## SOME COMMENTS ON "COOPERATIVE RESEARCH"

Cooperative Research

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The Editor Physics Today American Institute of Physics 57 East 55th Street New York, New York

Dear Sir:

The pleasure which the perusal of your pages always affords me was somewhat diminished today by the observation that your otherwise sound journal has lent itself, inadvertently, no doubt, to the circulation of an erroneous theory that surely was discarded many years ago. I refer to a drawing entitled "Cooperative Research" by my talented colleague R. C. Herman. (1) From the artistic point of view I cannot but admire the pungent simplicity of Dr. Herman's curves, but from the scientific point of view I recoil from the cartoon's implication that there exists a regenerative, idealogical circuit involving both the alimentary and cerebral tracts of one or more human beings.

According to the literature, the hypothesis that a continuous mechanism exists for transferring ideas to the cerebral system via the digestive system was the basis of extensive studies made at the Grand Academy of Lagado several hundred years ago. Lemuel Gulliver has reported somewhat sketchily on these investigations in a publication which may not be available to all your readers. (2) I shall, therefore, quote a passage relating to the present discussion.

"I was at the mathematical school, where the master taught his pupils after a method scarce imaginable to us in Europe. The proposition and demonstration were fairly written on a thin wafer, with ink composed of a cephalic tincture. This the student was to swallow upon a fasting stomach, and for three days following eat nothing but bread and water. As the wafer digested, the tincture mounted to his brain, bearing the proposition along with it. But the success has not hitherto been answerable, partly by some error in the quantum or composition, and partly by the perverseness of lads, to whom this bolus is so nauseous, that they generally steal aside and discharge it upwards before it can operate; neither have they been yet persuaded to use so long an abstinence as the prescription requires."

Unfortunately I have not been able to trace down the final reports of these experiments, but I strongly suspect that negative results were obtained even after the experimental difficulties arising from the proper composition of the tincture and the attitude of the pupils had been overcome. It is possible that other readers of your journal have found later references to this work, but until such are forthcoming I submit that "Cooperative Research" should be visualized in terms of principles that do not require the introduction of the alimentary canal as an essential part of the system.

Very truly yours,

(1) Physics Today, 2, May, 31 (1949).

(2) Gulliver's Travels, Jonathan Swift. Part 3, Chap. V.

R. E. Gibson