

Letters

At Yale on 4 March

The statement "Yale University scientists have indicated that they will join . . . in a 1-day research stoppage on 4 March to examine priorities in scientific research" was misleading (14 Feb., p. 656). A small group of scientists, social scientists, humanists, and physicians at Yale arranged two seminars which were held 4 March concerning "Science and the Direction of American Society" and "Science and the Military." A number of workshops were also organized such as the meeting devoted to the "Warfare State" which was directed by the student head of the local chapter of the Students for a Democratic Society.

The material circulated by the organizing committee before the meetings indicated that the primary purpose of the "Day of Reflection" was to condemn (not judge or evaluate) the relations between the military and the physical sciences, and few of the physical scientists at Yale were associated with the program. Certainly most of the senior faculty of the physics department were strongly—and sometimes profanely—opposed to the activities, and opposed to any work stoppage. The large research projects in the physics department in atomic physics and elementary particle physics, and the extensive research in nuclear physics conducted with the several particle accelerators at Yale, proceeded as usual.

While it is impractical to attempt to summarize all the reasons for this opposition to the program, certain views were widely held. There was no disagreement that in a democracy all citizens, scientists included, have an obligation to concern themselves with the direction of research supported by their government. As members of the faculty of a university, these obligations might well lead them to organize an inquiry into the values to be considered in such research where the traditional honesty and open-mindedness of good scholarship might contribute uniquely to an understanding of these values. In the view of many of the faculty of the physics department, such a dispassionate inquiry could not be conducted on 4 March in

view of the connotations of that date following the publicity accorded to the "research strike" at M.I.T. And they believed that no honest inquiry could be conducted without an adequate representation of speakers concerned with the applications of science to defense. But the conditions requisite for an unbiased inquiry were not followed and the support of a broad segment of the scientific community at Yale was lost.

Although the documents circulated to the faculty before 4 March by the organizing committee of 16 faculty members (which included two physicists) unequivocally called for a condemnation of the relations between science and the defense efforts and indicated that the object of the program was to condemn these relations, the actual program was not so strongly biased. (Here I speak from hearsay as I spent the day at a government laboratory working at my research!) Indeed M.I.T. physics professor Steven Weinberg, a long-time consultant for the Institute for Defense Analyses, might be considered to have presented the views of those who believe a citizen has a degree of obligation to cooperate with his government on defense matters. But, predictably, the newspaper accounts centered on the polemics offered by the most extreme speakers.

Much of the objection and bitterness which remain concerns the character of the publicity. Many of us believe that the committee instituted the program as an act of protest—on issues which it prejudged—which was designed to indict government-supported research at Yale. Since most, if not all, of this work is unrelated to any direct military applications, this character of the protest seemed a device designed to extract a maximum of publicity for the views of the committee. And those of us conducting scientific research at Yale, who are not as certain as members of the committee that there are simple answers to the difficult questions which confront us all, resent being used for the purposes of the committee.

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Today's Army:

Drafted or Professional?

Wallis's editorial "Abolish the draft" (17 Jan., p. 235) is an admirable statement. The American educational process is being undermined by the draft as by nothing else. The draft is a continuing source of harassment, distraction, and insecurity to the undergraduates. Also, the present drafting of graduate students, upon whom we depend for laboratory instruction of undergraduates in the sciences, seriously undercuts the training of students for the sciences, medicine, and engineering.

Two points in the editorial need re-examination: the assumption that our armed forces need to be kept at their present levels; and that to maintain an adequate volunteer force, pay scales need to be considerably increased.

It seems probable that a much smaller force—a total of at most one million men—should be adequate for our peacetime needs. If that is not so, I should like to hear debated the argument for a larger force. A volunteer force of that size is readily obtainable at present levels of compensation. Indeed we have it now. The overwhelming majority of our total military personnel are true volunteers. About 49 percent of all first-term enlistments are in this category; another 30 percent are "reluctant volunteers" who join up under threat of the draft, and only 21 percent are draftees. Of course, all reenlistments are voluntary. The Air Force and the Navy are entirely volunteer and the Marine Corps is largely so.

