"To Be or Not To Be . . . ."

Women and the Scientific Professions (M.I.T. Press, Cambridge, Mass., 1965. 185 pp., $6.95), edited by Jacquelyn A. Mattfeld and Carol G. Van Aken, contains papers presented at a symposium that began as an effort to inform women students at Massachusetts Institute of Technology about the difficulties and rewards of a career in science and blossomed into a full-scale conference on women in the scientific professions.

It will be of most immediate interest to women science students who are trying to make up their minds whether, or in what sense, they want to "be scientists." The woman who is already an established scientist probably has neither the time nor the inclination to read other people's opinions about whether she ought to be doing what she has chosen to do.

The participants were not all women, nor were they all scientists. Most of the facts and figures—indeed most of the theorizing—came from psychologists and sociologists. The contributions of the women scientists were short, highly personal, and interestingly diverse.

Two psychological papers, by Bruno Bettelheim and Erik Erikson, focus on the emotional differences between men and women which affect their scientific work. Bettelheim does not think that women engineers build feminine bridges, but he does think that their emotions about bridge building are peculiarly feminine. Women "embrace" their tasks; men "conquer" theirs. Erikson admits, somewhat grudgingly, that "computers built by women would not betray a female logic," but stresses the emotional differences between the sexes, and even hopes that women scientists will bring to the professions a "new kind of vision" for use in applying science to humanitarian objectives. Physicist Chien-Shiung Wu, on the other hand, does not conceal her impatience with such psychological tommyrot. An atom is an atom and is not susceptible to masculine or feminine treatment.

Statistical material on the employment, education, and earnings of women scientists and engineers is presented by sociologist Alice Rossi and other participants. Rossi also reviews the findings of several interesting interview studies concerned with the attitudes of educated women toward careers, the attitudes of men toward professional women, and the beliefs held by women about the attitudes of men. Jessie Bernard concentrates on women engineers in the academic world. Even James Killian turns social scientist for the occasion and reports on a survey of industrial employment opportunities for scientific women and on his own interviews with women scientists.

Most of the participants were moderately sanguine about the career opportunities for women with good training in science or engineering. The supply of competent well-trained people is short in most branches of science—at all levels from technician to independent investigator. Both industry and government, perhaps even universities, are making conscious efforts to utilize women more effectively. The girls who choose science will not lack for challenging jobs, although they should be prepared for some hazards. On the average, they will make less money and stand less chance of promotion to the highest positions than equally well-trained men. Most of the participants, however, did not attribute these differences primarily to discrimination. Discrimination doubtless exists, but women also limit their own opportunities for advancement by moving in and out of the labor force when they marry or have children and by being less available for travel, less willing to work long hours, and less usable in certain kinds of field work.

Although the opportunities exist, many of the participants voiced alarm over the disinclination of women to seek careers in science. The statistics are fuzzy because, for example, in most sources of data a Nobel prizewinner and his (or her) laboratory technician are listed as "scientists." But even with full allowance for the definitional difficulties, it is perfectly clear that the number of women at all professional levels in science and engineering is extremely small and is not increasing as fast as the number of men in the same professions.

What are the reasons? Do they relate, as the psychologists suggest, to inherent emotional differences between men and women? Do women, both personally and professionally, seek the human contacts and satisfactions of mothering, nursing, teaching, and social work and avoid the lonely abstractions of scientific thought?

Or can the small number of women in science be attributed to parental pressures and early schooling? Rossi believes, although she presents no evidence, that the observed attitudinal and intellectual differences between males and females (the higher average mathematical ability of boys, for example) are environmentally induced and could be altered if girls were really given the same educational opportunity as boys and encouraged in the same directions. Mary Bunting also suggests that society is partly to blame for stifling scientific talent in girls: "To date, this country has, in my opinion, proceeded on the theory that one does not really expect any significant contributions from women in science." She and Vivianne Nachmias both make the sensible point that the observed differences between the sexes in average scientific aptitude or inclination are largely irrelevant to the question of how the small proportion of women (and men) with the capacity for successful careers in science can be encouraged to pursue them.

Finally, can the trickle of women into science be attributed to the peculiar difficulties of combining marriage, motherhood, and success in science? It may be worth noting that many of the nonscientists at the symposium pointed out that the difficulties of the women scientists were common to all professional women, although the women scientists themselves insisted their problems were far more difficult. Science advances faster than other intellectual disciplines, part-time work is less available, laboratories are not movable, and

resuming creative work in science after an interlude is next to impossible. The development of part-time opportunities and retraining facilities were frequently mentioned as partial solutions. These solutions were strongly rejected, however, by a small minority of feminists who believe that ultimately sex roles must be readjusted and that fathers must be willing to do their share of child-rearing.

