St. Basil: Creation and Science

St. Basil the Great’s (d. 379AD) sermon series *On the Hexaemeron* (The 6 days of creation) was well received in the ancient world and praised by several later church Fathers in the East and West. In that sermon series, Basil relied not only on Christian Tradition but also ‘knowledge’ from ancient philosophy and the ‘science’ of his day to interpret the Genesis account of creation but also to interpret creation through the Genesis account. Of course the science of his day depended heavily on the observations of the ancient sages and not on the scientific method of testing hypotheses. The wisdom of an ancient and respected sage was accepted as fact. Basil very frequently follows the thinking of Aristotle (d. 322 BC) in his observations of nature. By modern scientific standards we can note how little scientific thinking had changed in the 700 years between the time of Aristotle and of St. Basil. For example, St. Basil accepts Aristotle’s ideas about the reproduction of eels:

“And as for the eels, we do not see that they come into existence otherwise than from the slime, since neither an egg nor any other method effects their reproduction, but their generation is from the earth.” (p 137)

Unable to determine how eels reproduce they assume that eels have some type of spontaneous generation from the earth itself. Aristotle’s opinion from seven centuries earlier was accepted as fact at the time of Basil. Besides, the thought that an animal could be spontaneously produced by the earth for Basil would be consistent with ideas in the Genesis 1 creation narrative in which the earth itself was commanded by God to generate animal life – from the inanimate earth, animate life immediately burst forth at God’s command and not from any form of reproductive method. Basil would thus would see from ‘science’ support for the biblical claim. For him he had two reliable sources – Aristotle and Genesis to give support to the claim which made it established fact. We also see in Basil’s thinking that the earth creating animal life was not simply a onetime event at the beginning of creation, but was rather ongoing, God having imbued earth with a power to continuously produce life spontaneously.

Basil is not afraid of the science of his day – neither afraid to agree with it or to engage it critically. He felt that as compared to the philosophical science of his day, generally Christians were safe just to stick with scriptural truth and to avoid unnecessary entanglements in disputes which reason could not settle. He sees the various philosophies of his day (i.e, the science of his day) as holding to contradictory opinions and that Christians should just sit back and let the various disputants fight out their
unprovable opinions.

“But why trouble ourselves to refute their falsehood, since it suffices for us to set out their books in opposition to each other and sit in all silence as spectators of their war?” (p 51)

Of course in his day the ‘scientists’ mostly disputed through reason, not through the scientific method of experimentation to test hypotheses. So he felt confident that Christian truth was a superior philosophy and above the fray of scientific disputation of his day. His attitude toward the philosophy/science of that time is very much mirrored today by the attitude of modern science toward religion: religion is all a matter of opinions and nothing can be proved, so one can just ignore the debates in religion about beliefs – scientists today can do what Basil recommended in his day: just put out the various scriptures of different religions and let the various religious groups engage in interminable disputes about faith. Basil’s attitude toward philosophy (namely, that it cannot exactly establish truth but can only present disputes in logic) is the same criticism today science would offer against religion in establishing what is true.

St. Basil however is not mostly interested in establishing ‘fact’ or facts. He is much more interested in the meaning we can learn from the facts before us. Nature offers to us lessons – about God the Creator and about how we should live on earth. Created things contain lessons about life – about morality and wisdom which we must learn in order to appreciate the full value of the things that exist. For him, in the same way the scripture has hidden meaning in it which we must seek and extract, so too nature has been imbued by God with hidden meaning which we can learn by careful rational pursuit of the truth. So, for example, from observing the behavior of fish, Basil draws some conclusions, not about the survival of the fittest or that nature is violent, but about how humans treat one another.

