SCIENCE NEVO $^{ ext{R}}$

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COVER: Sherman and Austin, chimps at Yerkes Regional Primate Research Center, successfully communicate their food desires to each other via computer keyboard. Does this mean that they, or other apes that use sign language, have a true language capability? Researchers can't agree. See p. 298. (Photo courtesy of E. Sue Savage-Rumbaugh/ Science).

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LETTERS

One additional step

The letter from Mr. McAulay (SN: 4/12/80, p. 227) could have taken one additional step: Beyond the controversy about recombinant DNA technology lies the spectre of monopoly of foods on the part of giant agri-business multinational corporations through the patenting of their seeds and the subsequent restriction on planting *other* seeds by farmers — around the world.

The lessons of the consequences of IRRI's work in the Philippines seem not to have caught the attention of either the public or of the scientific community.

When I first went to the Philippines to live and do research in 1948, peoples of the Philippines were regularly growing some 1,200 varieties of rice. In 1978, the number available in the markets (and the seeds therefor) had been reduced to three (3). And these, barely edible, in terms of what had been available for so many generations to the people of that nation.

The mis-called "green revolution" has benefited some: the large planters and the multinationals.

The loss (continuing at an accelerating rate) of vital germ plasm of hundreds of foods has occasioned little attention and less action by those responsible for the lives and futures of millions of human beings. The monocultures now being extended bode ill for our future.

Charles O. Houston Kalamazoo, Mich.

Harmful Rx?

I would like to comment on "Rx for depression: A wakeup call" (SN: 3/22/80, p. 183), which is beyond interest, but possibly dangerous. The facts that elevated REM-sleep has been demonstrated in persons suffering from endogenous depression, and that deprivation by awakening on onset of REM-sleep leads to improvement in the depression are significant and remarkable discoveries. These findings, however, are not surprising, at least to those who consider the significance of dream work along psychoanalytic lines as active, unconscious problem solving about daily events, problems and conflicts.

True, REM-sleep suppression may temporarily help to keep problems and conflict out of awareness, but earlier sleep deprivation studies in the 1960s suggest that severe REM-sleep deprivation leads to psychotic equivalent states. Thus, further research which takes into account insights from all bodies of knowledge — sleep research, psychoanalytic and other psychiatric and clinical work —regarding sleep and dream work would be in order before REM-sleep deprivation by awakening or by REM-sleep suppressing drugs is seriously considered as treatment for depressions.

Andrea U. Bircher, R.N., Ph.D. Oklahoma City, Okla.

Unresolved universe

There is a long-standing myth in the literature that the universe is open or closed depending on the observed mass density (SN: 4/12/80, p. 227). This myth also takes the form that the universe is open or closed depending on the observed deceleration parameter (SN: 3/22/80, p. 180). In fact, as every expert in cosmology knows, General Relativity requires the independent measurement of BOTH mass density and deceleration parameter before openness or closedness of the universe is determinable (Ap.J.Lett. 234 [1979] L87-L89).

For some time now different determinations of mass density have indicated a value much smaller than that value required by *myth* for the universe to be closed. Different determinations of deceleration parameter have tended to vary widely depending on the observer. The Canuto and Hsieh (SN: 3/22/80, p. 180) data indicate the deceleration parameter to be much smaller than that value required by *myth* for the universe to be closed. However, since no accurate determination of the value of the deceleration parameter was made the question of openness or closedness is still completely unresolved. I hope you keep these points in mind when reporting future developments.

Peter J. Adams Tacoma, Wash.

Two tales on the toner

I was distressed by the inaccurate reporting in your article titled "A Tale of Two Toners" (SN: 4/19/80, p.246). In my interview with Science News, I repeatedly stated that I could not draw any conclusions nor would I as to the time of submissions of abstracts by the Xerox Corp. or the group at the University of Texas. I simply supplied the dates of our action as requested by the reporter. I resent your implication that I accused Xerox of any wrong dealings in this matter. Also, your discussion on nitropyrene is somewhat misleading. I stated that it is entirely possible that different toners may contain various toxic chemicals depending, for example, on the polycyclic hydrocarbons absorbed on the carbon blacks. I also repeatedly emphasized the need for animal testing before any statements could be made as to the hazards of toners used in copying machines.

Marvin S. Legator, Ph.D. Galveston, Tex.

... We have read your [Xerox toner] article and like your style. As we see it, you have clearly stated the information given you without personal interpretations or translations for sensationalism. I wish we had received as honest a shake from some of the other reporters.

Horace W. Becker Vice President XEROX Corp. Rochester, N.Y.

SCIENCE SERVICE

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