

SEISMIC ANOMALY

A Sermon by the Rev. Dr. Arthur M. Suggs
Preached on the Fifth Sunday of Lent, March 22, 2015

In the name of the Father and of the Son and of the Holy Spirit. Amen.

I'm interrupting my sermon series this Sunday for two reasons: One is that I needed to focus most of my attention yesterday on a lecture about Thomas Merton, one of our modern religious thinkers. The other is a discovery I just learned about that had been published on March 2. It's a scientific thing, and it caught my attention. Therefore, I'll see that it gets your attention. That's sort of the way things work around here.

The Dallas Tracks the Red October

How many of you remember the movie *The Hunt for Red October*? Okay, about two-thirds of you. Good. I loved that movie a whole lot, and I want to remind you of a scene in the movie involving a sound engineer in the American submarine, called the *Dallas*. His name was Jonesie, and his job was to work with the sonar and the computer that analyzes data from the sonar.

Jonesie is having a conversation with the captain, and they had heard singing from a Russian sub, the *Red October*, that they're tracking.

The SAP Runs Home to Momma

But Jonesie had heard an unusual sound, he tells the captain. "I heard something in the background, real faint. After all those other subs took off, I caught it again, and I got it

on tape. I washed it through the computer, and I was able to isolate this sound." Then he plays it for the captain, but it doesn't sound like much of anything, a growling-burping kind of sound.

"When I asked the computer to identify it," Jonesie continued, "what I got was 'Magma displacement.' You see, sir, the Systems Application and Processing (SAP) software was originally written to look for seismic events. I think when it gets confused, it kind of runs home to momma."

Jonesie Hears Click, Click, Click

The captain says, "I'm not following you, Jonesie," To which Jonesie replies, "Sir, I'm sorry. Listen to the recording at ten times normal speed." So he plays that same growling-burping sound at ten times normal speed, and you hear a click, click, click. "Now that's got to be man-made, captain." And it's a turning point in the movie. They're able to follow this submarine now that they're attuned to its sounds.

The captain asks, "If I can get you close enough to hear this clicking, can you follow it?" Jonesie answers, "Oh yes, sir, I can follow it now that I know what to listen for. We'll bag him"

This is a guy movie, but the part I'd like to highlight is the notion that when the

computer gets confused, it kind of runs home to momma. Jonesie is explaining that the SAP software was originally written to analyze what it heard, and what it heard needed differentiation among man-made sounds like submarines or a ship passing overhead.

Is It Magma Displacement?

Or is it magma? Is it the movement of the tectonic plates of the earth? The system was designed to listen closely and analyze what it heard. But when there was a sound it had never heard before, the system just resorted to the term “magma displacement.” It ran home to momma and gave the sound that generic name. “It must be magma displacement.” But it wasn’t. It was something else.

Okay, what does that have to do with anything? When I was taking my initial physics classes, both in high school and then in college (I think this has happened to most of you in science classes as well), when you get to the section on light, you learn about its dual nature. Light is both a particle and a wave.

Many people know that, but back in 1905 the very first paper that was published on this subject hinted at something else: Light was actually not just a particle or a wave but was matter that had a singular being-ness to it. This was one of the famous four papers of Einstein in that year.

Light Says, I Am a Particle and a Wave

The problem comes up when you experiment with light and ask it “Are you a particle?” You get the answer back, “Yes, I am.” So if you test for the particle nature of

light, you get particle answers. Then, if you test for the wave nature of light, you get wave answers. Light is more than accommodating. Whatever you ask for, it says yes and gives you that answer back. Yet a particle and a wave are two different things. They’re two different orders of being.

