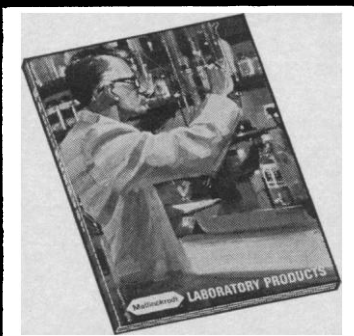


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for food-irradiation since we already have several alternate methods for preserving food.

What is at issue is the placing of the burden of proof. Whenever a proposed restriction is likely to cause social turmoil (as in the case of caffeine), we can wisely insist on placing a heavy burden of proof on those who propose the change. However, forbidding the irradiation of food would cause no social disruption, outside the narrow circle of a few industries and research laboratories. Here the burden of proof is surely on those who say (ignoring some of the evidence) that food irradiation is 100 percent safe. It would be hazardous to future generations to encourage, or even permit, the development of a food-irradiation industry on the basis of the present inconclusive evidence.

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Transfer Experiments:

A Plea for Tolerance

The letter by Nicholls *et al.* (22 Dec.) reporting the results of preliminary experiments on the transfer of characteristics from one oscilloscope to another, by means of an extract, produced a common reaction among my colleagues: namely, that the letter was really a parody, with intent to portray, by analogy, the intrinsic absurdity of recent suggestions that it is possible to transmit memory between lower organisms by techniques superficially similar to those described by Nicholls. I should like to point out that if the techniques and results of transfer experiments between oscilloscopes are analogous to those of transfer experiments between *Planaria*, they are also analogous to those of transfer of genetic characteristics between *Pneumococci*, as described by Alloway (1), the active component for which was subsequently identified as DNA by Avery, MacLeod, and McCarty (2). Those experiments, far from being absurd, have had such far-reaching consequences that I lack arrogance to summarize them.

I have no desire to argue here for credence or incredulity in the suggestion of a phenomenon of memory transfer in *Planaria* (or even in oscilloscopes). It is worthwhile, however, to keep in mind the distinction between invalidity and absurdity of scientific results. Any sci-

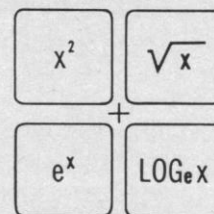
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entist worthy of his chalk can give a quick and rigorous proof, based on rock-bottom fundamentals, that any particular idea, *already known to be incorrect*, is obviously, or even trivially, absurd. But the converse reasoning has failed in such an impressively large number of important cases, that it seems to be a relatively weak and unconvincing method of scholarly procedure.

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References

1. J. L. Alloway, *J. Exp. Med.* **55**, 91 (1932); **57**, 265 (1933).
2. O. T. Avery, C. M. MacLeod, M. McCarty, *ibid.* **79**, 137 (1944).

Reciprocity in War

Are the "thirteen hundred fellows and active members of the American Sociological Association" (22 Dec., p. 1553), also planning to send an open letter to Ho Chi Minh, protesting the recent North Vietnamese massacre of Montagnard women and children with flame-throwers?

I urge them to do so, for it is obviously hypocritical to protest "the continued . . . killing of civilians" by the United States and remain silent when the other side does the same thing, and deliberately at that. I think the sociologists should conduct an "orderly, phased withdrawal" from this sort of advocacy, lest they open their own "credibility gap."

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Our Age of Elegance

I was pleased to note that, in the program for the recent AAAS meeting, female leaders of section meetings and symposia were listed as *Chairlady*. It seems that, in spite of our slacks and miniskirts, all respect for womanhood is not lost! However, in order to forestall a demand from the other sex for equal rights, may I suggest that at the 1968 meeting male leaders of section meetings and symposia be listed as *Chairgentleman*.

RUTH S. BITTER

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1 MARCH 1968



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