

Mass, Force, and Weight

R. J. Temple's comment (Letters, 21 Feb., p. 598) that the SI (International System of Units) is illogical because "in the SI . . . , weight is measured in kilograms."

The facts are, that, in the SI, mass is measured in kilograms, and force in newtons. Weight is a general word that is widely used for both force and mass, but as a force it can be defined precisely only for the special case of bodies at rest on the surface of a heavenly body. The dual usage of the term weight has led to a National Bureau of Standards editorial guideline statement (1):

Considerable confusion exists in the use of the term weight as a quantity to mean either force or mass. In commercial and everyday use, the term weight nearly always means mass. . . . Because of the dual use of the term weight as a quantity, this term should be avoided in technical practice except under circumstances in which its meaning is completely clear.

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References

1. *NBS Guidelines for Use of the Metric System* (National Bureau of Standards, Washington, D.C., 1974).

Merit and Discrimination

Brewster C. Denny's editorial (6 Dec. 1974, p. 875) rightly stresses the importance to society of rewarding merit. Unfortunately, a presently popular ideology opposes rewarding superior performance and penalizing bad performance. This leads to policies that maximize the *short-term* comfort of the populace, but also slowly cause all social systems to sink into a slumber of inefficiency and sloppy performance. In fact, the fundamental thermodynamic principle of strictly egalitarian systems states that, "In the long run, all men and all institutions sink into a state of uniform dynamic incompetence." In the words of Kenneth Boulding, "Radical egalitarianism may be a good way of legalizing stagnation" (1). The canonical example of dynamic incompetence is the U.S. Postal Service.

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References

1. K. Boulding, "Economics of the 21st century," lecture delivered at the University of California, Berkeley, 29 July 1971.

Denny's editorial asserts that there has been a decline in the use of merit as a principle for selection, promotion, and reward. Frankena, in a discussion (1) of moral and nonmoral virtue as possible criteria of merit, concludes:

. . . before virtue can reasonably be adopted as a basis of distribution, there must be prior *equal* distribution of the conditions for achieving virtue, at least insofar as this is within the control of human society.

If there has been discrimination and if the condition of equality is necessary for the distribution of rewards according to merit to exist, then a reward system based primarily on merit has not existed during the time when discrimination was present. The people employed, promoted, and rewarded before 1968 were drawn from a favored 30 to 40 percent of the population. This group cannot claim that they are the most virtuous or meritorious members of their generation: they will never know if they are, since most of the population (minority and female members) were excluded before the selection for recognition began.

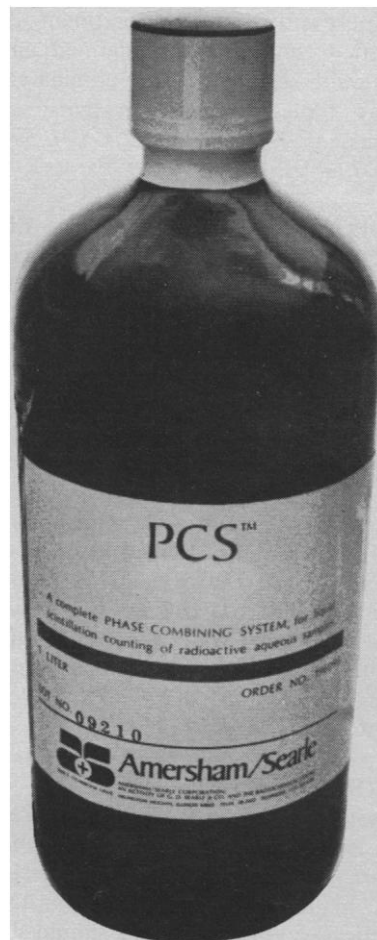
Following this line of reasoning one can conclude that the employment, promotion, and reward systems of the past favored "mediocrity." The so-called merit system of the past was "hollow mockery," and those who wish to use a "crowbar" to further discrimination are using the words "merit" and "mediocrity" for this purpose. (The word excellence is used in this way also.)

The leadership of the academic community was not actively promoting equality of opportunity before the civil rights legislation of the late 1960's. Faculty composition reflects this discrimination. The civil disturbances in 1967 led to the legislation that has promoted equal employment opportunities, not only for minorities, but also for women. There is little evidence that university officials have willingly made many of the changes required by law. The civil rights agencies are swamped with complaints.

I realize that it requires some humility for the members of the academic community to admit the possibility that they could not be judged meritorious in a meaningful way, but humility

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