Scientists and Belief: Conflict or Confluence?

Something unique happened at the College Church in St. Louis recently on a relatively calm winter evening. Parishioners and friends gathered to listen to a group of young adults speak convincingly of their faith as scientists. Scientists who are believing Christians? Can scientists be believers? According to a widely held public perception, “real” scientists disparage any connection between faith and science, asserting that faith and science are in conflict.

Three young parishioners turned that idea on its head: A developmental biologist, geneticist and a grad student in theology and health care ethics were members of a panel at the College Church’s “Supper and Spirituality” meeting, where they discussed The Intersection of Faith and Science.

Rebecca Cunningham (developmental biology) Kathryn Sheldon D’Rozario (theology/health care ethics) and Mitch D’Rozario (genetics) shared their experience of being scientists and faithful Catholics. They discussed how faith enriches their science and how science often inspires awe of God’s creation.

It was obvious that these three young people loved their science, the research entailed in the lab and the wonders found in theological exploration.

Kathryn Sheldon described how the beauty of the natural world inspired her with awe. She saw in a colorful sunrise or sunset an invitation to prayer. How well the words of the Psalmist applies: “O Lord, Our Lord, how glorious your Name over all the Earth”; and “The heavens declare the glory of God and the firmament proclaims God’s handiwork.”

Thus, through discussion and sharing, what had been a long sought dream and goal of our founder, Father Brungs, SJ, in the area of faith and science actually came to pass during that January evening at the College Church. Scientists, Rebecca and Mitch, invited to give testimony of their deep Christian beliefs, spoke convincingly and sincerely of their faith; while theologian Kathryn saw the natural world as leading to a strengthening of faith and as a path to God.

In the past Father Brungs often spoke of the need for scientists and technologists to make themselves known to their pastors as people of faith. However, even today, very few parishioners seek out scientists to engage them in discussion on the question of conflict or confluence between faith and science.

So, it is up to all of us. Let’s challenge ourselves as ITEST members to go to our pastors and ask for this kind of discussion. If we are willing to work, we could renew the face of the earth!

Associate Director, ITEST

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Announcements

ITEST’S 50th Anniversary – Coming Soon!

The year 2018 will mark the 50th anniversary of ITEST. Plans are “afoot” to celebrate this “jubilee” as the Members of the ITEST Board explore ideas to mark this epic anniversary. We ask for your creative input. We want to consider various ways to celebrate the anniversary culminating in the ITEST fall conference. The actual date of ITEST’s Incorporation was September 16, 1968. The original signers of the Articles of Incorporation were: Robert Brungs, Robert Bertram, Leo Hohnstedt, Richard Nickeson and John Matschiner. In later years, Father Brungs knew or “opined” that he would probably not be alive—at least on this earth—by the time 2018 rolled around. He would be proud of the work accomplished in the years following his death and rising to New Life in 2006. Although he won’t be with us “in the flesh” to honor the 50th, he will certainly be with us in a “heavenly” virtual reality.

NCEA Convention - 2017

Visit us at our booth at the NCEA Convention in St Louis, April 18-20, 2017 where ITEST will be featuring—among other ITEST projects—Exploring the World, Discovering God, (EWDG): faith/science side by side lessons from Pre-K through Grade 4. We are celebrating the tenth year of the program with the good news from our online statistics verifying more than ½ million actual downloads worldwide. Now is the time to take the opportunity to further advertise our ITEST programs and projects.

Thousands of teachers from all levels of Catholic education attend the convention each year providing vendors with a fertile market for promotion of all kinds of valuable educational materials. ITEST will be offering selected Pre-K-Grade Four lessons on two CDs: Volume One – Pre-K-Grade One; Volume Two – Grade 2 – 4 for sale at a reasonable price. In the next issue of the bulletin we will print some of the photos of the people visiting the ITEST exhibit booth and a summary of our days at the convention. We thank those who have generously contributed to help cover the major costs involved in displaying our ITEST materials at this venue. We always accept more support and would appreciate your donations. Simply indicate that it is for the NCEA Convention ITEST booth.

Prayers For Us All

Each year a priest from the Jesuit Community here in St Louis offers a Mass once a month for all members of ITEST, living and deceased. This year Father Albert C. Rotola, SJ has agreed to offer Mass on the first Saturday of the month for all our intentions. Father Rotola writes, “I have chosen the option to offer the Mass in honor of the Blessed Virgin Mary—so prominent in ITEST founder Fr. Brungs’ spirituality—at my 7:15 am Mass in the Chapel of Our Lady in St. Francis Xavier College Church.”

National Catholic Register (NCR)

We alert you to an excellent feature article in the NCR titled “The Italian Jesuit Who Taught Computers to Talk to Us,” published in the blog of Angelo Stagnaro. Since we don’t have permission to reprint the article, we want to make it accessible through the information below. To whet your appetite, however, here is the opening sentence: Stagnaro writes, “If you ever wanted to know who you should blame next time you lose that important PowerPoint presentation, it’s a brainy Jesuit by the name of Fr. Roberto Busa.” To read the entire blog go to Google type in: January 30, 2017 Blog of Angelo Stagnaro and then enter. Stagnaro’s blog will appear; scroll down four headings and you will see the blog indicated. Click on the title and enjoy.

(Angelo Stagnaro, blogger, journalist and author, has published articles in most of the major Catholic journals in the United States and Great Britain and had worked as a correspondent for the Catholic News Service having served as principle liaison for the wire service to the United Nations and to the Holy See’s Office to the United Nations).

