

letters

$\times 10^8$ years. This is "inexhaustible" enough for me.

References

1. Richard F. Post, *PHYSICS TODAY*, page 30, April 1973; and John Nuckolls *et al*, *PHYSICS TODAY*, page 46, August 1973.
2. Chauncey Starr, *Scientific American*, page 42, September 1971.

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Professional responsibility

We who opposed passage of the Professional Responsibility Amendment have apparently prevailed, and now is no time to reopen the debate. However, the petulant, sour-grapes letter by Charles Schwartz in your June issue (page 9) requires a response.

The points he attempts to make are easily summarized. He says that the Amendment will be voted down. (Probably true.) He points out that several physicists have publicly stated it would be impossible to decide which activities are harmful to mankind's welfare. (Also true, see the November 1972 issue). Then he asserts that these physicists are incorrect, that it really *is* possible to judge which activities are harmful, as long as you don't have to be right all the time. (Dear Sir: Apologies for ruining your research, career and reputation five years ago. Our mistake. Sincerely, APS.) He concludes from this that there must be another reason for opposing the Amendment, and graciously tells us what it is—that evil projects are the bread and butter of scientific funding, and to oppose them would be an economic disaster for individual physicists. Finally, he draws from this new data the conclusion that the Amendment will be voted down because physicists are interested only in themselves, in the worst connotation of the phrase. Sour grapes.

And *PHYSICS TODAY* published the letter, demonstrating that one need not be scientific to publish in a scientific magazine. However, even more interesting than this is a quick analysis of Schwartz's letter. First, he considers only the "difficulty-of-implementation" objection to the Amendment, grandly ignoring all the other, equally valid arguments against it (such as the consequence of controversial, yet binding, moral judgments being made in the name of all APS members.) This alone is enough to invalidate all his conclusions. But Schwartz is just getting started. His refutation of the difficulty-of-implementation argument ("We never said the judgments hafta be right!") is a classic that should be

included in every freshman logic course text—under the heading "Begging the Question." His next logical step, in an argument already elegantly meaningless, is to explain how individual physicists have a vested interest in the continuation of harmful physics projects; an explanation in undefined terms and without proof.

From these arguments, Schwartz is entitled to draw any conclusion he chooses—all would have equal validity. However, instead of declaring that therefore, the sun shuts off at night, he declares that therefore, the majority of physicists are pikers if they didn't vote for passage of the Amendment. This in itself, we learned as freshmen, commits the logical fallacy of composition (false generalization).

Interestingly, his conclusion that the majority of physicists are interested more in themselves than in the welfare of mankind (whatever that is) would be most refreshing, could it be adequately proved in the proper context. But this touches on philosophy and is best left to other discussions.

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THE AUTHOR COMMENTS: I can only recommend that anyone trying to make sense out of Ports's letter should reread my original letter in the June issue.

CHARLES SCHWARTZ

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Juxtaposition of two letters in the June issue (page 9) is instructive. In one of the two, it is claimed that whoever does not share the political opinions of the writer (Charles Schwartz) is "dedicated to the enhancement of the quality of life" for himself and has little concern for the welfare of mankind. The other letter was written by a Czechoslovakian physicist dismissed because his political views were different from those of his superiors. Such dismissals are bound to happen whenever people of the Charles Schwartz mentality achieve power. I hope that American physicists will be on their guard.

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Radioactive wastes

The discussion by Jere Nichols, John Blomeke and William McClain of storage of nuclear wastes in the August issue (page 36) omits some hazards and comparisons that I find rather alarming. For example, Table 1 on page 38, giving the inhalation hazard and ingestion hazard for the wastes ac-

focal length? doublet? triplet? aberration? harmonics? power?

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