“The majority of fish eat one another, and the smaller among them are food for the larger. If it ever happens that the victor over a smaller become the prey of another, they are both carried into the one stomach of the last. Now, what else do we men do in the oppression of our inferiors? How does he differ from that last fish, who with greedy love of riches swallows up the weak in the folds of his insatiable avarice? That man held the possessions of the poor man; you, seizing him, made him a part of your abundance. You have clearly shown yourself more unjust than the unjust man and more grasping than the greedy man. Beware, lest the same end as that of the fish awaits you—somewhere a fishhook, or a snare, or a net. Surely, if we have committed many unjust deeds, we shall not escape the final retribution.” (p 109)

Social Darwinism is not the Gospel according to St. Basil! Fish may behave that way by nature, but humans are capable of choosing to overcome any biological determinism.
The behavior of animals is a chance for us as reason endowed beings to reflect on behavior and to improve our own behavior accordingly since we are not merely another type of animal – we are humans in God’s image and likeness, endowed with reason. We need to think about our behavior and make wise and loving choices, which is unlike other animals who act only according to their own nature limited as it is by sheer biology. We humans are capable of rising about our animal nature and to behave like God with love, self-denial, mercy, humility and for the good of others.

The world itself was created for us and given to us by God for us consciously and deliberately to work out our salvation. Basil certainly would not embrace evolutionary ideas that random selection is the only force at work in the development of life on earth.

“... you will find that the world was not devised at random or to no purpose, but to contribute to some useful end and to the great advantage of all beings, if it is truly a training place for rational souls and a school for attaining the knowledge of God, because through visible and perceptible objects it provides guidance to the mind for the contemplation of the invisible, as the Apostle says: ‘Since the creation of the world his invisible attributes are clearly seen . . being understood through the things that are made’ (Rom 1:20).” (p 11)

In the above quote, St. Basil sees the entire creation as a school for us to learn about our Creator. The physical world is not opposed to the spiritual world or to divinity, but rather is a means to reveal divinity to us. The physical world is a sign that points beyond itself to the Creator.

“May God who created such mighty things and ordained that these petty words be spoken, grant to you an understanding of His truth in its entirety, in order that from visible objects you may comprehend the invisible Being, and from the greatness and beauty of creatures you may conceive the proper idea concerning our Creator. ‘For since the creation of the world his invisible attributes are clearly seen—his everlasting power also and divinity (Rom 1:20).’” (p 54)
St. Basil the Great’s (d. 379AD) sermon series *On the Hexaemeron* (The 6 days of creation) gives us an opportunity to reflect on how a Church Father related to the knowledge which came from natural science/philosophy as he commented on the creation of the world presented in Genesis 1-2. Natural science in his day was heavily shaped by the observations and comments of venerable but ancient philosophers. St. Basil frequently follows the thinking of Aristotle who had lived 700 years before Basil’s time. Sometimes the observations of the ancients proved to be quite accurate and sometimes they relied on logical speculation to determine how things must work. For example, Basil following the comments of Aristotle offers a description for what causes rain and snow:

“For, after the vapors are gathered about the higher region and the air is condensed by the pressure of the winds, whenever the particles of moisture, for a time scattered mistily and tenuously in the cloud, approach each other, they become drops which are carried downward by the weight of the combined particles; and this is the origin of rain. But, when the moisture, beaten by the violence of the winds, is reduced to foam, and afterwards the whole mass, chilled excessively, is frozen together, the cloud is shattered and comes down as snow.” (pp 50-51)

We see in his thinking an effort to logically determine how things must happen. No mention of superstitious demons or gods, but rather he advocates for their equivalent of a scientific description of things they could not actually see or measure. How many modern people could explain what causes rain or snow and be close to what science teaches us today? Basil at least is familiar with the science of his day and proffers natural rather than supernatural explanations for these things.

He also understands that night time is nothing more than one side of the earth being in the shadow caused by the sun having rotated around to the other side of the earth. He concludes this from observing shadows all around him.

