LETTERS

Vitamin C

The report "Academy turns down a Pauling paper" (News and Comment, 4 Aug., p. 409) contains the following incorrect and misleading statement: "Pauling himself, for example, has published in the PNAS [*Proceedings of the National Academy of Sciences*] on vitamin C twice in the last 2 years. Even though his papers were accepted with what Edsall terms 'extreme mental reservations,' the overriding feeling was that Pauling had a right to express his views, in spite of the fact that most other NAS members took issue with their scientific validity."

In the first of these two papers, "Evolution and the need for ascorbic acid," I presented a new argument, based on the nature of the evolutionary process, about the optimum intake of vitamin C for the best health. Not one paper taking issue with the scientific validity of this article has been published, and not a single member of NAS has taken issue with me about its scientific validity.

In the second paper, "The significance of the evidence about ascorbic acid and the common cold," I reported a statistical analysis of all published double-blind studies of the effect of ascorbic acid, regularly ingested in daily amounts of more than 100 milligrams, as compared with that of a placebo, in decreasing the incidence and integrated morbidity of the common cold for subjects exposed to cold viruses in the ordinary way and without colds when the test period began. No paper taking issue with the scientific validity of this article has been published, and no NAS member has taken issue with me about its scientific validity.

I doubt that *Science* questioned most of the 900 NAS members. I am sure that the statement that most NAS members took issue with the scientific validity of these papers is false. The statement made by *Science* is derogatory to me; I attribute its publication to carelessness on the part of *Science* rather than to malice.

In 1913 the NAS as a whole set the policy for PNAS that papers by members would not be refereed. I feel that no one but the NAS as a whole has the right to refuse publication of a paper by a member.

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Narcotic Antagonists

Some of the conclusions in Thomas Maugh's report on narcotic antagonists (Research News, 21 July, p. 249) are based on inaccurate assumptions. Maugh states that "Most important, perhaps, it has recently been shown that one of the antagonists exhibits great potential for preventing abuse of such drugs as methadone and paregoric" because naloxone blocks the effects of methadone when taken intravenously, but not when taken orally. He concludes that "Addition of naloxone to methadone could thus conceivably curb all the intravenous abuse of methadone in maintenance programs." The problem, however, is not intravenous abuse, but oral abuse. In New York City, where there are the greatest number of narcotic addicts and addicts in methadone treatment in the country, and considerable diversion of methadone, virtually all methadone abuse is oral, not intravenous—all 98 methadone overdose deaths in 1971 resulted from oral consumption. Intravenous paregoric abuse is a problem of minimal significance.

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Biological Effects of Chemical Agents

Dinman's article (4 Feb., p. 495) was a welcome approach to pollution toxicity on a more quantitative and microscopic level than is common in these somewhat frenetic times. However he neglected to mention a point which is the very one most central to the problem. For most and quite possibly all substances (including carbon monoxide) in the natural environment (but probably

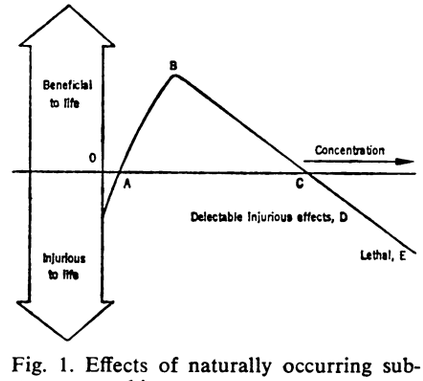

Fig. 1. Effects of naturally occurring substances on biosystems.