

COSMIC REFLECTIONS COSMIC REFLECTIONS

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Here it is, the long awaited(?) first issue of *Cosmic Reflections*, my little journal. Who knows, in a few millenia it may be a collector's item. Please share it with friends who might like the sort of writing I do. Appropriate short articles from others will be used, but I do not at this point intend to use any art or poetry. I hope to do two or more issues a year for as long as folks show interest in the journal. If you wish to be on the mailing list, a small donation would be appreciated. This will insure that everyone on the list wants to be on it. The staff consists of myself and my faithful proofreader who wishes to remain anonymous.

Edith Cain

BLACKHOLES AND OTHER FANCY STUFF

The heavens are filled with exotic and curious objects, and one of the most curious is the conjectured black hole. This proposed object has captured the fancy of not only astronomers and cosmologists, but also the popular press. The Disney studios produced a fantasy film about a space ship that flies into and through a black hole. A number of people have asked whether the dark gravity bodies and dark islands *The URANTIA Book* mentions are black holes. Before we consider that question, let's look at what our science of astronomy believes black holes and several other very dense celestial bodies are.

One of the dense bodies that has been identified by astronomers is called a white dwarf star. The white dwarf is supposed to be what remains after a large star blows off its outer layers. *The URANTIA Book* mentions dwarf stars, but says that the white ones are young and not very massive. The old dwarfs are small and massive and shine with a reddish light. This type star is mentioned by the book on page 640: "The weight of this hot-cold gaseous-solid is about one ton per cubic inch." This means that a cube one inch on a side of the material of this star weighs as much as a small automobile! The material in the center of some of these old stars may weigh up to six tons per cubic inch according to the book. Another massive dwarf proposed by astronomers is termed a black dwarf star. According to them, this is a star that has used up all its fuel and gives off no visible light; it has become a dead and lifeless body.

Something even more massive than a dwarf star was proposed in the 1930's, namely, a neutron star. It is believed that this object consists solely of neutrons, packed together as closely as possible. The existence of these super-dense objects was apparently confirmed in the 1960's when pulsars were discovered. The pulsar gives off

short pulses of radio energy that can be detected with a radio telescope. The pulsar is believed to be a rapidly spinning neutron star that emits radio energy from its polar regions. These pulsars might be thought of as celestial lighthouses. In fact, some astronomers at first thought that these signals might be navigational signals sent by a civilization from some other solar system. Astronomers believe that neutron stars are formed as a result of a supernova explosion in which the outer part of the star is blown off into space, leaving the neutron star behind as a remnant core. These supernovae are rare, but astronomers were fortunate enough to have been able to see one close to the Milky Way galaxy this year (March, 1987.) One source¹ gives their density as 18 billion tons per cubic inch. Just think of how many compact cars that is! I haven't found any direct reference in *The URANTIA Book* regarding neutron stars, but nothing I have found says that they cannot exist.

As massive as the dwarf and neutron stars are, they are feather-weights compared to the supposed black hole. The neutron star has the basic sub-atomic particles known as neutrons packed as closely as is possible, but the black hole is even denser than a neutron star, so it must be composed of even more fundamental particles than is a neutron star. Scientists call these particles "quarks". They have been theorized, but no one has devised a means to detect these particles directly. *The URANTIA Book* tells of the ultimatons, a particle that is the smallest possible particle. All other sub-atomic particles such as electrons, protons and neutrons are composed of ultimatons. Therefore, the black hole would have to be composed of ultimatons in order to be more massive than a neutron star.

There does not seem to be a consensus on the dimensions of the black hole among astronomers and physicists. Some have proposed that at the center of the black hole is a point of no size but of infinite mass. Others have proposed that the object in the black hole may be as much as a mile across. The mathematics of the black hole suggests some interesting possibilities. Scientists found one solution to the equations that suggested to them another sort of reality connected with the black hole. This was picked up by the popular press and blown out of proportion to the extent that some suggested that we could travel vast distances in an instant by plunging into a black hole. There are two problems with this idea. First, not everything that is predicted by mathematical analysis has to exist. Second, even if it were possible in theory, the massive gravity associated with the dense object in the center would tear us apart before we even reached the surface.

The black hole is black because the gravity is so intense that even light cannot escape. Yes, light has weight. Both Einstein's theories and *The URANTIA Book* confirm this fact. Anything that would enter the black hole could never leave it; thus a black hole would be like a vacuum cleaner in space, sucking in everything that came too near it.