Ten Year Retrospective

Since this is the 10th anniversary of the launching of Exploring the World, Discovering God, we are celebrating that anniversary by reprinting two related items in this issue. See page 3-9 for Streeter’s essay and page 16 for a photo memory of the creative teacher think tank with project manager, Evelyn Tucker, and the St Louis Archdiocesan teachers who contributed to the success of the project as evaluators and creative writers.
The Sacred Story
Carla Mae Streeter, OP

“...our hearts are restless ‘til they rest in Thee...”
- St. Augustine

This “theological” article is a companion piece to Dr. Sheahen’s “science” article published in the last bulletin and is directed specifically to teachers in the primary grades. Both articles will appear in the book, Exploring the World, Discovering God, as a resource for teachers involved in the pilot program of faith/science interface modules. Sister Carla Mae was a co-presenter with Dr. Thomas Sheahen at the ITEST Fall 2006 “working conference” Education for the Faith/Science Ministry, for which this paper was written.

Introduction

In his presentation on science in the last Bulletin Dr. Sheahen has opened up the wonders and complexities of science to us. He has shown us the false opposition of faith and science in the past, and has opened up for us the challenge to lead our students, at whatever level, to the fullness of truth. Truth is one, and whether it be about the created marvels of the universe which science studies, or the truth which cannot be measured because revealed by the expansiveness of God, the truth finds its unity in what really is so. Truth is the real as known by the human mind. Whatever is, is...and our minds are made to search it out.

There is a story, a sacred story. It is the very context for the wonders of science. Science is a part of this story and we do ourselves a great disservice if we separate them. This story needs to be told. Only then will we have the wholeness of vision that we need, and so this reflection will tell the story that provides the setting for the many faceted jewel that science is.

Catechesis is instruction in the doctrines and traditions of the faith. It is the basis of one’s knowledge of faith. The young man or woman who is not formed in catechesis does not know what to believe, or what the community believes that has received him or her into its midst at baptism. Sound catechesis is the foundation for theology. Theology brings current questions to faith. It seeks to use the inquiring mind to search out explanations for what one has always believed. It is faith seeking understanding. (St. Anselm) The same human mind that searches out the truth of the created world in science, searches out the meaning of the deep facts of faith.

Sister Carla Mae Streeter, OP, PhD, is a Dominican of the Congregation of Catherine of Sienna in Racine, Wisconsin. She is currently associate professor of Systematics at Aquinas Institute of Theology, a graduate school sponsored by the Dominicans of the Central Province at St Louis University and a member of the ITEST Board of Directors. She spent eleven years in lay leadership training on the parish level. She completed her doctoral studies at Regis College in Toronto, Canada. Among other publications is her book, Seasons of the Soul: An Intimate God in Liturgical Time.

The same human mind that searches out the truth of the created world in science, searches out the meaning of the deep facts of faith.

human mind that searches out the truth of the created world in science, searches out the meaning of the deep facts of faith. In science we measure and observe. In faith we rely on the word of someone we can trust to be telling us the facts about things we cannot humanly measure. In religious matters this “Someone” is God; the interpreters of the faith try to represent truthfully the fullness of what the community called Church believes.
Catechesis and Theology as Partners of Science

In ordinary life, the “someone” we believe is another frail human being, and 99% of our lives must rely on belief rather than knowledge we ourselves have verified. Let me explain.

Human belief comes from trust in the source of the information we are given. We trust the word of someone we trust, someone we respect or love. Check it out. Why do you believe there is only 10% ethanol in the gasoline you just pumped into your car? You trust the station to be telling you the truth. Do you know that there is only 300 mg. of sodium in your can of pork and beans? No, you believe it because that’s what the label says. And so it is. Many things in our lives rest on belief rather than on knowledge, even in ordinary day-to-day affairs.

In contrast, religious belief comes from loving. We meet God in our religious experience and prayer, and we believe in this Mystery because we have been grasped by its love. With this knowing-born-of–religious-love we come to know the mysteries of God, God’s presence in the very midst of the created world. Faith is like the lens of the eye. The lens enables the eye to see. The retina, the iris, the pupil, the cornea, the lens…all are there and enter in…but the lens enables us to see. So it is with faith. Faith is our relationship with the Holy One. For the believer, science unfolds within a faith context to explore the wonders this loving Mystery has created.

This point of view is distinctly Christian. It is a specific lens to view reality. It is not shared by everyone. We need to know our lens is distinctly Christian and offer no apologies, for we believe it to be holistic. We need to know others may not share our perspective, and we need to respect them even while we yearn to have them know what we know by faith.

My Place in the Cosmos

So here I am. But who am I, really? I’m a creature…made out of star dust. The Earth is the name of my home. But I live in an immense galaxy, and that galaxy is only one among others.

Faith tells me I was created from nothing…but love. So the Mystery we call God is a self-giving love we can only catch a glimpse of now. This love yearned for a creature to love and be loved back in return. God wanted a creature who could relate with this Mystery in the intimacy we call friendship. So, from the depths of the heart of God (which we call “Father”) there flowed an immense creative love. This active love of God we call the Holy Spirit. But this active love coming from the heart of God had to take a shape. This expression or giving “shape” to the love we call the Word (or the “Son”). So the mystery we call God has three “somethings” going on: God is a Source flowing out in an Active Love that Says/Shows Something. From this three-in-one we have come to know the Triune Mystery of God. Like a flame, we have the flame itself, its light, and its heat, distinct, but inseparable.

From this three-in-one we have come to know the Triune Mystery of God. Like a flame, we have the flame itself, its light, and its heat, distinct, but inseparable.

The opening chapter of John’s gospel tells us that everything that came to be came to be in the Word. So now we see where the galaxy and where we come in. When God created, the shape that love took was all that came to be in the Word, and that includes the galaxy and you and me. So, we are in the Word. This is what scripture means when it says that “…in him (God) we live and move and have our being.”

