

palliation through insight. The only really effective method, however, is prevention, and this is the sad thing: that we cannot lead our children through the undergrowth of life experience into their places in an orderly, free, and responsible society without somehow passing on to them our own prejudices, fears, and bigotry. These hobbling traits are not acquired in graduate school; they are taught to us as children. Therefore, we must somehow contrive to change our ways at all levels of education, remembering that that process—like charity—begins at home.

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Junior Scientists' Problem

I would like to call attention to a disconcerting trend in the sales policy of some of the major scientific and biological supply companies serving schools and colleges. Such companies more and more will serve institutions only, not individuals. In New York, for example, the major source of biological and chemical supplies of good quality, but in smaller quantities than are offered by the "professional" suppliers, will no longer meet the needs of the enthusiastic student or amateur. I suppose that it is much more profitable to confine one's business to large orders, but it is a pity that the needs of the young have to be sacrificed. Those young people with their "nuisance" orders of a dozen test tubes or two flasks are often enough the scientists of tomorrow. At least they will become those interested and informed laymen the community of scientists so urgently requires.

Happily, there are exceptions to this trend among suppliers, but I am beginning to wonder how long they will hold out.

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Rhythm Method and Mate Selection

In trying to meet my criticism (Letters, 6 Mar., p. 995) of the rhythm method of birth control as a method that selects for its own failure, R. C. Baumiller (24 Apr., p. 365) proposes a model that makes the criticism not

less but more telling. He suggests that perhaps some day "intelligent, responsible and self-sacrificing" males will select as mates "only those women who have regular cycles." Even if we grant this somewhat implausible method of choosing a wife, we cannot agree with the author's conclusion that "thus selection may soon turn in favor of regular ovulatory cycles."

Baumiller is proposing a system in which mating is selective rather than at random. It is a basic principle of population genetic theory that selective mating alters the frequency of genotypes without altering gene frequencies. When gene frequencies are altered, it is because of differential fertility among the genotypes. What differentials would we expect to find among the genotypes in the Baumiller model?

Since he says that in the unions postulated "the natural method of conception control [would] become even more effective," we can only suppose that the productivity of couples composed of altruistic males and regular females would be below that of other couples in the population, whom (by inference) we are surely justified in identifying as composed of nonaltruistic males and irregular females. Thus natural selection would lead precisely to the conclusion suggested in my letter: the progressive elimination of regular women. The introduction of mate selection would merely insure a parallel rapid elimination of "intelligent, responsible and self-sacrificing males." Perhaps Baumiller would call this process "natural"—a word which, I note, he uses without quotation marks; but surely he would agree that it would produce a result not devoutly to be wished.

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Since only a finite amount of time is available for editorial chores, the amount of care budgeted to the editing of letters, articles, or reports submitted to *Science* should, in some measure, parallel the potential social impact of the content. More explicitly, scientific matters which pertain directly to the issues of peace and nuclear war; the "population explosion," birth control, and the future evolution of man; and automation, in so far as it may effect serious economic and cultural upheavals, should receive priority in editorial scrutiny. . . .

It was therefore with amazement and dismay that I read the letter of R. C. Baumiller pretending, in a jesting manner, to weaken the serious, lucid, and valid argument of Garrett Hardin's letter on the "Ultimate failure of rhythm" as a birth-control method for world population control. . . .

That the editors of *Science* . . . overlooked the semantic bobble of the interchange of two very different meanings of the term "selection"—the selection of a mate by an individual, as opposed to natural selection, which ultimately "selects" the members of future generations by virtue of their greater-than-average reproductive efficiency—is inexcusable.

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Credit Due

The College of the University of Chicago deserves, I believe, much more credit than it ever gets in such histories of curriculum reform as John Walsh's article (8 May, p. 642). Certainly this is the case in regard to mathematics. I remember my own surprise, as a young assistant professor at Purdue around 1945, when I became aware that Chicago was teaching to freshmen and, even worse, to high school juniors concepts and approaches in mathematics that I myself had had only as a graduate student. At the time, I was engaged in proposing such revolutionary ideas as that engineering freshmen could start their first course with quadratic equations. The result of Chicago's pioneering work was to make very many younger mathematicians intensely dissatisfied with what they were teaching.

I could list many names of workers in mathematical curriculum reform who were influenced by Chicago's work. I know that the college also had novel programs in the other sciences. Did they have a similar impact?

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"Open" Reviews

I would like to present herewith some arguments in favor of open reviews of research proposals and of scientific and technical papers submitted for publica-