

PSYCHOLOGY

Hero Worship in Science

The history of science would be more scientific if it was based on anonymous facts rather than the personalities of the men who made the discoveries.

► **GREAT NAMES**, like Darwin, Freud, Galileo, Newton, Copernicus and Einstein should not be used to label historical epochs and scientific advances.

This idea that the history of science should not be built on hero worship was advanced by Dr. Edwin G. Boring, Harvard University professor of psychology, who spoke as the honorary president of the 17th International Congress of Psychology in Washington, D. C.

"Surely the history of science would appear more scientific," he said, "if it could but get rid of the cult of personality."

Dr. Boring told his fellow psychologists that the history of science should not be written around great men. A revolution in thinking will come, he said, "with man surrendering his vanity for the sake of better understanding."

The way history is written, great men made discoveries on great days. Actually, Dr. Boring said, history grows slowly rather than happening all of a sudden, and "multiples are the rule." Newton and Leibnitz invented calculus; Adams and Leverrier, within a few days of each other, discovered the planet Uranus. Some discoveries have been "discovered" nine times.

Dr. Boring said that mankind singles out great men, whom he technically calls

eponyms, and uses them as pegs for hanging history. Great men make the events of history seem understandable.

But the time will come, Dr. Boring believes, when the history of science will be written anonymously and when men will look back to the 20th century and smile at its vanity."

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Obscene Words Orderly

► **DIRTY WORDS** are not originally the products of dirty minds. Mankind created obscenities, along with the rest of language, to give a sense of order to the world around him.

This is the theory of Dr. Edmund Leach, anthropologist of the University of Cambridge, England, reported at the 17th International Congress of Psychology meeting.

The world is basically chaotic, his theory maintains. Man has to divide the world into categories to give it an appearance of order, and he makes the divisions with language.

One of the important distinctions man has to make, Dr. Leach said, is between himself and the rest of the animal world. Mankind is constantly fighting to control his animal urges. Obscene words, Dr. Leach be-

lieves, help him stay on the side of civilized human beings.

This is because obscene words mark a boundary between man and other animals. Many of the common dirty expressions deal with animals that man is close to. The horse, donkey, dog and cat either work with man in his fields or live with him at home.

Because man has such strong relationships with these animals, Dr. Leach explained, he is not allowed to speak their names or the dirty words that derive from their names. In uttering the forbidden names, man would be crossing the line between himself and the animal world, a line that he tries so hard to maintain. There are few if any obscene words connected with such zoo animals as the elephant or hippo, Dr. Leach said. These animals, far removed from human life, are not threatening.

Animals whose names should not be spoken are also the animals whose meat should not be eaten, he pointed out.

Man may delight in using dirty words precisely because they are forbidden, Dr. Leach said. Why this is so exciting, he said, is a question that is best left in the hands of psychologists.

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Songbirds 'Sensitive'

► **YOU CANNOT** teach an old dog new tricks. Or can you?

Psychologists are looking into the matter.

There may be certain "sensitive" periods in the lives of animals, when learning a specific bit of behavior can take place. If the learning does not occur at that time, then there may never be a second chance.

Evidence on such "critical" periods has been accumulated mainly for birds.

Current findings, reported at the 17th International Congress of Psychology meeting, concern the chaffinch, favorite songbird of the European continent.

Prof. W. H. Thorpe of the University of Cambridge, England, said the small singer has 13 months in which to learn song patterns. If it does not learn new songs in the first year of life, the chaffinch will be limited to the extremely simple songs it carries within from birth.

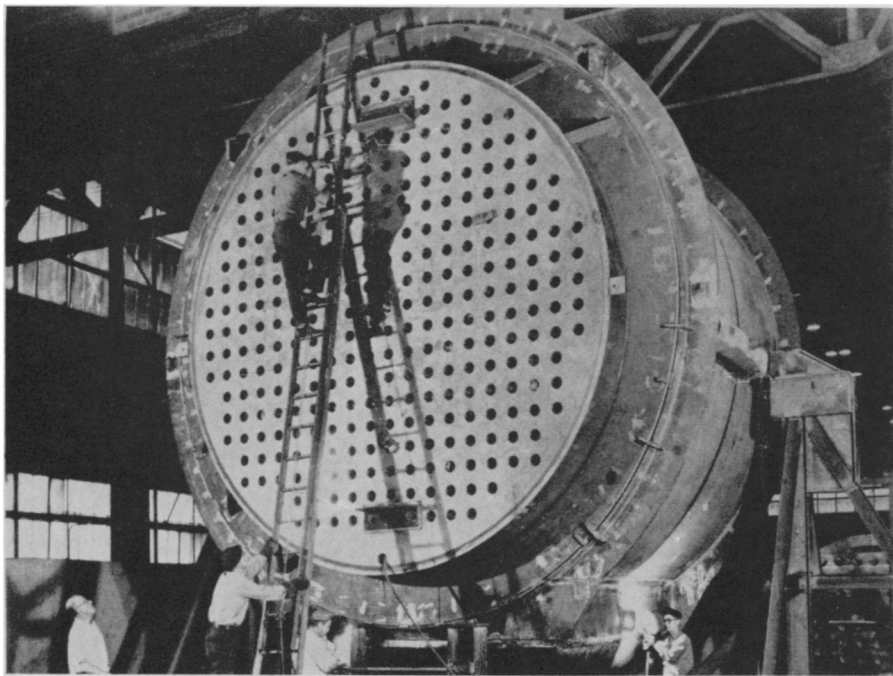
If the birds are kept in a stable group apart from all other groups of birds, Prof. Thorpe said, they will learn simple songs from each other. The songs of each bird in the group will sound like those of the others.

Much of the fine detail and variety of the chaffinches' songs, Prof. Thorpe explained, comes from their singing in competition with other, neighboring groups of birds. The full song of the chaffinch is a combination of inborn and learned patterns.

Evidence on critical periods for learning in other types of animals and in human beings is less complete.

For monkeys, it is believed that the early months of life are crucial for determining future social adjustment. The same, some psychologists hold, may be true for human babies.

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Allegheny Ludlum

TONS OF STEEL—Sixty tons of stainless steel produced by Ludlum Steel Corp. were used to make this giant nuclear reactor that will power the first full-scale nuclear generating plant in Canada to be located at Douglas Point on the shore of Lake Huron in Ontario.