This means that the energy of active self-giving Love (the Holy Spirit) shapes us in the midst of the loving intercourse of our parents. That energy joins their sexual energy in a marvelous synergy. We are the products of divine and human love. We are made out of Love. That Love takes a human shape in the conception of a child, just as it takes the form of a tree or puppy to delight us in the wider creation. Keep in mind…it all comes from the Heart of God flowing out in Active Love shaped by the Word. This is another way of speaking of the Triune God, of a Three that forms a Oneness.

Something very profound follows from all of this. Since we are in the Word and the Word shapes us, then we, along with everything else, are indeed part of creation. As science probes more deeply into matter (atoms,

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nucleons, quarks, strings, etc.) we learn that God’s creation has a unity that goes back to the very first thing created: light. We are spun out of the very first thing that is created: light. So that brings us to an interesting duality: Spiritually I’m made out of love, and physically I’m made out of energy.

This reflection brings us to the next exciting part of the Story. Jesus in our scriptures says, “I am the Light…and the Way, and the Truth, and the Life…” So in love with this creature is God, that the Word decides to “marry” us. The very Word that has shaped us in creation now takes on our humanness, the condition of a creature. The Word does this in a union closer even than marriage, for marriage is but the sign pointing to it. The Word takes on our human DNA. In the language of faith this is called the Incarnation. It seems God knew we would forget how we were formed, and so this Holy One gave us a constant reminder. The Word that shaped us wants to remind us how close God really is…indeed bonded to our very DNA. So God is not up in some place we call heaven light years away. God dwells in our midst and calls us “home.” So “heaven” is in our very midst, even though we are unaware of it, for God is there.

The music from our favorite country music station is in our midst carried by radio waves, but we are unaware of it too. Only when we tune in do we hear it. Tuning in to the presence of God in the midst of our own hearts is called prayer. As the fish lives in the midst of the sea, so we live in God. We live in an ocean of air, and hardly think of it…unless we are choking! Why then are we so out of touch with this Mystery?

What Happened?

So why do we have spiritual dementia? Why is there so much selfishness, evil, corruption, and abuse among human beings if God has made God’s home with us? Why do people starve and nobody cares? Why do we fight with each other? Something has happened - our wounds are showing.

Maybe way back in time when our consciousness became developed and we could think reflexively, we became ashamed. Maybe we were ashamed because we were limited. Limited means there are boundaries to what we can do. We live in space and time, and we can’t control things the way we want. So maybe we resented it. We resented the fact that we were not in charge. We resented that we were not God. We were us, and we were limited. So our resentment became an angry arrogance that ended up in disobedience.

What I am describing is one interpretation of the birth of sin in the world. It is still around today. The child feels its effects when it is being carried in the womb when the parents argue. We all are born into it in our first days of life. This “something” that is like a pollution we call “original sin.” This moral pollution is so fatal that without an antidote it would kill us.

The antidote for sin is grace, and being graced means that God actually gives us God’s own self. Although grace is the gift of God’s own self, God only comes when invited. So when we long for God, God comes, not just to visit but to take up residence. Some are graced by desire. Some are graced when parents and family invite God in for a helpless little baby in a ceremony in the faith community called baptism. When God gives God’s Self to us, the pollution of sin into which we are born cannot stay. God and sin don’t mix. So we become pollution free. But as we all know, it’s hard to stay that way. Sin is all around us like some infection trying to bring us down. Sometimes we buy into it, and then we get re-infected. We call this “actual” sin. It means we are actually becoming infected by the sin of the world in our own personal lives.

How do we know we’re infected? There are symptoms of this spiritual sickness just as there are symptoms of physical illness. The symptoms are all too familiar: laziness, rage, arrogance, deceitfulness, envy, greed, fear, gluttony, lust.

Sin infects us with soul-blindness. We lose our memory of God’s nearness. We think God is afar off and uninterested in us. We lose the sense of the immense love in which we were made. Soul-blindness makes us feel alone and unloved. Its signal is ignorance of spiritual things.

Then there is soul-anxiety. It shows itself in emotional
confusion. If we are soul-blind, then we become anxious. We can’t see clearly so we get frightened. We get upset. We get angry and violent. We are ignorant so we believe the wrong things, or we don’t know what to believe at all. Emotional confusion is not a stranger to us. It meets us daily in our newspapers and in our neighborhoods.

Finally, there is soul-paralysis. Because we are blind and anxious, we make really bad choices, or we don’t do anything at all to protect ourselves. We settle for less. When we need to make a decision we often choose out of self interest or immediate satisfaction. We don’t consider what the long-term results of our choices might be because we are blind and frightened.

This sinful condition is not a pretty picture. It is the beautiful and good human being twisted into something sad to behold. It makes the friendship God longed for in creating us impossible. Something had to be done, and the Love that created us in the first place sprang into action.

Healing on the Way

Just as our very being came from God in the beginning, so our healing will also come from God. But we are not puppets, and God will have no shot-gun weddings. God is going to get us in on the act, so we must be ready to be part of our own healing. This joint action is called Redemption. God saves us, but we must be part of our own process of redemption. We have twisted and deformed God’s image in us, so God takes our image to restore it in the mysteries we call the Incarnation and Redemption.

From God’s perspective, here we are, creatures made in God’s own image, able to think and choose, and now that very image is all twisted up by sin. So what does God do? The very Word that shaped us takes on our image. The Word becomes flesh and takes on our twistedness. The Word takes on our humanness to drink the depth of our sin-poison. Our soul-sickness peaks in violence. We lash out at others, and then we hate ourselves for it.

