

## No carrier particle for prayer!

Proof that non-verbal prayers are not traveling any farther than the inside of your skull:

To move anything from one place to another requires a force, even information. That's why producing radio waves (electromagnetic radiation) requires the energy of electricity or heat.

First we will review the four fundamental forces of physics.

Remember it is an irrefutable fact of physics and nature, there are four fundamental forces in the universe and a theoretical dark matter boson.

Remember bosons only transfer force over the distance of an atom. These are it, there are not any other forces. There are no other magical forces.

These forces make up all the interactions of matter in the universe. There are not any other forces! This has been proven over and over!

#1. The nuclear strong force; this force is what holds the protons and neutrons together in an atom. Each of the fundamental forces has a carrier particle, a particle that carries the interactive force between particles. The carrier particle for the strong force is the gluon. This force and carrier particle only interact with particles over the distances of an atomic nucleus.

#2. The nuclear weak force; this force is responsible for atomic transmutations (decays from one element to another or other elements). The carrier particle for the nuclear weak force is a gauge boson with three flavors ( $w^+$ ,  $w^-$  &  $Z$ ). But again the carrier particles only act over the diameter of the nucleus of atoms. Another theoretical nuclear weak force is the X boson, such a particle would carry an extremely short-range force that acts over distances only several times the width of an atomic nucleus. And where a dark photon (like a conventional photon) would couple to electrons and protons, the new boson would couple to electrons and neutrons.

For our purposes forces 1 and 2 do not apply because they only deal with atomic nuclei and therefore nuclear reactions! (They only act over the distances of atomic nuclei).

#3 Gravitational force. The force of gravity is produced by any object that has mass. Gravity interacts with every other object that has mass. Its carrier particle has been dubbed the graviton. This particle has been proven to travel at the speed of light but yet undiscovered due to the fact that it lies in a quantum dimension we have not been able to experimentally access. The force of gravity is relatively weak. An object must have a very large mass to produce a substantial gravity and the gravity between two objects drops off by the equation: force of gravity =  $\frac{GM_1 \times M_2}{r^2}$ . The important part of this equation gravity is divided by the square of the radial distance between the two bodies. So if the distance between two objects is doubled the gravitational force decreases 4 fold, at a distance of 4 the gravitational force is 1/16th. As the distance becomes very great the gravitational force becomes very weak. That's why we don't see the giant black hole at the center of our galaxy has little effect on us.

#4 Electromagnetism: The force of electromagnetism is the force that holds electrons around atoms and its carrier particle is the photon. As electrons move from one energy state to another they either absorb or release photons at a specific electromagnetic wavelength. These electromagnetic waves are propagated by photons at different wavelengths create the electromagnetic spectrum from gamma rays to ultra violet through the visible spectrum to infrared through the radio waves.

We are talking about a method of communication that can travel over very long distances and with a high rate of speed.

So which of our fundamental forces are good candidates for communication?

#1(nuclear strong force) and #2(nuclear weak force) are out of the running right off the bat, because their carrier particles only operate over the distances of atomic nuclei.

#3 (Gravity) Is not a good candidate because it is weak. The interference of any massive objects along the way would completely mask the gravity of an object with a lesser mass. More importantly you would have to create an object that could rapidly change its mass to produce gravity waves of different frequencies and or amplitudes. You just can't change the mass of your head enough to do this. You'd need a head the size of planet that could rapidly change its size down to the

size of a golf ball and back to the size of planet oscillating at different frequencies. This is an impossibility due to the law of the conservation of mass!

So the only viable choice for long distance high speed communication is ELECTROMAGNETISM! That means photons.

Most people believe that when they pray, their prayers are received immediately, absolutely no lag time. Why? Because if you are drowning in a car that's sinking to the bottom of a lake you just can't wait anytime for god to get the message and act, right!

90%+ of Americans don't even know that it takes light 8 minutes to travel from the sun to the earth. The speed of light =  $3.0 \times 10^8$  m/sec. Distance to the sun = 93,000,000 miles.