“That which is shadow in daytime must be considered to be the nature of darkness at night. If, when some light shines, every shadow falls from bodies on the side opposite to the light, and in the morning the shadow is spread out toward the west, but in the evening it turns back toward the east, while at
“midday it tends toward the north, night also withdraws to the part opposite the bright rays, since it is nothing else by nature than the shadow of the earth.” (p 88)

Pretty good logic and science for the 4th Century! Night time is not some demonic darkness, but nothing more than living in the shadow cast by the earth due to the sun being on the opposite side of earth. His assumptions here include that the sun does orbit the earth and that there is another side to the earth (in writings about his sister, Macrina, she certainly believed the earth was an orb and not flat. Keep in mind this is 4th Century AD!).

Basil also reflects on the heavenly bodies, for which he has no instruments other than his eyes to observe with and his brain to logically speculate about. Here are his thoughts about the size of the sun:

“Since the earth is so immense, how would it be possible to illuminate the whole in one moment of time, unless it sent out its light from a huge circle? Observe, then, I beg you, the wisdom of Artificer, how He has given it heat in proportion to this distance. For, the heat of the sun is of such a nature that it neither burns up the earth through excess nor leaves it cold and sterile from its deficiency.” (p 99)

The sun is not a tiny disc embedded in a heavenly vault close to the earth, but he understands it must be immense and also at some great distance from our planet. The only source of light he would have known is that of fire, and so he assumes the sun is quite hot to be able to produce so much light as to illumine the entire earth. Since it must be hot in order to produce light, God put it at just the right, great distance from earth for it to give us light and not burn us up.

Obviously St. Basil is not adverse to taking up issues of knowledge not accounted for in the Bible. He accepts that there are such things as scientific truths which one might learn from natural science/philosophers which are not explained in Genesis. Not all knowledge that we have, not all truths that can be known are given to us from scripture alone. Basil accepts the science of his day (which came from pagan philosophers) that everything is composed of the four elements: air, water, fire and earth. He is also aware that this knowledge does not come from the Scriptures. He obviously believes the teachings regarding the 4 elements are scientific truth. He also feels the need to account for the fact that Genesis does not mention this most basic truth of science.
“Therefore, even though he [Moses] says nothing about the elements, fire, water, and air, nevertheless, by the judgment of your own intelligence, reflect, in the first place, that all things are compounded with all others . . . Therefore, do not look for a detailed account of each, but understand those passed over in silence through those which were set forth . . . Besides, a concern about these things is not at all useful for the edification of the Church.” (pp 13-14)

St. Basil decides that knowledge of the four elements is not useful for spiritual education. But he also wants to make sure that no one might decide that Moses was uneducated in the truths of science. Basil says it simply would take too many words to describe all of creation in detail, so this is why Genesis/Moses passes over the existence of the four elements in silence. It would just take too long to describe the composition of everything mentioned in Genesis. He also is concerned that if we try to analyze everything by breaking things down to their component parts we will be left with nothing of substance. So instead of trying to understand things by breaking them down into their parts, he advocates the idea that all things exist for a reason, and we should concern ourselves with discovering that reason rather than with what the composition of the things are.

“For example to speculate what is holding up the earth (the ground beneath us), we will enter into an endless pursuit of “if we say it’s air, then what is under the air; if we say water, then what is holding the water; and then what is holding what is holding the water, and so on, ad infinitum). He correctly believes that some of these issues cannot be resolved by logic alone and since there existed no way in his day to prove any of this, it was best to leave it to philosophers’ speculation.

Besides speculation though, Basil’s science does allow for direct observation of the natural world. Sometimes their observations are very astute. Sometimes the observations are shaped by the wisdom of the ancient philosophers whose opinions were treated as steadfast. Again, following the thinking of Aristotle, St. Basil makes reference to the octopus, something that can be observed. What is more important to Basil is not simply the behavior we can observe, but its meaning for humans, which turns out to be its true purpose.

