prize-winning study was to test the hypothesis that extreme authoritarians and equalitarians would exhibit an important perceptual similarity.

The California 30-item F scale and a social distance scale containing ethnic minority groups was administered to 253 summer students at the University of Houston along with perceptual closure scales designed specifically for the study. Subjects scoring in the same relative category—that is, in the low, middle, and high quarters on both the F scale and the social distance scale—were selected and compared with regard to percentage of perceptual closure. The results indicated a statistically significant curvilinear relationship; high and lows reduced the size of the openings by only 12 percent. Whereas the difference between the extremes was not significant, the difference between either extreme and the middle was significant at the 5-percent level of confidence.

Examination of population characteristics also revealed a surprising number of similarities between extremes. Although not all of these findings were statistically significant, the practically exceptionless tendency for extremes to vary together was highly indicative. The extreme groups, for example, were found to be somewhat older and of a higher level of education than the middle group. There were substantially more women in the extreme categories than men. Both extremes reported significantly lower parental incomes than did the middle. These findings, if confirmed in subsequent research, would tend to modify the prevalent beliefs that authoritarianism increases with age, that women tend to be more equalitarian in attitude than men, and that extreme equalitarians come from lower economic levels. In summary, then, it was found that the extremes were more similar to each other than either one was to the middle group with regard to perceptual and demographic characteristics.

The results of this study indicate the need for re-examining the generally held view that the attitude structures of the extreme authoritarian and equalitarian are essentially different. They also indicate that the results of studies reporting differences where only the California scales and the two extremes are considered are in need of re-examination.

Nuclear Progress Summarized

The Atomic Industrial Forum recently published "The Atomic Industry—1957," its annual progress report on developments in commercial applications of atomic energy during the year. The U.S. atomic industry completed the construction of 16 nuclear reactors, including seven power-type reactors and nine research and test reactors, for both private and governmental purchasers in the United States and abroad, according to the report. The power-type reactors include those designed for naval ship propulsion and for prototype and demonstration power plants. In addition to these projects, industry continued or began the construction of 59 reactors, 35 of which are power-type reactors and 24 of which are research and test reactors, and received orders for the manufacture of ten new reactors—five for the production of electric power and five for research and test purposes.

Also, according to the report, American industry signed contracts for the construction of seven uranium ore processing mills, 13 companies announced plans to enter the field of nuclear fuel element production and research, one company began construction of a privately owned feed materials plant, three companies completed construction of plants for the production of zirconium, and two companies completed construction of plants for the production of beryllium.

Grants, Fellowships, and Awards

Arctic Research. The Carnegie Corporation of New York supports scholarships which are tenable at McGill University, Montreal, and which are normally offered to students proceeding to a doctoral degree in a subject calling for active field research in arctic or subarctic North America. Candidates who do not intend to proceed to a degree are not necessarily disqualified. The awards have an average value of $1500 for the academic session and $1250 for the expenses of a summer's field expedition. If renewed for a second session, grants average $1750.

Applications should be submitted before 1 March to the Secretary of the Carnegie Arctic Program, McGill University, 539 Pine Ave. W., Montreal, Canada, and should include a confidential recommendation of the candidate's qualifications in his or her selected field and a clear statement of the intended arctic or subarctic research project. No particular form of application is required.

Science Teaching. Nominations for Science Teacher Achievement Recognition awards designed to stimulate and recognize superior laboratory instruction in science in grades 7 through 12 in public, private, and parochial schools in the United States must be submitted before 15 February to the National Science Teachers Association, 1201 16th St., NW, Washington 6, D.C. Entries must be based on creative, laboratory-type procedures that may be utilized in the effective teaching of science. Recognition will be in the form of cash awards, medallions, plaques, and certificates of merit. The program is conducted by NSTA under a grant from the National Cancer Institute, U.S. Public Health Service.

