Just as I was packing up last Friday afternoon to head home for a weekend with my family, I received a forwarded e-mail from a friend informing me that I had been mentioned in a group e-mail sent out by the Lepanto Institute. I was initially hopeful. My new book, <u>Transubstantiation: Theology, History, and Christian Unity</u>, has been generating more media attention than anything else I've written to date, and I guessed another Catholic outlet had picked up on it.

When I read the piece, however, I found something quite different. (I guess you can't win 'em all!) An article I had written several years ago (<u>Can Catholics Believe in Evolution?</u>) had come to the attention of the Institute's president, Michael Hichborn. Mr. Hichborn was troubled enough by my piece to write a fairly lengthy critique and send it to his subscribers.

I have not been able to find a copy of his piece online to which I could post a link, which makes responding to it a little tricky. Nevertheless, after some prayerful consideration, I do believe that a response is warranted. First of all, I believe Mr. Hichborn makes several mistakes that should be corrected to prevent further confusion on this matter among the faithful. Secondly, I am a believer in the idea that honest dialogue gets us closer to the truth and so welcome this opportunity to engage with a fellow believer who sees this matter differently than I do. I hope and pray that my engagement with him will be charitable and that readers of it will find themselves with a deeper appreciation for the beauty and truth of the Catholic faith.

Because I am unable to share a link to Mr. Hichborn's piece, I have chosen to engage it by reproducing it in full here. I will offer my own response in red letters throughout the piece. Another reason for this approach is that one of the things I found difficult about Mr. Hichborn's critique of my piece is that he only quoted it once and I found several of his concerns difficult to trace to things I had actually written. I am hopeful that by quoting him in full, neither he nor the reader will face similar difficulties in reading my reply.

Your Catholic Week in Review (Darwin Edition!)

My 14-year-old daughter is a member of a local homeschool co-op, and this year the co-op hired a biology teacher to teach it to the high school kids. Everything about the class was fine until this week, when the parents all got an email indicating that this teacher would be going over the subject of evolution. He indicated that he knew it was a controversial topic for many Catholics, but presented an article written for the Archdiocese of Regina by Dr. Brett Salkeld titled, "Can Catholics Believe in Evolution?" (Well, it is gratifying to know that the teacher in question, a person presumably with expertise in the natural sciences, found my original piece helpful. I hope that is indicative of its value for others.)

The article builds its case around several points which amount to little more than

strawmen and false premises. (I would find it helpful to have such strawmen and false premises enumerated and articulated rather than simply asserted. Having read Hichborn's whole piece several times, I am having difficulty finding which strawmen he thinks I am attacking. I do believe I have found one example of what he considers a false premise, however, as we shall see below.) The intention of the author is to "debunk" the ideas that evolution is disproved by Scripture, that Genesis was ever intended to be taken literally, that science and reason are at odds, and ultimately concludes: (This is partly correct. I did hope to show that evolution is not disproved by Scripture. As to reading Genesis, that depends what one means by "literally." I certainly did hope to show it was not written to be read as scientific description, and that the Church throughout the ages has not read it as such. As to debunking the idea that science and reason are at odds, I'm going to have to assume this was a typo. Perhaps Mr. Hichborn meant "science and religion"? If so, yes I did want to show that they are not at odds. At least science and Catholicism are not at odds. Some religions may well believe things at odds with science.)

"So yes, Catholics can believe in evolution. More than that, given the state of the scientific evidence, the Church's understanding of the relationship between faith and reason, and the counter-witness to the gospel that is given by taking a stand against evolution, they should believe in it." (This is the one quote from my original piece.)

