Letters

Crimes and Science Fellowships

A bill now pending in Congress (HR 8556) proposes certain new requirements for applicants for fellowship or scholarship grants from the National Science Foundation. One section in particular requires that the applicant must have "provided the Foundation (in the case of applications made on or after October 1, 1961) with a full statement regarding any crimes of which he has ever been convicted (other than crimes committed before attaining sixteen years of age and minor traffic violations for which a fine of \$25 or less was imposed) and regarding any criminal charges punishable by confinement of thirty days or more which may be pending against him at the time of his application for such scholarship or fellowship."

The National Science Foundation, anticipating passage of the act, has prepared and sent to all current applicants a form which requires them to state whether they have ever been convicted of any crime, according to the terms indicated in the bill. We regret this action by the foundation, and we question the wisdom of this new requirement.

We grant that this requirement violates no constitutional rights of the individual. Conviction for a crime is a matter of public record, and it may seem reasonable to take this record into account in awarding public funds. Furthermore, according to the proposed legislation the foundation would decide whether or not the matters disclosed are serious enough to disqualify the applicant. It might therefore be argued that the disclosure would simply improve the basis for making the kind of judgment of character in which every university would be interested. Nevertheless, we believe that the purposes of the fellowship program would not be well served by assigning this responsibility to a government agency.

We must recognize a fundamental

difference between a government agency and a university. Universities have long recognized the importance, in fulfilling their roles, of protecting the right of individuals to espouse unpopular causes, provided they do so with integrity. Crimes involving intellectual dishonesty would be of grave concern to a university. On the other hand, certain actions that are crimes in the eyes of the law have little relation to the fitness of a person to contribute to scientific knowledge, and thereby to serve his country and the world. For instance, an applicant might have been imprisoned for taking part in a demonstration against segregation in a Southern state, or for being a conscientious objector. Or he might have refused, on the basis of the First Amendment, to give certain testimony before a congressional committee. Such crimes may be evidence not of a defect of character but of exceptionally uncompromising independence and integrity. While these traits may be expressions of a "difficult" personality, the history of science has amply demonstrated that the same traits are frequently associated with the most original and creative scientific work.

Although in principle the bill would permit the foundation to discriminate between crimes that are relevant to the purposes of the fellowship and those that are not, we can hardly assume that a government agency, under the watchful eye of Congress, would feel free to support a politically cantankerous but brilliant applicant. Indeed, one cannot escape the suspicion that the bill is aimed precisely at such persons, under the innocent guise of helping to reveal evidence of the defects of character that one ordinarily associates with conviction for a serious crime. The bill thus appears to represent, in veiled form, a return toward an earlier McCarthyite obsession with internal security. In this connection we note that National Science Foundation fellowships are for open, unclassified research; no questions of national security are involved in granting them.

The most important consequence of this bill would not be the very rare disqualification of an applicant with a history of crime. Rather, it would be the intensified pressure on students for political conformity. By that token, the measure would undoubtedly discourage some exceptionally independent individuals from undertaking careers in science. If universities, in their increasing dependence on government for financial support, are to maintain their traditional role as centers of free inquiry and are to encourage intellectual adventure, they must resist influences from the government that restrict their freedom and discourage boldness in their students. The danger from a rare fellowship award to a person of questionable character is small; the longterm danger from creating an atmosphere of intellectual intimidation is large.

On these grounds we conclude that passage of this section of HR 8556 would do harm, not good, and we record our opposition to it.

BERNARD D. DAVIS
JOHN T. EDSALL
DONALD R. GRIFFIN

Harvard University, Cambridge, Massachusetts

> Cyrus Levinthal S. E. Luria

Massachusetts Institute of Technology, Cambridge

BENTLEY GLASS

Johns Hopkins University, Baltimore, Maryland

On Ice

In his recent discussion of ice alloys [Science 134, 164 (1961)], Kingery presented some views on the state of knowledge on the strength of crystals which I question. For example, he seems to believe that dislocation theory has provided a basis for rationalizing observed strengths of metals and alloys and for developing improvements logically. In contrast to his point of view, I believe that even though this is one of the few areas of theoretical thinking in which workers have been active for a generation, the hypotheses produced are, at best, of marginal usefulness to thinking about the mechanical behavior of metals.

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