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COVER: As recently as the American Revolution, New York City got cold enough to have its harbor freeze over. After 35 years of steadily cooling global temperatures, scientists are wondering if a similar spell of frigid weather is approaching, maybe even another ice age. No one knows, but a major new research effort to find out is getting under way. See p. 138. (Illustration: Ann Lunsford).

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March 1, 1975

To the Editor

Preventing research?

It was with mounting disgust that I read the piece on "Science and law: The odd couple" (SN: 2/8/75, p. 87). If I looked in a fundamentalist periodical and saw the statement, "What can be done to prevent the funding of such research?" I might perhaps understand that the research is considered blasphemous—but what is this statement doing in SCIENCE NEWS? Research in genetic psychology and the neurological basis of behavior involves no danger of loss of life nor vivisection of small animals. If the particular hypotheses are incorrect, research will soon make this evident.

Of course, if the opposite is the case, research will make that clear, too. Perhaps this is what some people fear.

T. V. Wolansky
Thiells, N. Y.

(This is merely a restatement of the question we asked the panel members. They apparently feel some restrictions should be imposed so we asked them to clarify their position. We then printed both question and response.—Ed.)

World hunger

I have followed your articles on population and world hunger with interest. The Letters to the Editor have kept the debate lively, and I have found myself in especial agreement with Harry George Feinsein of Brooklyn (SN: 10/12/74, p. 227). It is absurd to talk of transporting people to other planets when so much of this planet is empty. People sometimes forget that there is lots of empty, arable land, because this land is *owned*. Our notions about private property get in the way. But what shall we say of an economic system that allows, for example, the Southern Pacific RR Co. to own *millions* of acres (many of them empty) of good land in California while Americans go hungry? And what of the wealthy families in India, who hold tens of thousands of empty acres for speculation, and collect rents on the rest from landless peasants?

By coincidence, another "Harry George" wrote on this problem 100 years ago. I urge all your readers to read Henry George's *Progress and Poverty* with its devastating disproof of the Malthusian "overpopulation" garbage that is still paralyzing American minds today.

Cathy Covell
San Francisco, Calif.

Cosmion and black holes

This is in reference to the extremely well-written article "A New Puzzle in Physics: The 'Cosmion'" (SN: 1/11/75, p. 20). I would like to comment that the reported indication of an atom-like microstructure in nucleons and the "delayed" annihilation properties apparently associated with it, would seem to support Jack Sarfatti's postulation of the nucleon (proton) as "... a central core of mini black holes orbited by a ring of black holes..." (SN: 11/3/73, p. 277).

Already, on the macroscopic level at least, the idea of electrically charged black holes is being contemplated. Moreover, and probably most important, mini black holes bring into play strong gravimetric fields previously not thought to exist between sub-atomic particles. This latter concept may explain the motion of electrons about the nucleus, a phenomenon which cannot be satisfactorily explained in terms of electromagnetic interactions.

The gravitational time dilatation effect associated with black holes may explain the "delay" observed in nucleon-antinucleon annihilation reactions and the unexpected longevity of the psi-J heavy particle.

Jose J. Valdes
Boston, Mass.

A guess about groundhogs

The legend of the groundhog and his shadow is so persistent that one wonders if there's any possible basis to it. Of course explaining phenomena that may not exist is one of the more futile, if interesting, ways to spend time, but as I was reading the article on groundhogs (SN: 11/8/75, p. 93) I was struck by what can only be called a wild guess.

Assume the groundhog has no built-in calendar. He might yet be able to detect time of year by the altitude of the sun. That's not very high in early February. Consequently, if there's bright sunshine (he can see his shadow, at which he's probably not looking) the groundhog gets an estimate of solar altitude and "concludes" that it's not time to get up.

If the sun is obscured by clouds he might continue searching about until it became visible.

All unlikely, of course, but it might be interesting to test. One way would be to take groundhogs from different latitudes and exchange them.

I suppose it's more likely that the groundhog is, as the article said, looking for the lady in the next burrow, but we do hate to give up Groundhog Day. . . .

Jerry Pournelle
Studio City, Calif.

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