

ARTICLES

AMCA—FOXES OR HEDGEHOGS?¹

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Some months ago, when your Vice-President extended to me an invitation to give this address, it was easy to accept—easy because for a period of more than 20 years I have very much enjoyed my association with AMCA. It has been my pleasure to have served several terms as Regional Director for Canada, and to have served on several committees. With retirement approaching rapidly, it is probable that my attendance at your annual meetings will be less frequent—because of economic reasons and not, I assure you, from any lessening interest in AMCA. Thus this address is perhaps by way of a swan song.

In his invitation Dr. Altman gave me the choice of a topic; he did indicate that one of the objectives of this meeting was to inform the public of the value of mosquito control. The title that I have chosen, which will require an explanation, allows me to be critical—constructively so, I hope. My first criticism is that I see little in the program which suggests a direct aim of informing the public; rather it appears—and the presentations of the next several days may result in my eating these words—that much of the program is devoted to AMCA members primarily informing one another. I hasten to add that there is nothing inherently wrong in this approach; however, something more is called for.

During the 1971-72 academic year I was on sabbatical leave, and for eight months was based in Ottawa on an assignment sponsored by the Science Council of Canada. The Science Council had

contracted with SCITEC (The Association of the Scientific, Engineering and Technological Community of Canada) to carry out a study of the national engineering, scientific and technological societies of Canada. The charge was to make an inventory of these societies, their modes of operation and problems, and to recommend how they might better serve Canada in matters of science policy. In particular the study was to recommend ways by which the scientific disciplines might respond more expeditiously on matters of public concern, and could develop a social consciousness in order to respond to public demand for an interpretation of science and technology, and for the direction and control of this technology for the betterment of Society.

The report arising from this study was published last December.² In it I had occasion to refer to Archilocus, the Greek lyric poet and satirist of the seventh century B.C. Archilocus wrote: "The fox knows many things, but the hedgehog knows one big thing." The suggestion has been made that human 'foxes' pursue many often unrelated and even contradictory ends, and that their thought may be diffused or scattered; on the other hand human 'hedgehogs' relate everything to a single central vision, a universal organizing principle.³ Obviously I am suggesting that AMCA should indulge in some introspection. Are you 'foxes' or 'hedge-

² Background Study for the Science Council of Canada; December, 1972, Special Study No. 25, National Engineering, Scientific and Technological Societies of Canada. 131 pp. Ottawa.

³ See Simon, H. P. The 'Fox' Versus the 'Hedgehog': A Historical Look at the Berlin-Carr Dispute, *Queen's Quarterly*, 78(1), Spring 1971.

¹ Keynote address, 29th Annual Meeting, American Mosquito Control Association, Houston, Texas, March 25, 1973.

hogs'? Do you perhaps have many members who are by nature 'foxes' but believe in being 'hedgehogs'?

In the Canadian study of scientific societies more than 100 organizations were contacted. Eighty-two societies provided information in varying degree. In the course of the year I traveled across Canada from the east coast to the west coast and interviewed more than 100 individuals, as well as holding a number of group meetings. By last spring, when writing my report, I felt confident that I had an understanding of many of the problems of Canadian scientific societies. Since many Canadians belong to American societies, comparisons were inevitable. My conviction is that in large measure Americans and Canadians share common problems of their societies, particularly as relates to the increasing demand for involvement of science with Society. Bear in mind that by science I mean including engineering and technology.

From my experience AMCA is no exception to the foregoing generalization. In commenting on some of the problems and challenges facing AMCA, as I see them, I am in no way implying that yours is anything other than a vigorous, financially sound and active society. However, I am convinced that AMCA must more actively and continually reassess its aims and objectives, particularly with a view to greater involvement with government, industry, universities and most particularly Society itself. Challenges are not new to AMCA members. In his presidential address last year Dr. Rogers called for your support in the struggle against the anti-pesticide lobby; your Public Relations Committee, in its report, called for action in educating the public regarding the risks of not having effective chemicals for use in mosquito control programs, and for greater involvement in relation to the trends evidenced by the activities of environmental protection agencies. Your Legislative Committee concluded its report with the following statement: "It can be expected that mosquito control in the future, which has

enjoyed a respected place in the minds of the public, will now take a back seat to the environmentalists of a new era."

The challenges just mentioned relate to matters of specific concern to AMCA, but no scientist or technologist can (or should) fail to recognize the broader challenges to interpret to the public the consequences of their activities, rather than, as Prince Philip said in Canada several years ago, "concerning themselves solely with practical reward." Just one week ago today another Canadian gave a keynote address, this time at the meetings of the North American Wildlife and National Resources Conference in Washington. Maurice Strong, who headed the Stockholm Conference on the Human Environment last summer, urged scientists to change their role, to abandon their claims of political innocence, and to take a more vital role in protecting and improving the environment. Here, again, is a challenge to AMCA.

