

What is Reality?

Reality in a nutshell

Growing up, I recall going on family vacations by car with kids in the back seat and parents in the front. Pretty typical, I suppose. And, likely a common experience with many of you. These vacations usually involved long drives, but the destinations were generally well worth it.

One year my parents thought to keep my brother and I occupied during the long drive by providing us with battery-operated radios with earplugs. The answer to every parent's dream—quite and engaged children in the back seat! As a very young teen and a budding geek, I soon discovered that if I stole a glance at the approximate dial setting on my brother's radio that I could set my radio to the same approximate frequency and jam his reception. Now, of course, I recognize that I was tuning my set 455 kilohertz off his frequency. Since our radios did not have radio frequency amplifiers upstream of the local oscillator, I was bleeding some oscillator signal out of the antenna, which effectively blocked reception to his station of interest. Okay, maybe this explanation is a tad geeky, but it was great fun watching his level of frustration with his radio grow as I intermittently jammed reception. What are brothers for, right?

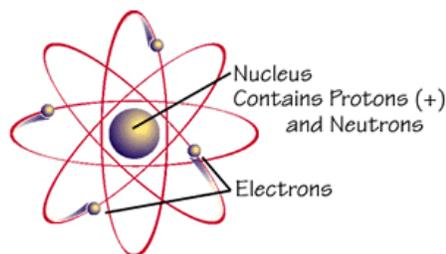
The truth was, there was nothing wrong with his radio, but you could not have convinced him of any outside influence that day. He was convinced he got the bum radio. As you can see, the reality was not anything like the perception.

Likewise, what our culture commonly treats as reality today is not very closely related to the truth. I hope, through this short article, to show the reader that popularly held concepts of reality are dramatically different from basic Biblical precepts. Because of this disconnect with true reality, many important character traits have been condemned to the status of cultural curiosity (or, cultural casualty, if you prefer).

What is reality?

I am—at least physically—a collection of atoms. Atoms are constructed of electrons, protons, and neutrons. However, the atom is almost entirely empty space. If I could magnify an atom to the size of a football stadium, the nucleus (neutrons and protons in the middle) would be the size of a marble on the fifty-yard line while the outer electron shell would be orbiting around the last row of the upper deck seats. Only one part in ten thousand of the diameter of our atom contains any actual material substance. In addition, with respect to mass, the electrons¹ are like a cloud of poppy seeds compared to our marble-sized nucleus. Suffice

Structure of An Atom



¹ A member of the lepton 'family' of particles. The only other member of the lepton family is the neutrino.

to say, they are the little guys on the block when it comes to mass.

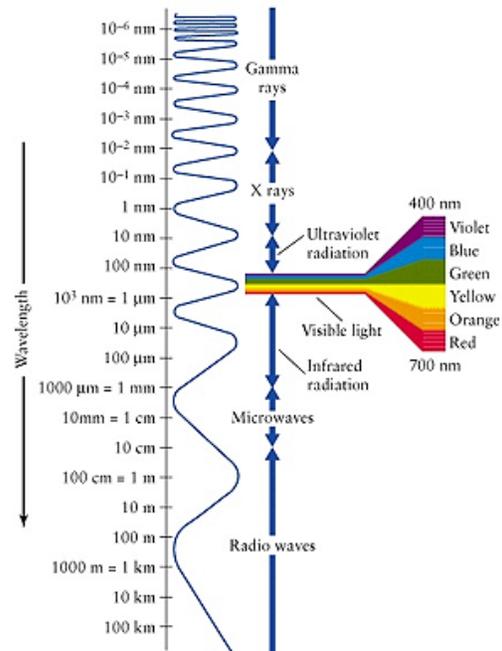
What about the protons and neutrons? They too contain very little mass. The protons and neutrons are constructed from exceedingly small particles called quarks. There are six types of quarks.² One combination of three quarks orbiting around each other makes a neutron (d-u-d) and another combination of three builds a proton (u-d-u).³ It turns out that the protons and neutrons are also nearly all empty space. Like the full-blown atom, only one part in ten thousand (or more) of a proton (or neutron) contains any substance—that is, the three quarks orbiting each other.

The bottom line is the entire earth and everything on it could shrink down to the size of a softball (or smaller) by removing all the empty space—if we could do so.

So, then, why do objects (like a tabletop) appear solid if they too are nearly all empty space? Why, if atoms are essentially empty space, can I not see through objects made of them?

