

THE SUN IS NOT AN AVERAGE STAR

Sometimes biblical creation is spoken of as "special creation." This means that God created every planet, moon, star, and galaxy as a special, unique object with a special and unique purpose. Though we may not understand these purposes, **science does reveal that planets, moons, stars, and galaxies do not fit any rigid pattern of conformity, but that each is unique and different.** Each is "special." In particular, the sun is special because unlike most stars, it is single, and it is relatively stable. The sun is therefore an evidence of special creation.

I. INTRODUCTION

Evolutionism cannot tolerate the specialness of planets and stars, but requires conformity for two reasons. One reason is that evolutionism tries (unsuccessfully) to explain how all planets and stars could have developed by the same natural causes acting uniformly everywhere. This is manifestly impossible if every celestial body is special and different from others. Astronomer Theodore P. Snow expresses this attitude: "We believe that the earth and the other planets are a natural by-product of the formation of the sun, and we have evidence that some of the essential ingredients for life were present on the earth from the time it formed. Similar conditions must have been met countless times in the history of the universe, and will occur countless more times in the future."¹ By implication, no celestial object is unique or special.

The other reason is that evolutionism wants to believe that extraterrestrial life exists throughout the universe, but since it is well known that such life would have to be on "earth-like" planets near "sun-like" stars, all other such planets and stars must be like the earth and sun, or to put it differently, the earth and sun cannot be unique. **The belief that all celestial objects must conform to rigid patterns is called by evolutionists the "principle of mediocrity"** or the "assumption of mediocrity." One astronomer has concluded from this principle, "If the 'assumption of mediocrity' is valid, life should eventually arise on all planets that can possibly support it."² The underlying assumption in this statement is that since the earth supports life and is not special or unique, then there ought to be earth-like planets in many places. Ergo, extraterrestrial life might evolve on all of them eventually.

The opinion used to hold that life could evolve under virtually any conditions. Indeed, it was once believed that, "... while it may be true that life is possible only on a planet at a suitable distance from a star, we must be aware of adopting a medieval attitude that the Earth is the measure of the Universe.

For life has adapted itself, by evolution, to a wide range of conditions on the Earth: what limits can we set to its ability to adapt itself to a more widely diverse environment?"³

Ironically, the evolutionary search for places that might harbor extraterrestrial life has caused a radical change in this opinion. **Evolutionists have come to the realization that life can live only under "earth-like" conditions.** Nonetheless, though science indicates that the earth and sun are unique, evolutionists often simply declare without evidence that this is not true. There is an evolutionary bias that demands the principle of mediocrity be valid despite contrary evidence:

"We have no definitive proof that any planets exist beside the sun's ... [but] we need ... a second example to feel confident that our own solar system does not represent a cosmic anomaly, a unique (or nearly unique) circumstance."⁴ Though extrasolar planets have been reported, no earth-like planet has been detected unequivocally, conferring on the earth a unique status. Yet, evolutionism desires that the earth not be unique. This strong desire is difficult to understand unless it is to avoid the idea of special creation. **The sun is also special, and possibly unique, having two characteristics that are most unusual, namely, (1) its "singleness," and (2) its stability.**

II. FALSE EVOLUTIONARY CLAIMS THAT THE SUN IS AN AVERAGE STAR

Evolutionism desires that the earth not be special; the same is true of the sun. Sweeping claims that the sun is average and ordinary have been repeated over and over. Generalities like the following provide a superficial appearance of evidence for the principle of mediocrity:

1. "Today we know that the Sun really is a very ordinary star, of middling size and middle age ... It is just one star among a hundred billion others; and even the Milky Way is just one among a hundred billion galaxies in the universe."⁵
2. "Our star, the sun, is rather ordinary ... In many respects the sun is entirely a run-of-the-mill entity."⁶
3. "Our sun, so important to us, is merely an ordinary, 'garden-variety' star."⁷
4. "The Sun is an ordinary, even a mediocre star."⁸

