course as it is experienced by students, we will never get to the root of the matter. This is where institutional self-study, seriously and courageously conducted by determined faculty members, deans, department chairmen, and presidents, can improve quality through faculty development and weeding out the weak and the unfit from college faculties. The "battle" is not only between two breeds of professionals; it is between types of institutions. The early American college's and university's arrogant neglect of and lack of concern with the problems of the population at large led to the rise of public institutions, land-grant colleges, and normal schools. It was the latter that met the classic need of a democratic society: teachers for the young. But today a new and wholesome orientation of universities and their faculties toward concern for the preparation of teachers is evident. Universities should serve the schools, not dominate them. The heavy-handedness with which they have tried, in the past, to determine the curricula of lower schools, as if all pupils were college-bound, is no recommendation in the present situation.

To link inadequate school systems and inept boards with weak colleges that are preparing teachers would be pathetic. Nor can the education of teachers be entrusted to *all* colleges and universities. Neither bigness nor general prestige justifies endorsing whatever an institution might do. As Conant wisely points out, there must be institutional commitment and deep concern for the public schools, not just by the professors of education but by entire faculties —faculties which today are sometimes neither committed nor interested, because their chief rewards lie in the direction of research and writing, not in the guidance of neophytes in the teaching profession. How to awaken this interest and obtain genuine commitment is a difficult question.

Further, some of the affiliates of the National Education Association which are named by Conant—imperfect as they may be—are forces for building a dynamic society, and they are this nation's only real bulwark against the capture of the teaching profession by trade unions. These organizations are responsible entities. The task is to improve them and to help them become more representative and more responsive with respect to teacher education institutions. The consequences of abandoning accreditation deserve the same scrutiny that Conant has given to institutional programs and curricula.

State departments of education should answer Conant's charge that their staffs are not as competent as college faculties to judge what is needed in the preparation of teachers. Conant criticizes the academic backgrounds of state department of education personnel.

Although he is critical of both the state departments and the professors of education (the latter "spend too much time mouthing platitudes"), Conant finds no support for the charge that the education professors have entered into a conspiracy with the staffs of education departments. He properly warns against professors of education teaching in fields for which they lack proper background. His point is timely and well taken.

The notion about vast requirements for teachers in professional education just is not so, as Conant states. As for teachers colleges, Conant defends them from unwarranted attacks. Although these colleges number fewer than 100 in the nation, they educate 20 percent of the teachers. Of them Conant writes that ". . . the program in the teachers college is *not*, in comparison with that of the college of arts and sciences, deficient, thin, or lacking in what goes to make up a 'good, solid major.'" The better teachers colleges, he finds, have more distinguished scholars than either the poorer universities or many private colleges. "Therefore," he concludes, "it is not possible to say that a teacher may be better prepared in any particular type of institution."

Conant makes this significant observation: ". . . quarrels about teacher education serve to mask more fundamental conflicts over economic, political, racial, or ideological issues. Furthermore, there are professors of the arts and sciences who warmly support education courses, and there are professors of education and public school people among the leaders in the movement to strengthen the teacher's academic preparation." In this there is bright hope for genuine advancement of teacher education in America.

How shall desirable changes be brought about? It is enough for one able, fearless educator to raise issues and propose solutions. But beyond that stage of ideation and communication must come a strategy for reform. This important matter James Conant leaves to others.

Life Nature Series

The Mammals. Richard Carrington and the editors of *Life*. Time, Inc., New York, 1963. 192 pp. Illus. $3.95.

With the exception of a handful of domesticated species, a few others that are of economic importance, and some that are commonly kept in zoos, are the several thousand other species of living mammals of concern to any but specialists? Evidently the answer is yes. San Diego has discovered that its migrating gray whales are a tourist attraction, hundreds of persons gather each evening at Carlsbad Caverns to see the spectacular flight of bats, zoological parks and museums are visited by ever increasing throngs, and suddenly there is a market for books on mammals.

In response, several volumes designed for the university classroom and others for the home library have appeared in quick succession. *Life*'s *Mammals* is an exceptional entry in the field. Its price is attractive; it is very well, if not spectacularly, illustrated (see the cover on this issue of *Science*), and its split-level text is unique.

The world of mammals is described in eight chapters that average about 20 pages each. Classification, evolution, adaptation, locomotion, food, survival, movements, and reproduction are the main headings, and they are concealed in such attractive titles as "The quick and the dead," "The wanderers and the stay-at-homes," and "Love life." A well-chosen, in-print bibliography (oldest title, 1929) concludes the volume.

The text achieves an exceptionally high degree of factual accuracy, and it is written in consistently simple and usually clear language. Seven or eight pages of text introduce each chapter. The same facts are further distilled to two or three short paragraphs that accompany each two-page spread of pictures in the final two-thirds of each chapter. The picture captions themselves provide the ultimate level of condensation.

Life's *Mammals* is certain to provide a great many persons with a good basic knowledge of mammals, whether the readers simply scan the pictures or get the triple impact by reading the entire volume.

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