Two things are important to understand. The first is called “weak nuclear force.” A very small, but impressive invisible force called the weak nuclear force prevents the protons and neutrons from touching one another.⁴ They can only come within about 0.000,000,000,000,001 meters before they are repelled by the weak nuclear force. When you hear the crack of the ball against the bat, the truth is that the ball never actually *touched* the bat. The ball came within about 0.000,000,000,000,001 meters before being repelled. This feature, when combined with the characteristics of molecules, molecule chains, crystals lattices, etc., create the appearance of a variety of textures and surface hardness, but in a way it's all an illusion since the atoms are still nearly all empty space.

The second important concept to understand is how light interacts with matter. Light is electromagnetic radiation—energy waves (or, photons with a wave wake, if you prefer). The radiation spectrum that is visible to us as light has wavelengths of 350-650 nanometers (0.000,000,350 – 0.000,000,650 meters). This radiation has no “color.” No radiation has any “color.” The objects that the radiation strikes also have no color (since they are nearly all empty space). Think of solid matter as atoms connected together by atomic-sized springs. The radiation we call light is selectively absorbed by the atoms, which then jiggle like a micro-sized fruit Jell-O salad. The radiation interacts with collections of a material’s surface atoms (a wavelength of light



² The quarks are named: up, down, charm, strange, top, and bottom.

³ All ‘normal’ matter consists of up (u) and down (d) quarks. The quarks are held together by ‘gluons.’

⁴ Via a special particle called the ‘Z’ particle.

is roughly fifty atoms wide) and these small bits of material absorb various frequencies and reflect back other frequencies. [Remember the fruit Jell-O?] Still, the radiation that is absorbed or reflected has no “color.”

Radiation that is reflected back to our eyes is focused onto small cone cells in the retina of our eyes. Our eyes contain three types of cone cells that react to different frequencies by producing electrical impulses that are then interpreted by our brain as color assignments. The materials themselves have no actual color. Instead, our brain “perceives” the color based on assignments wired through synapse connections.

I know you are real because I (and others) can shake your hand and “feel” your substance—and perhaps even your pulse. Yet, what I am actually feeling is the weak nuclear force repulsion from the uneven surface of your hand along with some infrared emissions from your hand’s atoms as they re-radiate wave energy⁵ they picked up from nearby muscle and blood cells—themselves virtually empty of substance.

Therefore, your body has virtually no substance. Rather, it is primarily a collection of minute force fields that collectively present themselves as solid material with a variety of color and texture.

Now take a moment to look around you. Everything else is the same way: the chair on which you are sitting, the walls that surround you, your entire house, your car, every material possession you (or anyone else) owns, trees, mountains, everything you see—everything! The world around you—the world you are accustomed to—is all perception. Oh, it is *real*, all right, but not in the manner you have always thought of it as being real.

Weird, isn’t it? Or, is it only weird because you have been conditioned all your life to think otherwise? Why? It is because you are a sensual creature. By that, I mean that your brain is capable of metaphysical thought, but instead you spend nearly all your time simply processing and reacting to the input from your senses—the same senses that are incapable of showing you anything more than the façade to which you have grown accustomed.

Think of the world as a nothing more than a movie set. As a movie director, you look through the camera lens and *see* the movie set as a type of local reality.

Our culture

Our culture defines reality through this facade. That is, if you (and I) can see it, touch it, hear it, or smell it, then it is real—even if it is essentially all empty space! The chair or couch that you are sitting in is “real” because it is commonly experienced by yourself and

⁵ Yes, that “Jell-O” arrangement also vibrates harder as the temperature increases. At room temperature atoms vibrate randomly at about 1000 meters/second. Pretty fast, huh? But, the movement is extremely small and the total vector sum of all movement is essentially zero since the motion is random (called Brownian Motion).

others.

Now, let us contrast that with what is treated as mythical or esoteric by our culture simply because it is not a commonly shared experience. They are qualities that make us uniquely human—faith, courage, love, etc. (to name but a few). From a historical perspective, we do not deny the existence of these characteristics, but we certainly do not agree on a measure of the parameters that define these characteristics. It is more of an I-recognize-it-when-I-see-it approach. Because it is not universally experienced like our physical world, our science-based culture relegates it to the status of pseudo-reality. In the case of selected characteristics like faith, peace (of heart), etc., our culture treats them as little more than well-received myth.

