

# to the editor

## On polywater

I would like to comment on your report on polywater (SN: 1/23/71, p. 62).

The formation of concentrated salt solutions upon condensation of water vapor in minute capillaries is a strong and reproducible phenomenon. Implying that Deryagin's results can be explained in terms of dirty glassware is unfortunate and not justified on the basis of the Davis, Rousseau and Porto papers. Their analyses indicate the presence of many impurities indicating that the condensation process is a concentrating process rather than the usual purifying one. My work reported in *SURFACE SCIENCE*, also cited, treats other phenomena occurring in isolated capillaries that are quite strong. Water films in small capillary spaces exhibit high mechanical strength and very low vapor pressures. Using an equation that fits these property changes, a surface tension of over 700 dynes per centimeter is calculated to exist in the capillaries used by Deryagin, et al. Straightforward nucleation theory indicates the low possibility of forming pure water under these conditions. My calculations indicate an increase in dis-

solving power of around  $10^{20}$  for water condensing under these conditions.

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*(The points Dr. O'Brien makes are among the things that we have been reporting. Dirty glassware is nowhere mentioned in the article although in other work a number of observers have blamed it for the phenomenon in question. Clean glassware could contribute silicate and other impurities. Ed.)*

## Biocentric psychology

Looking at some recent issues in my *SCIENCE NEWS* collection I came upon your essay on "Humanism invades psychology" (SN: 9/19/70, p. 256). I was sorry to discover that the "humanism" you referred to "rejects the behaviorist concept of scientific objectivity . . ."—there is a lot to reject about behaviorism, e.g., its reductionistic analysis of consciousness, its determinism, etc., but scientific

objectivity is not a feature any rational approach to human problems can dispense with. Have you investigated Biocentric Psychology? The school does not accept the traditional schisms between reason and emotion, between objective and humane, etc. Such bridging of an all too ancient and destructive gap between man and reality could do science a lot of good.

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## More on mercury

I enjoyed your article on "Meddlesome mercury" (SN: 1/2/71, p. 7). However I feel that two additional points should have been made.

Even if all mercury dumping is stopped now, the methyl mercury problem will be with us for a long time because for many years it has been standard practice to dump mercury in the nearest body of water, in the mistaken beliefs that mercury is chemically inert and that this was a safe disposal method.

The hazards of ingestion of methyl mercury are known to be greatest for pregnant women, or rather for the fetuses they bear. Doses of mercury which produce no symptoms in the mother may deform the baby. Dr. Ephraim Kahn, director of the California State Task Force on Mercury in the Environment, recommends that pregnant women avoid eating suspected fish.

I should also like to point out that the statement that "fish is apparently the only dietary source of mercury in the United States" is untrue. The Food and Drug Administration has confiscated five lots of mercury-contaminated wheat between July 1966 and March 1969 (see *ENVIRONMENT* 11:26, 1969). Until the ban on methyl mercury seed dressings, mercury was appearing in the plants grown from treated seed. Foods processed from plants grown before the ban may be expected to contain some mercury, even if not in confiscatable amounts.

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