We all know what happens next. It will be costly to the Word-made-flesh in Jesus to take on our poison. He allows himself to be infected by the effects of our sin, even though he never buys into it himself personally. In his humanness he is betrayed by us, abused by us, humiliated by us, and executed by us. And then there is silence. In our blindness we think we have finally silenced the Word; we think we have killed Love. In our confusion we think we have finally gotten rid of God once and for all so we can be in charge, so high is our sin-fever. We congratulate ourselves on our twisted but efficient action. And the Word-made-flesh sleeps in the grave.

But not for long. Our puny sin cannot kill Love. Instead, Love has gone to the heart of our violence and pierced it. His dying has put sin to death. Like a serpent whose head is crushed, evil will thrash about until the end of time, but it is in its death throes. All our lives we will have to watch out for that flailing tail. Twisted human beings cannot kill the Love that is God. God’s love created us and that same Love redeems us. Jesus does not stay dead. He comes out of death transformed, and this is the greatest revelation of all. He shows us that so shall it be with us, for he has joined himself to us and will bring us safely home. We belong to him, not to our twistedness. Our sin does not own us. God does.

Our sin does not own us. God does.

God does not do restoration halfway. We are given all we need to stay free from infection with the sin of the world. First, God comes, not just to visit but to stay. God comes bearing gifts, the first of which is the gift of God’s very self in grace. That grace is three-fold. It brings our intelligence faith, Love’s way of knowing. Faith heals our blindness and ignorance. Love brings our emotions hope, love’s longing, the ache of the human heart for God. This begins to heal our anxiety. Love brings our wills charity, its own power to act out of love to heal our crippling paralysis.

But that is only the beginning. Because of the resurrection Jesus is not dead but alive. He is the very healing of our souls. He has joined our humanness to the Word, to God. He is our way home. So God has provided us a way home to the very heart of God, a way sin can no longer destroy. Our friendship with God is now open, and on terms we can understand, human terms modeled for us in Jesus’ own life. His very humanness

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has become our bridge. Because the way is now clear, the Holy Spirit can fill us with strength to walk that way. The Spirit continues to shape us, to form us in the Word, ever bringing about more and more healing in a constant process of conversion. This will go on until our death. God never quits although I might be tempted to cry “Enough!”

Finally, God gives me a world-wide community of strugglers in faith. Some are ahead of me in their healing. Some are just waking up from the coma of sin. “Church” is the name we give to a group of pilgrims on the “way” back home to God. Because Jesus has never really left, in a sense “heaven” is in our midst. So his “ascending to heaven” means he has brought our very humanness to the throne of God, thus opening the way. He lives in us by grace, for grace shelters us in God’s friendship.

What the Risen Jesus is Up To

Jesus lives. What is he up to? It is one thing to believe he remains with us, but quite another to ask what he is doing. There are sacred symbolic actions in this world-wide church community. We call them “sacraments.” Each time we do one, it gives the risen Jesus a chance to strengthen us on the way. In baptism he makes us his own and fills us with God’s healing love. In confirmation he opens us to the Holy Spirit’s full power in our lives. In the eucharist he feeds us with himself so we become what we eat. In reconciliation he heals us if we have again become infected with sin. In anointing he prepares us for the journey through death into new life. In marriage he makes a man and woman’s love the sign of his own love. In orders he makes a man the sign of his own self-giving love as a shepherd leader for the community.

What is my part in this restoration, this redemption? First we need to admit that we are both blessed and broken. Spiritually we have been mugged. We are not OK. Left to ourselves we will be selfish, arrogant, and abusive. With God in our lives we can heal and be healed. So we need to begin with a good dose of self-knowledge, and be wise enough to invite God in to begin our healing. We are not going to do it ourselves. We stand with a band aide when we need neurosurgery of the soul. But if we invite God in, God will come and the process will begin. Those of us lucky enough to have been brought up in an active faith community have the added support of others. Baptism is the formal way all of us together in the faith community invite God to protect a new human life.

We need to open our eyes to the fact that we need others to help us stay faithful and free from infection.

We need to open our eyes to the fact that we need others to help us stay faithful and free from infection. This is the meaning of “Church.” Believers travel together, the pattern set by the incarnate Word himself as he traveled all his life with a group of simple fishermen and women. We do not join the church because we are worthy. We band together with others because we are wounded. Some human beings have not become aware of their need for healing, or of how others might help them. Arrogant and elitist church members do not help them to become aware. Simple, prayerful, practicing Christians might provide the witness they need.

We also need to get ready for the long haul. This means we need to be aware that this healing journey is going to be my whole life. As the events of my life unfold I will be invited into one conversion after another. My mind needs to be changed on a lot of things. My emotions can still go back to the old anxious ways. My behavior can slip back into the old selfish patterns. Each day brings its own spiritual therapy, and I will often be tempted to whine, grumble, or quit. We all know physical healing is difficult. Ask anyone recovering from knee or hip replacement surgery. Spiritual healing is difficult too. Saints astonish us with their spiritual calisthenics and the beauty of their lives.

We also need to be a bit stubborn, or perhaps persistent. We need to set our minds on God and not second guess ourselves or look back. This is a form of “selling all.” Once we realize we have nothing we have not received, we’ve come into a basic healed sense of proportion. This is a great antidote to arrogance of any kind. Then we can own our own baptism perhaps for the first time, no longer going to church just because our parents brought

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us up that way. Now it is ours. We have claimed our rightful inheritance. Prayer becomes like breathing. We can’t live without it. Eucharist becomes one’s primary intimacy. Scripture becomes daily bread. Without it we lapse back into forgetfulness. Morally we take the ancient ten commandments as basic, the primary grades of moral behavior. Then we realize we are called to the upper grades of the Beatitudes as the Word leads us on in our healing. Virtue, those habits of the heart, become restored soul-muscle. Love’s discernment is prudence; Love’s fairness is justice; Love’s courage is fortitude; Love’s balance is temperance. The spiritual and corporal works of mercy begin to adorn the house of my heart.