Since the black hole neither gives off light nor reflects it, it can never be seen; so astronomers have proposed finding the black hole by

its effects on things around it. They feel that they have found at least one orbiting a star. Some have also proposed that a massive black hole may lie at the center of many galaxies because of their observations of these areas. Despite the theories and observational evidence however, there may not be such a thing as a black hole.

It was pointed out above that a black hole would have to be composed of ultimatons. On page 495A we are informed that there is a "critical explosion point of ultimatonic condensation." This means that if we try to compress the ultimatons together, we get an explosion. This perhaps is the explanation for some of the supernovas that have been recorded throughout history. The activity at the center of galaxies could be due to the effects of the presence of the superuniverse headquarters and the energy controlling entities that function there.

So, what are those dark gravity bodies between Havona and the superuniverses? They seem to have some of the characteristics of black holes, but we are informed that they are unique and not found anywhere else in the master universe. Likely they are not composed of ordinary matter, but some unique material created especially for the function they perform. *The URANTIA Book* also mentions what are called the dark islands of space that control and transform energy. These are aggregations of cold matter and not dying stars. They apparently do not collapse in on themselves as dying stars do, and thus would not form black holes. These dark islands give off no light because they are not composed of hydrogen as the stars are. Therefore, they do not fuse hydrogen to helium to liberate energy in the form of light. Our astronomers have also theorized these bodies and called them brown stars. They believe that these brown stars might account for the so-called missing matter of space. The "missing matter" problem may be covered in a future edition of this journal.

In the last episode of a TV series called "The Day The Universe Changed", the host James Burke pointed out that the science of today is sometimes suspect because our scientists first invent theories and then devise experiments to find the evidence that supports their theories. Too often, contrary evidence gets ignored. Perhaps the black hole theory is like this. Let us hope that students of the book do not also look only at evidence that supports their beliefs. As science progresses, it must face the difficult task of rejecting theories that cannot be supported by the evidence, and devising new ones. As students of *The URANTIA Book*, we need to recall that the cosmology of the book is relative truth. We are children in the cosmos, and sometimes it is necessary to distort or limit concepts so that children can understand them. As civilization matures we will no doubt need to re-examine the cosmology of the book in light of our advancing understanding. Let us be as honest as we would like our scientists to be.

1. Black Holes, Quasars, & The Universe by Harry L. Shipman. 1976, Houghton Mifflin Co.

BODY, MIND AND SPIRIT PART I

If you asked a dozen experts what constitutes a human being you would probably get a dozen different answers. The behaviorist would no doubt tell you that a human being is just an advanced animal and that there is only the body. Mind, religion, creativity, and all of man's noblest aspirations are just relationships between the synapses in our brains in the behaviorist's view. The philosophers would probably admit that we have bodies and minds but not all of them would agree that mortals have spirit as part of their being. Psychologists would add to the "human being construction kit" such items as will, personality, the subconscious and even the superconscious. The religionist would probably settle for body and spirit.

The Christian view is derived from the writings of the Bible. There are two related views¹ that are supported by the Bible and each view has had its proponents and detractors. The first view is a dichotomy consisting of body and spirit or soul. The second view is a trichotomy consisting of body, spirit and soul. In Christian theology, the mind seems to be considered not a separate reality but rather a part of the soul or body.

The URANTIA Book paints a very definitive picture of what constitutes a human being or mortal. What follows is an attempt to list, define and show the relationship between the parts that make up a human being according to the book.

BODY

The body is the material vehicle that carries us through our life on this planet. We will leave it behind after this life, and it will return to the earth from which it came. Though it is only a biological machine, it is nonetheless of marvelous design and not to be despised. It may be only a machine, and not the real essence of us, but it is the means by which we express the person who lives in it. Our bodies enable us to see, hear and touch the material world and people around us.

It is unfortunate that we often identify people by their outer appearances rather than by their inner selves. How sad for a person to be rejected because he or she has an unlovely body. Also, how sad that Paul of Tarsus and many Christians until recently have considered the natural appetites of the body—especially sex—to be unnatural and evil. *The URANTIA Book* makes it clear that there is nothing wrong with satisfying the appetites of our bodies in an acceptable manner. In fact, the book teaches that a normal sex relationship is an essential feature of our lives on earth. If we do not experience a normal sex life here, compensatory experience is provided in the next

level of our eternal career.

