LETTERS

Airline Fuel Conservation

I should like to commend Luther J. Carter for his report "Airlines: Halfempty planes keep profits low, waste fuel" (News and Comment, 24 May, p. 881). Both private and commercial aviation have set impressive energy conservation goals, and Carter's report comprehensively portrays their accomplishments. The airlines have cooperated with all of the energy steps which we, and the Civil Aeronautics Board (CAB), have requested. As Carter notes, "Barring an early return to the wasteful practices of the past, the fuel consumed by the total U.S. scheduled airline industry (domestic and international) this year could be about 1 billion gallons less than the 10.3 billion gallons used in 1972." He attributes to the CAB the view that load factors (the percentage of seats occupied) of 60 to 65 percent are reasonable. I agree; in fact, I would like to see the airlines strive voluntarily to reach 70 percent. Such passenger loads, which would save great quantities of fuel, could be attained with full consideration for the safety and comfort of passengers, employees, and the general public.

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Perspective

I am one of the many students of Robert A. Good who was astonished and outraged as I read in the press the excessive and vitriolic charges leveled against him recently over the incident of William T. Summerlin, a man who has been found guilty of falsifying scientific data (see News and Comment, 10 May, p. 644; 14 June, p. 1154). As one who has benefited in every aspect of professional and social life from associations with Dr. Good, it is difficult to read these widely circulated reports and remain silent.

In these articles, the encouragement, guidance and opportunity Dr. Good gave to us is labeled "pressure"; his generosity, understanding, and closeness with us is termed "capitalizing"; his discovery and open reexamination in a scientifically proper way of perplexing previously announced results is, in the jargon of the day, termed "cover-up."

In this sweeping way, the achievements, dedication, style, and forcefulness of one of the great men of our times have been compromised. One who does not know him might not realize the enormously effective, honorable, and creative way in which he operates, with open honesty and a puritan humane ethic at the very foundation of his philosophy.

Dr. Good's character and idealism pervade every aspect of his academic life and scientific leadership. His immense achievements as a scientist, teacher, and leader have been recited in the numerous awards which he has received. Not always emphasized is the enormous portion of himself which he gives to one society after another, one cause after another, and one developing scientist after another. His achievements, at a time when many scientists retire from creative activity, continue to accelerate and he now is in his most productive interval. The continuing respect and affection directed toward Dr. Good by virtually every one of the more than 75 individuals who have trained with him has been evident to all.

I sincerely hope that this incident can be quickly put in proper perspective, in order to ensure that his effectiveness in making discoveries, preparing teachers and investigators, and leading immunobiology into a new era is not compromised, even for a brief interval.

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Quark Etymology

"Particle physics: Is the electron really a hadron at heart?" (Research News, 17 May, p. 782) could have been written by James Joyce, for the report is as unintelligible to a non-physicist as *Finnegans Wake* (no apostrophe!) might be to a nonlinguistic physicist.

On my haut aurity, Jay-Jay did Murray Gell-Mann in when Gee . . . Um . . . pict "Three quarks for Muster Mark! (no question Mark?). "Quark" is German for curd or trash. Is that what Gell-Mann thought his particle was made of?

In the Prologue in Heaven of Faust, Goethe has Mephisto contemptuously

liken man to a long-legged grasshopper who buries his curious nose in every heap of dung (polite translation). In the original it is: "In jeden Quark begraebt er seine Nase."

"Three quarks for Muster Mark!" is the first line in the song of the seagulls mocking gulled King Mark, who hasn't got much of a bark with what his bride will be doing with tall-in-thesaddle Tristan. The entire song (1) is a sly joke on Muster Mark and maybe on physicists as well.

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References

1. J. Joyce, Finnegans Wake (Compass, New York, 1959), p. 383.

Science for the People

Ralph W. Dexter's letter (24 May, p. 849) on the Science for the People movement is somewhat perceptive although highly misleading. It is true that there may be an apparent "lack of unity within the activist group." There is no lack of certainty, however, that capitalist society does not provide a base for the development of a just and fulfilled life for most people, and that substantial and radical changes are needed. Our disunity arises only because it is not apparent how to bring about these changes. It is important to recognize that our own meetings are open to viewing and participation by all, unlike the secretive councils of "the establishment," and that out of our often tumultuous struggles comes growth and an increased sense of sisterhood and brotherhood.

The complaint that we are only "against" and not "for" anything is untrue at best. We are for a humane and rational application of technical knowledge to the solution of problems useful to all people. We are constantly working to effect a recognition that science is not politically neutral. We are for the elimination of the abominable conditions that make racism, sexism, militarism, and exploitation integral parts of our society. That Science for the People as a whole lacks a defined program reflects a conscious effort to have small groups of people create their own activities and not look to central (meaning dogmatic and authoritarian) leadership.