Zoological Nomenclature

The International Commission on Zoological Nomenclature has announced that, beginning 30 June 1958, it will start voting on the following cases involving the possible use of its plenary powers for the purpose specified against each entry. Full details of these cases were published on 30 December 1957 in the *Bulletin of Zoological Nomenclature* (vol. 13, parts 10/11, and vol. 16, part 1): (i) *Selene* Lacépède, 1803; *rostrata* Lesueur, 1817 (*Muraena*); *latipinna* Lesueur, 1821 (*Mollienesia*); *fuscus* Storer, 1839 (*Syngnathus*); establishment of precedence of, over other names published in the same work and on the same date (Cl. Pisces). (ii) *Monograptus fimbriatus* var. *similis* Elles (G.L.) & Wood (E.M.R.), 1913; *Monograptus triangulatus* var. *major* Elles & Wood, 1913; *Monograptus communis* var. *rostratus* Elles & Wood, 1913; designation of lectotypes for (Cl. Graptolithina). (iii) *Calandra* (*Calendra*) Clairville & Schellenberg, 1798, suppression of, in favor of *Sphenophorus* and *Sitophilus*, both of Schoenherr, 1838, respectively, in interests of universality of nomenclature; *abbreviatus* Fabricius, 1787 (*Curculio*) and *oryzae*, emendation to of *oryza* Linnaeus, 1763 (*Curculio*), validation of (Cl. Insecta, Order Coleoptera).

Comments should be sent as soon as possible in duplicate to the secretary of the commission, Francis Hemming, 28 Park Village East, Regent's Park, London, N.W.1, England.

Scientists in the News

ERNEST H. VOLWILER, president and general manager of Abbott Laboratories, North Chicago, Ill., and a leader in medicinal chemistry, has won the 1958 Priestley Medal of the American Chemical Society. The gold medal, highest honor in American chemistry, will be presented to Volwiler for "distinguished services to chemistry" at the society's 133rd national meeting in San Francisco in April.

Volwiler's first contribution to medicinal chemistry was the commercial production of anesthetics during World War I, after German sources for these supplies were cut off. He developed manufacturing techniques for such anesthetics as Anesthesin, Benzocaine, and Novocaine. Later Volwiler's efforts to improve synthetic drugs resulted in the

development of Butyn, a non-narcotic pain killer. He also was responsible for the production of Nembutal, a hypnotic-sedative, and Pentothal, a general anesthetic.

During World War II, the sulfa drugs sulfanilamide, sulfathiazole, and sulfadiazine, and the antibiotic penicillin were produced under his direction. At the close of the war he was selected by the United States Surgeon General and the Chemical Warfare Service to head a team of scientific investigators that was sent to Germany to survey the chemical industry there. The investigators brought back valuable information on Methadone, a powerful analgesic, and polyvinylpyrrolidone (PVP), a compound that was later adapted as a blood plasma extender.

Volwiler's work in evaluating new chemical compounds and in evolving large-scale manufacturing processes was a major factor in bringing about the commercial production of Sucaryl, a synthetic sweetening agent for diabetics and persons on low-calorie diets.

I. D. WILSON, head of the biology department of Virginia Polytechnic Institute since 1923, retired from that post on 31 January. He has accepted a 2-year contract from the International Cooperation Administration to be a consultant to universities in India.

WALTER R. MILES has arrived at the U.S. Naval Medical Research Laboratory in New London, Conn., to assume the recently established post of chief scientist. As scientific director, he will be the top-ranking civilian in the laboratory, and will be assistant to the officer-in-charge in all research matters. He will coordinate and direct the scientific program within the six branches of the laboratory, represent the laboratory at scientific meetings, and act as liaison officer and consultant to the Navy's Bureau of Medicine and Surgery for the laboratory.

Miles has recently returned from Istanbul, Turkey, where he served for 3 years as Ordinarious professor of psychology at the University of Istanbul. Prior to that, he was for many years professor of psychology at the Yale University School of Medicine.

The following scientists from Australia are visiting North America.

G. M. WATSON, medical research officer for the Australian Atomic Energy Commission, arrived on 19 January. His itinerary includes Washington (19–26 January), Oak Ridge, Santa Fe, San Francisco, Chicago, New York, Boston, Ottawa, and Montreal, and he will depart for London about 6 March.

L. A. T. BALLARD of the Division of Plant Industry, Commonwealth Scientific and Industrial Research Organization, is at the University of California, where he will spend approximately 10 months with K. C. Hamner in the department of botany. Ballard is interested in developmental physiology.

