

PSYCHOLOGY

Slogans Unattractive, When Accompanied by Bad Odors

NEWs for politicians: The odors in party meeting places may be as important as the free lunch for winning or losing voters' approval.

A putrid odor (literally) associated with slogans such as "soak the rich," or "keep America out of war," makes them much less appealing, Dr. Gregory Razran, of Queens College, found in experiments with political liberal students. Free lunch makes such slogans more attractive.

Unfortunately for politicians, however, judgment of the literary value of the slogans is more easily influenced than personal approval.

For some slogans, approval is so imbedded that change seems to be impossible. One such unchangeable slogan is "A public office is a public trust." This is practically universally approved.

Dr. Razran reported his findings to the American Psychological Association at Pennsylvania State College.

Science News Letter, September 21, 1940

MEDICINE

New Sulfa Drug Used In Treatment of Dysentery

A NEW sulfa drug which is giving "fairly promising" results in treatment of bacillary dysentery and which is expected to prove useful in typhoid fever is announced by Prof. E. K. Marshall, Jr., and Dr. A. Calvin Gratton, Dr. H. J. White and Dr. J. T. Litchfield, Jr., of the Johns Hopkins Hospital.

The new drug, relative of sulfanilamide, is sulfanilylguanidine. Details of its preparation and tests on animals appear in the *Bulletin of the Johns Hopkins Hospital*. (September)

Patients are now being treated with it, but because there has been less bacillary dysentery in Baltimore this summer than ever before, there have been too few patients to be sure of the value of the drug, Prof. Marshall stated. All that can be said of the new drug now is that it is "fairly promising."

The new drug was developed during efforts to produce one as effective as sulfapyridine against pneumonia but less toxic. When sulfanilylguanidine was made during this research, it turned out to be poorly absorbed from the intestinal tract. This suggested its possible usefulness against infections of this part of the digestive system, especially dysentery and

typhoid fever. The poor absorption of the drug from the intestinal tract should give it a longer time to exert its destructive action on germs there.

The drug, it is believed, will be less toxic than sulfapyridine or sulfathiazole, and has shown ability to destroy intestinal tract germs both in the test tube and in mice.

Science News Letter, September 21, 1940

PSYCHOLOGY—AERONAUTICS

Grip on Stick Reveals Tension of Student Pilots

A PNEUMATIC grip substituted for the control stick on airplanes of student pilots is revealing just how tense they are while they are maneuvering in the air, Dr. Alexander C. Williams, Jr., of the University of Maryland, reported to the American Psychological Association meeting at Pennsylvania State College.

"Too tense," is often the explanation made by flying instructors of the poor flying of students. Now for the first time an accurate measurement of tenseness is possible. The new instrument is attached to a "flight analyzer" which simultaneously records air speed, altitude, and climb acceleration of the plane.

Take-offs and landings were found to account for 90% of the tension in the case of the ten students already tested with the new instrument. The best students have the least amount of excessive tension during their landings.

Dr. Williams' experiment is part of the research program now being rushed under joint auspices of the National Research Council and the Civil Aeronautics Board.

Science News Letter, September 21, 1940

ENGINEERING

New Sound System Helps In Outdoor Concerts

THE SOUND system recently installed for outdoor concerts in a large city is declared to show that music can be reproduced and amplified while preserving the wide variety of tonal and emotional color which is so often lost in outdoor concerts to all except those seated immediately in front of the orchestra. (Western Electric Company).

A single microphone picks up the sound of the entire orchestra as the ear would hear it, and naturalness is further assured by a remote control panel at the hands of an operator in the audience.

Science News Letter, September 21, 1940

IN SCIEN

PSYCHOLOGY

Spring Babies Brighter Because of Selection

BABIES born in the spring really are a little brighter than other children, Dr. Florence L. Goodenough, of the University of Minnesota, told the American Psychological Association.

But the explanation, she believes, lies not in the weather but in the planning of births. Studying 3,275 children about whom she had the necessary information, Dr. Goodenough found that children whose parents belong to the professional and "white collar" occupations have higher IQ's than children of the laboring classes. The white collar workers and professional people have a better acquaintance with birth control methods. And, to clinch matters, the children of these upper occupational classes are more commonly born in the springtime.

A questionnaire distributed to leading baby doctors and to mothers in a superior residential district revealed that the spring months are considered by these persons as best for the birth of babies.

Science News Letter, September 21, 1940

ASTRONOMY

Science Classic Is Finally Translated

NEARLY 400 years after its original publication, one of the most important books in science history has been translated into English for the first time. This is "On the Revolutions of the Celestial Spheres," written (in Latin) by the Polish astronomer, Nicholas Copernicus, and published just before his death in 1543. It led to recognition that the earth revolves around the sun.

In connection with the new program of St. John's College, Annapolis, which emphasizes study of classics of science as well as of literature, the translation has been made by a tutor, Charles Glenn Wallis. Issued provisionally in mimeographed form, Mr. Wallis is now revising it. Publication in a two-volume set, including also translations of two other scientific landmarks, Ptolemy's "Almagest" and parts of Kepler's "Epitome of Copernican Astronomy," is scheduled for Jan., 1942.