Dexter claims that we are driven by

frustration over the draft, unemployment, and lack of power or recognition. These assertions are true of course; who wouldn't despair over such conditions? But we are also driven and moved to action by the belief that we do not have to accept intolerable conditions with sublime indifference but can live to create meaningful change.

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Crib Death

The report on crib death by Nicholas Wade (News and Comment, 26 Apr., p. 447) will help bring the long-standing neglect of this "foremost baby killer" to the attention of the entire research community. That is important, because the disease challenges researchers in many scientific disciplines—not just the medical sciences. Unfortunately, some important things were left unsaid about the recently passed crib death bill (S. 1745).

After 2 years of deliberation, Congress passed S. 1745 on 10 April; it was signed by the President on 23 April. It authorizes \$9 million for information programs and for counseling of parents of crib death victims. It authorizes no funds specifically for crib death research.

Crib death is two problems. First, and foremost by far, it is a disease that kills about 10,000 babies each year in the United States alone. That presents strictly a research challenge. The second problem is the unique and bewildering agony of the dead babies' parents which follows in the wake of a sudden, totally unexpected and unexplained death. That is a direct result of public ignorance—ignorance that could be stamped out almost overnight. The crib death bill addresses the second and lesser of the two problems, but virtually ignores the first and major one. Thus S. 1745 is another example of reversed priorities.

It can even be argued that the \$9 million for education and counseling is not needed. The Department of Health, Education, and Welfare (HEW)—which will have control over the \$9 million—has, since 1914, published a book entitled *Infant Care*. *Infant Care* (I) is the Government Printing Office's perennial best seller; more than 57 million copies, in English and several

other languages, have been distributed. But nowhere does it mention crib death or even recognize the very existence of this leading cause of postnatal infant mortality.

For years, the International Guild for Infant Survival has petitioned HEW to include a brief discussion of crib death in *Infant Care*. In late 1973, a new edition of *Infant Care* was published. The new version has many changes, but it continues to ignore crib death. It appears that S. 1745 sets the fox to guard the geese.

The director of the National Institute of Child Health and Human Development claims that only recently have some exciting [crib death research] leads been developing. No Pasteur, Jenner, or Fleming has opened new doors to crib death research during the past decade. The simple fact is that the time was ripe for specific, direct crib death research 100 years ago. J. Bruce Beckwith's historical article "The suddent infant death syndrome" (2) makes that clear. True, the time is ripe in 1974—it is far overripe.

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References

- Infant Care (Government Printing Office, Washington, D.C., ed. 12, 1973).
 J. B. Beckwith, Curr. Probl. Pediatr. 3, 1 (June 1973).
- The report on crib death by Nicholas Wade reflects the efforts of the propaganda machine dedicated to more publicity and funding for research related to crib death. If the only effect of this approach (exemplified by the title of the report, "Crib Death: Foremost baby killer long ignored by medical research") was to solve the problem, or cause more effort in that direction. there would be no quarrel, since the issue would be similar to motherhood. However, to accept the premise stated in the title as factual would be to assume that research results can be bought the same way that an engineering project can be achieved. The premise is a validation of the current trend in which more and more support of basic research is being removed and more and more monies are being converted into contract research support for problems with political appeal. Throughout the public denouncements of the medical world by the spokesmen quoted in the report is the implication that medical researchers are willfully,

or at least negligently, ignoring a very important problem whose solution would simply be a matter of spending a little time or money. The problem is that the disorder is unexpected, by definition, and is extraordinarily difficult to study, except by means of postmortem examinations or animal studies.

Animal studies that are relevant are difficult to publish in clinical journals, and even after publication are curiously ignored by some of the critics quoted in the report. Researchers at my laboratory have published half a dozen articles on this subject, both clinical and animal studies, that were financed by grants from the Heart and Lung Institute (which has supported the laboratory for the past 14 years). Since that support was adequate, I did not choose to apply for more funds from the National Institute of Child Health and Human Development (NICHD), but I do not think that that makes either me or the NICHD guilty of neglect.

Politicizing an important medical problem may have some benefits, but, if it aids in the destruction of our current declining support of basic research, it will be a greater tragedy than the alleged neglect of crib death. I heartily support the establishment of counseling services for the unfortunate parents of victims of sudden infant death syndrome. I doubt that millions of dollars spent on more autopsies or on poorly designed studies of infants and animals will do anything more than disenchant the public and, in the long run, indicate that good scientific ideas cannot be bought.

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Change in Operations Research

In his letter "Operations research" (22 Mar., p. 1141) C. H. Waddington points out that World War II operations research (OR) was anything but a low-level activity: it was on the contrary highly effective, and its success was at once recognized and rewarded by the highest respect from military and civilian authorities.

The reasons for this are important to understand today, because much the same considerations apply to any scientific advising of a general character, both for the government and for industry. I would like therefore to