subject a kind of emotional or anthropocentric intolerance which looks with scorn upon the possibility of learning in lower organisms—as if the very thought of it were beneath the level of scientific thinking. Happily, there is no evidence of such a bias in the article by Katz and Deterline (2).

Those who maintain that learning in paramecia or in other Protozoa has not been demonstrated should acquaint themselves with the literature on the subject and should not close the door upon such a possibility. Some of this literature was cited in my original note (1). Those who adopt the more liberal attitude and hold that the available data do demonstrate learning should still realize that there is room for a negative position. Let not emotional bias for either view disturb a fair and intelligent appraisal of the evidence.

We need much more evidence before either position can be swept aside.

W. N. Kellogg

Department of Psychology, Florida State University, Tallahassee

References

- 1. W. N. Kellogg, Science 127, 766 (1958).
- M. S. Katz and W. A. Deterline, J. Comp. and Physiol. Psychol. 51, 243 (1958).
 B. Gelber, Science 126, 1340 (1957).
- 4. D. D. Jensen, ibid. 125, 191 (1957); 126, 1341 (1957).

Equipment

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Science does not assume responsibility for the accuracy of the information. A coupon for use in making inquiries concerning the items listed appears on page 166.

- MOISTURE METER is a portable, transistorized instrument powered by mercury batteries. The instrument measures d-cresistance of woods to determine moisture content from 6 to 70 percent in three ranges. Normal battery life in the instrument is 2 yr; approximately 100,000 tests may be made before replacement becomes necessary. (Moisture Register Co., Dept. 151)
- RADIOACTIVE-GAS SURVEY METER is intended primarily as a tritium detector. It consists of an ionization chamber through which air is continuously drawn by means of a blower operated by a self-contained storage battery. Ion current is indicated on a meter relay which can be adjusted to actuate an alarm. Half-scale sensitivities are 1, 10, 100, and 1000 µc of tritium per liter. Gas-flow rate is 325 liter/min. The instrument can be operated for 12 hr without recharging the battery. (Levinthal Electronic Products, Inc., Dept. 161)
- TORSIONAL-DAMPING TESTER uses free oscillations for investigation of torsional elasticity and damping effects in plastics, rubber, and similar materials. The instrument's testing chamber can be heated or cooled by auxiliary apparatus and can be filled with protective gas. Oscillation of an inertia disc suspended from the specimen is photographed by means of a mirror attached to the disc. Interchange of discs permits variation of frequency from about 0.1 to 20/sec. (William J. Hacker & Co., Inc., Dept. 156)
- TIME-INTERVAL MEASURING INSTRU-MENT operates by converting the time interval being measured to an electrical pulse of proportional height. The pulse thus obtained is fed to a 20-channel pulse-height analyzer. The channel in which the pulse is registered measures the original time interval, each channel corresponding to a known interval. Intervals in the nanosecond (10-9 sec) range are said to be measurable. (Eldorado Electronics, Dept. 154)
- COLOR-TOLERANCE COMPUTER simplifies specifying and classifying color by reducing tristimulus values to a single numerical value, ΔE . This value is indicated on a dial calibrated in NBS units. The instrument further calculates the type and magnitude of color deviation in lightness-darkness, redness-greenness and yellowness-blueness. Color corrections can be simulated on the computer to determine their effects before actual changes are made. (Instrument Development Laboratories, Inc., Dept. 168)
- COUNTING-RATE METER features seven counting ranges from 200 to 200,000 counts/min. Time constants of 3, 10, and 30 sec are provided for short- or long-term observation. High-voltage regulated power, continuously variable from 550 to 2000 v, is supplied with the instrument. Regulation is 0.1 percent for 1 percent change in line voltage. Provision is made for operation of a 1-ma or a 10-mv recorder. (B. J. Electronics, Dept. 162)
- REMOTE-HANDLING TOOL is available with either a 3- or 4-ft handle assembly. Four different jaw attachments permit handling of objects ranging in size from a 7-in. sphere to a 1/32-in. nut. Four mounting plates are provided for storage of the jaws. The handle may be remotely withdrawn or inserted into the jaw attachments without manual contact. (Atomic Accessories Inc., Dept. 163)
- TIME-INTERVAL INDICATOR is applicable to measurement of the time interval between any two points of a single or double pulse. The instrument comprises two attenuators and two cathode followers, a step-variable delay line and a



158 SCIENCE, VOL. 128





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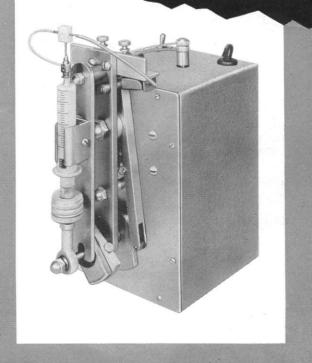
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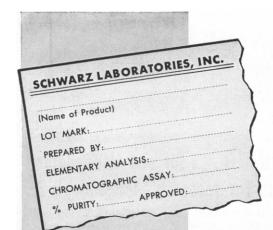


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continuously-variable delay line of total delays 0.5 and 6.1 µsec respectively, pulse-forming circuit, multivibrator, and two gating circuits. The instrument is used in conjunction with an oscilloscope for observation of signals. (AD-YU Electronics Laboratory, Inc., Dept. 164)