What has happened to me? I’m under reconstruction from the heart out, and I sense God has no intention of stopping.

I’m under reconstruction from the heart out...

The Promised Happy Ending

The God who is Love is no softie. This is one tough Love, and my entire life is God’s redevelopment project. I may get out of breath, but God does not tire. I may cry out “Enough!” but God shows up day after day to continue the work in the events of my life. What is the final product? What is God aiming for? The human fully restored. The human fully healed. The human transfigured. The human made holy and whole.

We have precious few examples of such human beings. The first is the incarnate Word himself. The Word has brought our humanness into full healing by contact with himself. No twisted humanness can remain in that union. Next we have his mother. Mary the mother of God is our mirror. She is the image of the fully restored human being. She is the new Eve, the mother of the living. She is one of us, and the one of us that remained open to God all her life. She was never closed. Her faith keeps our faith steady. Her hope and trust in the midst of agony keeps us waiting for further healing with longing. Her love lured the Word to find a home in her. She teaches us to bring him to birth in our humble lives. Surrounding us like a cloud of witnesses are those holy ones we call the saints. They have gone through the dark valley and have come out on the other side. They stand, radiant, and beckon us on. They are signs of the end of the journey for us all.

Why are the holy ones so beautiful? What has made them so? The healing that the Word has won for us opens the way for the Holy Spirit to have free reign in a human heart. When this Spirit begins the inner work of human transformation, all that is left of sin must be purged out. Like a cauterizing fire, love burns all the corruption away, leaving only genuine humanness. This Spirit influence on our humanness we call the “Gifts of the Holy Spirit.” Permeating the consciousness, the Spirit permeates the human with grace. Under the Spirit’s purifying influence our humanness becomes more and more transfigured, the humanness becoming more and more transparent of the Love that has taken up residence within. The person becomes more and more beautiful even as age adds year upon year. The seed of eternal life is growing within such a human being. God is at work, and the goal is total restoration, total beautification, total transfiguration.

The faith community, Church, Synagogue or Mosque, is a gathering of human beings all in the various stages of this restoration and transformation. Married or single, clergy or lay, the work goes on in the context of that life. The community will be of help as much as it has surrendered to the work of God. Arrogant and selfish community members will reveal an arrogant and selfish community. Humble and compassionate believers will be a light on the mountaintop for travelers struggling to find their way. But we must make no mistake. God knows the design of the community transfigured, each individual shining with the light that dwells in them. The pattern is the Word. Formed in that Word, such is the New Jerusalem, the bride of the Lamb, the people paid for in blood and formed in fire.

This is our Sacred Story. This is the story the Christian catechist tells. Part of its unfolding is the search of the

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human family to understand the wonders of the world, wonders that science opens up to us daily. Truth is one. In the end we shall discover that all truth finds its home in the Mystery in which we live, move, and have our being.

Bibliography


_The Book of Nature, the Book of Scripture_

By Andrew Janiak


(The publishers of this article allow only a 500 word reprint of their articles/essays. However, since the entire article would be of great interest to our readers, we decided to reprint an excerpt and direct you to the URL where you can download and read the entire article. It is well worth your time and effort.)

In the popular imagination, the view of the natural world represented by modern science and developed by such towering figures as Isaac Newton conflicts with the view of the created world in the Bible. From debates about evolution and intelligent design to questions about human cloning, embryonic stem cell research, and even climate change, science and religion are often seen as fundamentally opposed to one another. Certainly, individual scientists might be religious — one thinks for instance of John Polkinghorne in physics or Francis Collins in biology — but most people would say that the work of these scientists is to be taken seriously because it is separate from, and thus unhampered by, their religious faith and practice. What happens in the pews on Sunday has no influence on what happens in the lab on Monday. So when contemporary readers learn that Isaac Newton was a deeply religious man, their way of incorporating this fact within their conception of him as one of the greatest scientists of the past four centuries likely involves imagining that his religious faith was intellectually separate from his work in mathematics, optics, astronomy, and physics. Never the twain shall meet.

That this image of Newton is profoundly inaccurate — that in fact separating God and science in this way would have been entirely foreign to him — has become apparent in recent decades of Newton scholarship. The reason this is significant is not just that it challenges the facile notion that science and religion are fundamentally at odds with one another. The case of Newton is even more interesting than that. The usual conception of how a scientist can also be religious is that he cannot take the Scriptures as “literally” true in every instance, especially in matters pertaining to the natural world. But Newton was committed to precisely such a reading of the text, which raises the question of how he reconciled potential conflicts between the claims of science and the Bible’s claims about nature.

The single most famous incident in modern science that depicts its conflict with a literal reading of the Bible is of course the so-called Galileo affair. This series of events began around 1615, when Galileo wrote an open letter to a powerful Italian political figure at the time, the Grand Duchess Christina, and ended in 1633, when the Vatican placed Galileo under house arrest. Galileo had asserted the Copernican view that the earth orbits the sun, rather than vice versa, and had denied in tandem that the earth is the center of the cosmos. In his letter to the Grand Duchess and in his various publications, Galileo attempted to convince theologians in the Vatican, up to and including the Pope himself, that a Copernican conception of the cosmos need not conflict with the Bible, despite the depiction of creation in Genesis and the famous passage in the book of Joshua in which the sun is said to have stood still.

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It takes you to the search engine; type in: the book of nature — and the entire document appears.
**Particles of Faith** is a wonderful tour through the realm where science and religion interact. The *unity* of faith and science stands out very clearly, which is surely a surprise to many readers who would expect the two disciplines to be opposed. Stacy Trasancos has a very genuine and honest way of expressing her thoughts that makes this book easily accessible to people far removed from the domain of science. By the time you’ve finished reading the (very brief) preface, you’ll say “I want to know more about this woman!”