Nor is the pay poor, as is sometimes claimed. It must be understood that the basic pay is in addition to all ordinary living expenses—quarters, food, clothing, and medical care. In the lowest enlisted grade the base pay is now about \$110 to \$150 per month. The lowest grade of sergeant receives \$262 to \$437 per month, depending on length of service. Master sergeants go from \$576 to \$742 monthly. In addition there are dependency allowances, extra pay for foreign service and hazardous duty, incentive pay, and rather handsome bonuses for reenlistment. A man who goes in at 18 to 20 can retire 20 years later with half-pay for the rest of his life *in addition to* social security.

It is not commonly realized that the base pay was raised throughout the services by Act of Congress in 1967, in three installments. The above figures represent the levels after the second increase. The third increase will come

on 1 April 1969. Present rates of volunteering and reenlistment seem to show that the conditions of service and compensation now in practice are sufficiently attractive to maintain an adequate peacetime force on a volunteer basis.

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... A drafted armed force is a safeguard of our freedom. Because it necessarily involves the broad base of our population ("boxing champion," "school dropout," and "young man in a period of rare artistic or scientific inspiration"), the draft calls to public notice the politico-military ventures of an administration and forces the voter to ultimately determine policy. A war in which our national survival is not immediately at risk and which consumes only about ten percent of our Gross National Product and in which the population at large suffers no serious inconvenience would go largely unchallenged without the draft. In short, abolition of the draft would nullify dissent in the balance between majority rule and dissent which synthesizes national policy.

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... The professional army suggested by Wallis is the wrong solution ... because a professional army of any size which we could afford would be inadequate to cope with a national emergency. No professional army could even begin to effectively oppose some 200 Russian divisions, not even if we abdicate the responsibility for the freedom of other nations. An army is created not for use during more or less peaceful times but as a preparation for a major war, and past experience has clearly demonstrated that we cannot unilaterally avoid such a war. In the past, we have had allies powerful enough to bear the brunt of the first attack by an enemy and to give us time to organize our own forces; this is not so anymore.

The only solution which is morally defensible, equitable in practice, and efficient in application is universal military training for all young men and women, with absolutely no exceptions, not even for those who are physically not fit for hand-to-hand infantry combat. There are so many desk jobs and functions in administration, supply and

logistics, not to speak of the medical corps, that a job commensurate with the physical and mental abilities of every man and woman could be found in a modern defense organization. I would go even so far as to suggest that fulfillment of the obligation to prepare for the defense of the country be made a prerequisite for full citizenship. Only the cadre of some leaders and instructors (officers and noncoms), and perhaps a small force for internal and external police functions, should consist of professionals. This is the solution adopted by the overwhelming majority of other nations. ...

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I agree that the draft is immoral in principle and inequitable in practice, but what is the degree of morality and equality involved in sending men to their deaths or possible severe injury and permanent disability merely because they happen to be volunteers? Under such a system of recruitment, most of the troops so enlisted would probably come from that group in greatest need of remunerative employment, namely, those at the lower economic levels. Would American youths in college or in states of gainful employment voluntarily enlist?

... The case against the draft may be lopsided but the case against war is lopsided, too. To cope with the latter, especially in the procurement of soldiers, governments have a choice of solutions, but they are not readily adapted to clearly defined standards of morality and equality. The notion that we can deal with manpower problems by ridding ourselves of one anathema and replacing it with a system less objectionable to one particular group does not insure that the substitute will overcome the shortcomings of its predecessor and that it will not generate objections from other groups. The draft with all its imperfections cannot be abolished. I wish it could be!

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I was commissioned in the United States Army in 1942 and I have remained with the Army ever since. There is no class of persons whom I trust less than my fellow brass. ... Abolishing the draft without simultaneously disbanding the military is court-

ing the calamity of Dachau and Hiroshima. The military is a complex and insulated society, with its own traditions and loyalties. Men within it cannot but be infected; too often the situation really is: "Jump when I say, or die." "It's his life, or mine." Among the men who choose to remain voluntarily and indefinitely in that society, these attitudes are forged, and then become hardened and sharpened.