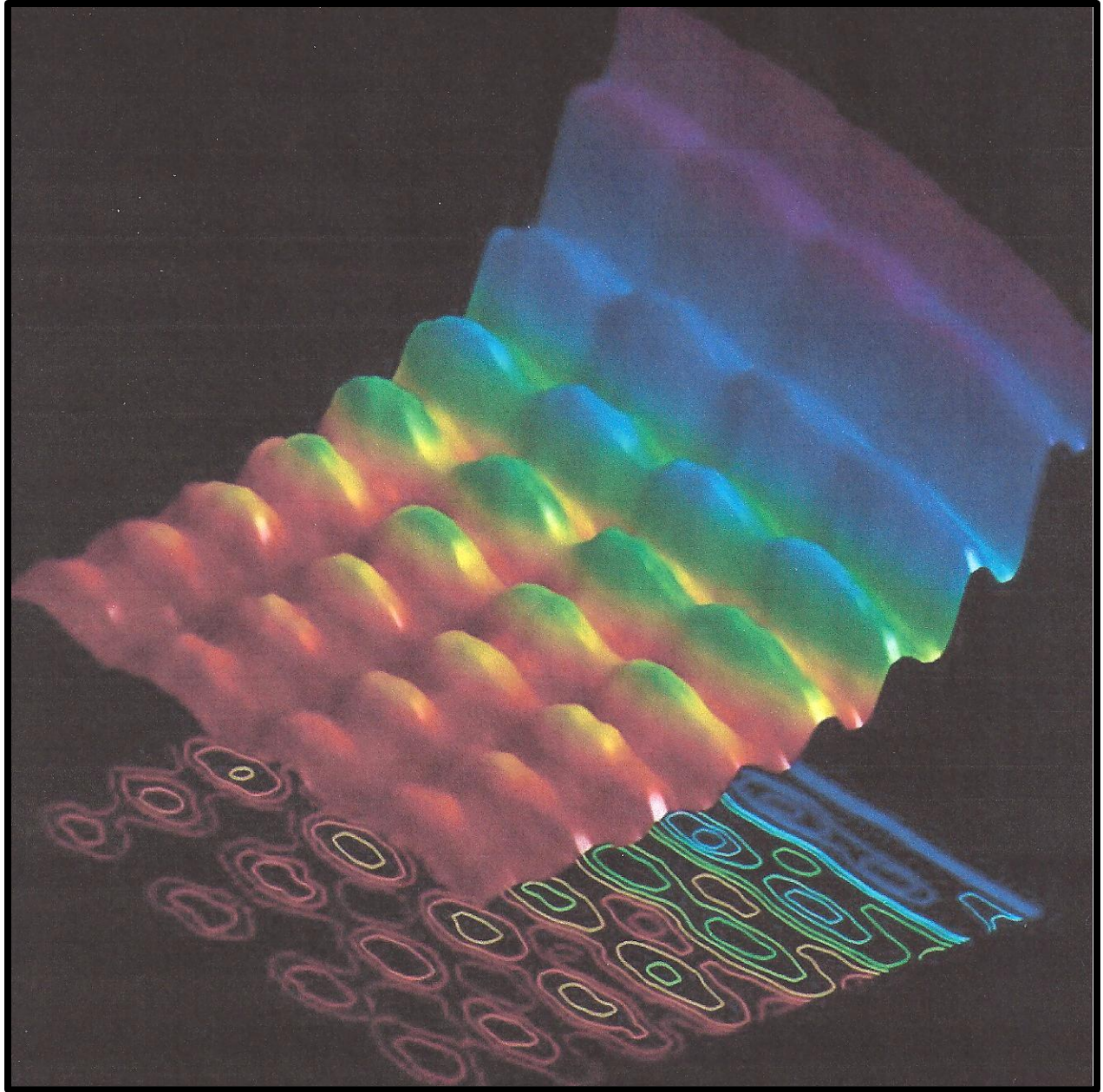
Imagine a bowling ball and a wave on the ocean. They’re two different things, and it becomes sort of extreme because a particle is an object with mass that is moving, so it has momentum – that’s mass times velocity. *Light has momentum, but it has no mass!*

Wait a Minute, Wait a Minute

Mass times velocity. So if the mass is zero times the velocity, *it doesn’t matter what the velocity is, the answer is going to be zero!* But light has momentum and no mass, so it’s just like a whole century of people scratching their heads and asking, “What’s going on here?”

The discovery that was published on March 2 was from a university in Switzerland called the École Polytechnique Fédérale de Lausanne, printed in its journal *Nature Communications*. I learned about it a couple weeks later. In a rather ingenious experiment, these scientists figured out a way to ask light, “Are you a particle or are you a wave at the same time?” This is the first it’s been accomplished in more than a century since Einstein’s paper came out. The answer they got was a resounding “Yes.”

Light is both of two contradictory things at the same time – something we’ve figured out and sort of suspected but have never been able to prove since 1905.



The journal article carried this photo of the data the researchers were able to get, which I'm not going to go into for two reasons: One is you probably don't care, and the second is I can't do it anyway. Incredibly, it shows both the particle and the wave natures of light at the same time. Some have called it a "wavicle."