Dr. Trasancos begins by recounting her early career, which was totally focused upon science. There was no room for religion in her busy, ambitious schedule. Obtaining a PhD in chemistry called for intense concentration in a very specific corner of science. “We were only trying to simulate one electron transfer. One.” The reader need not understand any details at all, but can readily grasp the intensity of focus that necessarily ruled her life in those days. Writing about that phase, even her description of the details is engaging: “We visualized our [chemistry] somewhat like lasagna noodles coated on squashes.” All that work earning a doctorate led to an excellent career pathway with the duPont corporation.

But it wasn’t complete. The big questions about meaning never go away, and a well-trained scientist is aware of the *chasm* between what little we know and the vastness of reality. “So when I decided to turn around and investigate what is really important before it was too late, I had only one choice: … I had to choose God, my husband and my children, and to take the leap of faith.” With that decision, the polymer chemist Dr. Trasancos transitions into the reader’s personal friend Stacy. She describes her present day life, far removed from chemistry research, but she would do it all over again; and concludes the chapter jovially saying “If someone tells you that science has all the answers, try not to die laughing.”

Stacy examines the relationship between faith and science, and cautions against the error of *scientism*, which she likens to a battleship. “Scientism is the belief that only knowledge obtained from scientific research is valid, and beliefs deriving from religion should be discounted. It is an extreme or excessive faith in science or scientists.” Also, “Empiricism is the idea that knowledge comes only from sensory experience, and the logical conclusion of strict empiricism is that the scientific method is the only method suitable for the search for truth.” The key point to be recognized here is that *faith* is present in everyone’s thought-processes. Stacy makes it clear that proponents of Christianity need not yield the playing field to those who assert the supremacy of science.

Here we begin to see the influence of the thoughts of Fr. Stanley Jaki, about whom Stacy wrote another thesis (in theology). To one who will closely examine humankind’s progression of knowledge over many centuries, as Jaki did, it becomes clear that science and religion have had a fruitful partnership along the way. The narrow confines of empiricism and scientism are unwarranted, and actually restrict and impede progress. By contrast, Stacy reminds us “If you look broadly enough, you will see that modern science emanates from, and is sustained by, the light of faith. Faith in an ordered world is the reason we do science.” And subsequently “But for Christians, science is a way of knowing God better through the study of His

*Continues on page 11*
handiwork. Our faith can light the entire discussion. I have seen both sides, and this is my main message in this book. We have to tell people what science is in the bigger system of reality.”

In consecutive chapters, Stacy proceeds to do exactly that. “Navigating Science in the Light of Faith” presents the blueprint for approaching the questions taken up in further chapters: cosmic origins, evolution, etc. “It is an intellectual virtue to be honest about the limits of your knowledge, and it is quite liberating and clarifying.” The famous 1988 quote from Pope John Paul II provides overarching guidance: “Science can purify religion from error and superstition; religion can purify science from idolatry and false absolutes. Each can draw the other into a wider world, a world in which both can flourish.” That wider world is where compatibility between religion and science will be found.

Stacy introduces a “system of wills” beginning with God’s will at the top, and working down even to wills in animals. Drawing together St. Thomas Aquinas and C.S. Lewis, Stacy presents a new way of understanding miracles and God’s interaction with nature.

Part Two of this book treats three major questions in physics and chemistry, the Big Bang, the atomic world, and Quantum Mechanics (and its connection to free will). Being a physicist, this is “my turf” and I read with my specialized perspective. However, in all three cases, Stacy’s intent is not to teach us physics and chemistry. Rather, it is to enable the reader to see above the initial level of the material world. She carefully distinguishes the linkage between different levels of reality, and stresses the importance of understanding those levels.

Stacy reveals the internal contradiction of the materialists’ position, which tries to reduce mankind to merely a highly-developed animal: “…the logical end of the materialistic argument that we cannot reason is that we cannot reason that we cannot reason…” [This is similar to John F. Haught’s treatment in “God and the New Atheists” which shows how they use the properties of the human mind to argue against the existence of the human mind.] Concluding the chapter on free will, Stacy says “I have juxtaposed quantum mechanics alongside the spiritual power of intellect and freedom of will. Quantum mechanics cannot explain free will because the explanation for free will does not belong to physics.”

Part Three addresses questions arising from the biological sciences, notably pertaining to evolution. One chapter counters the arguments put forth by creationists, who adhere to a very literal reading of Genesis; Stacy is patient in explaining the compatibility of faith and science. She is optimistic in describing young people: “If you teach them how to responsibly appreciate science in the light of faith, and you teach them about the profound order throughout the universe, they are excited and inspired, and they are equipped to navigate challenges.” That sounds like the experience of a mother who has taught her children science without fearing it would undermine religion.

The final chapter is perhaps the most important of all, addressing “When Does a Human Life Begin?” This entire book has been about seeing science with the light of faith, and here it comes together on a terribly important question. Stacy’s knowledge of the scientific reality is presented with exceptional clarity:

“Although the details at the molecular level of fertilization are complex, the reasoning really is that simple. It is common sense to take the uniting of the mother’s and father’s gamete cells into a new organism as the beginning of a new human life. But abortion advocates notoriously introduce subterfuge by opening up settled questions for debate.

“Notice: no one debates when an individual spider’s life begins. No one debates when an individual puppy’s life begins… Without exception, the only beings subjected to such strange scrutiny about the beginning of their existence are unwanted human children.

“Just as no one debates that the emergence of a new individual organism of any other species that reproduces this way is the beginning of the organism’s life, no one debates when an individual wanted human child’s life begins either.”