I can predict little as to the effect of the draft upon the economics of war or our salvation as a nation, but surely our salvation as human beings rests heavily upon our continuing to infuse the military with reluctant, undisciplined, lemming-outahere draftees.

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... I like it [the draft] this way because history gives no instance where a vestige of freedom survived a defense establishment consisting completely of mercenaries. ...

THEODOR D. STERLING

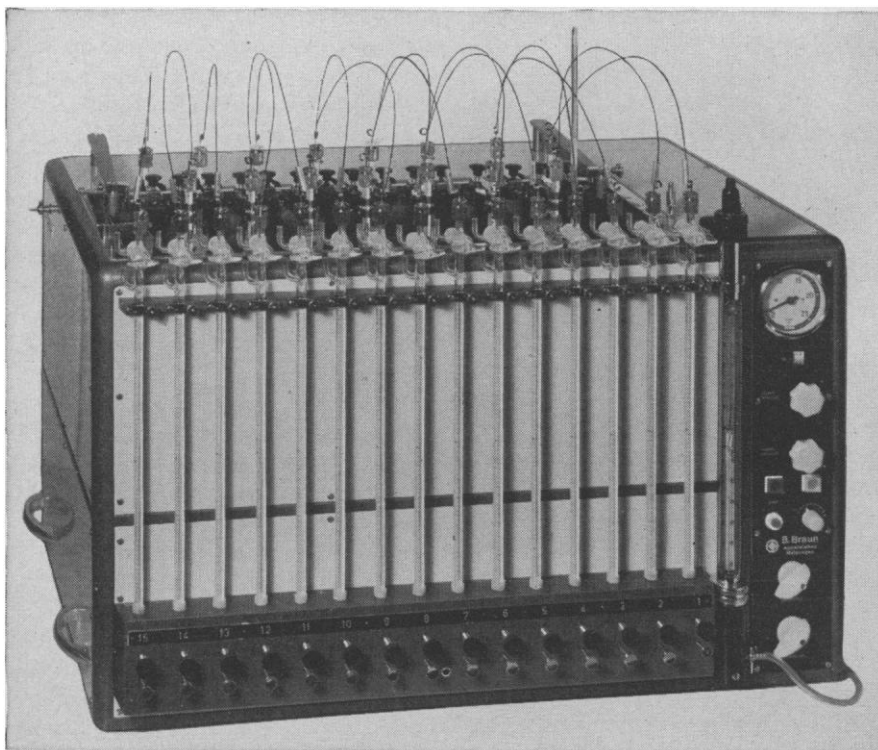
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Wallis counsels that the draft be abolished. If we continue to believe that our country has to have armed forces in readiness to defend it—and, even before the invasion of Czechoslovakia, few denied this—the only alternative, and the alternative Wallis recommends, is a professional-mercenary army.

Before World War II this country did not need a defense force in readiness; it was protected against sudden attack by the waters surrounding it. This has changed as a result of technical developments, and this country and its allies are now more exposed to a sudden attack, or the threat of such an attack, than were the continental powers of Europe before 1914. They all had drafted armies—indeed, they all had universal military training. Were all these countries both foolish and immoral, as Wallis' statement implies? Would a wholly professional army provide adequate protection in war, and how would it affect our democracy, our system of values, in peacetime?

A purely professional army would be markedly different in composition from the present one. We now have a large number of able, dedicated pro-

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professionals, mostly in the officer corps, attracted to the services largely by their desire to serve their country. Some of these come from military schools; some are trained by the ROTC at our colleges and universities. An army which might be called mercenary would probably attract fewer of these. In addition, in a wholly professional army, the rank and file at least would include many misfits, outcasts, and adventurers. The attraction of a monetary reward has greatly decreased in a state in which society assures the livelihood of everyone.