Like most symposia this volume suffers occasionally from repetitiousness and from failure of different participants to focus on the same questions. On the whole, however, it makes interesting reading. The views presented are diverse, but the tone is generally sensible and realistic. Young women interested in careers in science will find the volume well worth reading. So will some of their teachers, counselors, parents, husbands, boy-friends, and male colleagues.

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The Dorset Eskimo

The Most Ancient Eskimos: The Eskimo Affinities of Dorset Culture Skeletal Remains. Lawrence Oschinsky. Canadian Research Centre for Anthropology, Ottawa, 1964. 112 pp. Illus. Paper, $3.

The phylogeny of Hyperboreans, some 200 years after Cranz speculated that Greenland Eskimos were close relatives of the Kalmuck Mongols, is still a problem that excites the imagination. Modern Eskimos are reasonably well described in terms of blood groups and gross anatomy. In certain respects they seem more closely related to the north Asian peoples than to their American Indian neighbors, although it is clear that all three are members of the great Mongoloid subdivision. But there is much physical and cultural diversity among them, and although Eskimo culture can be traced in archeological remains some 5000 years into the past, the biological identity of the early bearers of this culture is almost as unknown to us as their speech. In view of this, an author is justified in devoting a small book to a discussion of data on fragments of three human skeletons ascribed to the Dorset Eskimo culture of Arctic Canada (which is in no sense the oldest known Eskimo culture as the title of the book implies).

The Dorset case is a special one within the larger problem of the apparently fast-evolving Eskimo. This demonstrably Eskimo culture developed and flourished for perhaps two millennia in the central and eastern Arctic, but it never spread to the largest population centers in the west. Its origin and cessation are but dimly perceived, and more than one archeologist has thought he detected a spoor of Indian influence. Oschinsky's problem then is to find criteria for distinguishing Eskimos from Indians of 2000 years ago. The context of the problem is further explained in his introduction:

> The Indians who live and lived on the Eskimo frontier as the Beothuk, Montagnais-Naskapi, Cree, Arctic drainage Athabascans are hardly represented at all in the skeletal collections in museums. The Old Copper and Archaic Indian skeletons found in Canada are very few and in poor condition. The human osteological specimens from the Dorset culture are few as well.
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> In the face of such intriguing difficulties, the challenge of determining the racial affinities of the Dorset people was accepted. If the conclusions presented below seem premature or unwarranted on the basis of so few specimens, it is hoped that the irritation thus engendered will provide a further stimulus to new field parties to find more specimens and thus put Dorset racial osteology on a firmer basis.

The book comprises 15 pages of text, 32 of tables in which predominate qualitative morphological observations on numerous small series of skulls—for example, Indians, Lagoa Santa, Brazil (6) and English, Medieval (24)—and 20 pages of illustrations. None of the tabular data is subjected to any test of statistical significance, and references to it in the text are limited to simple comparisons of two sets of figures, or of one set with the whole. One may wonder why Oschinsky has further weakened his presentation by, for instance, avoiding measurement in favor of describing the ascending rami of mandibles as "short broad," "long narrow," or "short narrow" (Table 14). Extensive quotes from earlier papers on the same subject by Oschinsky and others make up one-third of the text.

In short, this booklet, which apparently draws heavily on a monograph by Oschinsky and East that is in press, contributes little but some raw data and a plea for more recognition of discrete morphological variables in the racial identification of skeletons. With an argument such as this, it is unlikely that these bones will stimulate much contention: they "look" Eskimo, and that's that.

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For Western Naturalists

Mammals of the Pacific States: California, Oregon, and Washington. Lloyd G. Ingles. Stanford University Press, Stanford, Calif., 1965. xii + 506 pp. Illus. $10.

This attractive and useful volume is essentially a third edition of *Mammals of California* (1947), revised in 1954 as *Mammals of California and Its Coastal Waters*. It considers 233 species of mammals, compared with 204 in the second edition and 193 in the first. This increase is accounted for by the larger area covered, as well as by some recent nomenclatural changes and the inclusion of some introduced exotic forms, now established (for example, the nutria). Revision has served to rectify some of the shortcomings and inaccuracies of the earlier editions, but it also has introduced a few new ones. These are mostly small typos, sometimes more amusing than anything else. For instance, on page 159 the Panamint and Uinta Mountains should be capitalized; on page 20, Odontoceti is spelled two ways; Dr. Hooper (p. 490) will be surprised at his new name, Dr. Severaid (pp. 151, 493, and 504) may wonder at the spelling of his, and Dr. Osborn (twice on p. 7) would certainly have resented the extra letter on his. For that matter, *Synaptomys* (p. 478) may not approve being called the "northern bog hole."

This book is intended not as a scientific treatise, but as a general reference for field workers, laymen, or students interested in western American mammals. Ingles, now head of the Life Science Division at Fresno State College, has for years taught a course in mammalogy, and his book has been thoroughly tested by his students in the field and laboratory. It should serve admirably as a guide in a beginning course.

An introductory section deals with mammals in general, their place in ge-