J. R. PHILIP, also of the C.S.I.R.O. Division of Plant Industry, is spending some 14 months in the Division of Biology of California Institute of Technology working on mathematical and physical aspects of plant environments and processes.

Scientific visitors to North America from England are:

BRIGIT A. ASKONAS, member of the National Institute for Medical Research (Medical Research Council), Mill Hill, London, is visiting a number of centers between 15 January and 25 February to study tissue-culture technique in relation to immunology. Her itinerary includes Boston, New York, Baltimore, Bethesda (Md.), West Point (Pa.), Cleveland, and Toronto.

J. C. KENDREW, member of the unit for research on the molecular structure of biological systems (Medical Research Council), Cavendish Laboratory, Cambridge, recently attended a meeting at the National Institutes of Health, and will also attend the conference of the Biophysical Society of America in Boston, 5–7 February.

E. E. POCHIN, director of the Medical Research Council's department of clinical research, University College Hospital Medical School, London, will attend the meeting in New York of the United Nations Scientific Committee on the Effects of Atomic Radiation. He will depart sometime in February.

FREDDY HOMBURGER and PETER BERNFELD have founded Bio-Research Institute, Inc., and Bio-Research Laboratories, Inc., independent, nonprofit organizations for fundamental biological and biochemical research and for the study of man-made environmental causes of disease. New laboratories were opened on 1 January at 9 Commercial Ave., Cambridge, Mass. The two men, who were previously research professor of medicine and associate professor of biochemistry, respectively, at Tufts University School of Medicine, will also offer services in consultation, research, and development to the drug, cosmetic, and food industries through the firm of Bio-Research Consultants, located at the same address.

HARRY H. SOBOTKA of Mount Sinai Hospital, New York, will receive the second annual Van Slyke Award of the New York Section of the American Association of Clinical Chemists on 11 February at the New York Academy of Sciences. His award lecture will be devoted to "The Microbiological Assay of Vitamins in Clinical Chemistry." Donald D. Van Slyke of Brookhaven National Laboratory, for whom the award is named, will be chairman of the presentation meeting.

Recent Deaths

FRANZ F. BERG, Middlesex, N.J.; 64; associate director of pharmaceutical development in the Fine Chemical Division of the American Cyanamid Company; previously with E. R. Squibb & Son, Brooklyn, for 32 years; 30 Dec.

WILLIAM T. BOVIE, Fairfield, Me.; 75; retired biophysicist who perfected the electric scalpel and collaborated with Harvey Cushing in developing operating procedures for brain surgery; taught at Antioch College, Harvard University, Northwestern University, and Colby College; 1 Jan.

ARTHUR J. EWINS, London, England; 75; research chemist who was one of the discoverers of M and B 693, the antipneumonia drug; director of research at the laboratories of May and Baker, Ltd., manufacturing chemists of Dagenham, Essex, where he had worked since 1917; 30 Dec.

DWIGHT D. GARDNER, Columbus, Ohio; vice president of Commercial Motor Freight, Inc.; first elected president of the American Institute of Industrial Engineers; 17 Dec.

DOUGLAS M. KELLEY, Berkeley, Calif.; 45; professor of criminology at the University of California; chief psychiatrist during the Nuremberg Nazi war crimes trials and specialist in lie detection; 1 Jan.

ERNEST KENNAWAY, London, England; 76; professor emeritus of experimental pathology at the University of London and former director of the Chester Beatty Research Institute of the Royal Cancer Hospital; 1 Jan.

FREDERICK W. MERRIFIELD, Wilmette, Ill.; 70; professor emeritus of surgery at Northwestern University Dental School; 6 Jan.

LINDSAY R. PARKER, New York, N.Y.; 79; retired public utilities executive and electrical engineer; 1 Jan.

SIMON L. RUSKIN, New York, N.Y.; 60; chemist, inventor, and physician who specialized in the nose and throat; patented a procaine penicillin preparation; 1 Jan.

MARGARET H. SMYTH, Palo Alto, Calif.; 84; psychiatrist who had served as director of the Stockton State Mental Hospital and who was voted California's most distinguished woman in medicine at the Golden Gate International Exposition in 1940; 30 Dec.

KOICHI UDA, Tokyo, Japan; 53; lawyer, former minister in charge of atomic affairs in the Japanese Cabinet; 30 Dec.