Nothing can travel faster than the speed of light except under very special circumstances:

1. Quantum tunneling: First we must remember that at the quantum level everything is probabilistic. There is a small probability that a quantum particle can pass through a potential energy barrier to a lower potential energy state on the other side of a barrier and doing so will probabilistically travel faster than the speed of light. It's like a ball rolling down into a valley and then the ball "probabilistically tunnels" (passes) through the mountain to the next valley of lower potential energy. Quantum tunneling only happens with very small particles, neutrons or smaller, through solid barriers, and is only practical through barriers 2-3 nm thick and the speed is only very slightly faster than the speed of light. So quantum tunneling is not a viable means of communication. Not at least from our brains!
2. Creating a curvature or bubble in the space-time continuum: Traveling faster than the speed of light by this means would require massive amounts of energy on the order of 50000 exajoules or more. This is more energy than is stored in our sun ( $1.5 \times 10^{22}$  Joules). We would need some way to control this energy to create a gravity well and then push this gravity well along to our destination. The space time bubble can still only be pushed along at the speed of light, this means to make in real time you have to make your "bubble" really big to pull space-time along. The rate that you pull space-time along or push your bubble

along is directly related to the size of the curvature. For anything practical this would require an unfathomable amount of energy. So again this is not a viable way to send a message to god; please let the Cubbies win the world series this year!

3. The cosmic worm hole: The cosmic worm hole is sort of the same idea as creating a “bubble” in space time, its just that you don’t have to create one yourself, you just have to find one! Its a gravity well that sort of pinches off a portion of time-space, sort of like if you take a ballon and push two opposing fingers into the ballon until they meet. So first you have to go out into space and find a worm hole, then you would need to know that the other end of the worm hole leads to the final destination you want (essentially an impossibility). You don’t want to get to close to the mouth of a worm hole because it ejects a beam of cosmic rays that fries everything in its path for distances greater than the diameter of our solar system, not to mention many other strange and dangerous particles are spewing from it’s opening. Even if you found a worm hole which might be light years away and you could get close enough to send a message down the worm hole’s mouth, by what means are you going to do this. You can’t use conventional radio waves because the ions spewing out of it are like the mother of all solar storms, they would just destroy the radio signals traveling into the worm hole. What ever you send into the worm hole still only travels at the speed of light from the other end of the worm hole to the final destination. It is in no way an instant solution to communications, it would just be a short cut. Worm holes can also just spontaneously close and or reform in a different location. Again not a practical way to tell god to give your ex girlfriend a tumor!

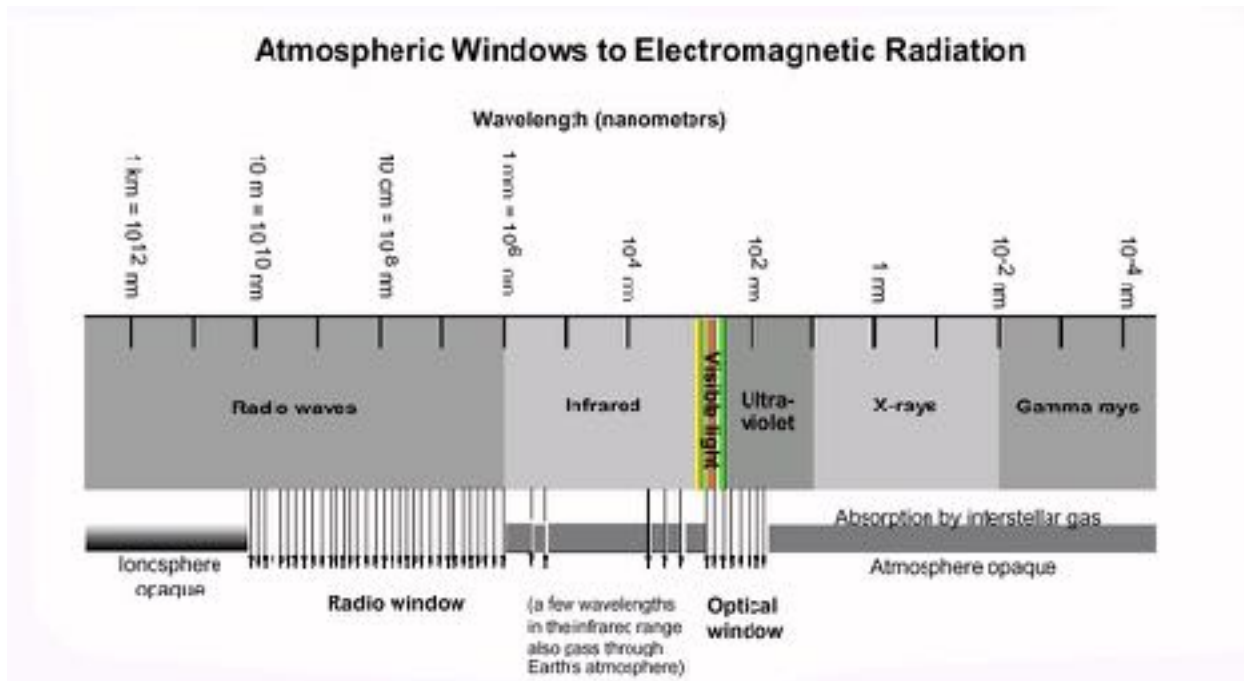
So we should be able to put our argument to rest right here and now, right! There is no viable means of communication faster than the speed of light. Correct!