This is very clear and compelling reasoning. Subsequently, Stacy brings out the partnership between faith and science when she concludes:

“To be fair, the ethical discussion is focused on “personhood” and not “human organism,” but this is precisely why we need to be clear about the different

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questions science and faith can answer. “Personhood” is not a scientific question. Just as the explanation of the absolute beginning of the universe does not belong to cosmology, the explanation of free will does not belong to quantum mechanics, and the full explanation of human existence does not belong to evolution, the understanding of personhood does not belong to developmental biology. The fullest answer, for all of these big questions, requires faith as well as reason.”

In a concluding chapter only four pages long, Stacy pulls together the major points from each chapter. The importance of religious faith clearly stands out. After listing the essential elements of Christianity, she writes “None of these is a subject of physical science. Christianity is not a theory.” That captures very nicely the direction of this entire book. Reaching upward from an original position firmly rooted in science, Stacy Trasancos has explained why faith stands equal with science.

*Particles of Faith* is an excellent book that can be appreciated by everyone, both scientists and non-scientists. A church book club that covers one chapter a week will find it ideal. I recommend it particularly highly to young women who are contemplating their future and weighing a career in science. Stacy’s example of how honest curiosity and thinking leads to a grasp of the compatibility of science and faith is extremely attractive. You will close this book with the realization that you’ve now made a very good friend, who has fully integrated both science and faith in her life. That’s something we’d all like to achieve.

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### A Technological Guide to the Future

**A Vision of the Impact of Technology in the Next Ten Years.**

Noted author, scientist and longtime ITEST member, Dr. Rocco L. Martino, has released his latest book, *The Coming Technology Tsunami: A Personal History of the Future.* “In the next ten years, a tidal wave of change will be like a tsunami sweeping all before it. It will be a disruptive time, but full of promise”, notes the author. “I believe it will all happen as I describe it. It may frighten you, but in reality it should be your guide to the future.”

Martino poses some thought provoking questions:

- What will it mean for you?
- How will your life change?
- How will the world change?
- What will happen to your job?
- Will a robot be your best friend?
- What will driverless cars be like for travel?
- Will you go on an excursion to the moon, or be a colonist on Mars?

“Millions of jobs will be lost. The oil industry will be decimated as electric cars and solar electricity generation impact the use of oil. Deliveries will be made by robots in driverless vans. Hundreds of satellites will be launched to provide global coverage of the internet and cell phones. The Smartphone will revolutionize education. We will launch our first colonization trip to Mars. The status quo will be utterly disrupted. No profession or activity will be unaffected. And it will all happen in the next ten years. Nothing will be the same. With the disruptions, will come new opportunities, new careers, and a golden age for the world.

“As the inventor of the Smartphone, and being a pioneer in the space and computer industries, I’m presenting a factually startling vision of the next decade, full of perils and promises. *The Coming Technology Tsunami* is my personal history of the future. This book can be your guide to capturing these changes for your benefit.”

*Printed and electronic books can be purchased at www: Amazon.com or by calling Chesapeake Bay Media at 410-263-2662.*

I have long been an ardent fan of Martin Scorsese’s films. Taxi Driver, Raging Bull, Goodfellas, The Aviator, Gangs of New York, The Last Waltz, Casino, etc. are among the defining movies of the last forty years. And The Departed, Scorsese’s 2007 crime drama, was the subject matter of the first YouTube commentary that I ever did. It is certainly the case, furthermore, that the director’s Catholicism, however mitigated and conflicted, comes through in most of his work. His most recent offering, the much-anticipated Silence, based upon the Shusaku Endo novel of the same name, is a worthy addition to the Scorsese oeuvre. Like so many of his other films, it is marked by gorgeous cinematography, outstanding performances from both lead and supporting actors, a gripping narrative, and enough thematic complexity to keep you thinking for the foreseeable future.

The story is set in mid-seventeenth century Japan, where a fierce persecution of the Catholic faith is underway. To this dangerous country come two young Jesuit priests (played by Adam Driver and Andrew Garfield), spiritual descendants of St. Francis Xavier, sent to find Fr. Ferreira, their mentor whom he had been seeking since his arrival in Japan. All the rumors are true: this former master of the Christian life, this Jesuit hero, has renounced his faith, taken a Japanese wife, and is living as a sort of philosopher under the protection of the state. Using a variety of arguments, the disgraced priest tries to convince his former student to give up the quest to evangelize Japan, which he characterized as a “swamp” where the seed of Christianity can never take root.

The next day, in the presence of Christians being horrifically tortured, hung upside down inside a pit filled with excrement, he is given the opportunity, once more, to step on a depiction of the face of Christ. At the height of his anguish, resisting from the depth of his heart, Rodrigues hears what he takes to be the voice of Jesus himself, finally breaking the divine silence, telling him to trample on the image. When he does so, a cock crows in the distance. In the wake of his apostasy, he follows in the footsteps of Ferreira, becoming a ward of the state, a well-fed, well-provided for philosopher, regularly called upon to step on a Christian image and formally renounce his Christian faith. He takes a Japanese name and a Japanese wife and lives out many long years in Japan before his death at the age of 64 and his burial in a Buddhist ceremony.

What in the world do we make of this strange and disturbing story? Like any great film or novel, Silence obviously resists a univocal or one-sided interpretation. In fact, almost all of the commentaries that I have read, especially from religious people, emphasize how Silence beautifully brings forward the complex, layered, ambiguous nature of faith. Fully acknowledging the profound psychological and spiritual truth of that claim, I wonder whether I might add a somewhat dissenting voice to the conversation? I would like to propose a comparison, altogether warranted by the instincts of a one-time soldier named Ignatius of Loyola, who founded the Jesuit order to which all the Silence missionaries belonged. Suppose a small team of highly-trained American special ops was smuggled behind enemy lines for a dangerous mission. Suppose furthermore that they were aided by loyal civilians on the ground, who were eventually captured and proved willing to die rather than betray the mission. Suppose finally that the troops themselves were eventually detained and,
We extend our deepest sympathies and prayers to the family and to Rose, beloved wife of Tom, on the death and resurrection to New Life of her husband of 70 years. Rose and Tom were long time members, frequent participants at the ITEST yearly workshops and conferences and generous contributors to ITEST.

