

Many who read the subtitle of this piece may decide instantly that “This is poppycock!” And into the trash they would pitch it, growling something unprintable.

These people are the ones who fervently believe that science and religion can never be reconciled, and who line up against each other for battle. These days the fights are especially over evolution, though any of us can give examples of others that have been loud and long.

If the combatants agree on anything, it is that there is one definitive Truth, and each side proclaims that they are the ones who have it. They are convinced beyond all doubt that any who oppose that Truth are deluded, even demonic.

They hold this view despite the fact that many scientists can be found in faith communities weekly, embracing life with fellow believers as essential to their own lives. And despite the fact that many believers, myself included, affirm the teachings of good science – including the theory of evolution – while affirming that God is the One who created and continues to sustain all of creation.

Another thing that the combatants agree on is that those of us who put science and religion together are fatally mistaken, and will come to no good end.

So the impasse seems to be set in concrete. And no one seems to have found a way around it.

For me, the concrete began to show some cracks when I happened on a quote from Voltaire: “Judge a man not by his answers, but by his questions.” He presents it as a maxim that stands alone, without context, as if it needs nothing more, and is complete in itself. And Anne Lamotte, in her book titled *Plan B*, quotes one of her priests saying to her, “The opposite of faith is not doubt, but certainty.”

These and other ruminations led me to the notion that our conflicts come not as much from *what* we think, as from *how* we think.

Begin with the diagnosis of the basic problem, one that plagues the life of the mind in our culture. It is the obsession with *answers*. In the minds of almost all people, finding answers is the only goal worth pursuing. Finding The Answer is the Holy Grail.

From this starting point, questions have value only if they lead to answers.

Hardly anyone gives credence to the value of questions, in their own right and for their own sake.

And so we find ourselves back at the starting point, with what many would call “science *vs.* religion,” in which, far too often, conversation turns quickly into confrontation. Competing versions of The Answer are launched as killing shots against the adversary, with the utterly predictable stalemate we have seen for, lo, these many years.

A beginning for finding a way past the impasse is to recognize this: Both science and religion are subject to perversion when they focus too exclusively on answers, at the expense of questions. But when balance is restored between questions and answers, giving each the attention they are due, much of the supposed conflict between the two disappears because, in a thought process best called *questing*, they proceed on very much the same path, if and when they are truest to themselves.

It is a bold statement, but, I believe, a profoundly true one, that *science and faith are compatible, and in fact have a great deal in common.*

It is scientism and religiosity (riffing on the title of Bill Maher's film, “Religulous”) that are really in conflict with one another. Both have this as their most sacred conviction: They seek to find The Answer in a contested issue. As we have seen over and over again, each claims and loudly proclaims that it has arrived at the final, the definitive Answer.

The possibility that there may be a valid alternative is simply . . . out of the question.

On scientism's side, the prime example of this kind of thinking is the militant atheism that has had yet another rebirth recently.

For us in America, fundamentalist Christianity, particularly in its insistence on the factual,

historical, scientific, etc., “inerrancy” of Scripture, is the primary example on religion's side.

Both scientism and religiosity mirror one another in being *closed* systems of thought.

Science and faith, by contrast, are *open* systems of thought. While giving due and appropriate weight to the answers from earlier times, and building on them, they view very little as final and definitive. Most conclusions – answers – are open to refinement and revision. This occurs routinely.

But we have seen signal moments in our history when someone has broken new ground and brought about a complete overturning and replacement of all previous assumptions and conclusions. Nothing has been the same after they burst upon the world.

Perhaps the prime example in science is Einstein's special theory of relativity.

In the realm of faith, the Incarnation of the Son of God rises to that exalted level.

Each introduced a new reality that had earth-shattering impact on the world into which they came. They resonate still, and will continue to do so. Exploring each in depth leads to a never-ending quest, recognizing and addressing more questions, which lead to more and yet more questions.

How, exactly, are the quests of science and faith alike?

Focus first on our culture's prevailing tool for thought, the scientific method. When Western civilization settled on that as the only true way to seek truth, instead of myth, tradition, or revelation, this was a seismic shift in intellectual history. Now anything that lays claim to being *true* must be based on scientifically proven *facts*. This way of thinking is now so ingrained in us that we simply cannot conceive of an alternative.