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CE FIELDS

VOLCANOLOGY

Ill-Smelling Gas May Warn Of Volcanic Eruptions

VOLCANOES may give warning of coming eruptions by emitting ill-smelling hydrogen sulfide gas, Prof. John H. Payne and Dr. Stanley S. Ballard, of the University of Hawaii and the Hawaiian Volcano Observatory, suggest. (*Science*, Sept. 6)

Prof. Payne and Dr. Ballard kept close track of the various gases emitted by the solfataras or gas vents on Kilauea, Hawaii's biggest crater. These were found to fluctuate in their proportions without any apparent relation to the activities of the volcanoes themselves, except that on two occasions the solfataras gave off the rotten-egg smell of hydrogen sulfide shortly before eruptions of nearby Mauna Loa, which is known to be connected with Kilauea.

They state: "The appearance of hydrogen sulfide in the Kilauea solfataric gases just prior to Mauna Loa activity may have been a premonitory sign. If so, this appears to afford an exceedingly valuable method of forecasting volcanic outbreaks. Furthermore, this incidence of hydrogen sulfide suggests a close relationship between solfataric activity and primary volcanism."

Science News Letter, September 21, 1940

ARCHAEOLOGY

Pocahontas' Tribe May Have Sacrificed Human Beings

THE MYSTERY of charred human bones, which archaeologists are unearthing in Virginia, may point to unsuspected barbaric human sacrifices for weather control by the famous tribe of Pocahontas and Chief Powhatan.

Likelihood that Captain John Smith could have been serving as a sacrifice for rain when saved from violent death by Pocahontas is discounted, however. Even a Pocahontas would hardly have dared to interfere with a religious rite.

That Indians along the Potomac made a fire circle and offered up two or three children to a terrible rain god, 'Quioquasacke,' each year was related by one of Virginia's oldest historians, Henry

Spelman, contemporary of Captain John Smith. Archaeologists, heretofore finding no evidence for such sacrifices, have disbelieved the tale.

In his latest finds, just made along the York River, Virginia, Dr. T. D. Stewart of the Smithsonian Institution has brought to light, from a burial pit, bundles of bones not burned, and accompanied by some burned bones.

Offering two possible solutions of the mystery, Dr. Stewart says that the tribe may have tried to control the weather by offering human life, as Spelman, in picturesque detail, described. Or else, when the Indians collected human bones for "secondary burial" in grave pits, the ceremonies may have included burning one or more skeletons.

Possibility that some bones became accidentally burned is also seen. In an old picture, John White portrayed the custom of Virginia Indians of exposing the dead on high platforms for a time. Beneath the platform burned a ceremonial fire.

Science News Letter, September 21, 1940

INVENTION

Now You Can Get Cubes Without Opening the Door

ICE CUBES may be obtained from an electric refrigerator without opening the door, if it is provided with a new invention. (Patent 2,212,405, Howard J. Rose, New Rochelle, N. Y. and Benson Eschenbach, Chappaqua, N. Y.) By operating a handle on the outside of the box a predetermined number of cubes is delivered through a discharge chute. An electric heater melts the ice in each individual tray sufficiently to release it. After being emptied, it is automatically filled with water, to be frozen into another cube.

Science News Letter, September 21, 1940

INVENTION

Automatic Bandit Returns Police Fire

AN AUTOMATIC bandit, a mechanical target which returns the fire by shooting a revolver at the person engaged in practice, is the newest device to train police in shooting. When the target, which is made of heavy steel, is hit by a bullet, a bell rings, it makes a quarter turn, and the revolver, fortunately loaded with blanks, is fired. Thus the effect is that of running fire between an officer and a lawbreaker.

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PSYCHOLOGY—AERONAUTICS

Strychnine Drops May Aid Vision at High Altitudes

STRATOSPHERE flyers may have drops put in their eyes to improve their vision at high altitudes, if research reported to the American Psychological Association by Drs. Clifford P. Seitz, of the University of Alabama, and Charles M. Rosenthal, of the Long Island College of Medicine, is applied in aviation.

Lack of oxygen at high altitudes causes a widened "blind area" in the field of vision. This would make it difficult for the pilot suffering from oxygen deprivation to watch the multitude of instruments and other objects he must constantly keep in sight.

This situation can be duplicated in the laboratory in an "altitude chamber." Drs. Seitz and Rosenthal put their subjects at a simulated altitude of 17,500 feet and watched the characteristic broadening of the blind area. Then they put three drops of strychnine in one eye and plain water in the other. The blind area then became smaller for the eye that had the strychnine drops.

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ENGINEERING

Crop Protector Depends On Infra-Red Radiation

SUNLAMPS are used for crops nowadays. A new infra-red anti-freezing system is now available (Smoot-Holman Co., Inglewood, Calif.). It consists of a series of units suspended on wires above the plants, and controlled from a central panel. The air temperature is not increased, but the infra-red rays maintain the flow of sap in leaves and branches.

Science News Letter, September 21, 1940

PSYCHOLOGY

Innate Musical Ability Shows No Sex Differences

NO INBORN difference in musical ability exists between the sexes, Dr. G. M. Gilbert, of Connecticut College for Women and the College of the City of New York, told the American Psychological Association.

Girls appear to be more musical than boys, but that is because the girls are given the training. When tests were given both boys and girls and when the effects of training had been taken into account, it was revealed that the girls are not so superior after all.

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