Fr. Brungs, an avid reader and student of the Civil War and WW I and II, particularly enjoyed his conversations with Tom about his service during the war. We are reprinting the Obituary from the local Potomac Falls newspaper.

“Captain Quinn, a teenage US Navy WWII pilot was commissioned at age 19 in October 1943. He was a combat pilot and flight instructor, flying TBF Avenger torpedo planes from aircraft carriers. His squadron overflew the Japanese surrender ceremony aboard the USS Missouri on September 2, 1945. Captain Quinn’s career following the war was in antisubmarine warfare. He helped design The Grumman E-2C Hawkeye**, and commanded squadrons on both coasts. He retired in 1973 starting a defense consulting business which he continued until 2002. He volunteered at the Smithsonian Air and Space Museum for 30 years.”

Tom’s funeral Mass, attended by his children, grandchildren and great-grandchildren was celebrated on January 6 at Christ the Redeemer Roman Catholic Church.”

**The E-2C Hawkeye is the U.S. Navy’s all-weather, carrier-based tactical airborne warning and control system platform. It provides all-weather airborne early warning and command and control functions for the carrier battle group. Additional missions include surface surveillance coordination, strike and interceptor control, search and rescue guidance and communications relay”. (FAS: Military Analysis Network)
Science & Religion: The Myth of Conflict
by Stephen M. Barr, PhD
Published by Ignatius Press and Catholic Truth Society, Lighthouse Catholic Media 2011. pp. 70. $1.95
(The ITEST Editorial Board highly recommends this pocket sized little booklet (6x4). CTS Explanations is one in a series explaining in everyday language Catholic teaching on a range of current pressing moral and ethical issues.)

For more information go to www.ignatius-cts.com

In Science & Religion: The Myth of Conflict, “Professor Barr overturns the widespread notions that the history of science and religion is one of conflict and abuse. He looks at the historical, philosophical and scientific claims of enmity between science and religion and proves that they have very little basis in fact. Indeed in many places they are the very opposite of what history and science have to tell us. The myth that scientific discovery over the last four hundred years has debunked Christian belief is also thoroughly unpicked.” (from the publisher)

Stephen M. Barr is Professor of Physics at the University of Delaware. He does research in theoretical particle physics and cosmology. He was also a presenter at the 2007 ITEST workshop, Astronomy Cosmology Breakthroughs and the God Question.

Ecotoxicology Essentials: Environmental Contaminants and Their Biological Effects on Animals and Plants
By D.W. Sparling,

(From the back cover) Ecotoxicology Essentials provides a fundamental understanding of this area for students and professionals in ecotoxicology, ecology, conservation, chemistry, public health, wildlife management, fisheries and many other disciplines. Although new chemicals and potential problems are developed every year, a basic education is essential to address these new challenges, and this work gives such training. Written with the regulatory framework in mind, the material guides readers on modelling, how to conduct assessments, and human and wildlife risk focusing on effects on animals rather than fate and transport of chemicals. Simple discussion of chemistry are complemented by coverage on the behavior of the animals, dynamics of the ecosystem, real life situations.

Don Sparling, PhD, is Associate Professor Emeritus, Cooperative Wildlife Research Lab, Southern Illinois University, a Permanent Deacon in the Diocese of Belleville, Illinois, and a member of the ITEST Board of Directors. You may contact Dr. Sparling at deacondon56@aol.com
**Exploring The World, Discovering God**

“Ten years ago, Evelyn Tucker, Project Manager took the second step—testing and piloting the faith/science modules created by St Louis Archdiocesan primary and elementary school teachers. During that year Evelyn visited the piloted schools, assessing the suitability of the supplementary lessons for the religion and science curriculum. Ten years later we can assess the success of Evelyn’s work by reporting more than ½ million actual downloads of the lessons worldwide.” (Eds.)

During the Creative Teacher Think Tank session held at the Cardinal Rigali Center, March 24, the project manager, Evelyn Tucker and teachers of K-4 from Illinois and Missouri, evaluate the science/faith interface educational modules prepared for piloting in selected schools. *(photos)*

UPDATE: Our three year pilot program, *Exploring the World, Discovering God* (*EWDG*) has reached the second tier of its “spiral ascent” – this is the crucial testing year for the project, faith/science interface educational modules for K – fourth grade. We plan to “pilot” the program in selected schools in the Midwest and East and (we hope) West Coast in September, 2007. The project manager will be spending much of her time on the road visiting the schools and observing and evaluating the actual teaching of the modules. Feed-back from the teachers, students and administrators will help the project manager make suggested changes and adjustments to the content and method of the project when advisable.

HISTORY: As you may know, this project was Father Brungs’ priority for the last few years of his life. After working for almost four decades with hierarchy, academicians, scientists and others, he saw that the faith/science mission must begin with our youngest Christians and subsequently received funding from the *Our Sunday Visitor Institute* for a project directed to young Christians. He wrote, “This is a pilot program for K-4 in religion/faith and science designed to open the children to the beauties of God’s love and care by providing a solid education in both religion/faith and in science. The deeper purpose of this project lies in a growing appreciation and love in the Trinitarian God. Both faith and science teach “what God has wrought.’ With this project we are working to make the relationship a pivotal element in the teaching of both areas.”

*Above l to r: Teacher Lisa Hehner and Project Manager Evelyn Tucker*