In contrast to these false generalities, **even evolutionists, when addressing specific data about the sun, acknowledge that it is not mediocre after all:** "The Sun is a main sequence star with an age of 4.5 billion years, a spectral type G2 and, of course, a mass of 1.00 M_{\odot} . Its absolute magnitude ... is + 4.85. Contrary to popular belief, these properties make the Sun a very 'unaverage' star."⁹

Though many evolutionists deny the specialness of the sun, some broadly assert that the sun is not mediocre at all: "Some of the popular perception of the Sun is downright wrong. Writers sometimes tell us that it is 'just an average star.' Not so. The vast majority of stars are smaller, cooler, dimmer, and less massive than the Sun."¹⁰ As we will now see, there is an abundance of data to support the assertion of astronomer Donald C. Brownlee that, "People say the sun is a typical star; that's not true."¹¹

III. THE SUN IS NOT IN A MULTIPLE STAR SYSTEM LIKE MOST STARS

Aside from generalities denying that the sun is special, the typical discussion of specific solar properties actually emphasizes the singleness of the sun as if it is a characteristic which is significant: "Less than half of all stars are single stars like the Sun. More than 50% belong to systems containing two or more members."¹² However, even this statement does not go far enough in stressing the sun's unusual singleness, for **the percentage of single stars is known to be far less than 50%:** "Single stars like our sun - with or without planetary systems - are an exception rather than the rule. About 80 per cent of all stars are multiple stars ..."¹³ Thus only some 20% of stars are single. This statement was written in 1952, yet evolutionary

"mediocrity" advocates have continued their false claims during subsequent decades, even as newer studies have confirmed this conclusion:

"Due to detection biases, the true frequency of multiple systems is certainly higher [than about half]; for example, Abt (1983) argues that 78% of the AL sample has at least one stellar companion. Most (~85%) of the stars observed to be multiple are detected as binaries. ... Approximately half of main-sequence solar-mass stars are detected as binary systems; the actual binary frequency must be substantially higher (e.g., ~80%). ..."¹⁴

These results stand in contrast to the principle of mediocrity so often applied to the sun. This contrast is more remarkable considering that these results have been widely published. A few examples follow:

1. "Compared with binary and multiple stars, single stars like the Sun are a distinct minority. Of every 100 star systems, it is estimated that only 30 contain single stars, 47 are binaries, and the remaining 23 are multiples, most of which are triples. The 100 star systems contain about 200 stars, so if only 30 of them are single stars, then 85% of them are in binary or multiple systems. The proportion of stars that are in binary or multiple systems may be even higher than 85%, moreover, because faint distant companions of what appear to be single stars or close binaries may have been overlooked or gone undetected."¹⁵
2. "Kitt Peak astronomers Helmut Abt and Saul Levy (1976) ... found that about two-thirds of all stars have detectable companions ... But from statistics of companions masses, they estimated that the other seemingly single stars probably all have companions too small to detect! ... According to this estimate, virtually all stars have at least one companion."¹⁶
3. "It is estimated that some three-quarters of all the stars in the Milky Way are in binary systems ... Even more complex multiple star systems ... tend to look as if they built of binaries: triple star systems of binaries with a third star in orbit around them, quadruple star systems of pairs of binaries, and sextuple star systems of triplets of binaries. (The best known sextuplet is Castor, in the constellation Gemini.)"¹⁷ **Since the sun is single, and only 20% of all stars at most are single, the singleness of the sun is not typical at all.**

IV. THE SUN IS MORE STABLE THAN MOST STARS

The sun has long been recognized as unusually stable and has been dubbed by solar astronomers "the constant sun," meaning that its energy output is always about the same. **New studies continue to emphasize that the sun is more stable than most stars.** It is more stable even than most other stars thought of as "sun-like." One recent investigation studied sun-like stars to assess the likelihood of communications disruption or environmental destruction (e.g., ozone depletion) by a major stellar flare. While the study acknowledged that the "Sun often sends flares toward Earth," it concluded that, "This kind of solar activity is mild compared with that of the Sun's sister stars. ... Sun-like stars had produced superflares that made them dramatically brighter for minutes or even days."¹⁸

It further stated that, "Sun-like stars normally produce a bright superflare about once a century," and the report ended by posing a question: "Why a superflare has not occurred on

the Sun in recorded history is unclear. 'I think a consensus is emerging that our Sun is extraordinarily stable,' suggests Galen Gisler, an astronomer at the Los Alamos National Laboratory in New Mexico."¹⁸

Conclusions

The sun is not an average star. Evolutionary claims that the sun is "average" are false. **Unlike most stars it is single, and it is more stable than most stars.** Combining these two unusual features in one star, the sun, makes the sun unusual if not virtually unique. This is an evidence of God's special provision for life on earth, and suggests that life on earth may be unique rather than a common occurrence in the cosmos.