- DIRECT-VIEW STORAGE TUBE retains images on its screen for more than 5 min. Black background of the tube permits viewing in high ambient light. An erasing gun allows the user to eliminate undesired areas. Tubes are available with electrostatic or electromagnetic deflection and focusing, and in a variety of sizes. (Allen B. DuMont Laboratories, Inc., Dept. 165)
- OSCILLOGRAPHIC RECORDER provides high-resolution oscillograms from galvanometer light beams on electrophotographic paper. The developed record can be viewed in 1 sec or less at paper speeds of 4 in./sec or higher. Sensitizing, exposure, developing, and fixing are done at a continuous rate for recording speeds of 1/4 to 16 in./sec. As many as 40 channels can be used on 14-in. paper. A removable trace identifier provides for overlap of traces. The supply spool holds 500 ft of paper. Timing lines are inserted at intervals of 0.01, 0.1, or 1 sec. (Century Electronics and Instruments, Inc., Dept. 167)
- GALVANOMETER ANALYZER is a portable instrument for testing mirror galvanometers of the type commonly used in recording oscillographs. Damping, frequency response, static balance, and sensitivity are evaluated. The instrument duplicates operating conditions by using a temperature-controlled magnet block with dummy galvanometers in all unused channels. Static balance is checked by turning the instrument on its side. (North Atlantic Industries Inc., Dept. 171)
- HIGH-VACUUM COMPONENTS designed for quick interconnection in a variety of arrangements permit evacuation to 10⁻⁷ mm-Hg. A total of 21 components is available, including the following: a 2-in. diffusion pump rated at 150 ft³/min at 10⁻⁴ mm-Hg; thermocouple and ionization gages; liquid-nitrogen cold trap; high-vacuum valves; flexible connectors; adapters; and manifold sections. (N.R.C. Equipment Corporation, Dept. 174)
- Il PRESSURE-TRANSDUCER CALIBRATOR automatically performs the calibration of 1 to 12 pressure transducers. Quantitative data on linearity, hysteresis, drift, and sensitivity are provided. Calibration is dynamic. Data are presented on an X-Y recorder and on digital counters. (Allegany Instrument Co., Inc., Dept. 178)

- ENVIRONMENTAL CHAMBERS, for use with vibration machines, are portable. The chambers are moved by permanently attached fork lifts, electrically or manually controlled. Height may be adjusted to fit vibrators of 2500-lb force. Chambers have removable bottom and side panels. Temperature range is −100° to +600°F controlled to ±2°F. Liquid CO₂ provides cooling. Work space is up to 5 by 5 by 5 ft. (Tenney Engneering Inc., Dept. 181)
- BLAST BURNER for glassworking has five different tips of 1.5- through 6-mm orifice diameter mounted on a revolving turret. The flame stays on as the turret is rotated. The burner operates equally well on natural, manufactured, or cylinder gas up to a pressure of 10 lb/in.². Oxygen pressure may be 5 to 15 lb/in.². (Will Corporation, Dept. 176)
- STOP WATCHES have dial 2.36 in. in diameter. Models are available with a variety of ranges and sensitivities, with electrical contacts for operation of optical or acoustic signals, or with electromagnetic starting, stopping, and resetting. (Herman H. Sticht Co., Inc., Dept. 180)
- AUTOMATIC PIPETTE, consisting of a fixed-volume pipette permanently attached to a double-bore stopcock, may be filled without adjustment to reference mark. The contained sample can be washed out by a measured amount of a second liquid. (Arthur H. Thomas Co., Dept. 175)
- DIGITAL-TO-ANALOG CONVERTER converts coded-decimal and straight-decimal inputs to proportional d-c voltage. Input may be keyboard, punched card, or punched tape. Electronic switching, in which transistor and magnetic circuits are utilized, is used in the device; there are no vacuum or gas tubes. (Electro Instruments Inc., Dept. 179)
- POTENTIOMETER achieves accuracy of 0.0015 percent in voltage measurement and 0.003 percent in current measurement. The standard-cell reference of the instrument, accurate to 0.001 percent, and the voltage dividers, accurate to 0.0001 percent, may be used separately. The standard-cell reference consists of three saturated standard cells in a 0.01°C oven. A d-c amplifier integral with the instrument is used as a galvanometer to compare an unknown voltage with the ratio-box output voltage. Extension to current measurement is achieved by adding current-scaling resistors. Voltage scales are 1 and 4 v; current scales 1, 4, 10, and 40 ma. (Julie Research Laboratories, Inc., Dept. 173) Joshua Stern

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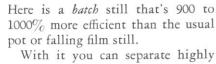
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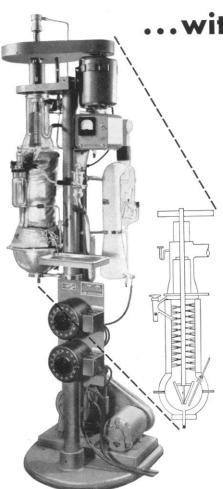
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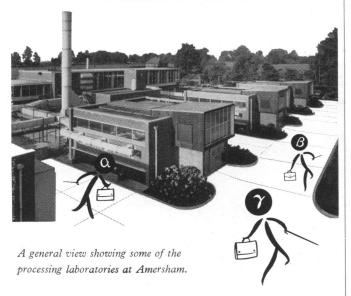
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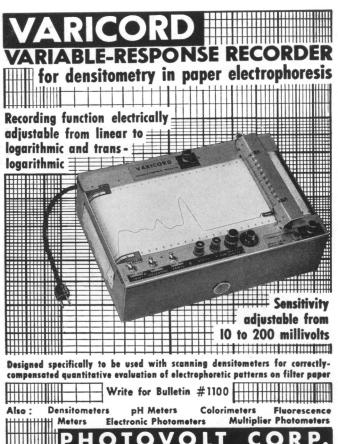
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