So it is foundational for thought and discovery in our world, and it takes it for granted that framing and asking questions is essential in the process of discovery. Scientific inquiry begins with a plausible answer to an identified question, formulates a theory that can be subjected to concrete, measurable testing, and conducts experiments that challenge the veracity of the theory, attempting in every way possible to disprove it, exploring every last question so that what was posited as a tentative answer can be verified as a definitive one.

And even then, when experimentation seems to confirm the theory, it remains an open question, for a very long time, whether it can rise to the status of a natural law.

Even Einstein's special *theory* of relativity is not viewed, strictly speaking, as a natural law. More recently, string theory, touted by some as The Answer to the ultimate mysteries of reality, has not stood up to the testing using the powerful, highly sophisticated particle accelerator at CERN.

What characterizes scientists first and foremost is their *service to the truth*.

Ego cannot be primary, nor subservience to history, tradition, authorities, or institutions. True scientists seek always and only to go where the evidence leads them, not their assumptions, intuitions, or “educated guesses.”

Even if, in most cases, their inquiries lead to the same conclusions that others have reached before, that does not absolve them of the responsibility of confirming it by thorough, honest, exhaustive experimentation. Each high school student in science class dissects a frog to see for him/herself that the frog's innards are, in fact, as the book describes them, and learns along the way to take *nothing* for granted.

Because the best science is not ego-driven, it follows that there is a stance of *humility* built into this exploratory process.

Good inquirers realize how very difficult it is to construct experiments properly, asking exactly the right questions. A wrong question cannot – except by accident or serendipity – lead to a right answer.

This is particularly true in social sciences, where survey questions are notoriously subject to bias and prejudgment. As we have seen so often, political pollsters very often deliberately slant their questions to guarantee their preferred outcome. But even a researcher who genuinely tries to frame bias-free questions comes to know how difficult it is to do so.

In the natural sciences bias can creep in because researchers assume that the facts they already have in hand are sufficient and accurate enough to be the basis for what they are proposing.

Every scientist today knows that Newtonian physics is not a basis for exploring the inner workings of the world. And no scientist worthy of the name would assume that the final and definitive answer lies, beyond any doubt, with quantum mechanics.

Who knows what the future may bring? Any conclusion is an interim conclusion, always subject to correction. Humility is always in order; there is always more to be learned.

A corollary to this is the necessity to *collaborate*, to work with others rather than in isolation.

Even when one's experimentation seems to confirm the hypothesis, it is taken for granted – actually, insisted upon – that the outcome can be and must be replicated by other experimenters in order for it to be confirmed. Human error (and frailty) is and must be taken into account as a matter of principle.

This collaboration cannot occur without *mutual respect* among researchers.

Each person has a unique blend of expertise, perspective, and experience that can be brought to bear on the question at hand. All in the group together are smarter and wiser than any separately. Discounting and disrespecting others in the team have no place, and are positively detrimental.

All must be *open to change*, in principle.

Without that as a basic outlook, the ultimate goal of *growth* in the body of scientific knowledge simply cannot be achieved.

Always, *always*, there is more to be learned, in both breadth and depth.

In the realm of faith, all these characteristics are, or should be, evident as well. That is, I believe, particularly true of the Christian faith.

Most of the supposed problems between science and religion stem from *equating* religion and faith. That they are not the same has been noted by many, over decades.

Karl Barth, among others, defines religion (in a capsule version) as humans' search for God – on their own terms, by their own efforts, according to their own standards, to their own benefit. It uses laws, guidelines, and structures that, though they may not originate within a person, are nonetheless appropriated and internalized as one's own.

Even if the goal is union with God, as religionists who claim to be Christian would assert, the god they seek is effectually distant and inert, a goal to be reached rather than an involved, active, vital force at work within them.

This kind of god needs precise definition, with rigid rules to permit access, and strong structures to bolster and maintain it all. It becomes a never-ending project, demanding the most and best of human effort.