God's version of reality

Now, let us compare that to what the Bible teaches. The central themes of the Bible—those themes that are held up as the most important concepts a human could hope to understand in this life—are those same characteristics that our culture minimizes.

Christ understood that the creation was nothing more than a stage⁶: it was something that could be molded at His will to set the *scene* for what was really important—*what people were thinking*. Let us look at examples from just one book—Matthew.

- “And, behold, there came a leper and worshipped him, saying, ‘Lord, if thou wilt, thou canst make me clean.’
And Jesus put forth his hand, and touched him, saying, ‘I will; be thou clean.’
And immediately his leprosy was cleansed. And Jesus saith unto him, ‘See thou tell no man; but go thy way, shew thyself to the priest, and offer the gift that Moses commanded, for a testimony unto them.’”
[Mat 8:2-4]
- “And when he was entered into a ship, his disciples followed him. And, behold, there arose a great tempest in the sea, insomuch that the ship was covered with the waves: but he was asleep. And his disciples came to him, and awoke him, saying, ‘Lord, save us: we perish.’
And he saith unto them, ‘Why are ye fearful, O ye of little faith?’
Then he arose, and rebuked the winds and the sea; and there was a great calm.”
[Mat 8:23-]
- “And he commanded the multitude to sit down on the grass, and took the five loaves, and the two fishes, and looking up to heaven, he blessed, and brake, and gave the loaves to his disciples, and the disciples to the multitude. And they did all eat, and were filled: and they took up of the fragments that remained twelve baskets full. And they that had eaten were about five thousand men, beside women and children.”

⁶ Christ should certainly know, after all. He built it!

[Mat 14:19-21]

- “But the ship was now in the midst of the sea, tossed with waves: for the wind was contrary. And in the fourth watch of the night Jesus went unto them, walking on the sea. And when the disciples saw him walking on the sea, they were troubled, saying, ‘It is a spirit;’ and they cried out for fear.
But straightway Jesus spake unto them, saying, ‘Be of good cheer; it is I; be not afraid.’
And Peter answered him and said, ‘Lord, if it be thou, bid me come unto thee on the water.’
And he said, ‘Come.’
And when Peter was come down out of the ship, he walked on the water, to go to Jesus. But when he saw the wind boisterous, he was afraid; and beginning to sink, he cried, saying, ‘Lord, save me.’
And immediately Jesus stretched forth his hand, and caught him, and said unto him, ‘O thou of little faith, wherefore didst thou doubt?’”

[There is no denying that a believer’s faith (active belief)—when under God’s direction—is not bound by physical laws.]

[Mat 14:24-31]

- “And Jesus said unto them, ‘Because of your unbelief: for verily I say unto you, If ye have faith as a grain of mustard seed, ye shall say unto this mountain, Remove hence to yonder place; and it shall remove; and nothing shall be impossible unto you.’”
- “And when he saw a fig tree in the way, he came to it, and found nothing thereon, but leaves only, and said unto it, ‘Let no fruit grow on thee henceforward for ever.’
And presently the fig tree withered away.
And when the disciples saw it, they marvelled, saying, ‘How soon is the fig tree withered away!’
Jesus answered and said unto them, ‘Verily I say unto you, If ye have faith, and doubt not, ye shall not only do this which is done to the fig tree, but also if ye shall say unto this mountain, Be thou removed, and be thou cast into the sea; it shall be done. And all things, whatsoever ye shall ask in prayer, believing, ye shall receive.’”

[Mat 21:19-22]

Was Christ exaggerating? No! Is this actually possible? Yes! What it really comes down to is what you believe, doesn’t it? While nothing may be impossible for a believer in fellowship with God, the actions are as directed by the Holy Spirit and not the individual (“...nevertheless not as I will, but as thou wilt.”.)

Creation is nothing more than a stage on which you live your life. Think about a television show for a moment. There is nothing actually behind the walls of the room

where the “scene” is taking place. The set is only there to provide the illusion of a reality. The streets in outside scenes show only the front of the buildings because there is nothing behind those false fronts. The only thing that really matters is the action and the dialog. This creation is the same way. Yes, it is real, but only as a temporary set in which (and on which) we play out our lives. The only thing that will outlive this creation is the thoughts and intents of your heart—those same thoughts and intents that will eventually be judged by God. Like the television show, your surroundings are simply a scene for the *real* show—what is going on in your head.

