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COVER: The lack of any organized group of responsible scholars and writers to critically analyze the many claims of strange phenomena on the scene today has contributed to much public confusion and misinformation. Just such a group has now been formed. But the task of debunking such ideas as the claimed psychic powers of Uri Geller, UFOs as visitors from space, astrology and the Bermuda Triangle is probably endless. See p. 346. (Illustration: David Suter)

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LETTERS

An idea that had a hard time

I have just received the November 29 issue where I have read with interest the article "Physics and the Left Hand of Life" (SN: 11/29/75, p. 340). I am very interested in it because in July 1975 I wrote my note "On difference of energy levels of left and right molecules due to weak interactions" for PHYSICS LETTERS (Vol. 53 A: 275-276), in which I considered the very conception mentioned in your journal. I want to add that not everybody shares this point of view yet. It suffices to say that I tried to have my article published during the whole year (originally titled "The possible connection of weak interactions and biological isomerism") but it was rejected by NATURE. Then in July 1974 SCIENCE rejected a broad version of this article and in November 1974, its abridged version. It was Prof. M.D. Ter-Haar, the editor of PHYSICS LETTERS, who published my article in a very short form.

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Neutrinos and Gravity

On the same page that you reported the latest results supporting zero rest mass for neutrinos (SN: 4/17/76, p. 244), you reported that Newton's law of gravity seems to be in error for centimeter distances. These results may actually be related.

Several investigators have theoretically explored the gravitational field produced by neutrinos. Assuming that neutrinos are massless and that Einstein's curved space-time gravity law is correct, one predicts that neutrinos produce no gravitational field (see T.M. Davis and J.R. Ray, *Let. Nuovo Cim.* 14: 258, 1975; SN: 8/23-30/75, p. 140). This contradicts Einstein's hypothesis that all energy attracts all other energy, gravitationally (e.g., photons are bent toward the sun while passing by). If indeed neutrinos have zero rest mass, we are led to strongly suspect that Einstein's gravity law is not quite correct, even though it is believed to be more accurate than Newton's. I have previously suggested this conclusion based on an entirely different argument involving the curved space-time Dirac and Maxwell equations and their radical differences from Einstein's gravity field equation (J. Edmonds, *INT. J. THEOR. PHYS.* 13: 297, 1975).

You have also reported lately on the successes of the quark model, when extended to include charm or color as yet another unexplained basic property. Your readers should also know that this theory fails to explain the simple facts that there are two kinds of neutrinos and that there are two "kinds" of electrons (e^- and μ^-). Clearly, we understand physics very approximately at present and very exciting, basic, conceptual discoveries remain to be made.

James Edmonds
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Divers and gases

My congratulations to Joan Arehart-Treichel for her article, "Deep-Sea Diving: Lessening the Health Hazard" (SN: 5/1/76, p. 284).

The technical accuracy of the article is impressive, and prompts me to correct the only two errors I could detect. First, the author indicates that nitrogen is difficult to breathe at great depths because of its high solubility in body fluids. This is incorrect. Increased respiratory effort occurs because nitrogen is a relatively "heavy" gas and resistance to breathing increases in proportion to depth. Second, the high-pressure neurologic syndrome is indeed called "helium shakes" in diver's vernacular, but in truth has nothing to do with helium. The high pressure neurologic syndrome has been clearly shown to result from increased hydrostatic pressure. Indeed, helium tends to offset it, but inadequately. Hydrogen may prove a good respiratory gas precisely because it is also of low density, but more potent in opposing HPNS.

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Vaccines: Break down defenses?

The article "Macrophages as tumor assassins" (SN: 3/27/76, p. 202) makes one wonder if the strides made in the last 25 years concerning the abolition of such diseases as tuberculosis and diphtheria might be a factor in the increasing incidence of cancer. Could it be that parts of our immunity system are suppressed by vaccinations and that this leaves us vulnerable to other infections or conditions such as "cancer"?

Thank you for great, weekly "keep-up-with-it-all" reading.

J. Patrick Noll
DeRidder, La.

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