

# Letters

## Federal Grants and Small Institutions

I have been most interested in the debate currently under way in the pages of *Science* concerning the distribution of federal research funds. The small land-grant institution of which I am president is quite well staffed and equipped and is proud of its accomplishment in both research and teaching. Our school has received some federal grants, and while certain of our applications have been rejected, we don't feel our progress has been damaged particularly by the new brand of financial malnutrition. Our program will continue to grow.

But the most important point seems to me to have been missed in the debate over who should or shouldn't be favored with federal grant funds. The smaller schools, actually, have far less concern about becoming competitive in science with the so-called "centers of excellence" than they have about losing their most competent faculty members. Here the system has worked against the national interest; here perhaps, legitimacy is given to the appeal for wider distribution of federal research grants. The smaller institutions have been subjected to so much raiding by the more successful applicants for federal research funds that higher education, of acceptable quality, is beyond the reach and hope of many young Americans. The consequences to America's future could be tragic from the social, economic, and scientific standpoints, and hardly compensated for by advancing our arrival on the moon by a few days.

The larger schools and the federal agencies can't insulate themselves from the problems born of the federal research grant system. We can't all send our kids to Harvard, and it does seem a waste that many laboratories throughout the land, often very adequate for needed research, should go unmanned. Perhaps our educational system could be given protection and the nation's research resources could be utilized

more effectively if phases of large research projects could be subcontracted by the larger successful applicants for federal funds; large industry has found this technique helpful in solving certain kinds of production problems, and many smaller communities have been benefited as a result.

It's too bad that in this debate so much stress has been placed upon quality differentials among institutions. I'm sure that those who raise the issue are wholly sincere when they challenge the smaller schools to go get themselves excellent and then apply for those elusive federal funds, but they overlook the circumstances which militate against the smaller institutions in the first place. It was wrong in the beginning for our colleges and universities and federal agencies to allow the development of a system which would force schools whose participation in research must necessarily be modest (but can be good) to enter into competition with the largest and wealthiest universities. Perhaps Congress, through passage of recently enacted legislation, has provided the beginnings of a more logical approach to federal assistance to higher education. At least there now seems to be some hope that all of us—large schools that appear to be abandoning the mission and small schools that are crippled trying to attend to it—can give renewed emphasis to one of our first reasons for being, namely, providing high-quality education to the young people of America.

H. R. ALBRECHT  
*North Dakota State University  
of Agriculture and  
Applied Science, Fargo*

## The Race Problem and Science

Putnam's letter [*Science* 142, 1419 (1963)] attacking the AAAS Committee's report on "Science and the race problem" (*ibid.*, p. 558) seems to me

to be a mixture of confusion, ignorance, and delusions of persecution.

1) Scientists have carried on nothing like the kind of Gestapo operation with respect to the race question that Putnam insinuates. . . .

2) Evidence from the various relevant disciplines is not "overwhelmingly on the side of George" simply because there is not enough evidence on either side to be "overwhelming." I doubt that "genetic racial inequality" is any greater than genetic intraracial inequality. That the races of *Homo sapiens* are capable of interbreeding is genetically more indicative of common relationship than "anatomy and physical anthropology."

3) What Jefferson said about White-Negro relations has nothing to do with the Constitution. "Equal protection under law" is in the 14th Amendment, and even Putnam knows Negroes could receive more of that.

4) The AAAS "principle" does not need to be spelled out in the Constitution in *abc* fashion because the problem in detail was not anticipated. It is instead interpreted from the spirit of the amendments by the people of the United States through the Supreme Court. It is justice and fairness that are at stake, not white supremacy. Race supremacy is a vicious concept, historically and potentially. If there is such a thing as "white supremacy," it is at its worst in those places where there is the most noise about it.

Finally, there is insufficient experience and an unsatisfactory climate for deciding whether or not "integration injures the Negro more than segregation." What is certain is that declarations of inadequacy and indoctrination toward "an awareness of lower capacity" would injure anyone.

FREEMAN H. QUIMBY  
*3926 Rickover Road,  
Silver Spring, Maryland*

It is evident that Putnam and others are surprised at the "McCarthyism" that is utilized to enhance the views of F. Boas and downgrade the findings of W. C. George. But this approach has been used for centuries, and still remains, in this "enlightened" 20th century, an effective method of promoting a group's ideas, concepts, and scientific interpretations. Galileo was muzzled by cleric and scholar alike; Young's wave theory of light was suppressed for a century by Newton's idolizers. . . .

Scientific research has become a competitive, multibillion-dollar business. With bigness came administration separate from the laboratory, interested primarily in a smooth-running organization, not its principal products—data and new ideas. With affluence came the accountant, to see that monies were properly apportioned, spent, and recorded. We have thus inadvertently evolved a very efficient system of control, of checks and rechecks, of censorship by selection, which eliminates the bizarre, the unusual, the unacceptable; selection of graduate candidates and their thesis subjects; selection for membership in scientific societies; selection of papers for publication in scientific journals; selection of research projects to receive financial support. . . .