The issues with evolution as a scientific theory are legion. (In my own piece I did not go into specific arguments for or against evolution as a scientific theory, but rather made an argument from the consensus of the scientific community and the attitude of the papal magisterium towards that consensus.) My daughter and I spoke at length about the impossibilities of atheistic evolution. I explained to her that atheistic evolutionists assert that over billions of years, the earth settled and cooled, and a mixture of carbon atoms bonded together to form the first protein. which was struck with a "spark," animating the protein as the very first form of life. (This is not a particularly accurate description. The famous Miller-Urey experiment, for example, found that adding electricity to a collection of inorganic molecules, led to their organization into amino acids. The proteins did not preexist and await some "spark." Rather, we have concrete, repeatable, testable scientific data showing that a "spark" can generate the proteins necessary for life. On the other hand, we should note that a protein is not a living thing as the remainder of Mr. Hichborn's paragraph seems to presume.) I suggested to my daughter that, for the sake of argument for the moment, we would grant that all of this is true. And then I asked her, what did this first form of life eat? She looked at me quizzically for a moment and said, "other single celled organisms and plants?" I reminded her that this is the very FIRST protein. The thing is, all living things require other living things in order to survive. Even plants, which convert sunlight into food through chlorophyll, require microscopic life in the soil in order to survive. If you plant a seed in soil that's been completely sterilized, no matter how much water you give it, it will die. So, even supposing that somehow a

single celled organism was created in the primordial soup at the beginning of the world, it would soon have starved due to the lack of anything living for it to eat. (In fact, this is quite false. There are species alive today that metabolize non-living matter. The first life on earth was chemosynthetic bacteria, i.e., bacteria that produce their own food. This is not some wild hypothesis by desperate evolutionists. Such bacteria exist and can be observed producing their own food today. "Organisms that eat other organisms didn't emerge until around 1.2 billion years ago – over two billion years after life first emerged.") Regardless of what evolutionists want us to believe, the biological law that only life begets life has not and cannot change.

We also discussed the irrationality of asserting that irreducibly complex systems could have simply developed over time. As an example, I explained to her how lungs work. Not only do our lungs take in air and expel air, but they possess an intricate network of blood vessels that expose blood directly to the air in the lungs, and each blood vessel in the lungs releases a carbon dioxide molecule and grabs an oxygen molecule. If the blood cells could not make this exchange, respiration would be impossible. If the muscles around the lungs, drawing in and expelling air, did not exist, respiration would be impossible. If the nervous system in the muscles and in the lungs did not exist, if the heart didn't exist to pump the blood, and if the lung tissue wasn't composed of the expandable tissue it is made of, if the lungs didn't have an intricate humidifying system to keep it moist, if the body didn't possess a mechanism for dislodging obstructions ... if every single aspect of the lung didn't exist at the time of the lung's creation, then the entire creature would die. There are no half-measures for the creation of a lung. And here's the kicker ... if a fish had offspring that developed a lung, that creature - living in the water - would drown and die. (Again, this is quite false. Scientists understand the development of many structures, such as lungs, from other structures that previously served different functions. Not every such development is perfectly understood at this stage, of course. (Given how many such transitions must have happened over billions of years, it will take some time to understand them all perfectly!) But more and more are being better understood all the time. Betting on so-called "irreducibly complex" systems as a reason against evolution is a loser's game. If God's hand becomes the explanation for all such systems, when they are explained in terms of wellunderstood natural phenomena, as they repeatedly have been, we have just given people good reason to reject belief in God. This is, in fact, a major element of the new atheist narrative, i.e., that God existed merely to fill gaps in our scientific knowledge and that as those gaps are filled in, God becomes less and less necessary. Arguing against evolution because of irreducible complexity plays right into their hands.)

But I want to say something more about these *kinds* of arguments. The truth is that they would be good questions coming from a bright and curious 14 year old biology student. But they are also questions that can be easily answered by a Google search. They give knowledgeable evolutionary scientists literally no

trouble at all. In Mr. Hichborn's article they function not as means of seeking deeper understanding of the natural world that God created, but as "gotcha" questions – traps that we are supposed to imagine would leave evolutionary biologists simply stunned into silence.

