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will speak to you about a greater art, that of cybernetics, which saves, not only souls, but also bodies and possessions, from the greatest dangers." In the *Statesman* (299b-c), the Stranger suggests to the Younger Socrates that a law be passed to prevent people from "persuading other younger men to essay cybernetics and medicine not according to the laws." And in the *Cleitophon* (408b), we find "the cybernetics of men, as you, Socrates, often call politics."

Many centuries later, the French mathematician and physicist André Marie Ampère (1775-1836) employed the word "cybernetics" in his great *Essai sur la philosophie des sciences* (1834). By this, of course, Ampère meant only the "means of governing" people, not Wiener's important new science.

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Readers, Foreign and Domestic

In his letter about the readership of *Contributions to Geology* ("Who reads the journals?", 17 Sept., p. 1325), R. B. Parker reports that "apparently our foreign readers outnumber the domestic ones by a very large factor," basing that conclusion on the fact that "we see references [to the journal] in many foreign journals, and reprint requests from abroad are numerous." He goes on to say, "The fact that many such requests and references are from respected and influential scientists reflects discredit upon American scientists," and he suggests that American scientists should "spend more time reading and less writing."

One is tempted to ask: How many journals has Parker canvassed in a search for references to *Contributions to Geology*? And in comparing reprint requests, has he taken into account that many American scientists mail reprints routinely to their colleagues without waiting for requests?

Having been associated with a perhaps similar publication (*Tulane Studies in Zoology*), I am aware of the tremendous response by institutions in foreign countries to an offer to exchange journals. American journals do not, to my knowledge, make a practice of exchanging. Thus an equally plausible explanation of the large num-

ber of foreign reprint requests may be that the distribution system favors them.

I object to the castigation of the reading habits of "American scientists" (presumably of all disciplines) on the basis of an unsubstantiated opinion concerning the reading of one journal primarily of interest to scientists in a single discipline. There may be some truth to Parker's accusation, but it is not supported by the statements in his letter.

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Parker concludes from the active foreign readership of *Contributions to Geology* that "our colleagues in Europe and Asia are apparently vastly better informed than we are." I should like to suggest that exactly the reverse may be indicated. For most scientists serious reading represents an acknowledgment of the need to be informed. Those scientists who are geographically farthest removed from personal contacts with fellow specialists are quite likely to feel the greatest need for journals. It does not necessarily follow that they will become the best informed. Personal observation leads me to the opposite conclusion—that the man who is best informed relies least upon the journals for enlightenment. He is served by a number of other communication channels—personal contacts, conferences, correspondence, preprints—most of them considerably faster and more efficient. There may even be a continuous negative correlation across the spectrum of informedness, leading finally to the nervous neophyte who reads all the journals for fear of missing something.

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. . . I should like to ask Parker why he felt it necessary to start yet another journal. I submit that American scientists do read worth-while journals, but that most of them, like me, have more and more difficulty reading through more and more publications to separate the mass of trivia from the relatively few significant contributions to scientific knowledge.

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