As a result, the military would no longer be tied to the country by the same emotional bonds which now unite the citizens with their army; the army would form an alien body in the society. It might even become a weapon for an attempt to establish a totalitarian rule, as it has in many other countries. This danger would be particularly great in an emergency: the army would be less wholeheartedly supported by the people than a citizen's army and would feel justified in adopting desperate measures.

How would a purely professional army fight when the chips are down? Would it not shrink rather than grow in size when an emergency menaces? Our history books are full of the stories of people who did not want to fight in their own defense but tried to buy their defense on the market. Do we want to join Athens, Rome, and Byzantium, which at certain points in their history—at the *end* of their history—tried to have others defend them?

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The preceding seven letters together make nearly as strong a case as can be made against abolishing the draft. They reinforce my conclusion that "the case against the draft... is... about as lopsided a case as one ever meets in questions of public policy."

Most of the arguments made in favor of the draft, here and elsewhere, say that the alternative of volunteer military forces is objectionable for one or more of the following reasons. (1) Not enough volunteers could be obtained for a major war. (2) Volunteers are ineffective. (3) Volunteer forces constitute a threat to freedom and democracy. (4) If the military were volunteers, the general population would be less concerned with foreign policy than when the military are con-

scripts. (5) Volunteers would be predominantly the poor and Negroes.

1) No one has seriously proposed relying on volunteers during a major war. The idea might be worth studying, for it is not so clearly impractical or undesirable as the letters imply, but my editorial referred only to conditions since 1945. It argued that the draft can be abolished even if as many men are kept under arms as now and even while the Vietnam war continues; but it did not imply that the armed forces should be as large as they are now. One important effect of the draft, in fact, is that the armed forces are larger than they need to be for their present effectiveness, because (i) the military, like anybody privileged to purchase a service or commodity at bargain prices, is uneconomical in its use of manpower, and (ii) the 2-year tours of draftees are much less efficient than the longer tours of volunteers. Proposals to abolish the draft contemplate retaining for emergencies the present Selective Service registration system, and the present system of reserves.

2) As to the charge that volunteers are ineffective militarily—tell it to the Marines, who are almost all volunteers. Or listen to Housman's 1915 "Epitaph on an Army of Mercenaries":

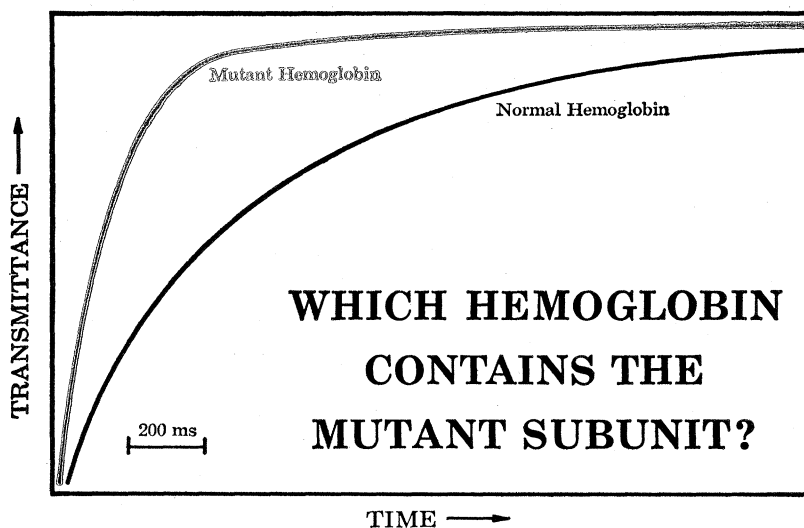
Their shoulders held the sky suspended;
They stood, and earth's foundations stay;
What God abandoned, these defended,
And saved the sum of things for pay.

3) To the extent that a military force endangers freedom and democracy, the danger comes from the higher ranks of commissioned officers, all of whom are volunteers, as are most of the lower ranks of officers and all of the higher ranks of noncommissioned officers. Using conscripts instead of volunteers in the lowest enlisted grades, and those are the only ranks in which we use appreciable proportions of conscripts, is no protection—as was illustrated by recent coups in Greece and South America.