“Let me pass over the deceitfulness and trickery of the octopus, which assumes on every occasion the color of the rock to which it fastens itself. As a result, many of the fish swimming unwarily fall upon the octopus as upon a rock, I suppose, and become an easy prey for the cunning fellow. Such in character are those men who always fawn upon the ruling powers and adapt themselves to the needs of every occasion, not continuing always in the same principles, but easily changing into different persons, who honor self-control with the chaste, but incontinence with the incontinent, and alter their opinion.
to please everyone. It is not easy to avoid nor to guard against harm from them because the evil they have fostered in themselves is hidden under a pretest of profound friendship.” (p 110)

Thus the importance of the natural world is not what we can learn about the thing through dissecting it into its smallest parts, but what it teaches us about our own behavior as humans. This is the truth we learn from nature in Basil’s mind. We see in this that he is willing to go beyond any mere literal reading of the scripture texts to seek out all truths as they may be found (hidden) in scripture or in nature. We see that he is not afraid of the fact that secular thinking knows truths not found in the scriptures. We see that for him the real importance of both scripture and nature is what it teaches us about being human, morality and the truth about the Creator. He is not so interested in pure scientific inquiry into the nature of things in and of themselves. All things point to some greater reality – to truths about being human or truths about the Creator, and these are his interest. He does not feel threatened in the least that secular philosophy and natural science may have all kinds of knowledge not found in Scripture. He seems quite content to accept that there are differing realms of knowledge, but only some are of value to the Christian: namely those that in some way bring us to an understanding of the Creator.

St. Basil and Genesis  Posted on June 25, 2014 by Fr. Ted

St. Basil is quite comfortable in using the natural science/philosophy of his day to interpret the Genesis creation narrative, and he also uses the biblical account of creation to help understand the science of his day. We’ve seen how his interest in created things is not a modern scientific interest in the thing itself, but rather he is interested in the meaning of the thing – what purpose different things hold in helping us to know God and to understand what it is to be human. He reads nature like he reads scripture: God has placed in both meanings, sometimes hidden, which we must seek out in order to understand ourselves and our Creator. Thus he is not a materialist who thinks the only thing worth knowing is the empirical world. For St. Basil, the material world is a reality, but also it is a sign which points to an ever greater reality, namely, to an understanding of God.

In this blog, I will look at a few of his comments as they relate specifically to the Genesis text on the creation of the world. St. Basil wrote in a particular time and culture and so is responding to the concerns of the folks of his day – the concerns of both believers and non-believers. He actively engaged the culture of his day and is quite aware of many non-Christian viewpoints on various topics related to creation. He doesn’t try to avoid the ideas held by the non-Christian, but is always certain that the Christian understanding is the one that will lead us to an encounter with the Living God. For example, St. Basil is well aware of the fact that while light is created on the first day of creation, the sun is not created until the fourth day. In our age this creates mostly a problem for a literal reading of the text, and while biblical literalists may struggle with how to account for this, other Christians can see in this
that the Genesis text has built-in poetic and symbolic language which even indicate reading the text purely as literal, factual history will not fully engage the text. Basil is dealing with different problems than Christians today wrestle with – many in his day worshipped the sun as a god. He thinks the creation of the sun on the fourth day is done exactly to dismiss the idea that the sun a a divinity.

“However, the sun did not yet exist, nor the moon, lest men might call the sun the first cause and father of light, and lest they who are ignorant of God might deem it the producer of what grows from the earth. For this reason, there was a fourth day, and at that time ‘God said, “Let there be light,” . . . and God made the two lights.’ . . . In fact, at that time the actual nature of light was introduced, but now this solar body has been made ready to be a vehicle for that first-created light. . . . so also in this case the light have been prepared as a vehicle for that pure, clear, and immaterial light.” (pp 85-86)

St. Basil wants to be clear that the sun is not the giver of life on earth, but rather is a creation of the Creator God. Basil’s reading of the Genesis 1 text is fascinating: on day one “the actual nature of light was introduced” but only on day four is a vehicle made for carrying this light. They physical light we see is also a vehicle for the first created immaterial light. This is consistent with his idea that the physical world is our entry point into the spiritual reality: the very purpose of the material world is to allow us to experience the spiritual reality. The physical world points us toward the more significant reality of divinity. The physical world thus helps us find the spiritual world – he is no dualist. The physical and spiritual are not opposed to each other but are one reality with the physical being a door which we can open into that greater reality. Or the physical reality can become a transparent window through which we can see the spiritual reality behind it.