I grew up in a home where my father did not believe in evolution. There was often creationist literature about. (When I met my wife, I found the same thing in her home.) From the time I was old enough to read it, it seemed off to me. I could not answer each argument presented. I had not studied much biology. And there was no internet yet to help me. But something about the mode of argumentation felt wrong. It did not seem to be in good faith. Arguments like the two we have seen above were presented, but never with any reference to how people who believed in evolution would respond. It was always simply imagined that they would be caught completely off guard, utterly defeated by the anti-evolution argument.

Scientists who believed in evolution were not presented in this literature as honest and intelligent people who had somehow misread the data, but as conspirators against the Bible and Christianity. When I heard my father say something like "Evolution can't be true because the first life would have starved to death," my thought was not, "Gee, that's a good point. I guess evolution can't be true," but rather, "Surely something that basic has not evaded the notice of the entire scientific community. There must be some explanation."

Anti-evolutionism struck me as intellectually dishonest. Its arguments did not seem designed to convince knowledgeable people of a different interpretation of the data, but to mock and deride. It was full of aspersions about the motives and character of people who believed in evolution. It seemed made, not to engage with the actual scientific data, but to encourage and comfort those who already rejected the evolutionary interpretation of that data for non-scientific reasons.

Over the years, I have yet to find an argument, and as Mr. Hichborn notes, they are "legion," that does not function this way. In every case, a quick Google search finds a quite satisfying response to the supposedly devastating critique. And the anti-evolutionist attempts to explain certain phenomena that fit well with evolutionary theory, such as the appearance of the age of the earth, within their own system consistently strain credulity.

In the end, I learned that what set off the alarms for me as a young teenager was not this or that bad argument, but a kind of conspiracy theory thinking. What must be true, I wondered, for evolution to be false? It must be that a huge network of brilliant people, including a huge number of people who shared my Catholic faith, were involved in systematic deception and cover-up. And they've even managed to dupe consecutive popes! Every time I see another "gotcha" question that can be answered with a Google search put forward as if it were some great blow against evolution, the sense that this is conspiracy theory thinking is reinforced.

As I said, the reasons for disbelieving evolution are legion. But what bothered me the most was the conclusion of the article, asserting that the Church's understanding of the relationship between faith and reason mixed with the "counter-witness" created by standing against evolution, means that Catholics **should** believe in evolution.

One of the biggest mistakes made by both Bp. Barron and Dr. Salkeld was in their approach the question of faith and reason, making them co-equals. (It would be very useful to see a quote or two of mine from which he derives this conclusion. I must assume that this is one of the "false premises" he mentions at the beginning.) The truth of the matter is that Faith *informs* reason. Furthermore, the saints teach us that Faith is a gift. While reason will take us to a certain point, it cannot transgress into supernatural faith, which why it must be a gift. And if Faith informs reason, then Faith is higher than reason. (It is unclear to me exactly what Hichborn is taking issue with here. I would agree that we gain, through faith, that on which our reason can work and which was unavailable to unaided reason. If, indeed, that is what he means by "faith informs reason." But I am not sure what that has to do with the question at hand. And I wouldn't dream of denying that (Christian) faith is a gift, that reason can clear the way for faith to make an act of trust but that only faith itself can make that act, or that, in a certain sense, faith is higher than reason. But I do not see how any of this counters what I insist upon in the article, namely that faith and reason can never be in conflict. Here is a quote that perhaps Mr. Hichborn found troubling, though I can only guess as he fails to quote me on this point: "A Catholic is never put in the position of choosing faith over reason or vice versa, but only of carefully double-checking both faith and reason when apparent contradictions arise in order to see where the problem lies." Is there something in that quote that makes faith and reason "co-equal" in the sense that Hichborn rejects? If so, does he find John Paul II's encyclical Fides et Ratio equally troubling when it teaches, "There can never be a true divergence between faith and reason, since the same God who reveals the mysteries and bestows the gift of faith has also placed in the human spirit the light of reason"? I have spoken at some length on the relationship between faith and reason in many other contexts. I have never called them "co-equal," but have always insisted on their inseparability and on the fact that they cannot, rightly understood, contradict one another. In so doing, I have done nothing but repeat the consistent teaching of the Church.)

