

The S-Curves Are Forming

The Step to Man, by John Rader Platt (John Wiley, 216 pp. \$5.95), deals with ways and means to increase human intelligence. Stuart Chase's numerous books include "The Proper Study of Mankind."

By STUART CHASE

THIS collection of essays by a biophysicist happily marries C. P. Snow's "two cultures"—the world view of the scientist and the world view of the humanist. Dr. John R. Platt is currently associate director of the Mental Health Institute at the University of Michigan, and also a humanist in his profound concern for the fate of man. He writes clearly and well, and from time to time strikes a note of genuine eloquence, as when he says: "The world is now too dangerous for anything less than Utopia."

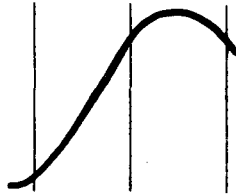
The twelve essays are somewhat uneven, and a few duplications could well have been eliminated. But they drive with freshness, imagination, and power to a single conclusion: Man can prevail. The note is primarily one of optimism.

Mankind, says Dr. Platt, is now in the middle of the most difficult period in his history; the Ice Ages are nothing to it. Applied science, or technology, advancing at an exponential rate, is forcing changes in our way of life which properly require many decades for adequate adjustment, but which must be met, for better or worse, in the next few years. The population explosion, the threat of nuclear war, the stark necessity of creating some kind of workable world government—it is indeed a time "too dangerous for anything less than Utopia." These essays all deal with ways and means to increase human intelligence, and, by using the scientific method and attitude, to give us more power to overcome the massive human problems that lie ahead.

Most of us who try to understand the changes wrought by technology see them as something just getting under way. We plot curves of progress—or calamity—which ascend ever more steeply. Thus certain demographers project the population of the world to the point of standing-room only within a century or two, employing accurate calculations based on current rates of growth.

No, says Dr. Platt. We are *not* at the

beginning; we are in the tumultuous middle of cultural change. Many of the curves which have been accelerating so steeply are beginning, or will soon begin, to level out, and then turn backward into the well-known S-curve, or logistic curve of growth, like this:



The S-curve does not mean that computers, or air traffic, will stop growing, but that the *rate* of growth will decline—which is a very different proposition. Dr. Platt challenges the predictions of both the statisticians and the philosophers by reminding them that not even the most dynamic colony of bacteria continues to grow exponentially when its nutrients run out.

Well, the nutrients—or the finite limits—are running out in a number of departments. The S-curves are forming. We tend to look at technological trends in too brief a time scale, says our author. Look further, he says, and many will slow down; they must slow down. "They will reach implacable limits of growth to become stable states."

Take communication. Once we are able to transmit sight and sound around the world in approximately two seconds, as is now the case, no acceleration can be expected to increase the speed of radio or TV.

Take transportation. The steam locomotive at seventy miles an hour outdistanced the fastest bird a century ago. Jets now travel at 600 miles an hour, but supersonics at 2,000 miles an hour are in the air experimentally, with rocket planes, at 4,000 miles an hour, on the drawing board. All this produces a perfectly splendid exponential curve in 100 years. But how long can it continue? We can now send a man to any point on earth in less than a day. The earth is only so big. Igor Sikorsky once said that it was too small to tolerate air speeds of more than 500 miles an hour. Was he thinking also of the limitation provided by sonic boom?

Dr. Platt adduces case after case where the S-curve is taking over. It is

forming in nuclear overkill. It is forming in population growth, attested by the current famine in India, and will come by famine or by birth control—probably both—within the next decade or so.

Alerted by this analysis, the careful observer can find S-curves in all directions. Take numbers. The human mind is a marvelous instrument and the chief glory of man. But how many arbitrary numbers can the normal mind retain? It is now being jammed with bank account numbers, Social Security numbers, zip code numbers, telephone numbers, automobile license numbers, Blue Cross numbers. How many of us are beginning to greet a new imperative in five to ten digits with "Oh, the hell with it?"

Dr. Platt, I might point out, receives strong support at another level from René Dubos of the Rockefeller Institute. Dr. Dubos speaks for most biologists when he says that homo sapiens acquired its genetic code (DNA) during the late Paleolithic period, and has not changed significantly since that time. This means that a healthy baby born to a Cro-Magnon woman 20,000 years ago and transported by the "time machine" of H. G. Wells to a kindly family in Scarsdale, New York, would grow up little different from other children on the block. And vice versa. The unchangeability of man's genes, says Dr. Dubos, defines the limits beyond which technology cannot force him. At some point changes due to culture must bend over in the S-curve demanded by the human pool on genes. Those ten-digit numbers may be an example.

Dr. Platt is not completely sure that we are going to survive the ominous test ahead, but he is sure that the test will not be prolonged beyond fifteen to twenty years. He compares it to the shock-front of the pressure wave generated by a supersonic plane. We are now on the edge of a pressure wave with abnormal turbulence. But if the shock-front can be passed, a much calmer scene lies beyond, one where exponential change gives way to a steady-state condition.