4) As a device for interesting the population in foreign affairs, the draft has the weakness that it affects so few people—and most of those who are directly affected, the draftees themselves, are not voters. A volunteer force affects every taxpayer, though each is affected less intensely than is a draftee or his parents. While the risk of being drafted may tend to sharpen interest in foreign policy, there is no basis for hoping that it also imparts the information, perspective, and ob-

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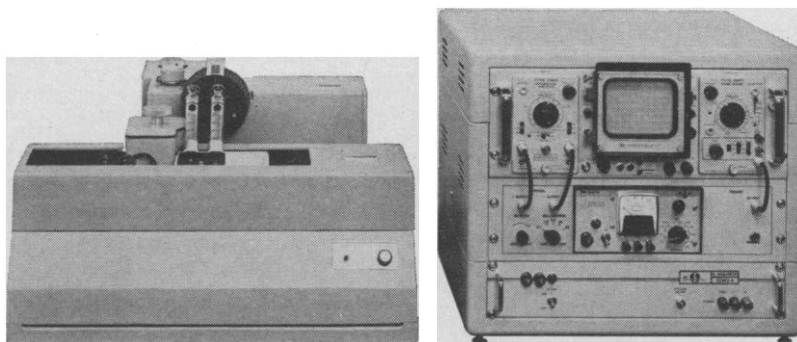


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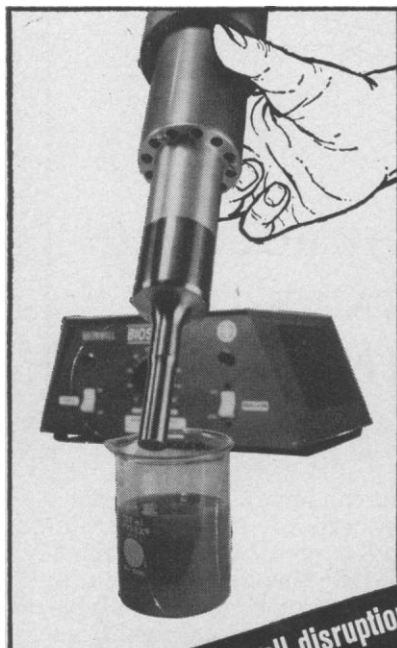
*AS REPORTED BY HENRY F. EPSTEIN AND LUBERT STRYER IN VOLUME 32 (1968) OF THE JOURNAL OF MOLECULAR BIOLOGY.



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jectivity necessary for wise judgments about the national interest. In any case, there are disturbing ethical implications in using the draft as an instrument in the battle for public opinion. If this use is accepted, would it not be proper to double or quadruple the number drafted in order to have a greater impact on public opinion?

5) Men are more attracted to hazardous work—whether in the military, police and fire forces, professional boxing, construction, coal mining, university administration, testing aircraft, auto racing, or treating contagious disease—if they do not have opportunities for equally rewarding but less dangerous work. We all regret that inequalities of opportunities exist; but it is hardly fair to deprive a man of the opportunity he considers best among those available to him, simply because we regret that he does not have better opportunities or does not rank differently the opportunities he has. That is what we are doing if we refuse to pay (in money and in nonpecuniary advantages) to attract enough volunteers, but rely on conscription instead.

To pursue these subjects, I recommend the documents relating to S. 503 inserted by Senator Hatfield in the *Congressional Record* for 22 January (S. 691) and especially the article by Walter Oi inserted on 23 January (S. 831) and taken from *Current History*, July 1968.

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Flying Beetles

Because of an observation I made many years ago, I was particularly interested in the paper by Silberglied and Eisner ("Mimicry of Hymenoptera by Beetles with Unconventional Flight," 31 Jan., p. 486) regarding cetoniid Scarabaeidae which fly with the elytra closed.

The fig eater (*Cotinus nitida*) does this. I discovered this several years ago in Arkansas when I found hundreds of these beetles flying around a tree in what composed a kind of "living cylinder." Since then I have often observed these beetles flying and found that the elytra are always closed. Incidentally, I have no explanation for the beetles circling the tree.

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