As always, you find these hard headed individuals that say, well maybe our prayers travel at light speed!

OK, let see why this isn’t going to happen from our heads.

Shown in the diagram below is the electromagnetic spectrum. These are all the wavelengths of electromagnetic radiation which are produced by the propagation

of photons at the speed of light. Photons can have different wave lengths and therefore, frequencies. All light (photos) travel at the same speed; that is the speed of light,  $3.0 \times 10^8$  m/s. Their different characteristic frequencies are due to the wavelengths they propagate at.



Let's eliminate all the frequencies that just won't work for transmissions from our brains.

1. All wavelengths of electromagnetic radiation of Ultra-violet or shorter. This is because these are all ionizing wave lengths of electromagnetic radiation. Ionizing means that they cause chemical compound and or elements to eject

electrons which creates chemical called free radicals. Free radicals are charged compounds or elements that are highly reactive. These highly reactive substances can interfere with biochemical processes and lead to tissue damage and or cancers. So a radio transmitter in the short ionizing portions of the electromagnetic spectrum would in a sense fry your brain! Also note that these are atmospherically opaque, that is they do not pass through the atmosphere easily. That is why it is possible for life on earth, the atmosphere blocks the most harmful forms of these short wavelengths of electromagnetic radiation. A short wave E.R. transmitter is not efficient way to transmit radio signals it takes a lot of energy. Think about the energy that an x-ray machine requires!

2. Visible light is not a possible candidate. If we produced visible light as a form of communication (prayer) we would see light coming out of our heads, which does not happen. It is also inefficient way to communicate unless you use optical fibers for transmission coupled to a digital processor. Visible light is also blocked by any matter opaque to the light.
3. Infrared is not a viable candidate. We detect infrared as heat, this is because when infrared photons collide with matter it causes the molecules or atoms to vibrate at frequencies that we register as heat. If we had a infrared transmitter in our head it would produce heat at different frequencies. All objects hotter than the infrared transmitter in our head would interfere with our transmissions. Again a very inefficient way to transmit radio signals.
4. Long wave radio waves: 1010nm and longer (>10meters) are also opaque to the atmosphere that means they will not penetrate the atmosphere except at very-very high amplitudes (energy levels). So these wavelengths are out!

Therefore when it comes to the transmission of radio signals outside the earths atmosphere, we are left with radio waves from 1mm to 10 meters.

We will now examine how probable that we have a radio transmitter in our heads that can transmit in these wavelengths, that can reach outside of the earths atmosphere and into the distant reaches of space.

The typical brain uses 12.6 watts, 1/5 the energy needed to power a standard 60 watt bulb. Human physiologists have accounted for all the energy used by the brain and none of it is used to power a radio transmitter. It would be very easy for

anyone to use a radio scanner and see if organized radio transmission were being produced from peoples heads. There are not! But just say for augments sake that 25% of the energy used by the brain, was used for the transmission of radio signals (prayers). This is a ridiculous amount, but we are going to cover all the bases!

That would be 3.15 watts of power. What can we do with a 3.15 watt transmitter?

