

# Letters

## Antarctica: Behavioral Studies

With regard to Nelson's succinct analysis of research on Antarctica (26 Jan., p. 407), the continent most hostile to man, it should be pointed out that there is a fairly good explanation of why the study of behavior of men wintering over on the ice has lagged behind the physical, geological, and meteorological studies which the National Science Foundation has funded. In a situation where danger to life is great, then survival, initially, is the prime concern. Thus, on Mount Everest ascents, in Sealab experiments, and in space journeys, the overriding consideration is to get the men back alive and well and worry later about their socialization. Where survival is at stake, physicians, not psychologists, are most essential. The Navy has always stationed a physician at Byrd and Pole Stations; psychologists have gone there only to collect information.

Moreover, there is a fair body of literature, under Navy rather than NSF funding, the result of work carried out at the Navy Medical Neuropsychiatric Research Unit, mostly by Eric Gunderson and Paul Nelson. The 1966 volume of *Antarctic Bibliography* (Library of Congress) lists 17 published papers on psychological adjustment in Antarctica by one or the other of these two.

Finally, whether psychiatrists, psychologists, and sociologists are more or less likely to leave the comforts of the temperate zones than are geologists, physicists, or even plumbers could be tested on campuses or in industries as well as on the ice. Intrepidity may be associated with scientific discipline, but the Antarctic data do not provide proper validation of such a notion.

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The fine work of the University of Oklahoma group on sleep patterns is not "the first and only project in the behavioral sciences which NSF has

sponsored in Antarctica." In 1958, with the support of four NSF grants, I began work on personnel selection as well as on properties of group structure in Antarctic populations. During these investigations, I spent the 1958-59 summer in Antarctica and in 1950-60 was a member of the Victoria Land Traverse party.

These studies resulted in a doctoral dissertation, two monographs, and one paper (1), a symposium on polar research at the 1962 meeting of the American Psychological Association, a paper delivered at the 1961 Joint U.S.-Canadian Conference on Cold Weather Physiology, comparative data for a paper delivered at the 1967 meeting of the Western Psychological Association, and comparative data for a paper to be given at the 1968 meeting of the Western Psychological Association. Indeed, the research I am presently conducting as well as all my subsequent work on structural properties in small interdependent isolated groups has evolved from these initial undertakings.

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## References

1. W. M. Smith, *Psychol. Rep.* 9, 163 (1961); — and M. B. Jones, *Aerospace Med.* 33, 162 (1962); W. M. Smith, *Psychol. Rep.* 19, 475 (1966).  
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## Personalized Subscriptions

In the article "The future of scientific journals" (1 Dec., p. 1153), Brown, Pierce, and Traub "... propose that journals stop binding papers into issues and, instead, distribute to each subscriber a personalized stream of papers, abstracts, and titles." The proposal is unrealistic on several counts:

1) A scientist would have to choose a unique vocabulary for each journal of possible interest, select and "submit his request list to the editor" of each jour-

nal, revise these lists by adding, deleting, and replacing terms to optimize the type of papers he receives, and keep up with periodic vocabulary revisions published by each journal. It would be an unusual scientist who has time to prepare and continuously revise request lists for several dozen journals that might contain papers of interest to him.

2) Results of evaluations from 103 cancer research scientists who received over 6000 summaries of published articles indicate that even when several thousand highly descriptive categories in a limited specialty field (cancer research) are used for precise identification of relevant documents (1), about half of these carefully indexed articles are rated "of little or slight use" or "of no significant use" by the scientist. If these detailed, analytical index categories were replaced by a few hundred terms as Brown, Pierce, and Traub suggest, the scientists would be overwhelmed by articles of little or no use.

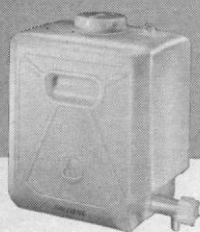
3) The authors imply that a few hundred simple terms, from a hierarchical classification, can be used without roles or links, without weighting techniques, and without preordinating terms into precise concepts. This is surprising in view of the widespread use of these refinements in information systems and the oft-stated and demonstrated need for them.

4) Space does not permit comments on the enormous cost to publishers who would have to send out thousands of different packages to individual users. What about the librarians who would need to handle, process, and bind individual papers and drafts?

Contrary to the oft-repeated clichés used by the authors to justify the need for a new system, the present journal publications arrangement is remarkably free of problems and is widely accepted by the scientific community. Publishers have found ways to increase income by advertising, by page charges, by charges for reprints, by raising subscription prices, and by starting what the authors refer to as "... younger and more vigorous journals of narrower scope ..." (which are actually an excellent and valuable form of selective dissemination). It is unlikely that any system can be developed which would be as acceptable to either scientists or publishers as the present basic system of journal publication.