Now, what's *this* got to do with anything? Well, this is where physics has crossed the fuzzy boundary into philosophy because what it implies is that light is one thing. It has one order of being. It's not two things that were confused or two things that, if you ask it A, the answer is A, and if you ask it B, the answer is B. It has been one thing with

two contradictory natures all along. After more than a century, this has been proved.

Jesus Too Is Two Things at Once

When I first started learning theology – this was after I began learning about light in physics classes – I was taught that Jesus is 100 percent God and 100 percent human. Who’s heard that before? Everybody. But Jesus is the only one having this dual nature in one being, and he’s special.

Therefore, we praise Jesus, the second figure of the Trinity, a lot. We use the analogy that Jesus is the light of the world. Just like light’s dual nature as a particle and a wave, he has a dual nature that’s 100 percent human, as we read in the Apostle’s Creed and the Nicene Creed, and he’s also 100 percent God.

Now we need to take into account something new. This experiment is saying that there is one order of being. But there’s another way of looking at it: In other words, in the sense that Jesus the Christ is the son of God, we also are children of God. The scriptures are very explicit about that.

We and Jesus Are All God’s Children

I’m sorry, but I do not see a difference in order between being a son and children of the same father. One’s singular, the other’s plural. We’re not talking about different species here at all. Jesus is the pioneer of our faith. But a pioneer isn’t a different species from those who follow. A pioneer is just somebody who happens to be ahead of you on the road and somebody that you are following.

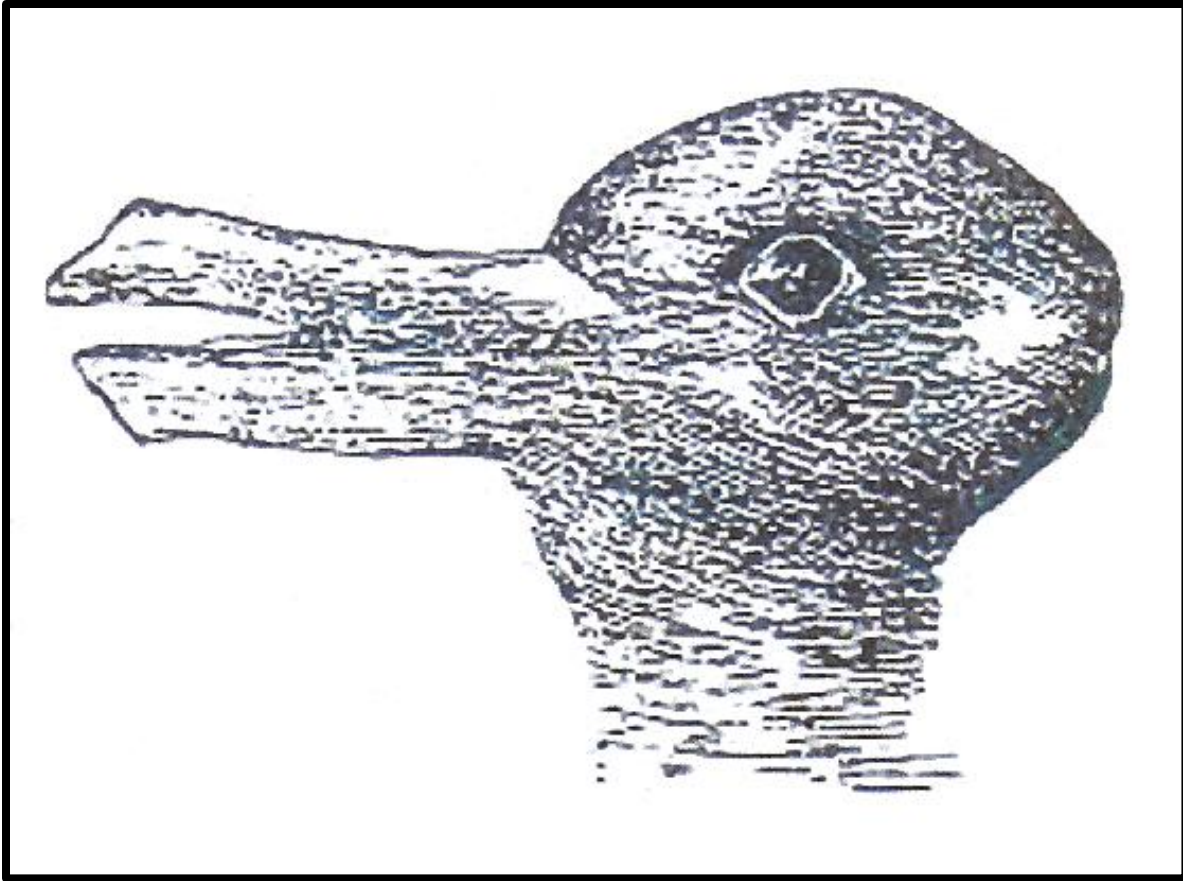
There is a single order of being that this experiment proves and that it then implies in the philosophical realm. Let me give you another example: Here’s an illustration you have probably seen before, the duck and the rabbit. (See next page.) What you may not know is that the artist who originally created this picture wanted to show that, if you look at the one picture and ask what it is, somebody says, “It’s a duck,” and another other person pipes up, “It’s a rabbit.”