Time has a way of determining what concepts are correct. The censors delay progress but do not stop it. George as well as Boas and the committee will be examined by coming generations, and one set of findings will be vindicated. The other side will provide tolerant chuckles and anecdotes to enliven dryish lectures on the history of science.

H. S. DUDLEY

*Department of Physics, University of Southern Mississippi, Hattiesburg*

Isn't it time that scientists and others stop confusing "science and the race problem" with "civil liberties and the race problem"? A scientific study of racial differences can only establish differences between the means of measures applied to large groups from the populations of interest; it can never be used to predict the performance of a single, randomly selected individual. The question of civil rights is essentially a question of *individual* rights, not the rights of a so-called "average man." Science, at least science as it appears likely to develop for the next century, has nothing to offer to a discussion of individual rights. What men like Carleton Putnam are attempting to do is to persuade us that the only argument is whether "Negroes" as a race are or are not inferior to "Whites" as a race—and those who argue against him on the same grounds are merely supporting his subtle perversion of scientific investigation.

What if it were found that white people averaged higher in capacity to learn—or lower—than nonwhite? Each person ought still to be accorded the right to have his talent and effort fairly and individually assessed by those with

whom he bargains for the amenities and necessities of life. . . . [If we are to judge an individual according to the average of his group, then] we need only recall that Carleton Putnam is a White American, and we can say immediately that he is not competent to deal scientifically with any problem, race or otherwise, inasmuch as White Americans have an I.Q. of only 100, hardly adequate for scientific work of much import.

WILLIAM T. POWERS

*1138 Whitfield Road, Northbrook, Illinois*

As a chemist, I cannot speak to Putnam's main point. Primarily I wish to comment upon his adherence to the cult of the Anonymous Authority. He has a nameless psychology department head of a nameless university in the East call Franz Boas a socialist and an authoritarian dogmatist who has been able to cast a spell of suppression over anthropology. He sets up another anonymous professor at a large anonymous university who chickened out of his beliefs on genetic racial inequality because of letters, telephone calls, and threats (Putnam does not make entirely clear which side of the question this anonymous professor was on, nor whence the threats. I've heard reports that use of such tools against those who advocate racial equality is not unknown). And he finally rings in a private conversation with an anonymous prominent scientist who is worried about people following visitors to his home (I once knew an anonymous paranoid who had much the same problem). . . .

ROBERT W. SHORTRIDGE

*4400 West 78th Street, Prairie Village, Kansas*

I wonder if Carleton Putnam and other supporters of W. C. George's point of view have tried to consider the sociologic situation 2000 years ago, at the height of Rome's glory. The confrontation between the long-civilized Romans and the European barbarians was very similar to that between the light- and the dark-skinned peoples today. The Romans could have used against the barbarians all the arguments that today's W. C. Georges use against the Negroes—that is, that their inferior culture had never been equal to that of Rome, at least back as far as history would take them; that their physical characteristics were also clearly different and that therefore their cultural in-

feriority must have an anatomical basis. Many convincing data could have been gathered from the folkways of the backward tribes of Gaul, Germania, and the lands of the East Goths to buttress the argument. Who would have known then that in a short time the Roman achievements would be built upon and surpassed by the despised inferiors of the north?

Perhaps a set of Gibbon is the answer to George.

CLIFFORD A. KAYE

*270 Dartmouth Street, Boston, Massachusetts*

. . . Suppose that the terms White and Negro can be given a precise meaning. Suppose that tests have been devised that yield reliable measures of genetic intelligence, genetic ambition, genetic morality. Suppose that it is now clearly established that, on the average, the Negro is inferior in all these respects. . . . One inescapable part of the actual problem is that some Negroes are superior to some Whites in every one of these qualities. I am sure that Putnam can find some anonymous person who will deny this statement, but I doubt that he will deny it himself. Another part of the problem is that we are attempting to operate a human society, and should not necessarily follow the statistical principles that are successful in cattle breeding. . . .

LOUIS S. KASSEL

*401 North Kenilworth Avenue, Oak Park, Illinois*

The current debate in your columns on "Science and the race problem" is being conducted on inadequate premises. The AAAS Committee advocating equal treatment of "races," bases its argument in part on the absence of scientific evidence of culturally significant genetic inequality, while Putnam, advocating unequal treatment, bases his argument on the alleged presence of such evidence.

The basic difficulty in arguing from the absence of scientific evidence is that science is continually generating evidence. Any ethical assertion based on the combination of ethical principles and scientific evidence (or the lack of it), especially when it is made by a committee of the AAAS, should consider the possibility that more evidence will become available. That such evidence is becoming available is indicated, ironically, by two articles in the same issue in which Putnam's letter appeared

—those by Hirsch (p. 1436) and Erlenmeyer-Kimling and Jarvik (p. 1477).