But it is, ultimately, just that – a *human* effort, a human responsibility and possibility, for these driven souls. Getting to heaven ultimately is a reward for one's own efforts. . . though with a boost from God, in most versions of “Christian” religion.

And I would argue that this describes most religions, of all kinds.

Being religious in this way turns people into joyless, anxious, judgmental beings who view any who hold other beliefs as benighted, deceived, wayward, and even dangerous (and at times even turning that judgment on themselves).

It is no wonder that people who are placed outside the charmed inner circle are often repelled rather than attracted by what they see inside!

Faith, by contrast, is a quest, that is, a process that never comes to an end, because it is, in its essence, a *relationship* that is initiated by God between God and God's person/people.

And human relationships, at their best and their truest, are always characterized by *humility*, *collaboration*, *mutual respect*, and *growth* – just like genuine, questing science.

This view of relationships is far-reaching and profound, unfolding throughout our lives.

For one thing, it turns upside down most of our past efforts at what we call “dialogue.” If I have true humility, I enter into every encounter with no preconditions, no assumptions that I am superior to my conversation partner. We are on an *equal* plane, with things to be learned on each side that we truly have never known, acknowledged, or appreciated before.

So what I – and the other – have seen as settled, secure answers to basic questions must be set aside, at least in the moment. Nothing can be allowed to compromise or taint the relationship, the encounter! (This, as you probably assume, applies to encounters between groups as well.)

There is a joyous freedom in this stance. Neither I nor the other must bear the immense weight of defending “The Truth.” The encounter does not die aborning, doomed by intransigence on either or both sides.

And then it is possible to engage in genuine *collaboration*. This may result only in agreeing to disagree. But that can be seen no longer as a mere cop-out. Rather, it is a principled, considered stance, with appreciation for each other.

Another way to express this is that the dialogue partners develop, over time, *mutual respect* for each other. Neither has a need to diminish, dismiss, or – worst of all – demonize and seek to destroy the other. No one's very selfhood is under threat, so no one feels that drastic measures – even violent and deadly ones – are needed to maintain and defend it.

Once again, there is a joyous freedom in not feeling compelled to demonize and destroy. From a deeply Christian perspective, I affirm that each human being is loved by God . . . as marvelously and graciously as I am . . . with a yearning toward God that mirrors my own. I dare not presume to judge that the other is inferior to me; only God has that prerogative.

And that leaves the door open for further *growth*, on all sides. It is profoundly true that “If we are not growing, we're dying.” Settling on something even so high and holy as universally accepted, received doctrine can be a fatal mistake. Unlikely as that may be, we can never say it's impossible.

If God is constantly and unpredictably on the move – and that is most certainly true! – we, as God's creatures and Jesus' followers, cannot presume to call it all to a halt because “We know *better*.”

Postscript: Of course, there will be those who will call me a universalist. I would insist that I am, rather, a *relationalist*. God *relates* to us, human being to human being, in Jesus the Christ. That is the most central reality in the Christian faith, that God is *love*.

And I believe I am called, even consecrated, to do the same. I am in no position to stand as judge over any other human being, and I rejoice in the freedom from having to do so.

I can joyously and wholeheartedly affirm, “Jesus is my Savior and my Lord,” while acknowledging that God may well have ways of working that are far beyond my feeble powers to understand.

I am on a quest exploring those ways, throughout life.

This is the last word: God is God. And *I am not*. (And neither are *you!*)

6/20/2014

Dear Fred: I have decided to append my comments on your paper to the manuscript itself. I have read Grace's comments, but I will not refer to them very much.

First of all, I am glad that you wrote this piece, and I would think that it can be helpful to many people, and that it will be a good discussion starter for groups. When you first sent it to me, you asked whether it was something new or whether it has been said before. I would have to say it is not breathtakingly original, but then I would not expect that much would be written on this topic by anyone that has not been echoed over the years, since it is a burning issue, and one that many people have written about. I would say, however, that you have brought a distinctive voice to this topic, and that makes it worthwhile and interesting. I do think that you sometimes exaggerate in your argument, and you are setting up abstract, "straw man" antagonists in the discussion. But that is a good strategy to get discussion going.

