

more concerned with individual professional pursuits, it has also become less able to exercise its powers. Where small student or nonstudent elements have brought whole institutions to a halt, they have thrived on this vacuum of power.

If the faculty delegated some of its powers, the university could be protected against unjust or autocratic administrators by having the faculty participate in periodic votes of confidence. These votes would involve the president or chancellor, and the second-ranking academic official (provost or academic vice president). At least a 2-year period should be granted between votes. With so many selfish interests engineering confrontations all around the calendar, it is too much to hope that any university's chief executive can handle them all flawlessly. But he should, on balance and over time, handle them well enough to merit a vote of confidence from the faculty. If he cannot merit that, then someone else should pick up the delegated powers. The delegation of substantial power to the executive, accompanied by protection of the faculty through its right of recall after a specified period of tenure, could be a vital step in preserv-

ing the campus as a free intellectual arena.

The forces for constructive change within the university, in my experience, are the administration, the students, and the trustees. With some exceptions, the greatest inertia lies with the faculty; I suppose it will continue that way for as long as faculty tenure remains as entrenched as it is today. (The students never seem, as a group, to understand that their natural ally for constructive change is the administration. Faculties have effectively let the administration bear the brunt of pressures that more properly should have been put on the faculty itself.)

I foresee no constructive modification of the faculty tenure system. There might, however, be a rash of trustee and regent actions attempting to revoke tenure. Such a wave of reaction would be fatal to essential academic freedoms; and it would sound the death knell for free universities. Again, I feel that reforms need to spring from within the faculty, if only it will meet its responsibilities.

Would I suggest, then, some kind of tenure for administrators in their administrative posts? Perhaps. But, as with racial discrimination, there is the

uncomfortable feeling that two wrongs (two systems of overly entrenched tenure) won't really make a right. Limited tenure (say 10 years) for the president and first vice president might well come about, if for no other reason than the increasing difficulty of convincing able men to accept the jobs. Perhaps a more practical suggestion is that the president (or chancellor) be given more explicit power over the academic structure. He might, for example, have the power to reorganize the department-school structure of the university. Even if he could not terminate tenure for an individual professor, he could rearrange the academic units within which the professors serve. If that sounds drastic, let me stress the fact that the threatened withering of our universities through loss of financial viability and violation of academic freedom within the university is not a Sunday School picnic. At issue is the survival of what have been, up to now, the freest institutions of our free society.

References

1. See, for example, a recent interpretive article on the AAUP's *1940 Statement of Principles on Academic Freedom and Tenure* [AAUP Bull. 56, 26 (1970)].
2. G. E. Pake, "Basic research and financial crisis in the universities," *Science* 157, 517 (1967).

The Animal Welfare Act of 1970

More species are protected, protection is extended, and experimental design is not interfered with.

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A major piece of legislation in the animal welfare field passed in the closing days of the 91st Congress and was signed into law by the President on 24 December 1970. It has a rather long legislative history, having been developed out of hearings and action by a subcommittee of the Committee on Agriculture of the House of Repre-

sentatives in connection with a bill introduced initially by Representative Whitehurst. The final bill, H.R. 19846, was introduced by Representative Purcell, chairman of the subcommittee, on behalf of himself and 17 others, including Representative Whitehurst. Legislatively it was presented as an amendment to the 1966 Poage Act, P.L. 89-544. The new act will be known as P.L. 91-579.

There are numerous important

changes made by this new act. First, its title has been changed to eliminate the misconception that animals employed in scientific laboratories are more deserving of assurance of humane treatment than are animals used for other purposes. The act covers animals in zoos, circuses, carnivals, and exhibitions and those held by wholesale pet dealers, as well as those used in scientific study.

The major changes affecting laboratory animals in the present law, as compared with P.L. 89-544, are that it (i) includes additional species of warm-blooded animals and (ii) covers conditions for housing and care throughout an animal's stay in a research facility. The earlier act covered a limited number of species of mammals, and confined the authority of the Secretary of Agriculture over conditions of housing and care to the periods when animals were in stock and storage. The act of 1970, however, provides a specific prohibition against any interference by the Secretary of Agriculture with the design or execu-

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tion of any experiment. The institution is responsible for the conduct of experimental procedures in accord with professionally acceptable standards. This prohibition is a positive guarantee against bureaucratic control of scientific experimentation and observation and constitutes the basis upon which the majority of the scientific community could agree with the several humane societies interested in animal welfare, as to the extension of regulation by the Department of Agriculture of housing and care to all warm-blooded animals and to the entire duration of the stay of animals in laboratories.