Despite the sun's virtual uniqueness, theories of solar operation are routinely extrapolated to describe how other stars work. Neutrino scientist John Bahcall states, "The greatest achievement of the solar model is so overwhelming that it is usually overlooked: astronomers use the theory routinely in interpreting observations of the physical and chemical compositions of stars in all sorts of environments, from the solar neighborhood to distant galaxies, without obvious inconsistencies. Any modifications of the solar model, therefore, would have profound implications for astronomy."¹⁹

However, the sun appears to be not like most other stars, even those of the same spectral class. This means that seeking to understand how other stars work by studying the sun may not be completely valid. By extrapolating solar models to other stars, and in turn, by inferring that the sun works along the same lines as other stars, modern stellar theory may be misjudging how both the sun and other stars actually operate. Solar scientist H.B. Van der Raay indeed has warned: "Clearly if we do not understand our own closest star, the implications on the whole field of cosmology are enormous."²⁰

¹Theodore P. Snow, *Essentials of the Dynamic Universe*, West, 1984, p. 434.

²Joseph F. Baugher, *On Civilized Stars*, Prentice-Hall, 1985, p. 103.

³Michael W. Ovenden, *Life in the Universe*, Doubleday, 1962, p. 16.

⁴D. Goldsmith, *The Evolving Universe*, Benjamin-Cummings, 1985, p. 370.

⁵J. Wiener, *Planet Earth*, Bantam, 1986, p. 213. ⁶Snow, op. cit., p. 195.

⁷G. Abell, D. Morrison, and S. Wolff, *Exploration of the Universe*, Saunders, 1987, p. 233. ⁸Carl Sagan, *Cosmos*, Random House, 1980, p. 243.

⁹K. Croswell, "Visit the Nearest Stars," *Astronomy*, Vol. 15 no. 1, 1987, p. 17.

¹⁰Stephen P. Maran, "When All Hell Breaks Loose On the Sun, Astronomers Scramble to Understand," *Smithsonian*, Vol. 20 no. 3, 1988, p. 37.

¹¹Donald C. Brownlee, "We ARE Alone, 2 Scientists Contend," *Tampa Tribune*, February 8, 2000, p. 1.

¹²H. Karttunen, H., P. Kroger, H. Oja, M. Poutanen, and K.J. Donner, *Fundamental Astronomy*, Springer-Verlag, 1987, p. 231.

¹³George Gamow, *The Creation of the Universe*, Mentor, 1952, p. 111.

¹⁴Bodenheimer, P. et al., "Stellar Multiple Systems: Constraints On the Mechanism of Origin," *Protostars and Planets III* (ed. E. Levy and J. Lunine), University of Arizona, 1993, pp. 369, 381; citing H.A. Abt, "Normal and Abnormal Binary Frequencies," *Annual Reviews of Astronomy and Astrophysics*, Vol. 21, 1983, pp. 343-372.

¹⁵John D. Fix, *Astronomy*, WCB/McGraw-Hill, 1999, pp. 485-486.

¹⁶William K. Hartmann, *Astronomy*, Wadsworth, 1991, p. 468.

¹⁷W. Metz, "The Universe, Two by Two," *Mosaic*, Vol. 14 no. 3, 1983, p. 22.

¹⁸C. Seife, "Thank Our Lucky Star," *New Scientist*, Vol. 161, 1999, p. 15.

¹⁹J. Bahcall, "The Solar Neutrino Problem," *Scientific American*, Vol. 262 no. 5, 1990, p. 56.

²⁰H.B. van der Raay, "Solar Oscillations," *Nature*, Vol. 288, 1980, p. 536.