Wavelengths of light (E.R.) from 1mm to 1meter are referred to as microwaves. In the world of radio waves these are relatively short wave lengths. The shorter a wave length the more easily it is refracted, that is when it impinges on an object it is deflected and converted into longer wavelength. So microwaves relatively speaking are only good for medium distance communication. That why your phone must be able to communicate with a cell phone tower. Under ideal conditions this is 22 miles (flat line of sight to the tower). A typical cell phone operates at 0.6 to 3.0 watts. The maximum distance of reliable transmission of a 3.0 watt cellphone is 60 miles! The earths atmosphere is 300 miles thick. You are not going to penetrate the earths atmosphere using microwaves with a 3.15 watt transmitter. There also has to be a repeater station at the other end of that 60 miles. Most cell towers operate at 40-70 Kilowatts!

Microwaves are also easily blocked! Wrap you cell phone in two pieces of aluminum foil and try to call it. Again when talking to god you need some form of communication that is 100% reliable. You don't want your emergency call to god to be blocked by two layers of aluminum foil!

Finally down the the 1 to 10 meter wavelengths; VHF and UHF bands. But before we finish up lets remember, all the energy used by your brain has be accounted for in hundreds of physiology experiments and there is no radio transmitter in your head, we are just showing that there is no wiggle room in this discussion!

The 1 to 10 meter wavelengths are the typically radio wavebands in the United States the maximum power of a commercial radio station is 100,000 watts! For example, KLAQ in El Paso operates at an effective power of 88,000 watts. The effective range of a station with this kind of power with good unobstructed transmission is about 100 miles due to the curvature of the earth (line of sight). But within this range there are many transmission shadows, for example when driving through Transmountain Pass, KLAQ will cut out even though the transmitter is

right on the top of the Franklin mountains. In Las Cruces which is 50 miles from the KLAQ transmitter the closer you get to the Organ Mountains the worse the transmission becomes due to the mountains blocking the signal. So even with a very very powerful transmitter there are limits on signal transmission. Any radio signal can be blocked by a substance that is opaque to those wavelength. When you are communicating with god you just don't want the signal to cut out! That's a 100 Kwatt station, what about a 3.5 watt transmitter? In the U.S. the maximum power of a non commercial (hobby) station is 500 mv/meter which is approximately 20 milliwatts. This is so hobby stations won't interfere with commercial stations. The range of a 20 milliwatt station depending on the terrain is from about 1/4 mile to 1 mile. Pirate radio operators will often use 5 watt transmitters have ranges up to about 5 miles on a good day. Using more power than this will definitely get you in trouble with the FCC.

What should you've learned from the above information; even if you had a 3.5 watt transmitter in your head it would be illegal, and it would only transmit up to a few miles. This is not going to get your message to god!

Some more insurmountable realities; there are now 7 billion plus individuals on this planet, if there was a transmitter in our heads then there would have to be 7 billion unique frequencies produced by each individual to keep track of each individual. This is just an absolute impossibility both from an engineering feat and from a genetic and physiological point of view.

So in review what have we learned:

1. There are absolutely no forms of communications that are instantaneous!
2. There is no transmitter in your brain!
3. All forms of faster than light speed communications are outside any known and or practical technological abilities of humans, much less occurring in our brains!
4. The only practical forms of communications are the use of radio waves which travel at light speed. They are not possible by humans because:



a. We don't have a transmitter in our brains!

b. Even if we had a transmitter and used one fourth of the energy devoted to our brains it would only transmit a few miles!

c. Any radio opaque materials would block the radio waves! From space a very powerful radio transmission is blocked when the transmissions are coming from the opposite side of the earth. That's why NASA has to wait for a specific transmission window to communicate with space probes. The delay time from Mars is 13 minutes 48 seconds!

d. There are too many people on earth to simultaneously divide up the radio frequencies for transmission.

You must understand the four fundamental forces are not a hypothesis they are not a weak theory, they are a fundamental fact of nature. They are the only forces that exist in our universe. What does this mean? Based on the analysis above it is impossible for our prayers to have a carrier particle and thus our prayers are not being transmitted outside our heads! They are just thoughts in our head! It's just not possible. Again these are the plain and simple facts! Get over it.

One of my friends asked me; what do you say to those people that believe god is "all around us". I've already addressed that issue. The second law of thermodynamics proves that non corporeal, amorphous "energy beings" cannot exist!

In summary you have been broadsided by the big guns of science, evidence, data, facts and truth. Any retort would only be the pissing in the winds of self delusion, brainwashing, ignorance and fear!

A final thought: Only the weak minded, weak willed and fearful need the big hammer of a make believe super being hanging over their heads to adhere to the golden rule!