

Eucharist as Entanglement
Maundy Thursday, April 18, 2019
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If you attended an Adult Forum session this year, you know new scientific developments were a consistent thread in the presented material. Of course, all theological and spiritual conversation uses metaphors and analogies and so recent scientific discoveries are good topics. Thus, Sunday mornings in the Fireside Room have been a good spot to hear Trinity members probing aspects of quantum physics, waves and particles and the molecular and cosmic web of all matter and spirit.

But we've saved one scientific development for tonight: entanglement. As with many theories later proven true in reality, Albert Einstein was one of the first brains at the table. When the scientists began to think and talk about space, time and matter in new ways, the old ideas about probability and uncertainty were challenged—and soon discarded. Once everyone “knew” that everything had a place. In the words of my Dad, training his daughters to pick up their stuff, “everything has a place and everything in its place.” But this axiom was under debate. Maybe everything didn't actually have a place until examined. Or maybe we didn't yet know how to pinpoint the place of an electron or atom, because we didn't know enough yet. So, the issue was the state of our knowledge not the state of reality.

This was in the 1930's. Now, in the 21st century, the debate has moved to a place that our kids are learning a different picture of what is actually true about space, time and the relationship between particles of matter. One thing they are learning is called “entanglement”, “a subtle form of inter-relationality” (Russell, p. 63).

Entanglement invites us to think and see reality as being a whole with some parts. Entanglement tells us that relationships are what makes up reality - not the other way around. It becomes impossible to conceive the world as the individual or even groups of individuals. Rather, there is only the reality of relations between entities. Entanglement points to the theory, and then the finding, that the underlying nature of energy is relations. There is a oneness before there are pairs. Once a particle is split into two, it is still forever linked together. Even when there is vast distance in time and space between them. When one particle changes, the other particle changes in the same way.

Einstein was extremely uncomfortable with the theory and refused to take it seriously. He called it “spooky action at a distance” (Russell, p. 50) yet various physicists set out to test this bizarre behavior of photons, but there were loopholes. Then in 1964, an experiment confirmed “entanglement” - that the responsive reactions between two formerly connects particles were not random, but predictable. Yet, the results were still challenged. Maybe there's something in here on earth that we don't know about yet that creates what looks like “entanglement”. There must be loopholes.

So, what if the experiment occurred in outer space, where no human or earthly influence could skew the outcome? Well, such a big thought demands a big laboratory - like the two giant telescopes on the Canary Islands and an international team of physicists and astronomers. Doing a similar test, they used the light first emitted from two quasars billions of years ago – one about 8 billion years ago and the other about 3 billion years ago.

The result: physicists have gradually become convinced that counterintuitive quantum behavior—such as two subatomic particles mirroring changes in each other instantaneously over any distance—is real.

Of course, all of these discoveries and thoughts are light-years away from the Jesus and his world on the night before he died. And yet, decidedly relationships are at the core of his life and death. As the inevitability of his arrest and trial grows, Jesus' action narrows and focuses on relationships. In his search for a place to celebrate the Passover, Jesus turns to the Essene community to provide the room and the meal.

He uses the intimacy of a ritual meal to weave a tight prayer shawl around the grieving and confused shoulders pushing to find meaning in the last three years. Jesus tells the disciples: “My prayer is.... that all of them may be one, Father, just as you are in me and I am in you. May they also be in us so that the world may believe that you have sent me... that they may be one as we are one—I in them and you in me—so that they may be brought to complete unity.”

He reaches for bread - a familiar object beginning as separate elements of grain, oil and leaven - then kneaded and baked into an undistinguishable oneness. With the bread, he offers a visible and tangible invitation to hold and literally take in the oneness of relationships. He reaches for wine — a chalice filled with the juice of numerous single grapes, yield of different vineyards - now no longer divided, but one cup destined for all.

As with his parables of the lost 99th sheep and the equality of brothers and neighbors, as with eating with outcasts and sinners and confronting divisive religious practices, Jesus points to subtle connective bonds beyond apparent separations and between individuals.

With bread and wine, Jesus creates not a ceremony to confirm the status quo and hide the shadow side. Jesus creates a ritual of an alternative view of reality with the tension of parts and yet a whole, of suffering and yet solidarity, of the shed blood of injustice and yet new life, of the wholeness and power of love and relations at the core, the bottom of all energy, all life. Jesus lifts up this central Truth about all reality: we are entangled together. With this one bread and the one cup, we are to remember. With the one bread and the one cup, we are to become holy the oneness in which we exist. In Eucharist, we become particles in Christ forever linked together, regardless of time and distance. Amen.

(Cited pages from *Quantum Shift: Theological and Pastoral Implications of Contemporary Developments in Science* by Heidi Ann Russell)