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Letters

Beware the spurious correlation

The letter entitled "Causal chain challenged" (SN: 8/17/85, p. 109) points out usefully the three common possibilities of mathematical correlation: A causes B; B causes A; A and B are both caused by C. But it overlooks one of the most frequent and most troublesome fourth situations, termed "spurious correlation," where there is no causal connection between elements happening to be mathematically correlated. Supposed miraculous "coincidences" can be considered illustrative. Being wary of the possibility of "spurious correlation" in any given case is essential for sound scientific thinking.

C.L. Hubbell
Chicago, Ill.

Truth decay

In "Aging and decay of beauty" (SN: 8/3/85, p. 76) you note the confirmation of the hypothesis in quantum chromodynamics that beauty decays into charm. Since symmetry is so funda-

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Cover: Woman dries rice in Bangladesh. The fragility of agriculture to even minor climatic changes—unveiled in a study this week—raises questions about whether even those far removed from a nuclear war would lose the ability to feed themselves. (Photo: Kay Chernush, World Bank)



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mental to the field, does this imply that truth decays into strangeness?

That might account for a lot!

Neil Rest
Chicago, Ill.

Cosmic dice

If the entire cosmos is a quantum mechanical fluctuation ("The Quantum Universe: A Zero-Point Fluctuation," SN: 8/3/85, p. 72), we've come a full 180 degrees since Einstein.

Dice play God with the universe.

Jim Loudon
Staff Astronomer
University of Michigan Exhibit Museum
Ann Arbor, Mich.

Over the barrel?

I agree emphatically with the overall message conveyed by "Portents of U.S. Oil Vulnerability" (SN: 8/3/85, p. 68), but the accompanying table indicates that U.S. proven reserves of oil cur-

rently are 34.5 billion barrels, which is, I think, incorrect. Various reliable sources including recent issues of OIL AND GAS JOURNAL and of WORLD OIL indicate current U.S. proven reserves of slightly more than 27 billion barrels. The last time our persistently diminishing oil reserves were as large as 34 billion barrels was in 1975.

This correction, of course, renders even stronger the ominous warning of oil depletion, which was the article's primary point.

Craig Bond Hatfield
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The University of Toledo
Toledo, Ohio

Authoritative sources do vary, sometimes widely, on oil and gas reserve statistics. The figures used by the Worldwatch Institute study came from the 1985 British Petroleum Statistical Review of Energy. However, the latest (Dec. 31, 1983) U.S. Department of Energy estimates put proven U.S. oil reserves at 27.7 billion barrels, according to the (U.S.) National Energy Information Center.

—J. Raloff

SEPTEMBER 14, 1985

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