At this point I must confess that I would feel much more at ease if this talk were a concluding event for your meetings, rather than being designated as a keynote address. However, if events and pronouncements of the next three days make my remarks redundant, I shall only offer a prayer of thanks for the emergence of the 'hedgehogs.'

The repeated references to science and scientists may suggest that I think of AMCA only as a "scientific" organization. I hasten to explain that I am only too well aware that the strength of AMCA lies in the fact that it is a broad-based membership group, including laymen, technologists, engineers, and perhaps unfortunately at times, a tending-to-be-dominant number of scientists. I have never been really sure as to just what a scientist is. Those of you who label yourselves non-scientists will understand when I suggest that a scientist, commonly the possessor of a Ph.D. degree (pile it higher and deeper!), frequently creates the impression that pursuit of knowledge for its own sake is all that matters—that *communication* is not his responsibility, and

that *involvement* is a function for the other fellow to be concerned with.

I do have some concern that the AMCA meetings tend to be dominated by the scientists, that "basic science" tends to overshadow *control*. Less than half of the submitted papers for the present meeting are directly concerned with mosquito control; and I by no means imply that ecological, disease transmission and behavioural studies are not a necessity, or of great value. However, it appears that too little attempt is made to interpret to the nonscientist AMCA member the significance of such studies. If we do not do this, what are the chances that we can interpret to the public the philosophy and non-environmental deterioration effects of mosquito control?

Let us now consider a few of the specific problems that AMCA faces. Quite obviously there is potentially a much larger membership. However, our Canadian study established that proportion of eligibles belonging to a society is not necessarily an indication of the society's strength and impact. Increase in membership is commonly reflected in a sounder financial position, but too frequently a member joins primarily for the advantage of obtaining the organization's publications. Members in this category will never be the 'hedgehogs' that are demanded by current challenges.

In common with many other organizations, AMCA has a large number of committees. A frequent complaint of committee chairmen is that too many committee members are inactive and make little if any contribution. The 1972 report of one committee mentions that only 3 of 10 members were active, and the chairman himself because of other commitments was unable to devote a "maximum effort." I must confess to having been an almost totally inactive member of the 1971-72 Resolutions Committee. The weaknesses in committees have been recognized many times, in AMCA and in other organizations. Membership on a committee is commonly accepted too readily, with the best of intentions. Selection of commit-

tees, and most particularly of Chairmen, must be accompanied by a more careful examination of who has the time.

Not infrequently a committee, at least in the opinion of its chairman, feels that it has been active, and has made concrete recommendations. Under such circumstances failure of the Governing Board to act on recommendations, either for or against, is discouraging to committeemen. I had this experience during a period of several years when I chaired the Research and Development Committee. As a result the report of that committee presented at the 1971 Annual Meeting indicated a serious doubt concerning a need and justification for an R. and D. Committee. Presumably this view was considered, since an R. and D. Committee no longer exists.

How much action has resulted on the 'hedgehog' Resolution, No. 6, presented a year ago? This item resolved "that the membership of this Association recognize and accept its responsibility to the citizens of this country to protect their health through effective integrated mosquito control and further recognize that without chemicals to use, the levels of insects can be expected to rise, ultimately resulting in increased annoyance and greater risk of disease."

It was further resolved that AMCA should ask agencies contemplating changes in laws, a consequence of which may have adverse effects on man, domestic animals and wildlife, to take advantage of the collective expertise of this Association. Here is an example of the central vision 'hedgehog' view involvement which *must* develop if AMCA is to remain a viable force.

Committee-itis is a disease of 'foxes' and in many organizations committees are frequently struck without regard to circumscribed charges and terms of reference. However, as suggested earlier, lack of time frequently conditions productivity, not only of committees but of other activities of an organization.

Like many of our Canadian societies, AMCA and other scientific societies in

the United States operate predominantly on benevolent time and with indirect subsidies. In infancy most societies *must* operate in this manner, but with maturity benevolent time can no longer be relied on. It is therefore encouraging that your Treasurer's Report of a year ago indicated that AMCA was in a financial position that would permit the establishment of a full-time central office, and that the Report of the Finance and Policy Committee recommended a Bylaw provision which would permit the appointment of a Business Manager. You may be moving more rapidly in shucking the benevolent time syndrome than I am aware of.

Accompanying the benevolent time syndrome there has been for many organizations the means test. Perforce of circumstances functionaries are chosen because they have had the means to do the necessary tasks. Means may include physical location as well as the command of indirect subsidies. The means test has meant frequently that the "same old faces" are continually involved in a society's activities. A consequence of this situation is that the young may not be involved to a sufficient degree, and a potential of real substance is not realized.