Suppose we do find irrefutable evidence of genetically determined differences among human beings in socially important traits—what then? I do not presume to answer this immense problem, but suggest that it is a sort of problem to which the efforts of a committee on “Science in the Promotion of Human Welfare” should be directed. It is not a scientific problem, but the title of the committee implies that non-scientific matters are within its province; perhaps it will have to add some philosophers to its membership to help specify what it means by “human welfare.” Both the committee and Putnam are deriving their ethical postulates by selection from the vast and contradictory fund of values that our tradition affords. As long as this procedure is followed, one can justify almost anything. If, however, the committee made a serious effort to render its ethical assumptions as clear and consistent as it would render a scientific theory, the ambiguity in the ethical aspect of the debate might at least be reduced.

There is another line of argument open to the committee, which can be reconciled with scientific information that may be developed about genetic differences among individuals or groups in socially significant characteristics. This is that any action that might be justified with respect to genetic differences would certainly be inefficient if applied to the socially defined dichotomy “Negro-White.” This dichotomy defines as “Negro” some persons nearly all of whose genetic characteristics are of Caucasian origin. Even if there should arise some evidence of important genetic differences between persons of pure Caucasian and pure African origin (heterogeneous categories themselves), this would provide no justification for differential treatment in terms of “race” as socially defined in the United States.

To give some perspective to the argument, let us suppose that statistics on intelligence or genetic studies of families should reveal Jewish persons to be genetically more intelligent than Gentiles. The principles advocated by Putnam would seem to imply that Jews should then be given uniformly superior opportunities for education and influence than Gentiles, from their earliest years. This might indeed have some advantages, granted the facts I assume; but would the advocates of segregation

take this action to segregate themselves?

One might reply that we do not have such data about Jewish superiority. The norms of science would then demand that we seek evidence on the point—for the purposes of applied science, if not theory. Those who advocate white (Gentile) superiority would probably not rush to do so. But this presumed reluctance may be parallel to the reluctance of equalitarians to seek out evidence of human genetic differences. This would not be the first time that scientists had shown a certain blindness to scientific evidence opposing a valuative position they advocated. Barber, in writing of “Resistance by scientists to scientific discovery” [*ibid.* 134, 596 (1961)], has observed that scientists’ actual behavior can diverge somewhat from the norms cited self-righteously by the committee. A little more humility—if it could be practiced on both sides—might also help bring the “race” issue nearer to the degree of resolution possible in a scientific journal.

DUNCAN MACRAE, JR.

5436 South Harper Avenue,  
Chicago 15, Illinois

### National Policy for Science:

#### A Congressional Responsibility

The editorial in the issue of 22 November [*Science* 142, 1025 (1963)] charges, undoubtedly with cause, that the retiring senior scientist of the executive branch of the government, in pursuing his executive duties, has failed to provide an adequate intellectual basis (or long-term policy) for support by the scientific community, such as could be furnished by a planning office marshalling the wisdom of the nation to give guidance for the future.

Perhaps this failure is as it should be, even to the extent of being a long-term gain for a democratic society in which the freedom of science, as well as other freedoms, is protected by a separation of powers. We seem constantly to forget of late that it is the office of the legislative branch to establish long-term policy and to give guidance, after sufficient public debate, in the form of laws containing statements of national intent, which are only to be carried out in daily or annual business by the executive branch.

The proven and stable system which gives Congress responsibility for policy

is enforced by legislative control of taxation and appropriations. This situation was clearly recognized by the editor in his previous statements [*ibid.* 140, 1364 (28 June 1963)] that “the future shape of science is being determined by legislative actions . . .” and that there were “other ways of improving the scientific judgments of Congress,” including the nomination of scientific counselors by the National Academy of Sciences.

May I suggest that the earlier proposal by the editor is a sounder one, far less likely to produce an “arrogant mode of operation.” It appears far more healthful for our way of life and for the future of science.

I also think that it is within the nonpolitical objects of AAAS, as published on each editorial page, and within the proper functions of its Board of Directors and the editor, as representative of scientists in all the disciplines, to take steps to bring about active consideration of the June suggestion of the editor, by Congress and the NAS. This may be done with a view to encouraging Congress to find the best way to fulfill its broad deliberative office in science policy, so that appointment to its group of counselors would bear the highest prestige of all scientific appointments in government. Possibly the entire academy might be invited to tender formal policy suggestions through accredited liaison. This could only apply to the very broadest issues. It is to be hoped that in such considerations the established responsibilities of state legislatures for public universities and for local research experiment stations would not be forgotten.

FRED E. HOWARD, JR.

573 East Gardner Drive,  
Fort Walton, Florida

### An Experiment in Communication: The Information Exchange Group

An information-exchange group has been set up to provide better communication among scientists in the related fields of electron transfer, oxidative and photosynthetic phosphorylation, ion transport, and membrane structure and function. The National Institutes of Health provide the means by which any member of the group can within a matter of days dispatch a communication to all other members.