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'Reason for Creation of the Earth.'

Mr. Alfred Russel Wallace of London Gives a Remarkable Document to the Scientific World—Declares the Earth is the Physical Center of the Stellar System.

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London, Feb. 28.—It is not too much to say that the attention of the whole thinking world would be attracted by a remarkable article in the Fortnightly Review for March, by Dr. Alfred Russel Wallace, entitled "Man's Place in the Universe." The eminent writer has assembled all the latest astronomical and other scientific discoveries and knowledge bearing up on the subject. He deduces therefrom the marvelous theory:

First—That the earth, or solar system, is the physical center of the stellar universe.

Second—That the supreme end and purpose of this vast universe was the production and development of the living soul in the perishable body of man.

It is impossible in a brief cable review to do more than indicate the chief feature of Wallace's great contribution to modern thought. He first reminds us that to the early astronomers the earth was the center of the visible universe, the sun, moon, planets and stars all revolving around it in eccentric and complex orbits after that, as progressive knowledge showed us the utter insignificance of even our solar system, we seem driven to the other extreme.

The tendency of all recent astronomical research has been to give us wider views of the vastness and variety and marvelous complexity of the stellar universe, and proportionately, to reduce the importance of our little speck of earth almost to the vanishing point. Modern skeptics in the light of this knowledge point out the irrationality and absurdity of supposition that the Creator of all this unimaginable vastness of suns and systems should have any special interest in so pitiful a creature as man, the degraded or imperfectly inhabitant of one of the smaller planets attached to a second or third rate sun, while that he should have selected this little world for the scene of the tremendous and necessarily unique sacrifice of His Son, in order to save a portion of these miserable sinners from the natural consequences of their sins, is in their view, a crowning absurdity too incredible to be believed by any rational being.

It must be confessed that theologians have no adequate reply to this rude attack while many of them have felt their position to be untenable, and have renounced the idea of special revelation and a supreme savior for the exclusive benefit of so minute and insignificant a speck in the universe.

Dr. Wallace then adduces the evidence from a great body of new facts and observations made within the last quarter of a century that the earth's position in the material universe is special and probably unique. He first asks: "Are the stars infinite in number, and points out with every increase of power in telescopes until recent years there has been a proportionate increase in the number of visible stars. There are about 200,000 stars between the first and ninth magnitude; the number at each lesser magnitude being

three times that of the next higher. Now if this rate of increase be continued down to the seventeenth magnitude there will be about 1,400,000,000 visible. In the best modern telescopes, telescopic observation and photographic charts show nothing approaching this number. The latest estimate does not exceed 100,000,000. As the instruments reach further and further into space they find a continuous diminution in the number of stars, thus indicating an approach to the outer limits of the stellar universe.

This conclusion is further enforced by the fact that the numerous dark passages in the heavens where hardly any stars are visible, and those seen are projected on an intensely dark background, continue to present to some features in telescope of the highest to same features in telescopes of the highest powers as they do in those of moderate size. This could not possibly happen if the stars were infinite in number or even if they extended in similar profusion into spaces much greater than those which our telescopes can reach, because in that case these dark backgrounds would be illuminated by the light of millions of stars; distant as to be separately invisible as in the case of the milky way. The only other explanation would be that the star system is penetrated in several directions by perfectly straight tunnels of enormous length as compared with their diameter in which no stars exist and this is considered to be so improbable as not to be worthy of consideration.

Dr. Wallace next considers the most striking proof the limited extent of the stellar universe, which contains in an analysis of the laws of light. He quotes Professor Newcomb and other physicists, who affirm that if the number of stars be infinite their combined light would be fully equal to the sun at midday, whereas starlight is only one fortieth as powerful as moonlight.

This proof which cannot be elaborated here Dr. Wallace regards when taken in connection with telescopic research as altogether conclusive of the limited extent of the stellar universe.

The writer then proceeds to discuss in elaborate, fascinating and easily intelligible detail the distribution of the stars in space, the knowledge of their movements and nally the position in the universe of the solar system. His conclusions are:

"The results so far reached by astronomers as the direct logical conclusion from the whole mass of facts accumulated by means of powerful instruments of research, which have given us the new astronomy, is that our sun is one of the central orbs of a globular star cluster, and that this star cluster occupies nearly the central position in the exact plane of the milky way, but I am not aware that any writer has taken the next step and combining these two conclusions and stated definitely that our sun is thus shown to occupy a position very near if not actually at the center of the whole visible universe, and therefore in all probability in the center of the whole material universe. This conclusion no doubt is a startling one, and all kinds of objections will be made against it, yet I am not acquainted with any great inductive result of modern science that has been arrived at so gradually, so legitimately, by means of so vast a mass of precise measurement and observations, and by wholly unprejudiced workers. It may not be proved with minute accuracy as regards the actual mathematical center. That is not of the least important, but that it is substantially correct there seems to be no reason to doubt, and I therefore hold it right and proper to have it so stated and that provisionally accepted until further accumulations of evidence may show to what extent it requires modification.

"This completes the first part of our inquiry, but an equally important part remains to be considered: Our position in the solar system itself as regards adaptability for organic life. Here, too, I am not aware that the whole facts have been sufficiently considered, yet there are facts that indicate our position in this respect to be as central and unique as that of the sun in the stellar universe."

It is not possible to follow Dr. Wallace's cogent arguments in detail on the question of the adaptability of other planets for the development of organic life and of the higher forms of intellectual beings. Writers on this subject, he says, have usually been content to show that certain plans may possibly be now in a condition to support life, not dissimilar to those upon the earth, but they never have considered the precedent question, could such life have originated and been developed upon these planets? That is the real crux of the problem, and Dr. Wallace believes that full consideration of the required conditions will satisfy us that no other planets can fulfill them.

Dr. Wallace observes that materialists will object that the want of all proportion between the means and the end condemns the theory that the universe was created for the production and development of man, but he asks if there is any such want of proportion. Given infinite space and infinite time, and there can be no such thing as want of proportion, if the end to be reached were a great ad worthy one, and if the particular mode of attaining that end were the best or perhaps even the only possible one, we may fairly presume that it was so by the fact that it had used and has succeeded.

Dr. Wallace's conclusion is: The three startling facts that we are in the center of a cluster of suns and that that cluster is situated not only precisely in the plane of the milky way, but also centrally in that plane, can hardly now be looked upon as chance coincidence: without any significance in relation to the culminating fact that the planet so situated has developed humanity. Of course the relation here pointed out may be a true relation of cause and effect, and yet have arisen as the result of one in a thousand million chances occurring during almost infinite time, but, on the other hand, those thinkers may be right who, holding that the universe is a manifestation of mind and that the orderly development of living souls supplies an adequate reason why such a universe should have been called into existence, believe that we ourselves are its sole and sufficient result and that nowhere else than near the central position in the universe which we occupy could that result be attained.

The Alfred Russel Wallace Page, Charles H. Smith, 2017.