Letters

A Scientist by Several Other Names

During the first week of an introductory course in psychology, I asked my students (47 of them, mostly new college freshmen) to write down the names of ten scientists. They were given about 5 minutes to perform the task. I asked them to carry out this chore because, with the lists prepared, I hoped to go on and have the students indicate, in a general discussion, what the individuals they named had in common, and by doing this to lead them to an understanding of the nature and coherence of all scientific activity and eventually to an examination of the question whether or not psychologists belonged in this company.

The lists made interesting reading, and when all the nominations were tabulated they seemed to accommodate several speculations. The results of the tally are given here. The original spellings have been preserved, and the number of times each name (and spelling) was offered appears in parentheses.

Einstein (29), Eienstein (2), Einsteine (1), Einstien (2), Enstein (1), Inestine (1).

Pasteur (22), Pastuer (5), Pastuere (1), Pasture (3).

Newton (19), Neuton (1).

Salk (15), Saulk (2), Sulk (1), Bernard Salk (1).

Galileo (7), Galilao (1), Galilio (1), Gallaleo (1), Galleo (1), Gallileo (3).

Edison (13), Franklin (11), Freud (11), Darwin (10).

Curie, Marie (10), Curie, Pierre (4), Curie, (9), Currey (1), Currie (3), Cury (1).

Schweitzer (5), Scheitzer (1), Schwitzer (2), Schyzer (1), Swicher (1), Switcher (2), Switzer (1).

Von Braun (8), Van Braun (2), von Bron (1), Von Brawn (1).

Copernicus (2), Capericus (1), Cornepincus (2).

Da Vinci (3), De Vinchi (1), Divinshie (1).

Gottlib (3), Gootlieb (1), Gottlif (1) (*1*).

Leeuenholk (1), Leevenhope (1), Leuwenhook (1), Lewenhook (1), Lewinhook (1).

Sabin (3), Sabien (1), Sabine (1).

Bell (3).

Lavoisier (1), Lauversior (1), Lavasoir (1).

Marconi (3), Reed (3), Watt (3), Aristotle (2), Ferme (2), Goddard (2), Needham (2), Neilson (2), Morse (2), Pouchet (2), Redi (2).

Pavlov (1), Pavloff (1).

Spallanzani (1), Spallzani (1).

Each of the following names was mentioned once:

Archimedes, Martin Arrowsmith (*1*), Bacon, Boar, Burbank, Charles, Carlton. Coons, Crutchfield, De Krebs, Dornberger, Farraday, Fleming, Galton, Gauss, Howe, Kelsey, Koch, Kratzmer, Laurance, Lay, Linnearus, Dr. Ludwig (*2*), Malthus, Mendel, Mendelsohn, Mosier, Ohm, Oppenheimer, Pauling, Petri, Priestly, Rorshack, Sarnoff, Adam Smith, Vesalius, Voltz, Werner, Dr. Norman Welsh, Mr. Wizard.

The data suggest that even a reasonably well-informed adult is likely to know the names of only those who work in the physical or biological sciences.

Moreover, he probably believes (i) that women are not scientists; (ii) that inventors are scientists, mathematicians may be scientists; and (iii) that very few eminent scientists are alive today, and if they are, they are quite likely to be on television, in the Sunday supplements, or working in space technology or atomics.

The failure of social scientists to dent the list is not surprising, but the absence of many important names is; Descartes, Helmholtz, Leibnitz, Loeb, Mead, Poincaré, Watson, Meitner, Boltzmann, Kepler, Maxwell, Carson, Harvey, and Planck are some of the more obvious omissions.

The data do hold out a small ray of hope to the humanist. The cavalier renditions of the names may be taken (psychoanalytically) to indicate a deep-seated and general hostility toward scientists which, if channeled appropriately, would provide an effective safeguard against the looming threat of a scientific takeover.

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Notes

1. These names appeared, no doubt, because the students were reading *Arrowsmith* in the course at the time.
2. A faculty member at the college at which I teach. I am somewhat miffed that nobody named *me*.

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Metric Question

Two pro-metric-system letters in a recent issue of *Science* [**140**, 1137 (1963)] presuppose the inevitability of an ultimate compulsory metric takeover in the United States and Great Britain. While there may have been some basis for such a belief during the latter half of the 19th century, a gradual shift in outlook, due to economic and technical changes, has been under way since then, especially since the congressional debates of 1902 (*1*).

Confusion and misunderstanding continue to bedevil the metric controversy, but the recent adoption of the wavelength of a line in the spectrum of krypton-86 as the basis for an international invariable standard of length should finally settle the question of which is "more" basic, the inch or the meter. By treaty, both these units have now achieved international recognition, along with other English and metric weights and measures. That there are two deeply rooted systems in the world today is increasingly being taken for granted by industry and commerce, except for those who have axes to grind or who have become irreversibly steeped in metric-system propaganda.

There is nothing scientific, sacrosanct, or immutable about the metric system, whose only claim to superiority lies in its decimalization and in its attempted relation between units by 10's only. In many respects it is inferior to the English system, a fact that Secretary of State John Quincy Adams demonstrated in his historic report to Congress in 1821, which laid the foundation for the continued use and standardization of the English units in the United States.

The 1960 British "Joint Report, on