Involvement of younger members is a problem for many organizations. There tends to develop an 'establishment' of more senior citizens; the probability of the occurrence of a generation gap is the greater if this potential is not realized. In this connection I would remark that care should be taken that your recently instituted Medal of Honor and Meritorious Service awards do not become exclusively senior citizen awards. In order that my references to age are in proper perspective, I should explain that by my standards someone middle-aged is a lot older than I am—a 'hedgehog' view I trust.

And now a word about finances. AMCA is justly proud of its sound financial position, a tribute to your managers over the years. However, if your organization is to become truly involved, —involved in the pressures and complexities of the preservation of the quality

of the environment struggle, involved in combatting environmental emotionalism, involved in telling the factual story of use of insecticides for chemical control of mosquitoes, and in educating the public and politicians regarding the complexities of integrated control, with a demand for greatly expanded control research, then you must have a full-time secretariat. In no way can benevolent time effort produce the needed impact. Your sound financial position—sound in terms of apparent scope of intended activities, would not permit this. A salaries expenditure of roughly \$6100 in a total outlay of \$43,000 for the 1971 fiscal year, and a budgeted \$9600 for salaries in a total proposed 1972 budget of \$56,000, gives an indication of the dominance of the benevolent time syndrome.

In my report to the Science Council of Canada I called for significantly increased dues for many societies—necessitated increases if these societies are to play the demanded involvement role. I make so bold as to suggest that your current \$10 dues are indicative of a 'fox' attitude. Over the years society dues for the most part have not kept pace with increased living costs and higher salaries. In a broad-based membership organization such as AMCA, it is probable that some scaling of dues would be in order, but as a guideline doubling of maximum dues to \$20 should be feasible. The activities that involvement will occasion will be expensive; unless AMCA accepts the challenge—and unless its members are willing to pay the costs—your image and influence will be a declining one.

What, more specifically, is this involvement that I have mentioned repeatedly? Admittedly we live in an age of specialization; AMCA is an organization of specialists in mosquito control—and in basic studies so necessary for the improvement of control measures. In the past we have tended to be concerned only with mosquito control—to have taken a single objective view of the utilization of resources. We have in effect said that mosquito control, and only mosquito control, is our

business. The demand is for a replacement of the single objective view by multiple objective considerations of resource problems—and the paramount resource of concern to all of us is people. As Bormann has pointed out recently,⁴ public awareness of the environmental crisis is a powerful force; environmental problems are multifactorial in nature, and there has been a failure to relate ecological indices to social indices. I suspect that AMCA must plead guilty to this failure charge. Since, I assume, we do not subscribe to the philosophy of the gloom and doom prophets, we must stand up and be counted; we must adopt the old military adage that the best defence is an attack. We should espouse the views of René Dubos,⁵ who recently stated his belief that “by using scientific knowledge and ecological wisdom we can manage the earth so as to create environments which are ecologically stable, economically profitable, aesthetically rewarding, and favourable to the continued growth of civilization.” I would add that our concept of ‘growth’ must change significantly. The equating of growth with economy is no longer tenable, certainly not among the young.

In a recent report by an academic planning group at my University a question posed was: “To maintain the highest quality of what we do, must we concentrate our efforts on fewer things?” To that question my answer was yes, and to AMCA I suggest that the demand for involvement may mean a concentration on fewer things—but a greatly intensified

effort on those fewer things. These fewer things might include establishing criteria for the need of mosquito control, promoting research in selected areas (perhaps even with AMCA funds!), giving the lie to our ‘political innocence’ by becoming activists, and through utilization of all the media, remind the public why the involvement of AMCA in the environmental crisis is to the public’s benefit.

The ‘siren song’ of the prophets of doom assaults us continually; we must, figuratively, like Ulysses plug our ears and be tied to the mast to avoid the influence of this ‘song.’ We must sail a course between the Scylla of the ‘instant ecologists’ and the Charybdis of the politicians. In short, we must take command in the areas where our expertise qualifies us.

For some of you my remarks may have been overly critical. Rest assured that I do not suggest that AMCA is in any way more susceptible to criticism than the majority of organizations. My hope is that I have given you food for thought without inducing mental indigestion. If I have failed, I can only plead that you have been exposed to what a Rector of Queen’s University some years ago called “this muskeg of mediocrity that I call my mind.”

And if you are still offended by my criticisms and view such action as something new, consider this quotation: “Many attacks have lately been made on the conduct of various scientific bodies, and of their officers, and severe criticism has been lavished on some of their productions. Newspapers, magazines, reviews and pamphlets have all been put in requisition for the purpose.” This quotation is from Charles Babbage, “Reflections on the Decline of Science in England and on some of its Causes.” The date was 1830.

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⁴ Bormann, F. H. 1972. Unlimited growth: growing, growing, gone? *Bioscience*, 22(12): 706-709.

⁵ Dubos, R. 1973. Humanizing the earth. *Science*, 179:769-772.