Are the Duck and Rabbit Two or One?

Well, a philosopher in the early part of the Twentieth Century, right after this picture was first published, had a beach house. He went outdoors and drew something with a stick in the wet sand. The neighbors made fun of him mercilessly because the philosopher then sat down on the beach and stared at his strange line drawing for long hours without moving.

What the philosopher was trying to grasp was what is in the nature of our perception that we can look at one thing and say what it is, but it’s also something else *at the same time*.

And how can it be one thing when we’re always trying to understand the divisions or parts of what we’re looking at. It then becomes a philosophical problem. For example, you might have seen a cartoon in which two opposing groups of warriors have an identical illustration of a duck-rabbit symbol on each of their flags, and the leader of one group says, “There can be no peace until they renounce their rabbit god and accept our duck god.”



If There's Only One Order of Being?

What if? This can be really scary for human beings because it implies that we have the same nature as Jesus, which was something that he was trying to tell us. He prayed in John 17, right before he was arrested, that "We might all be one, even as I and the father are one."

If that were an impossibility because we're not of the same order of being, why would he have prayed it? Why did he say, "Greater things than these shall you do," when he's the one who resurrects the dead and walks on water and turns water into wine. Why would he say such things if it weren't possible?

And what we have done is that we have venerated Christ and have denigrated humanity over and over and over again. Praise Jesus, and you and I need prayers of confession. It's scary to think of what human potential might really be. It means that we're responsible for world peace.

Jesus Is the Light of the World; So Too Are You and All Human Beings

As a rule we don't like it, and we run home to momma. But running home to momma is dualism. Praise Jesus, please grant us peace, and let's all pray our prayers of confession because we're so lonely and sinful and miserable. It's not who we are, and shame on us for always praying like that.

We have a higher calling as human beings. Jesus the Christ is the light of the world, and he also said, “You are too. Don’t hide your light under a bushel.”

Googling Hymns

I recently did a Google search by typing in “hymns.” One of my weaknesses is music. Can’t carry a beat. Can’t carry a tune. I’m pretty lousy at it. So choosing the hymns is one of the hardest parts of my job because I sit there and look at the hymnal, and it’s like, “Is this singable? I don’t know.” That’s why you get some of my chosen unsingable hymns.

Then I type in “hymns, light of the world,” and I come up with all sorts of marvelous hymns praising Jesus as the light of the world. But none of them, not any, versify about human beings also being the light of the world.

Here’s what’s typical: “The whole world was lost in the darkness of sin, the light of the world is Jesus. | Like sunshine at noonday, his glory shone in. The light of the world is Jesus.” | And then the refrain: “Come to the light, ‘tis shining for thee. Sweetly the light has dawned upon me. Once I was blind, but now I can see. | The light of the world is Jesus.” It’s a nice

hymn, but there’s not one single hymn that says *you* are the light of the world.

Follow the Pioneer into Our True Calling

Been running home to momma? So maybe it’s time for humanity to follow the pioneer and mature into our true calling.

One of the things that sort of gets my goat now and then is when people quote the first half of a proverb and leave off the second half. My favorite of all is: “Man does not live by bread alone,” and it’s typically slurred by somebody holding a beer. “Man does not live by bread alone; you need beer also.” The real proverb is: “Man does not live by bread alone but by every word that proceedeth out of the mouth of God.”

One maxim that I talked about last Sunday is a sly dig by Rabbi Hillel in which a guy comes up to him and asks, “Can you repeat the whole of the Torah while standing on one foot? If so, I’ll convert to Judaism. So Hillel lifts up one leg and recites the Golden Rule, “Don’t do to somebody else what you don’t want them to do to you.” Down stomps his leg. “All the rest is commentary.” And then the rabbi said, “Go and study it.”

Jesus said, “I am the light of the world.” You are too. Go and study that.

Amen.