He asks all men of good will to contemplate that world, for it will have very different patterns from those of today. It will be Utopian in the sense of being a world without war, without poverty, overcrowding, disease. But there will still be problems—more problems, I believe, than Dr. Platt allows for.

Never mind. We look beyond the current shock-front "to a wealthy and powerful and coordinated world society, reaching across the solar system; a society that might find out how to keep itself alive and evolving for thousands or millions of years. . . . It is a tremendous prospect. It is a quantum jump."

It is good to have a biological physicist tell us so.

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Business, Economics

CONSUMER FINANCE: A Case History in American Business. By Irving S. Michelman. Frederick Fell. \$6.

Crime, Suspense

AMBER NINE. By John Gardner. Viking. \$3.95.

THE COLD WAR SWAP. By Ross Thomas. Morrow. \$3.95.

THE MAN WHO CRIED ALL THE WAY HOME. By Dolores Hitchens. Simon & Schuster. \$3.95.

RUN, FOOL, RUN. By Frank Gruber. Dutton. \$3.95.

Current Affairs

THE COMMUNITY AND RACIAL CRISIS. Edited by David Stahl et al. Practising Law Institute. \$7.50.

DISSENTER IN A GREAT SOCIETY: A Christian View of America in Crisis. By William Stringfellow. Holt, Rinehart & Winston. \$4.95.

Fiction

APPEARANCE OF A MAN. By George Backer. Random House. \$5.95.

BIG MAN. By Jay Neugeboren. Houghton Mifflin. \$3.95.

THE BOGEYMAN. By Margaret Forster. Putnam. \$4.50.

EXCURSION. By Francis Pollini. Putnam. \$4.95.

FATHERS AND DREAMERS. By Dallas Miller. Doubleday. \$5.95.

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A MAN OF THE PEOPLE. By Chinua Achebe. John Day. \$3.95.

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NO MORE BUGLES IN THE SKY. By Richard Newhafer. New American Library. \$5.95.

TOWARDS A BETTER LIFE: Being a Series of Epistles, or Declamations. By Kenneth Burke. Univ. of California Press. \$4.95. (Reissue.)

A WILDERNESS OF VINES. By Hal Bennett. Doubleday. \$4.95.

Government, Politics

COMMUNIST POLITICAL SYSTEMS. By Alvin Z. Rubinstein. Prentice-Hall. \$10.

THE IDEA OF POLITICS. By Maurice Duverger. Bobbs-Merrill. \$6.

UNITED STATES GOVERNMENT ORGANIZATION MANUAL. Government Printing Office, Washington, D.C. \$2.

History

IRELAND. By Michael MacLiammoir and Edwin Smith. Viking. \$12.50.

THE RECONSTRUCTION OF GEORGIA. By Alan Conway. Univ. of Minnesota Press. \$6.50.

THE SKY ON FIRE: The First Battle of Britain 1917-1918 and the Birth of the Royal Air Force. By Major Raymond H. Fredette, USAF. Holt, Rinehart & Winston. \$6.50.

Literary Criticism

THE CROWN OF LIFE: Essays in Interpretation of Shakespeare's Final Plays. By G. W. Knight. Barnes & Noble. Paperback. \$2.95.

MAN'S CHANGING MASKS: Modes and Methods of Characterization in Fiction. By Charles Child Walcutt. Univ. of Minnesota Press. \$6.75.

SHAKESPEAREAN COMEDY. By H. B. Charlton. Barnes & Noble. Paperback. \$2.50.

Miscellany

A BOWL OF RED. By Frank X. Tolbert. Doubleday. \$3.50.

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GOOD OLD HARRY: The Wit and Wisdom of Harry S. Truman. Edited by George S. Caldwell. Hawthorn. \$2.95.

THE TRANSEXUAL PHENOMENON. By Harry Benjamin, M.D. Julian Press. \$8.50.

WHICH WITCH? By Julian Franklyn. Houghton Mifflin. \$3.95.

THE WORKING PRESS: Special to The New York Times. Edited by Ruth Adler. Putnam. \$5.95.

Music, Theater

JAZZ MASTERS OF THE FORTIES. By Ira Gitler. Macmillan. \$5.95.

THE NAKED IMAGE: Observations on the Modern Theatre. By Harold Clurman. Macmillan. \$6.50.

Religion, Philosophy

IS THERE AN ANSWER?: An Inquiry Into Some Human Dilemmas. By David and Tamar de Sola Pool. Yoseloff. \$4.95.

THE RELIGIONS OF MANKIND. By Hans-Joachim Schoeps. Doubleday. \$5.95.

Science Fiction

ANALOG 4. Edited by John W. Campbell. Doubleday. \$4.50.

WATCHERS OF THE DARK. By Lloyd Biggle, Jr. Doubleday. \$4.50.

Sociology

NEIGHBOR AND KIN: Life in a Tennessee Ridge Community. By Elmora Messer Matthews. Vanderbilt Univ. Press. \$5.

—Compiled by RUTH BROWN.



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SR/August 13, 1966

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