Now, I will agree that the Bible is not a scientific text. However, nothing in Scripture is opposed to right reason, but reason must submit to Faith. (I am uncertain about what is meant here by "submit." It seems to imply that there could be some contradiction between faith and reason and that, when there is, faith wins and reason loses. But the Church teaches they can never be in contradiction.) When Our Blessed Lord lifted the unleavened bread and pronounced the words "This is my body," He was not making a scientific declaration. (Indeed not!) And scientists observing the Holy Eucharist under the accidents of bread and wine would conclude that nothing substantial has

happened. (Unless, of course, the scientists understood Catholic Eucharistic theology! In which case, they would say that they can detect no change in the accidents, which are all that the instruments of science can perceive, but that they can say nothing at all about the substance.) And yet, we believe that the Eucharist is FULLY the Body, Blood, Soul, and Divinity of Jesus Christ, and that He is TRULY present in the Eucharist, just as the priest holding Him in his hands is present. (Perhaps even more so!) So, where science brings one to a certain point, it cannot transgress into the miraculous. Ergo, science must be informed by Faith. (I find this a bit confusing. Perhaps we have moved, maybe unintentionally, from talking about reason to talking about science? Reason is certainly informed by faith on a matter like the Eucharist. Thomas Aguinas is quite clear on this. St. Thomas says that because we have heard the words of Christ from the mouth of the priest, we can trust that He is present in the Eucharist without contravening our reason because we have heard (about the substance when we can perceive only accidents) from a trustworthy source that it is reasonable to believe. But what does this have to do with science? Didn't Mr. Hichborn point out (rightly!) earlier in the paragraph that the question of Christ's presence in the Eucharist is simply not a scientific question at all? How then, are we supposed to transpose the relationship between faith and reason in the Eucharist into the argument about creation and evolution? I do not think Mr. Hichborn is arguing that the world *merely looks* like it evolved, but we know otherwise only because of the word of God. That would seem to be the analogy to the Eucharist, but Mr. Hichborn clearly does not think the world looks like it evolved, given his arguments against evolution above.)

Certain things we read about in Genesis directly correlate with Our Lord's life and death. For instance, Genesis tells us that the universe was created out of nothing over the course of six days. Our Lord's first public miracle was to transform six earthen jars of water into wine. There is a fascinating lesson here to be had. Consider this: the very first miracle of the Old Testament is the creation of the universe in six days ... and Our Lord's first public miracle is the transformation of water into wine in six earthen jars. (This is, in fact, a rather lovely piece of patristic-style exegesis. Some might find it a little far fetched, but the Fathers of the Church read the Bible like this all the time. What it has to do with evolution, however, is guite beyond me. Is the argument that, because there is literary and theological meaning in the relationship between Genesis and John's gospel, Genesis must be read as scientific history? That strikes me as a very odd conclusion indeed. Believers who do not read Genesis as scientific history point out just these kinds of things as the reason for Christians to read and value the text even though it is not meant as a science text.) The correlation is not merely accidental. Many modern cosmologists assume (wrong verb: they calculate) that the universe must be billions upon billions of years old, and they use scientific measurements to come to this conclusion. I have no argument with their measurements, but I do dispute their conclusions. Suppose a scientist were to examine the wine at Cana. In fact, in a moment of cosmic and Divine humor,

Our Lord did, indeed, supply us with a scientist and expert to create a blind test, as if He knew that this very discussion would be had. John 2 says:

"And when the chief steward had tasted the water made wine, and knew not whence it was, but the waiters knew who had drawn the water; the chief steward calleth the bridegroom, And saith to him: Every man at first setteth forth good wine, and when men have well drunk, then that which is worse. But thou hast kept the good wine until now."

