang: time itself comes into being with space and matter. Moreover, there are known physical principles that permit the spontaneous appearance of time and space from nothing, without the need for a supernatural act to make the big bang go bang. So Hawking was merely sniping at a concept of God that was in any case abandoned long ago by scholarly theologians.



Timeline of the universe beginning with the Big Bang / NASA/WMAP Science Team

Unfortunately many people regard this scientific account of the cosmic birth as trickery. They suspect scientists are merely covering their ignorance with technical obfuscation, lest they leave a loophole for God. This mistaken conclusion has been made by many commentators, including the leading British journalist Bernard Levin. In a hard-hitting column in the *London Times* that began with the memorable words, "Well, poor old God..." Levin slammed the

great American physicist John Archibald Wheeler for pointing out, quite correctly, that the question "What happened before the big bang?" is simply meaningless in the context of the general theory of relativity. It is a meaningless question when time itself began with the big bang. As Stephen Hawking puts it, it's rather like asking what lies north of the North Pole? The answer is "nothing," not because there is some mysterious Land of Nothing there, but because there is no such place as "north of the North Pole." In the same way, there is no such time as "before the big bang." The big bang theory describes how the universe originates from nothing - nothing at all, not even space and time - entirely in accordance with the laws of physics. Augustine would have understood perfectly.

I want to insert two important caveats at this point. The big bang theory is, of course, a mathematical model. There is a vast amount of observational support for the basic idea of an abrupt, explosive origin for the cosmos about 15 billion years ago, and I don't think the basic scenario is in doubt. But the actual originating event itself is far beyond any foreseeable observation. In the laboratory it is possible to recreate the conditions that prevailed about a trillionth of a second after the big bang, but the sort of physics we need to explain the origin of space and time occurred well before that, at energies trillions of times greater. So the explanation for the natural origin of the universe using quantum cosmology is a highly speculative piece of mathematical theory. It may turn out to be totally wide of the mark. But that doesn't matter! The key point is that we can envisage how the universe might have come into being from nothing, without violating any physical laws. A special supernatural act isn't needed to start the universe off.

The second caveat is that the big bang model I have been discussing may be altogether too simple. It could be that there were many bangs, and that what we call "the universe" is actually just one bubble of spacetime amid a vast assemblage of universes - a multiverse if you like. But I don't want to tax your patience too much, so I shall sidestep these elaborations and move on to the second of my chosen topics - the origin of life.

Darwin famously explained how life on Earth has gradually evolved from primitive microbes to the rich diversity of the biosphere that we see today. However, he left open the question of how the first living thing came into existence. And it remains deeply

problematic. How did lifeless chemicals transform themselves spontaneously into the first living thing? Nobody knows. There are plenty of theories, but they all have serious shortcomings. It's a genuine mystery.

Now there are those who seize on this bafflement to declare that God created the first living organism by a miracle. But this is to fall for the old god-of-the-gaps trap - invoking God to explain a puzzling phenomenon. The idea that God is like an absentee landlord who shows up from time to time to give the world a prod, moving atoms about in competition with the forces of nature, I find both scientifically and theologically repugnant. It is also a tactically foolhardy proposition, because science has a habit of solving mysteries sooner rather than later.

As it happens there is a lot of research going on in the field of biogenesis. Some scientists are trying to make life from scratch in the lab, by mixing chemicals in various ways. Others are following a top-down route, taking existing microbes and rebuilding them gene by gene in the hope of creating new, more primitive, forms of life in the test tube. The hope is that these studies will solve the mystery of how Mother Nature accomplished the genesis trick on the primitive Earth - or perhaps on a nearby body in the solar system - billions of years ago, without the aid of fancy equipment and trained organic chemists. Major advances are expected in the coming decades.

So does it boil down to either life being a miracle, or God being redundant? Certainly not! As a scientist, I would prefer to believe that life did indeed form by natural physical processes. However, that is hardly the end of the story. Physical processes come in two varieties - lawful and random. Traditionally, scientists assumed that the origin of life was a chemical fluke of stupendous improbability, a quirk of fate unique in the entire cosmos. If so, then we are alone in an otherwise sterile universe, and the existence of life on Earth, in all its exuberant glory, is just a meaningless accident. On the other hand a growing number of scientists suspect that life is written into the fundamental laws of the universe, so that it is almost bound to arise wherever earthlike conditions prevail. If they are right - if life is part of the basic fabric of reality - then we human beings are living representations of a breathtakingly ingenious cosmic scheme, a set of laws that is able to coax life from nonlife and mind from unthinking matter. How much more impressive is such a magnificent set of physical principles - which bear all the hallmarks of design - than the sporadic intervention of a Deity who simply conjures these marvels into existence.

Here then is a wonderful example of how science is increasingly informing theological debate. The question of whether life formed by law or chance can, and I believe will, be settled by observation and experiment. If life is finally made in a test tube, or discovered on Mars and shown to be completely independent of earth life, then the meaningless fluke theory will be disproved. Life and mind will be revealed as part of the grand cosmic scheme, embedded in the nature of things at the deepest level of reality. Our own existence will be seen as linked to this deep level in an intimate and purposeful way. Instead of us playing a trivial role as incidental cosmic extras, with life on Earth an insignificant accident in a pointless universe, our place in the cosmos will be far more inspiring. True, it wouldn't return us to the centre of the universe or to the pinnacle of creation - our place is far more humble - but nor will it relegate us to the status of mere moving mounds of atoms. In my view, the discovery that life and mind have emerged as part of the natural outworking of the laws of the universe will be strong evidence for a deeper purpose in physical existence. Since it is easy to imagine other universes and other sets of physical laws that would prohibit life, the fact that our universe is so ingeniously bio-friendly would surely be a fact of the utmost significance. I hope you see the drift of my thinking. Invoking a miracle to explain life is exactly what is not needed to see evidence of divine purpose in the universe.

Invoking a miracle to explain life is exactly what is not needed to see evidence of divine purpose in the universe.

So I conclude my remarks on a positive note. As we enter a new century likely to be dominated by sweeping scientific and technological developments, the need for spiritual guidance will be stronger than ever. Science alone cannot adequately cater to our spiritual needs, but any religion that refuses to embrace scientific discovery is unlikely to survive to the 22nd century.

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