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Why Conquer Space?

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why conquer space?

By Fred L. Whipple

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MY PERSONAL REASONS for wishing to see man in space are at least fourfold.

Probably the greatest motivation is pure curiosity, wondering what lies beyond the next range of hills. I do not think that it is necessary to justify this as a sound reason. Most of man's progress from his Simian ancestry has come about through the fact that he is more intelligently curious than any of the lesser animals.

A more easily justified reason is, of course, the enormous impetus to science that will be made not only when man has crossed the space frontier but also when he is in the process of crossing it. Progress in science leads not only to progress in material benefits to mankind, but also to the possibility of a greater number of *Homo sapiens* inhabiting the universe. When I contemplate the astronomical gains to be attained by observations from a satellite station, or a station on the moon, or explorers on Mars, the scientist in me leaps into an excited state. So far, astronomers have been studying the universe by radiations from only a small crack in the total spectrum of electro-magnetic radiation, extending from the radio region to heat radiation, light, ultra-violet, x-rays, etc. The most interesting radiations of most astronomical objects lie in the ultra-violet, forever hidden from us on earth by the opaque wall of our atmosphere. The scientific answers that will come out of space travel will include not only the practical ones about solar radiations, cosmic rays, weather prediction, and effects on our earth, but basic and fundamental facts about the origin of our earth, the origin

of the sun, and the origin of the universe itself.

In the third place, I feel that the level of a culture from the historical viewpoint is measured largely by its technological achievements. The monuments that the ancient Egyptians left behind have made us appreciate the power of their civilization as we would never have appreciated it otherwise. The nation or culture that first sends a ship into space successfully will be marked for all time in the history of the world as a technological leader. I grant that this will do us individually very little good, but the individual human being, with few exceptions, likes to feel that he is making a permanent mark in history. Now here is an opportunity for us to make a mark that will never be forgotten as long as a civilized culture remains on the earth.

But my fourth and probably most fundamental argument for space travel is that it represents man's conquest over nature. I personally resent the confinement that gravity represents in holding us to this third-rate planet. Insofar as man controls nature, he also controls the destiny of man. There are those who will argue that man's power to control nature is overshadowed by his power to destroy man. I do not think that historical facts will bear out this argument. Every step that man has made in developing further progress in "mind over matter" has been to man's material benefit. By conquering space, man makes one more step towards insuring immortality for the race, if not for the individual.