Of course many modern scientists do say that exploding stars and the dust their explosion creates are in fact the source of what becomes earth and us! So modern science does give credit to the sun and stars for being responsible for life on earth. Modern scientists like St. Basil do not think of the sun as a divinity. For Basil stars just like the sun are mere created things and not the giver of life, who is God alone. Basil also points out that plants exist before the sun in Genesis 1, this too is intentional by the author of Genesis to refute any divinization of the sun itself. So for Basil the order of creation is not some declaration about how scientifically the universe unfolded but rather is a theological treatise aimed at refuting pagan ideas of divinity.
“Let the earth bud forth by itself, needing no assistance from the outside. Since some think that the sun, drawing the productive power from the center of the earth to the surface with its rays of heat, is the cause of the plants growing from the earth, it is for this reason that the adornment of the earth is older than the sun, that those who have been misled may cease worshiping the sun as the origin of life. If they are persuaded that before the sun’s generation all the earth had been adorned, they will retract their unbounded admiration for it, realizing that the sun is later than the grass and plants in generation.” (pp 67-68)

Thus the Genesis 1 order of creation is intentional to refute wrong theological ideas. Pagan ideas attributing divine powers to the sun are refuted by the narrative itself. Genesis 1 is a theological document whose purpose is to reveal the one true God to us. Like the created, material world, scripture itself is revealing God and pointing to God. Truth is not identical with nature nor with scriptures, but rather both scriptures and nature point beyond themselves to God. They are both signs of the Creator and witnesses to Him.

One thing I note in several places in his text is the word “perhaps” which indicate to me at least that he doesn’t have one dogmatic interpretation of the text, but rather suggests that the text may be interpreted in several different ways.

“Or, perhaps, the words ‘In the beginning he created,’ were used because of the instantaneous and timeless act of creation, since the beginning is something immeasurable and indivisible. As the beginning of the road is not yet the road... so also the beginning of time is not yet time, on the contrary, not even the least part of it.” (p 11)

St. Basil seems comfortable with some ambiguity in how a text is to be handled and interpreted and that there are possibly more than one way to understand the words. He reads every word in the text and wrestles with them all, but at times indicates that there may still be hidden meanings to the text which we have not yet uncovered.

He also touches in the words above on a modern scientific conundrum – if everything including space, time and the material universe came into existence at the Big Bang, what banged? or what existed “before” the bang? Basil’s answer is that the beginning of time is not yet time – in other words there exists an eternity beyond time, namely the realm of God which is not limited by what we can experience in space and time.

Because the text of Genesis 1 and nature both point to God, Basil has to deal with the fact that in the world there are poisonous plants. How does one reconcile this with a good God?
“Let the earth bring forth vegetation.’ And immediately with the nutritive are produced the poisonous; with the gran, the hemlock; and with other edible plants, the hellebore and leopard’s bane and mandrake and poppy juice. What, then? Shall we neglect to acknowledge our gratitude for the useful plants and blame our Creator for those destructive of our life? Shall we not consider this, that not everything has been created for our stomach? . . . There is not one plant without worth, not one without use. Either it provides food for some animal, or it has been sought out for us by the medical profession for relief of certain diseases.” (pp 71-71)

The existence of plants poisonous to us humans is for Basil a good sign of the need for some self-denial on our part. Not every plant was meant to be eaten by us tells us to curb our voracious and rapacious appetites. We need for our health to practice some self-control. Besides some plants noxious to us are eaten by various animals or can be used for medicinal purposes. All of this requires us not to be governed by our appetites but rather for us to master our wants and desires and to do only that which is good for us. As St. Paul notes in Philippians 3:19, for some, “their god is their belly” and that god is insatiable.

Finally, St. Basil does believe that not only humans, but animals and even plants were changed by the ancestral sin of Adam and Eve.

