LETTERS

The Future of Journals

I have several comments on the letter by Edward P. Ney (4 Nov., p. 456). The first is a minor quibble; and yet it bears on an idea of some importance in his letter. That is the matter of the definition of a library. The concept of a library, and presumably of the word as well, long predates the invention of at least the scientific journal, and probably other kinds of journals. It is thus not surprising that the *Oxford English Dictionary*, whose historical orientation is well known, should give a definition that takes no account of journals. I am sure, however, that no modern user of a library, including Ney, would be satisfied with one that did not include journals in its holdings.

I agree with Ney that there is a problem. I even agree that part of the problem is caused by publication of many papers that would better be left unpublished, or be published only as part of more complete works. It might be charged that, as editor of a research journal, I should take that into account in deciding what to accept. I do what I can; but my journal, like most scientific journals, is shaped at least as much by the wishes of the community it serves, as expressed through the referees, as by the ideas of the editors. My influence is limited.

Even if all editors could be perfect gatekeepers, there is another cause of the "Journal glut." That is that, as the store of scientific knowledge expands, so does the size of the boundary of that knowledge. Moreover, since the "space" in which the store and its boundary exist is undoubtedly multidimensional, the boundary increases with some power higher than the first of any measure of the "diameter" of the store. Since research is, by definition, working at the boundary, this effect makes for a steady increase in the *rate* of accretion of new knowledge, and thus of the rate of publication of research papers.

Ney's "drastic" solution seems to me to work in the wrong way. It is precisely the specialty libraries that should hold the journals, since in that way the latest knowledge will be most easily available to those who need it most, the researchers. Let the main library on any campus be the repository of books. Neither of these versions, however, is likely to have significant effect on the overall library budget on a campus, nor even on the proportion of it that is spent on journals. It will just change where the materials are held.

Finally, the approach used by the Institute of Technology libraries at the University of Minnesota may appear to the user to be a step forward; but if it is widely copied, it may well mean the demise of the journal altogether. The reason is simple: Most publishers rely on subscription income to finance the publications. The greater the extent to which subscriptions to the journals are supplanted by such document delivery services, the more expensive the journals must become; that, in turn, produces a further drop in subscriptions, and eventually the journal ceases to be economically viable. Would Ney welcome such an outcome? I doubt it.

I admit that I criticize Ney's proposals without providing any alternatives. The reason is simply that I have none. I wish I had. The person who comes up with a truly workable one will be justifiably famous, if not rich.

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Multiple Sclerosis and Visna

Roger Lewin's article "Promising animal model for MS" (Research News, 30 Sept., p. 1364), may have left the reader with the impression that the idea of visna as a possible animal model for multiple sclerosis (MS) originated with researchers at the Johns Hopkins University. In fact, they were not the first to pursue this idea. The possible similarity between visna and MS was first suggested by Sigurdsson 25 years ago in a paper (*1*) describing the transmission of visna. Since then a number of workers have studied visna in an attempt to establish its relation to MS. The earliest studies failed to show similarities between the histologic lesions in the central nervous system in visna and MS (*2*). More recent work, some of which has been supported by grants from the National Multiple Sclerosis Society, likewise has not demonstrated a significant similarity between visna and MS. Another early study (*3*) did not find specific antibodies against visna virus in more than 100 samples of serum from MS patients.

Lewin writes that the course of visna is characterized by alternating remissions and relapses. Although slight remissions are sometimes observed, visna usually has a gradually progressive course, as emphasized by Sigurdsson, who observed a large number of visna cases, both natural and transmitted. The Johns Hopkins workers suggest that a remitting-relapsing course in visna can be explained by a progressive emergence of new antigenic variants of visna virus. However, two recently published studies of sheep (*4*) show that antigenic variants are rare in long-term infection resulting in clinical visna. Both of these studies conclude that antigenic variation has no role in the pathogenesis of the disease, although they agree that variants do appear in persistently infected animals.

Lewin refers to Janice Clements' speculation that visna may be a rare complication of a widespread visna virus infection in sheep. It is not mentioned, however, that the pathological and clinical expression of the virus is a lung disease, namely progressive pneumonia, that is also called Maedi or Zwoegerziekte. Although the lung disease is widespread in sheep in many countries, for example, in Holland, the disease of the central nervous system—natural visna—is rarely observed (*5*). It is therefore well established that visna is a rare complication of the slowly progressive lung disease.

Although there is no evidence to suggest a relation between visna and MS—pathological, virological, or immunological—Sigurdsson's idea that MS is a slow virus disease may still be valid. In spite of the fact that visna has been disappointing as a model for MS, its pathogenesis is intriguing and may be relevant to human disease, particularly in view of recent evidence of retrovirus infection in man.

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Erratum: In the report "Male esterase 6 catalyzes the synthesis of a sex pheromone in *Drosophila melanogaster* females" by S. D. Mane *et al.* (28 Oct., p. 419), the third sentence of the first full paragraph in column 2 of page 420 should have read, "Our data show that purified EST 6 can hydrolyze 55 pmole of cVA per minute per microgram of protein." The last sentence in reference 8 on p. 421 should have read, "The specific activity of the final product was 74 μCi/mmole."

Erratum: In table 1 on p. 128 in the article "External human fertilization: an evaluation of policy" by C. Grobstein *et al.* (14 Oct., p. 127), the number of embryo transfers for Queen Victoria Medical Centre (218) resulted from the 364 laparoscopies of the first two clinical series. The first figure for the percentage of pregnancies per embryo transfer for that center also represents the combined result from the first two clinical series, and the percentage is 20 (43/218), not 12.