

IS MAN THE CENTRE OF THE UNIVERSE?

PROBABLY. BY ALFRED RUSSEL WALLACE.

ARE we going to come back to the old familiar theory of the universe, according to which Man was the centre of all creation, the sun, the moon, and the stars being the convenient street-lamps created for his convenience? The discovery of the immensity of this sidereal universe led to the belittling of the importance of man. We seemed to become as insignificant as cheesemites seated upon one of the minor planets in a universe which contained one hundred million worlds. "What is man that thou art mindful of him?" was the inquiry which gained in force with every improvement of the telescope. As system after system was revealed, each fresh discovery seemed to make more utterly unthinkable the old theory which had its expression in the Book of Genesis. But now an article which Alfred Russel Wallace contributes to the March number of the *Fortnightly*, gives us hope that our good conceit of ourselves is about to be revived, and that we are going to come back to the old faith by the very latest and most approved scientific road. For if Dr. Wallace is correct there is a strong presumption that we are after all the centre of the whole universe. He maintains that there is no reason to believe that the stars are infinite in number. He says that the increased size and power of the telescope, and that powerful engine of research the photographic plate, alike lead to the same conclusion—namely, that we are piercing to the outer elements of the starry system. The total number of visible stars from the first to the ninth magnitude is about two hundred thousand. If they increased in number on to the seventeenth magnitude at the same rate that they increased from the first to the ninth, there ought to be 1,400,000,000 stars visible through the best telescope, instead of which there are not more than 100,000,000. As our instruments reach further and further into space they find a continuous diminution in the number of stars, thus indicating the approach of the outer elements of the stellar universe. If the universe is not infinite, but has limits, where is its centre? He says that the new astronomy has led us to the conclusion that our sun is one of the central orbs of a globular star cluster, and that this star cluster occupies a nearly central position of the exact plane of the Milky Way. Combining these two conclusions, Dr. Wallace states definitely that our sun is thus shown to occupy a position very near to, if not actually at the centre of, the whole visible universe, and therefore in all probability is the centre of the whole material universe. This conclusion, he maintains, has been arrived at gradually and legitimately by means of a vast mass of precise measurements and observation by wholly unprejudiced workers. Not only are we the hub of the universe, but Dr. Wallace thinks that there is grave reason to doubt whether life could have originated and have been developed upon any other planet. It was necessary that for hundreds of millions of years the

surface temperature should never for any considerable time fall below freezing point, or rise above boiling point. None of the other planets appear to possess this and other fundamental features which have made life possible on the earth. Among these features he maintains that the importance of volcanoes and deserts has never been properly appreciated. Without volcanoes and without deserts we should not have had that uninterrupted supply of atmospheric dust without which the earth would have been uninhabitable by men. Our position, therefore, without the solar system is as central and unique as that of our sun in the whole starry universe. He sums up his conclusions as follows:—

The three startling facts—that we *are* in the centre of a cluster of suns, and that that cluster *is* situated not only precisely in the *plane* of the Galaxy, but also *centrally* in that plane, can hardly now be looked upon as chance coincidences 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 an 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 have been attained.

If Dr. Wallace be right it is obvious what an important bearing his conclusion will have upon the whole field of theological thought.