There is certainly room for improvement in the present system, and a real

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need exists for new services. But such services must be developed on a realistic and rational basis, must *supplement* existing communication methods rather than replace them, and must have the full cooperation of powerful vested interests (the publishers). It would be most unfortunate if speculative and unrealistic proposals delayed progress in scientific communication by causing publishers to take positions strongly opposing any change in the status quo, since this would interfere with development of practical selective dissemination services which are so urgently needed.

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## Reference

1. J. H. Schneider, *Proc. Amer. Doc. Inst.* **4**, 301 (1967).

Contrary to Schneider's contention, the present journal publishing arrangements are beset with problems, and the scientific community is keenly aware of them. As proof, we cite the conferences on this subject which have occurred within and among the professional societies, the experimental systems which are arising with increasing frequency, and the many papers which have appeared in *Science* and elsewhere. However, we agree that any new system should evolve from the present system, and it is for this reason that we base our proposal on the existing journals.

In suggesting that these journals distribute separately bound papers on a selective basis, we do not imply that groups of journals in related fields should not collaborate if they are willing and able to do so. Indeed, the new computerized journal, *Communications in Behavioral Biology*, (Letters, 9 Feb., p. 582) appears to be just such a collaborative undertaking, and the recently announced *Mathematics Offprint Service* (*Notic. Amer. Math. Soc.* **15**, No. 1, p. 44) is another effort in the same direction. Our point is that action should be based on existing journals, and that we should avoid trying to create a universal system to handle everything for everyone.

Schneider believes that a personalized journal based on a small hierarchical vocabulary will provide too little relevance. Fortunately, a scientist's needs for current information are typically rather broad, not highly specific as Schneider implies, and in any event very

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high relevance is not essential. To emphasize this, we quote from a letter from C. W. McCutchen of the National Institutes of Health:

You have convinced me that the scientist of the future will be able to read nearly all relevant literature, and almost nothing else. But this would inherently limit his reading to the scope of his own unaided imagination. Discovery is finding relevance where none appeared before; the raw material of discovery is irrelevance.

While agreeing that irrelevance, in moderation, is desirable, we think the present journals provide too much of it. In our opinion, the journals will be most effective if they provide enough relevance to encourage browsing, but not so much as to prevent it. We believe that the proper balance can be achieved by a simple hierarchical vocabulary tailored to the shared interests of a community of readers and authors.

As to costs, we contend that modern technology *can* produce the personalized journal at a reasonable price, and bound issues as well for those who want them. More generally, we suggest that one of the most important roles of computers in the coming years will be to provide custom-tailored products with mass-production efficiency, and that the personalized journal will be an early example of this phenomenon.

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### Afterglows: Eternally Thus

Skin sensory afterglows (26 Jan., p. 445) have been known to the poets and young lovers for centuries. How often have we read—and found out for ourselves—that when you are in love (a strong suggestion), a kiss lingers for hours. A reflection on our early youth can recall numerous occasions when the image of one's girl friend . . .!

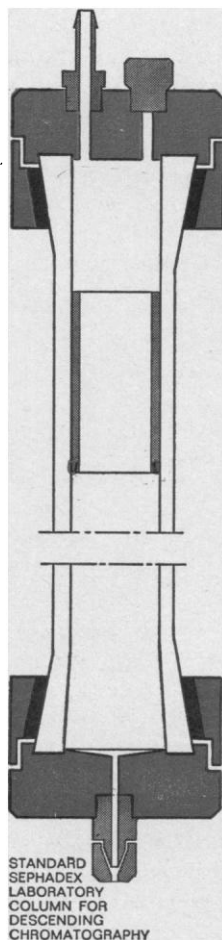
Now, in middle age, after working hard in the garden, or moving furniture, or playing horse to three big kids, a gentle, ever so gentle, stroking of the back (by the spouse, of course) puts one peacefully to sleep. There is no stimulation, no pain sensation, or afterglow. It does not feel like strong suggestion, but boy, what a sleep!

WALTER FLUEGEL

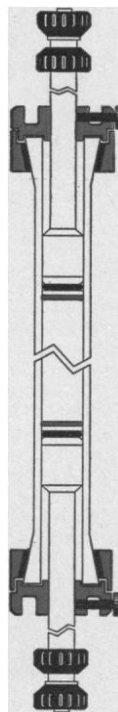
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