Theory of Bicocentrism

The biocentric universe theory is a radical change in the way we view the world and our place in it. It proposes that the physical universe evolves in tandem with the evolution of Earthly life. The universe exists specifically in relation to us — similar to how the position and appearance of a rainbow is dependent upon the position of the person seeing it, and is not a fixed, absolute object.

What we were taught : The universe is a collection of particles "out there" — atoms and molecules that have been around far longer than the Earth — and that billions of years ago, some of them came together to create the first life forms.(Big Bang??)

Biocentricity considers these ideas to be unfounded assumptions, not supported by any empirical evidence. Our subjective notion of space is a result of the observations themselves, as well as the consistent, logical relationships we infer among them. Meanwhile, the sequence of observations, and the changes that we notice between them, is what creates the perception of time.

Biocentricity treats the universe a bit like the number π. When the Bible was written, π was considered to be about 3 — good enough for the times — and it has been calculated to greater and greater accuracy over the centuries. But imagine what it might be like if we had never figured out what the number π means, or why it takes the value that it does. We had never thought to measure a circle's circumference and compare it to the diameter; instead, we calculated π based on its role in other formulas. The value of π might then be something of a mystery. Perhaps mathematicians would speculate that there are other universes where π is different, such as 3.24 or 4.0. In the real world, however, we know that π expresses the simple relation between circumference and diameter. In a similar manner, the biocentric universe is the physical relation between our biological lineage and the world (or all possible worlds). This relationship is what determines the principles and laws upon which the universe operates, just as the relationship expressed by π determines why the number takes that exact value.

How could life create the universe, when life is made of matter?

This is probably the most common immediate objection to the theory. However, several things to keep in mind: First, let's not be sloppy with our language. Life, in fact, isn't made of matter; life is a quality that matter may or may not be seen to possess — similar to other qualities that matter may display, such as nuclear instability, incandescence, or mass. (The distinction between living matter and life is like the difference between a massive object and mass itself.) Just as we wouldn't say that mass or charge or velocity is made of matter, neither should we say the same about life. Second, parallel "chicken-and-egg" questions can be asked of the conventional cosmology as well, such as: Where was mass before the Big Bang? What was matter doing before space gave it somewhere to exist? What was the cosmic singularity made

of, if not energy or matter or space or time? But these sound silly to us, because we accept that they don't really have answers.

Where did the first living organism come from?

In the same way that Big Bang cosmology does not take a position on the origin of the cosmic singularity (if any), neither does biocentricity take a position on this question. The two cosmologies can be considered mirror images of one another: For example, it is thought that neither time nor space existed "before" the Big Bang, while in biocentricity, neither time nor space existed "before" the appearance of the first organism, whatever that first organism might have been

What is so special about life, to the point that life is at the "center" of this theory?

There are a number of ways in which living matter profoundly distinguishes itself from nonliving matter. Life is a quality that allows information to be actively sought out, absorbed, and assimilated. This isn't seen in any other natural process — an energetic event where matter dynamically self-restructures based on environmental conditions, in a way that decreases internal entropy (disorder) at the expense of increased external entropy. Life is also the only known quality that allows a natural system of matter to self-replicate, which is significant because reproduction not only enables evolution but also causes the accelerated accumulation of information over time. Despite all of the advances in science and technology, biologists have utterly failed at a task that seems relatively easy: imparting the property of life into ordinary matter, creating a simple living thing out of off-the-shelf chemicals. This suggests that the property cannot be simply manufactured, the way electric current in a circuit can. Furthermore, living organisms respond to their environment in complex, often unpredictable ways; even a bacterium exhibits a form of free will, which has physical consequences for the non-living objects around it. (In both physics and philosophy, free will presents a persistent conundrum, which this theory finally resolves.) And ultimately, life is the only known property that allows for the emergence of consciousness, which makes it possible for the universe to be contemplated and rigorously explored in the first place. These unique characteristics are vastly unlike anything seen in the natural, non-living world. Life's possible role as a fundamental agent in the configuration of the observed universe, therefore, ought to be seriously considered.

How can we see galaxies that formed billions of years before our Solar System?

We see those galaxies today; we do not see them five or ten billion years ago. We say they are billions of years old, or more accurately we are seeing them now as they were billions of years ago. But that assessment reflects how these objects appear to us, as human observers, now. And distant galaxies are exactly what should be expected to be seen in a physically consistent universe with gravity and nuclear forces and everything else we've discovered. But, there is no empirical way to know for certain that these galaxies were, absolutely, in those specific places and shapes those many billions of years ago.

It helps to think of the distant universe as something like the probability cloud of electrons around an atom, only turned inside out: When we look at the sky, we see specific galaxies with

specific, logically consistent properties and histories. Thus the galaxies are analogous to individual electron positions being observed when we look for them within the electron cloud.

Isn't the cosmic microwave background evidence that the Big Bang happened?

Biocentricity puts the CMB in the perspective of the modern world in which it is observed. (See part 2 of our series.) Through our observations, we living organisms have learned about various physical laws that govern our universe. We have also observed that the universe is expanding. Taking these observations together, we arrive at a mathematical prediction that the cosmic microwave background ought to be found — and when we look for it, we find it. The CMB is therefore consistent with our previous observations. If we can say anything in physics, it's that the universe appears to be 100% internally consistent; whenever we seem to find inconsistencies, we eventually realize that they only reveal flaws in our interpretation of the observations, not flaws in the universe itself. So, the CMB is an observable phenomenon that can be interpreted as evidence for a real Big Bang 13.7 billion years in the past — but only if you assume that matter and energy are absolute and independent of observation, and therefore pre-existed in the same form prior to the emergence of life. If however you consider the universe in relation to biological life, events that "happened" prior to biological life cannot be said to have occurred in any defined or "classical" manner at all. Whenever we humans find evidence for a pre-biological event, it is evidence not necessarily of what actually happened classically at the time, but rather what humans would have witnessed, had we been around that many years ago to observe the event with the aid of our modern technology.