There are those people who believe that we are disembodied spirits in the next existence, but the book tells us that this is not the case. We will have a body. It seems logical to me that since we are used to expressing ourselves through a form, one would be provided at the next level for the same purpose. According to *The URANTIA Book*, we not only get a new body but a better body, freed of the animal impulses and drives. The book further informs us that we will have a suitable form throughout our eternal careers. The Bible also supports the idea that we will have a body in the next life. In Revelations 20-22, the resurrected are spoken of as seeing, speaking and singing. Their bodies are described as similar in form to ours.

Mind

Philosophers and psychologists have long debated the nature of mind. Some—such as the behaviorists—feel that mind is simply the result of building more and more complicated brains. These people believe that the mind is simply a quality of our material brain. Others, some ancient thinkers (such as Plato and Descartes) and some modern investigators, feel that the mind is something other than the brain, something that inhabits the brain and uses it to think. *The URANTIA Book* agrees with this latter idea. If the mind is not simply a quality of the brain, then what is it? According to the book, the mortal mind is derived from the Cosmic Mind which in turn is a creation of the Infinite Spirit, the third person of the Trinity. The flow of mind from its source to mortal man is shown in Fig. 1. This path is more than a mind flow; it is an actual circuit that links all minds ultimately to the God of mind, the Infinite Spirit. It is the local universe Mother Spirit who derives the mortal mind from the Cosmic Mind. The mind she bestows on us consists of the ministry of the seven adjutant mind spirits.

The seven adjutant mind spirits have names that indicate their functions in the mind. These spirits are: wisdom, worship, counsel, knowledge, courage, understanding and intuition. The last five function in the animal mind. The human mind consists of the functioning of the seven mind spirits together with the integrating and directive human will and personality. The mind is a spirit-like essence loaned to us (along with our bodies) during our lives as mortals on this planet. When we are resurrected at the next level, we will receive a morontia mind that is superior to our mortal mind. At the time of death, the

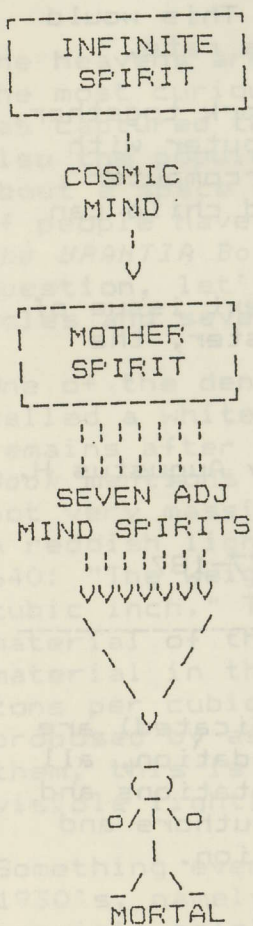


Figure 1.

spirit-like energy that constituted our minds returns to the Mother Spirit.

The mind normally operates or controls the brain in matters of intellect. One analogy that could be used to illustrate the mind-brain relationship is that of the computer operator and the computer. The brain can store information and the rules for processing that information, so it is like the computer. The mind, like the computer operator, causes the brain to store or retrieve information, and uses the rules to direct the information processing in the brain.

A logical question is: Where is the mind located, in the brain, or outside of it? Since the mind has to connect to the brain, it must be in contact with it. The computer operator usually communicates with the computer using a keyboard, but there may be no equivalent to a keyboard in the brain for the mind to use. So, how does it communicate with the brain? One theory of the mind/brain² says that the brain stores information in a three dimensional form like a hologram. If this is the case, then the mind might occupy the whole brain and extract information in a three dimensional form from the whole brain at once. This would allow the mind to access information at an impressive rate.

No matter how or in what manner the mind and brain work together, there is no question in my mind that they form a computer with awesome capabilities. The world's most powerful supercomputer cannot view and recognize objects that a two year old child can easily identify.

The second part of this article will appear in the next issue of *Cosmic Reflections* and will discuss the Thought Adjuster, the soul and personality.

1. See for example *Outlines of Systematic Theology* by Augustus H. Strong, pp.127-129

2. *The Aquarian Conspiracy* by Marilyn Ferguson, pp.177-187

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