“Only at that time the rose bush was without thorns; later, the thorn was added to the beauty of the flower so that we might keep pain closely associated with the enjoyment of pleasure and remind ourselves of the sin for which the earth was condemned to bring forth thorns and thistles for us.” (pp 74-75)

Thorns on roses were not part of the original nature of that plant, but now do occur on them. Like with everything else in creation, thorns serve a purpose: they remind us we live in a fallen world in which sin abounds. Basil believes that thorns only appear on earth after the fall as recorded in Genesis 3:18. The beauty of the earth is now mixed with grief. This we Orthodox sing about at our funeral service in the words of St. John of Damascus as we look upon the deceased in church: “What earthly beauty is unmixed with grief?” Humans made in God’s image and likeness, have been disfigured by sin. The joy and love we experience with others is tainted by the pain of grief we feel at the death of loved ones. The world we live in is not the Paradise of God.
St. Basil is not a modern scientist and doesn’t read Genesis as science in the modern sense but rather sees the account of creation as being a witness to the Creator. For Basil both material creation and the scriptures point beyond themselves to God. This is an idea that Christ himself expressed in John 5:39-40:

“You search the scriptures, because you think that in them you have eternal life; and it is they that bear witness to me; yet you refuse to come to me that you may have life.”

If we read Genesis as the means to understand the material world in a modern scientific sense, then we in fact lose the significance of the Scriptures for the Bible, like empirical nature itself, points us beyond itself to God. Genesis is not the text to read to understand material creation in a modern scientific way, rather Genesis and the empirical world are signs of the Creator and are intended to lead us beyond themselves to the Truth to which they bear witness.

In this final blog of this series, I want to take a brief look at how some things St. Basil says might have implications for our 21st scientific understanding of the material world. Science has indeed revealed a great deal about the empirical nature of the material world. Those who do not believe in God have found the truths of science to disprove the existence of God. St. Basil on the other hand is not troubled by the fact that sometimes natural science explains things or shows us the cause of things or gives us truth that is not found in the scriptures.

“In fact, our amazement at the greatest phenomena is not lessened because we have discovered the manner in which a certain one of the marvels occurred.” (p 17)

Science can amaze us with what can be explained through a study of cause and effect, and through breaking things down into the component parts or by discovering the laws of nature whether in biology or from physics. Even so, the world remains amazing and awesome. The beauty of natural things is not eliminated by our understanding them scientifically. It is only when we think that truth is opposed to beauty or that the material existence of something completely explains a thing, that we come to lose a sense of awe and mystery. It is absolutely true that the human body is 65% oxygen, that there are 85 million neural cells in a human brain, that blood flows are 3-4 mph, and that a human cell can make protein in 10 seconds. But for many of us, that does not even begin to explain what it is to be human. Many of us do believe there is meaning in life and there is a question, a mystery to be asked: what does it mean to be human?

If we see even science as revealing to us the meaning and mysteries of God’s created world, we remain awed and thankful. As is stated in the Akathist, “Glory to God for All Things”: 
“The breath of your Holy Spirit inspires artists, poets and scientists. The power of your supreme knowledge makes them prophets and interpreters of your laws, who reveal the depths of your creative wisdom. Their works speak unwittingly of you. How great you are in your creation! How great you are in man!”

St. Basil remains awed by creation and all that it reveals not only about God but about ourselves too. He believed even natural science was uncovering the laws of nature and order with which God had imbued creation. Even sciences which study the ancient past are revealing what God has done. He notes:

“Things still seen, even at the present time, are a proof of what is past.” (p 105)

I think for us in the 21st Century, we can look at that statement and realize that archeology and paleontology are uncovering for us proof of what is past. They are not threats to faith, but help us understand the earth and the history of the entire planet. And we do believe that this history and these truths also point to God just as scripture and nature do. St. Basil gives us a tantalizing taste of an awareness of fossils:

“Then, there is a saying that amber is the juice of plants crystallized into stonelike substance. The fragments of wood and very delicate little insects which remain visible in it, having been left behind when the juice was soft, confirm this saying.” (p 80)