There is one tantalizing fact about the CMB, however: When the CMB data (rigorously interpreted and corrected) is transformed into a large-scale map of the whole sky, the fluctuations in the temperature of that background radiation — originating over 13 billion light-years away — eerily line up on opposite sides of the ecliptic, the plane of the Earth's orbit around the Sun. Although such distributions were predicted to be purely random across the sky, statistical studies show that the pattern is not a result of chance (to within 99.9% confidence). Even stranger, there is no such correlation of the CMB with the plane of our galaxy, or any other astronomical plane. While the mapping of the CMB in general was a huge success for cosmology, this particular unexplained fact verges on embarrassing, and has been dismissed by some as an error. But the data is robust, with dozens of researchers over the past seven years searching for an overlooked factor and coming up empty. There may be a biocentric explanation: The first biologically observed astronomical motion almost certainly involved what we now call the Sun, moving across (what we now define as) the same plane of the sky. Our modern observations of the deepest reaches of space may be constrained to be consistent with all previous observations, including the earliest observations in the universe's history. Perhaps this manifests to us in the form of this bizarre anomaly. If so, what an amazing clue it is!

How do inanimate measuring devices factor into the observation process?

As quantum experiments show, any measuring apparatus is capable of "observing," similar to the way a human observes. If we set up a double-slit experiment, and we install a particle detector on one of the slits, the interference pattern will diminish — even if the data is not recorded and no human learns the "which path" information. This fact cannot be accounted for by the mystical "consciousness causes collapse" theories that put human perception at the

forefront of quantum mechanics. Biocentricity, however, can account for inanimate objects functioning as "observers": Particle detectors, digital cameras, and the like are information-seeking tools that are designed and built by biological beings. They are in a sense modeled on living organisms, in that they seek and respond to information, at the expense of energy and increased external entropy — what Neils Bohr called "an act of irreversible amplification." Here in the 21st century, humans have all kinds of these active tools, everything from telescope satellites to heat-seeking missiles. These effectively extend the reach of human observers, the way a chainsaw extends the physical capabilities of a lumberjack, and are therefore at least as capable of observing and resolving the universe's features as a human observer is. But they would never exist if life had not appeared to begin with.

Was the Earth flat 1,000 years ago, since that's how it was perceived back then?

No. The raw observations that people (and other organisms, and artificial measuring devices) make of the world are accurate. The interpretation of those observations, however, is subject to human error. Plenty of ancient observations suggested a round Earth — for example, the shape of the shadow in a lunar eclipse, or the fact that a ship's mast was the first thing to appear above the horizon as it approached land. Yet, many people simply assumed that the Earth's surface did not curve. This assumption, of course, had no bearing on the actual (round) shape of the Earth, which — even if it wasn't yet considered by most people — was nevertheless perfectly consistent with every human observation that had been made thus far. (It was the flat-Earth view that was actually inconsistent with the observations, as would be realized centuries later.)

To paraphrase Einstein, is the Moon there when we aren't looking at it?

This is more a question of language and semantics — depending on how we define "there" — than a question of physics. In biocentricity, the objective reality of something like the Moon (or your kitchen table when you're asleep) is a function of our previous observations of the object, combined with the degree of certainty that when we look again, it will be where it's expected to be. Strictly speaking, if no biological organism or technological tool were observing the Moon over a given duration, the Moon's probability state would evolve. It would "smear out" very slowly, because there is an extremely high probability that it will be precisely where it is expected tomorrow. But this probability would diminish with each passing day, as there is no guarantee that the Moon, or the Earth, won't be knocked out of its orbit by an asteroid in the mean time. Undiscovered asteroids, meanwhile, persist as extremely weak probability states, broadly "smeared out" — anywhere, at any time, one may unexpectedly appear on a course toward us, like a beta particle or cosmic ray whose detection can only be described as a probability until it actually happens. As observers, we have no control over when or where such potentials, large or small, become realized.

There are multiple observers in the world, but they all observe the same world. Doesn't this point to a world that is external and independent of observers?

Yes, it does! Which is why, for thousands of years, an external, observer-independent world has been assumed. But Einstein's relativity, followed by the discovery of quantum phenomena and its bizarre experimental findings, have given us reason to question this assumption. It is certainly true that everyone experiences the same course of events in the world. In the biocentric view, this makes perfect sense because all biological observers are directly linked, genetically as well as through a continuous chain of reproductive physical interactions between parent and offspring, and thereby constitute a kind of common observer — a superorganism that is correlated to one and only one course of universal events. (This is explained in Part 4 of our video series.) Just as the universe is 100% consistent for one individual, so must it be 100% consistent for all observers from the same biological lineage. However, individual observers within this superorganism can receive different quantities of information about the world. One way to think of it is to imagine the human body experiencing a sensation: Individual neurons in the person's brain are transmitting various aspects of that sensation, and they are playing different roles in the building of that sensation — even though for the person, the sensation manifests as a unified whole.