Our scientist ... the chief steward ... testifies that the wine created by Our Lord was "the good wine." This is to say, it wasn't the cheap stuff that is bottled a few months after fermenting. This wine took years to age. In other words, Our Lord's miracle, pertaining to SIX earthen jars, gave age to that which He created instantly. This isn't to say that, as an illusionist, He gave it the appearance of age, but that what He created in a moment, He created as aged. (What exactly is being argued here? That the universe does look like the product of evolution, but that its an illusion? And if so, why the arguments earlier that suggest that life on earth doesn't look like the product of evolution? These are the modes of argumentation that first struck me as a young person reading creationist literature. Everything is "just so." If the universe looks old, it was made to look old. Like classic conspiracy theory thinking, this kind of claim is designed to be impossible to disprove. Indeed, I could not disprove the idea that God created the world one second ago, and all my memories, scars, ancient DNA with remarkable, measurable connections to the rest of life on earth, etc. are simply part of that one-second old creation.)

Now, a scientist could scoff and say that it is impossible for something to have been created out of nothing, and he could scoff at the notion that a thing which had just been created had the appearance of age. But this scientist would also scoff at the Divinity and miracles performed by Our Lord. Sadly, this is the end fact of Charles Darwin's life. His belief in evolution led to the denial of Christianity altogether. (That some scientists are atheists proves literally nothing about the truth of evolution. In any case, many scientists are believers who affirm that God created everything that is out of nothing. And a good number also believe in the divinity and resurrection of Christ (his greatest miracle). Being a scientist does not make one a scoffer at such ideas. On the other hand, many people, scientists or not, would struggle with the unprovable and "just so" suggestion that God created the universe to look older than it is.)

Now ... that's just one example of the connection between Our Lord and Genesis. When you consider that the Church was born from the side of Christ after St. Longinus thrust a lance into His side while He was in the "sleep of death," we recall that Adam was put into a deep sleep, and Our Lord formed Eve from one of his ribs and drew her out of his side. (A beautiful typology.) The actual piercing of Our Lord's side would have no meaning if Eve was not literally drawn from the side of Adam while he slept. (It is not at all clear to me why Mr.

Hichborn thinks this last sentence is so self-evident that it requires no explanation. I see no reason at all why this should be the case and I ask myself, if it were the case, "Why have consecutive Popes not felt the same as Mr. Hichborn?") Consider that Adam was cursed thus:

"Thorns and thistles shall it bring forth to thee; and thou shalt eat the herbs of the earth. In the sweat of thy face shalt thou eat bread till thou return to the earth,"

In direct relation to this, Our Lord began His passion in the Garden of Olives as Adam's creation and fall began in a garden, also. Adam was cursed "In the sweat of thy face" - and Our Lord sweat blood in the Garden of Olives; " shalt thou eat bread" - Our Lord became the Bread of Life (incidentally, this is the first time bread is ever mentioned in all of creation, well before the threshing of wheat or the creation of ovens); Adam was cursed, "thou shalt eat the herbs of the earth" and At the Last Supper Our Blessed Lord tasted "bitter herbs;" Adam was cursed, "Thorns and thistles shall it (the earth) bring forth to thee" - Our Blessed Lord wore a crown of thorns upon His head. When Adam and Eve were expelled from the Garden of Eden, God denied them access to the Tree of Life. At Golgotha, Our Lord's crucifix became the new Tree of Life, and His Body and Blood became its fruit; Through Adam, death entered the world. Through Our Lord's death and resurrection, eternal life became possible for man. (Again, a really nice bit of patristic-style exegesis. One I hope to remember and share. I remain quite in the dark regarding what is means for his case against my article.)

And what is incredible is that the sign of the Cross is made evident in the very act of Creation itself. On the first day, when He created light, He divided the light from the darkness, providing the vertical line of the Cross. (OK, this one strikes me as a bit far-fetched. What is it that makes this division vertical? It looks rather temporal to me. He called the light "day" and the darkness "night." But I digress. Disagreements about biblical typology is not the issue at hand.) On the second day, He separated the earth from the Heavens, providing the horizontal line of the Cross. This cross was at the very beginning of time but cannot exist in the chaotic cosmic approach of Richard Dawkins, Arthur Clarke, and Carl Sagan. (Am I supposed here to be a representative of the worldview of Dawkins et al? Really? If Dawkins read my article, I doubt he would consider me such.)