It may be noted that other proposed legislation in the Congress would have brought about the same extensions to all species of warm-blooded animals and to the full time of stay in laboratories was opposed by most scientific groups because it would have, in addition, given a federal official, the Secretary of Health, Education, and Welfare, the authority to set guidelines for legitimate experimental design and would have required elaborate reports upon experimental procedures actually employed. Record keeping for inspection purposes would have been multiplied. It may also be noted that the bills incorporating these provisions would have set up undesirable and wasteful duplicating mechanisms for inspection and certification of laboratories by both the departments of Agriculture and of Health, Education, and Welfare. Some humane groups were very dubious about the reliability of the latter as an inspection agency, and wanted authority centered in the Department of Agriculture. The major objections of scientific groups to the bills in question related to the unnecessary duplication of effort, time, and expense, and especially to the danger, noted above, of bureaucratic interference with the scientific processes themselves.

There is no question about the fact that the Animal Welfare Act of 1970 will involve scientific institutions, as well as the Department of Agriculture, in additional expense and labor in carrying out the inspection processes. The Congress recognizes this and it was pointed out in the floor debate on

the bill. There may be some institutions which will require renovation and improvement of animal quarters to meet the requirements of the new act. However, it is likely that most institutions will be able to comply quite easily with the regulations which will be set up by the Secretary of Agriculture. Furthermore, the Secretary has the power to grant extensions of time to institutions which give evidence of intent to improve facilities which may be found to be deficient.

Bioscientists may be alarmed about an act which promises to increase the costs of laboratory studies at a time when the federal government has been curtailing the funding of scientific research. The support of research hopefully will increase in the near future, and the recognition by the Congress that this legislation will require additional appropriations should make it easier to obtain increases. However, the cost of upgrading existing facilities to meet expected standards will not be astronomical. A study made by the Institute for Laboratory Animal Resources in 1968 indicated that all existing facilities could be brought up to their standards for \$34 million. Since these standards are more elaborate than those decided upon by the Department of Agriculture it is probable that the minimum cost of meeting the standards of the latter will be considerably less. In any case, the provision for extensions of time, and the recognition of the problem by the Congress, should reassure bioscientists that possible problems can be met.

The majority of bioscientists represented in the Council of the National Society for Medical Research at its annual meeting in 1970 endorsed the principles of the legislation which resulted in P.L. 91-579. They recognized that the public has a right to be reassured by independent inspection that laboratory animals are humanely housed and cared for, throughout their stay in laboratories. They also realized that there would be continual agitation by humane societies to obtain restrictive legislation until such reassurance was provided.

Scientists themselves are foremost among proponents of humane treatment of animals and could not in all

fairness and logic refuse to accept legislation which would give assurance to the public that laboratory practice as to housing and care met acceptable standards.

The humane societies have in the past pushed for legislation which would not only govern housing and care but would also intrude in one way or another on the design and execution of experiments on animals. The great virtue of P.L. 91-579 lies in the fact that it gives legitimate assurance of humane treatment without attempting to set up a bureaucratic control of the scientific process itself. Therefore the passage of this act may be said to be a victory both for the humane society groups and for the bioscience community. The former is pleased that independent inspection and standards will now protect warm-blooded animals throughout their stay in scientific laboratories—as well as those in the hands of large dealers, in zoos, carnivals, and exhibitions—whereas the scientists can be pleased that the act no longer singles them out as the sole potential maltreaters of animals and, in addition, now gives assurance that the design of experiments will not be bureaucratically controlled.

In the future only antivivisectionists will attempt to introduce additional legislation. This is not to say that such legislation will not be introduced. There are many antivivisectionists in American society. However, now that housing and care, including veterinary care, of all warm-blooded animals throughout their stay in scientific laboratories are subject to federal inspection and regulation, any attempt to legislate control of scientific design and execution of experiments would have to be made as straightforward antivivisection legislation. It will no longer be possible to camouflage proposed legislation aimed at controlling the scientific process itself, by combining and confusing it with elementary housing and care. This provides the bioscience community with a straightforward situation, which the general public and the Congress will be able to understand more readily. So long as defects in elementary housing and care could be charged, the situation was ambiguous. This ambiguity has now been eliminated.