Of course he doesn’t use the fossil to discuss the age of the earth, but if we take his comment that things we now see are proof of what is past, I think St. Basil would not have found paleontology to be a threat to his faith. He would have seen it as another source of truth even though outside of the truths presented in the Bible. What he would have thought about the science of evolution or the earth being billions of years old is harder to say, but he clearly would reject any form of biological determinism. He firmly believes in free will and free choice. For Basil predestination, whether moral or biological, negates the very nature of humans and empties Scripture of any meaning. Biological pre-determinism would void the ideas of law and judgment.
“Then, if truly the origin of our vices and virtues is not within us, but is the unavoidable consequence of our birth, the lawgivers who define what we must do and what we must avoid, are useless and the judges, too, who honor virtue and punish crime, are useless. In fact, the wrong done is not attributable to the thief, nor to the murderer, for whom it was an impossibility to restrain his hand, even if he wished to, because of the unavoidable compulsion which urged him to the acts. Persons who cultivate the arts are the most foolish of all. At least the farmer will thrive, although he has not scattered his seeds nor sharpened his sickle; and the merchant will be exceedingly rich, whether he wishes or not, since his destiny is gathering up wealth for him. But, the great hopes of us Christians will vanish completely, since neither justice will be honored nor sin condemned because nothing is done by men through their free will. Where necessity and destiny prevail, merit, which is the special condition for just judgment, has no place.” (pp 94-95)

His thinking on this issue, upholding the rational nature of humans and the importance of both consciousness and conscience is today challenged by a number of neo-Darwinists who have questioned whether anyone can be held responsible for anything since in their opinion everything is simply unfolding according to the predetermined laws of cause and effect. Such atheists deny there is anything like human consciousness or free will and claim nothing exists beyond the material world. For them all of our thought processes are mere illusions created by the chemical reactions of the brain cells. Basil had a much higher opinion of humans and believes that we are capable of making choices that have real consequences. He certainly believed humans have consciousness for a reason.

One comment St. Basil makes that touches upon the current knowledge of quantum mechanics has to do with the anthropic principle. In the Septuagint version of the Bible, which he used as Scripture, Genesis 1:2 reads: “But the earth was invisible and unfinished.” Basil considers the words that the earth was “invisible”: “Scripture called the earth invisible … because man, the spectator of it, did not exist…” (pp 21-22) Reality unfolds, emerging out of mere potentiality, only in the face of an observer. Quantum mechanics notes that the observer in fact shapes the outcome of a quantum event. So for Basil, the world, though created, remained invisible until there was a human observer – someone to see what was potential and to visualize it into reality. On some level his thinking coincides with modern quantum thinking.

Finally, St. Basil touches upon a theory of creation that was known since the 5th Century BCE and still taught by some in the 4th Century CE which has been revived by some physicists today: a theory of multiple universes.
“For, there are among them men who say that there are infinite heavens and worlds (note: Cicero [d. 43BC] says Anaximander [d. 546BC] held this idea); and, when those who employ more weighty proofs will have exposed their absurdity and will prove by the laws of geometry that nature does not support the fact that another heaven besides the one has been made . . . For, although they see bubbles, not only one but many, produced by the same cause...” (p 40)

Maybe he even touches upon bubble universes! He was convinced that mathematics would ultimately disprove any ideas of other universes. He relies on the math and science of his day to come to this conclusion. It is interesting to think about what he would have said in the face of modern math and science which hints that perhaps multiple universes exist. Would he have withheld judgment or since he thought math would in the end prove his point acquiesced to the new math? While we may never know, we can see in the commentary of St. Basil on the Genesis 1 narrative of the creation of the world, that he was not afraid of secular science or math, nor of relying on them to establish truth. He believed that we are not aiming to understand only the material world at ever greater levels of depth and comprehension. Rather, he saw the natural, material world as the means for us to come to know the Creator. That was their ultimate value – the meaning hidden within them but awaiting our discovery.