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# Koestler Looks at Man's Plight

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Reviewed by Charles H. Herzfeld

Chief of the Heat Division  
National Bureau of Standards

**THE SLEEPWALKERS: A History of  
Man's Changing Vision of the Uni-  
verse.** By Arthur Koestler. Mac-  
millan. \$6.50.

TWO BASIC IDEAS give shape to this exciting and controversial book: Mr. Koestler believes that a fundamental cause of modern man's plight is the split between science and religion, and he also believes that the progress of genius (and of mankind) resembles that of the sleepwalker, surefooted but not conscious.

He traces the development of cosmology and the relation between science and religion from antiquity to Newton, but organizes the material according to his special point of view that the Pythagorean synthesis of mysticism and science is the best possible relation between religion and science.

THE CRISIS in this relation was brought on by the work of Copernicus, Kepler and Galileo, and most of the book is devoted to them. We are told how the Canon Copernicus was attracted early to astronomy; later produced his qualitative theory of the solar system; refused to publish it for many years while rumors and second-hand reports circulated widely, and finally, near his end, published the

great book which "undermined the whole medieval cosmology."

Then we see how Kepler began his researches, always preoccupied with mysterious and occult speculations about the intrinsic harmonies of the universe. He persisted in these speculations even while embarked on the monumental computation of the orbit of Mars based on Tycho Brahe's careful observations. Hence his great discoveries, "Kepler's laws," which gave Newton his real clue, were hidden in his general "system," which abounded with occult speculations.

But "after Kepler, fragmentation of experience sets in again, science is divorced from religion, religion from art, substance from form, matter from mind."

THEN COMES Galileo. It seems that everyone has his private image of Galileo; Mr. Koestler's is that of a belligerent popularizer who did his best scientific work only after he was forced to stop propagandizing. Mr. Koestler rejects de Santillana's thesis that Galileo was "framed" by personal enemies, and holds that he precipitated a showdown when there was no scientific necessity to do so.

Galileo is the villain of the book in two senses. His personality is blamed for the course of events, and his con-

tributions to man's view of the universe are seen as unfortunate because they led science away from the qualitative toward the quantitative. This reviewer believes that Mr. Koestler exaggerates the former point and is wrong about the latter.

THE BOOK has other faults. Mr. Koestler believes that we have now a Newtonian vision of the universe; hence his story ends there. This mistake arises because the author does not really understand 20th century physics, as is amply shown by his discussion of it in the Epilogue. A few detailed technical errors mar the text in minor ways. These faults give the impression that the author is perhaps really out of his depth when he discusses science, and this greatly lessens the impact of the book.

The sleepwalker theme is also overstressed. Surely it is not such a surprise that the creative effort, even in the exact sciences, is an erratic and mysterious process and a game played catch-as-catch-can?

Now for the good points. The book is extremely well written and always interesting. The biographies of the three principals are fascinating and instructive. Finally, the book is full of brilliant observations and startling suggestions, which make it highly stimulating and provocative.