One more thing which causes a direct enmity between evolution and Scripture is that Genesis clearly states that God created each thing according to its kind. Plants, birds, fish, land creatures, etc were all created according to "their own kind." If one holds to an evolutionary process, then Genesis must necessarily be held to be false. (I am unsure why Mr. Hichborn believes this to be the case. St. Thomas Aquinas certainly didn't when he wrote that: "For thus we see that all things that were produced in the process of time through the work of divine providence, with creation operating under God, were produced in the first condition of things according to certain seminal patterns, as Augustine says in his Commentary on the Book of Genesis, such as trees, animals, and other

things of this kind." Like my experience as a teenager, I again feel like, if what I am being told is so obviously true that it does not need any further explanation, then why do so many smart and faithful people not find it convincing? Surely, I think, there must be something more going on.)

I've studied this topic in great depth for nearly 25 years, and I've looked very closely at the biological arguments, the geological arguments, and the astronomical arguments (My experience is that when people who make the kinds of scientific arguments found at the beginning of this piece make a claim like this, what they mean is that they first looked into this issue 25 years or so ago, and have read a number of creationist texts and watched a number of creationist videos on Youtube that make the same kind of "gotcha" arguments deployed in this article and that their opinion has only been reinforced by reading people who already share their conclusions. This may not be precisely the case with Mr. Hichborn, however, no one who has actually "studied this topic in great depth for nearly 25 years" would make an elementary mistake like arguing that the first life would have starved.) and I've come to 2 conclusions: 1) There is absolutely no biological evidence for an evolutionary process. By this, I mean that there is no observed or experimental process which leads to the conclusion through predictable results that we can demonstrate cross-species evolution on a genetic level. (On this, I would just point interested parties to Thomistic Evolution and BioLogos, though there are literally more resources on this than you could ever want or need.) 2) One cannot draw scientific conclusions about a miraculous event. And what I mean is, if God created the Universe ex nihilo (which is de fide), then no scientific measurement or observation can conclude what it looked like when He did it, how He did it, or where things were when it happened. (Indeed, in the traditional understanding of creation ex nihilo, there cannot even be answers to where or when questions. They simply do not apply, though perhaps not for the reasons Mr. Hichborn implies. Here is what priest and theologian, T.J. White O.P. has to say on the matter: "God has caused the universe to be a universe of causes. So the idea that you can have a confrontation between what you discover in the domain of causality through the sciences and what God has given in creation is an absurdity. There's no conflict because everything that you discover in the world—in the web of physical. chemical, and biological causes—is what God has given being and so has given to be causes of other things in the created order. Understood this way, there is no opposition between the doctrine of creation ex nihilo and modern Big Bang cosmology. They examine the same reality from two different, non-competitive perspectives.")

I love science and have encouraged my kids to love science as well. But my firm conclusion is that the evolutionary cosmology is unscientific (and therefore harmful to a true understanding of how scientific observation works) and is harmful to the faith. I share this with you, dear reader, because as I observe the encroachment of the Modernist heresy filling the very halls of the Church, I see the long shadow of Darwin's hand at the source. Darwin was influenced by Malthus, and in turn influenced Karl Marx, Frederich Nietzsche, Lenin, Stalin,

Margaret Sanger, Mao, ... and while they referred to Darwin as a basis for their wretched ideologies, individuals like Teilhard de Chardin, Karl Rahner, Yves Congar, Henri de Lubac, Charles Curran, and Edward Schillebeeckx took Darwin as their inspiration for the "development" (evolution) of Doctrine.

And so, in response to Dr. Brett Salkeld, I say, No – while Catholics "can" believe in evolution (with reservations), they should **NOT** believe in evolution, both for the sakes of right reason and the very retention of their own faith. (Obviously Mr. Hichborn and I come to differing conclusions here. No need to repeat myself. I only wish to add that I have striven to write clearly and charitably and hope my response is received in that spirit, and that I hope the reader has a better understanding of these issues thanks to my efforts.)