My critical comments grow out of some disagreements between you and me. I do not agree with Karl Barth's dualism of "religion" versus "faith." I think that faith as a free-standing reality is nonexistent. As soon as we respond in faith with such things as prayer, song, deeds, instruction of children, etc., we are into religion. Ordained clergy and theological professors (even Barth!) are up to their necks in religion. I also think that the dualism of "spirituality" versus "religion" is misleading. In other words faith and spirituality are embodied. It is certainly possible for religion to be distorted, and I do appreciate Barth's criticism of a certain kind of distortion. As a consequence, I don't find the points that you make on the basis of the religion/faith dualism to be so persuasive. Once again however, I could see this approach of yours eliciting good discussion.

On the issue of answers versus questions, I don't agree fully with either you or Grace. Any number of scientists have made the same argument to me that Grace makes. However, I think they overlook the significance of the search for answers. After all, I doubt whether the CERN scientists sat around simply searching for good questions. They wanted to find at least tentative answers regarding the Higgs boson, and then they did plan a strategy of questioning. In schools and churches and in society as a whole, scientific answers are very important. We want to know about the processes of evolution, the circumstances of the origin of our universe, as well as the origin of life. To create this dualism of answers versus questions seems simplistic to me and not adequate to discuss either what scientists do or what we in society look for from science. And, ironically, Grace's work at the Adler planetarium in public education dispenses reams of answers under the aegis of science. I love the quote from Voltaire and I have said the same thing about my own work and my own perspective. But what I am mainly concerned about is the exclusive focus on answers, to the stifling of questions. I have always thought that people in general and students in particular often are afraid to ask questions or else believe that theology is only about answers. So I am in basic agreement with with you, and with Grace, as well, but I do not want to set up the dualism between Q & A.

So, even though I could pick a number of nits with you, I think that you have written useful piece. What do you plan to do with it? Lead an adult forum? I think that would be a very good thing.

Thanks for sharing this with me, and send me more, in the future; this encourages me to send you perhaps some things that I am working on, including an article that I just sent off to Zygon. I am now confined to a wheelchair, so I have lots of time to read and write.

Best to you and Tecla,
Phil

Grace Wolf Chase, PhD, Astronomer at Adler Planetarium, Chicago, and University of Chicago, says:

I recall an adult forum at St. Paul, where Mark Allan Powell was on a video discussing the different ways Christians approach the Bible:

- (1) those who try to prove the Bible is true (generally apologists who try to reconcile a literal historic reading of certain texts with scientific understandings), and
 - (2) those who assume the Bible is true and then ask the question, true in what sense?
- (2) was advocated as the Lutheran approach.

It's not that there are separate Truths for science and religion, but there are different emphases, concerns, and types of questions. Most scientists don't see science as a quest for Ultimate or Definitive Truth, but as a quest for increasing our understanding of the "nature of nature," so to speak. It's really about a journey rather than a destination. To what degree understanding the "nature of nature" can inform understanding the nature of God is certainly a topic of hot debate in many circles, with a range of different opinions on the matter! In one of Br. Guy's books [a Roman Catholic astronomer], he describes science and theology as journeys on the same road, but traveling in opposite directions — theology being faith seeking understanding, and science being understanding seeking faith, as it were.

I'm not sure any of this helps — where I see the analogy isn't that science and faith are trying to answer the same kinds of questions, but they are both seeking deeper understandings in their respective domains. Of course, one problem is that the boundaries of those domains can be fuzzy, and some questions, which were relegated to the realm of philosophy centuries ago have become possible to explore scientifically (such as the question of whether life exists beyond Earth, and many questions raised by cosmology).

Grace

My response:

For a start at recasting the piece a bit, take this clause: "If the combatants agree on anything, it is that there is one definitive Truth, . . ." Would it work to change the last three words to "only one reliable way to pursue truth, . . ." That would put the focus on the process rather than the product, which is what I heard you advocating. Correct?

Her reply:

I think your new wording is great, Fred — bingo! "Scientific fundamentalists" trust only in scientific methodology, and "religious fundamentalists" often argue that scientific methods are unreliable because human reason is untrustworthy (I've heard sin used as a reason to mistrust anything that isn't in the Bible.)

Thanks for the great conversations!