Christ repeatedly focused on the true reality—what was happening in people’s minds, and downplayed the importance of surroundings. In the following verses (again, just from Matthew) He clearly demonstrates that it is what is going on in your head that matters:

- “And seeing the multitudes, he went up into a mountain: and when he was set, his disciples came unto him: And he opened his mouth, and taught them, saying,
‘Blessed are the poor in spirit: for theirs is the kingdom of heaven.
Blessed are they that mourn: for they shall be comforted.
Blessed are the meek: for they shall inherit the earth.
Blessed are they which do hunger and thirst after righteousness: for they shall be filled.
Blessed are the merciful: for they shall obtain mercy.
Blessed are the pure in heart: for they shall see God.
Blessed are the peacemakers: for they shall be called the children of God.
Blessed are they which are persecuted for righteousness' sake: for theirs is the kingdom of heaven.
Blessed are ye, when men shall revile you, and persecute you, and shall say all manner of evil against you falsely, for my sake.’”

[Mat.5:1-11]

Notice that all of these blessing are a result of what is happening in your head.

- “Let your light so shine before men, that they may see your good works, and glorify your Father which is in heaven.”

[Mat.5:16]

Jesus represents your thoughts and intents as “light.” This light—what you are thinking—will (or should) manifest itself as good works. Works are a natural consequence of what you are thinking, but it is ultimately what you are thinking (light) that is what Christ is seeking to influence.

- “For I say unto you, That except your righteousness shall exceed the righteousness of the scribes and Pharisees, ye shall in no case enter into the kingdom of heaven.”

[Mat 5:20]

Recall that the Pharisees were outwardly pious, but what was going on in their heads was another matter.

- “Ye have heard that it was said by them of old time, ‘Thou shalt not commit adultery.’ But I say unto you, That whosoever looketh on a woman to lust after her hath committed adultery with her already in his heart.”
[Mat 5:27-28]

The sin is not in the action, it is in the mental embracing of the thought that leads to the action.

- “Therefore I say unto you, Take no thought for your life, what ye shall eat, or what ye shall drink; nor yet for your body, what ye shall put on. Is not the life more than meat, and the body than raiment?
Behold the fowls of the air: for they sow not, neither do they reap, nor gather into barns; yet your heavenly Father feedeth them. Are ye not much better than they?
Which of you by taking thought can add one cubit unto his stature?
And why take ye thought for raiment?
Consider the lilies of the field, how they grow; they toil not, neither do they spin: And yet I say unto you, That even Solomon in all his glory was not arrayed like one of these.
Wherefore, if God so clothe the grass of the field, which to day is, and to morrow is cast into the oven, shall he not much more clothe you, O ye of little faith?
Therefore take no thought, saying, What shall we eat? or, What shall we drink? or, Wherewithal shall we be clothed? (For after all these things do the Gentiles seek:) for your heavenly Father knoweth that ye have need of all these things. But seek ye first the kingdom of God, and his righteousness; and all these things shall be added unto you.”
[Mat 6:25-33]

Jesus points out that first and foremost it is your current relationship with God—which directs what and how you are thinking—and not your earthly circumstances that really matters.

- “But when he saw the multitudes, he was moved with compassion on them, because they fainted, and were scattered abroad, as sheep having no shepherd. Then saith he unto his disciples,
‘The harvest truly is plenteous, but the labourers are few;’”
[Mat 9:36-37]

The compassion is for where the multitudes of people were at mentally—scattered without a shepherd. The harvest is unsaved souls.

- “And fear not them which kill the body, but are not able to kill the soul: but rather fear him which is able to destroy both soul and body in hell.”
[Mat 10:28]

Your first priority is not your body or your circumstances. Your first priority is

what is happening in your head.

- “He that findeth his life shall lose it: and he that loseth his life for my sake shall find it.

[Mat 10:39]

Success is not found in the abundance of material goods or reputation among humanity, but in selfless service to God as directed through a relationship with God.

- “O generation of vipers, how can ye, being evil, speak good things? for out of the abundance of the heart the mouth speaketh. A good man out of the good treasure of the heart bringeth forth good things: and an evil man out of the evil treasure bringeth forth evil things.”

[Mat 12:34-35]

Your behavior is controlled by what you are thinking and it is what you are thinking that really matters.

So, take a moment and look around—*really look around!*

What do you see?