In the nineteenth century, Darwin's theories, coupled with the development of the phenomenological approach in philosophy (see Brumbaugh, 1978), led to a gradual reevaluation of man's place in nature and a growing acceptance of the thesis that man was different from other animals only in degree rather than in kind. At the end of the century, this view was reinforced by the publication of a scholarly and clearly reasoned argument promoting animal rights (Salt, 1894). The two world wars interrupted further developments along this front but, beginning in the sixties, animal welfare has increasingly relied on an expanding base of scientific material and philosophical argument. In Britain, Russell and Burch (1959) and Ruth Harrison (1964) published scientifically credible analyses of the problems of animal experimentation and intensive farming practices, respectively. These books stimulated further examination of these issues by scientists and encouraged a greater interest in the scientific aspects of animal welfare. Recent philosophical interest dates from the book Animals, Men and Morals (Godlovitch, Godlovitch & Harris, 1971). A later book, Animal Liberation, by Peter Singer (1975), in which humanity's obligations toward animals are examined from a utilitarian perspective, has had a far wider impact. The utilitarian argument is based on the credo that one should maximize the satisfaction of 'interests' which should be given equal consideration. This does not necessarily imply that animals and human beings have equal standing, require the same treatment, or have equal rights. Other philosophers have explored the concept of animal rights from a moral and legal standpoint, and there have been a number of recent meetings at which the philosophical arguments have been explored in some detail. We find many of the current arguments about the moral status of animals not only difficult to apply in practice but also frequently inadequate in basic knowledge. The use of animal rights arguments to justify anti-vivisection and vegetarian positions is relatively straightforward, but such moral positions do not per se rather than on strictly human self-interest in maintaining healthy and productive animals. In addition, these concepts have led to a growing sophistication in the humane movement. No longer is the prevention of cruelty, important though it may be, the major (or only) goal of the larger organizations. Deliberate cruelty toward animals, the wanton, vindictive or insensate infliction of pain, is far less widespread than the suffering resulting from the exploitation of animals. While in general, overt, deliberate cruelty is condemned by society, the exploitation of animals in intensive farming systems (over 5 billion per annum) or in laboratories (over 200 million per annum) is either condoned or unquestioned. But the animals which are exploited in these systems are often denied facilities which would permit normal behavior or are used in experiments which cause pain and suffering. The questions surrounding such exploitation are not clear cut and involve such counterbalancing arguments as the infliction of animal suffering versus the alleviation of human suffering. The moment one moves away from the absolute position that no satisfaction of human interests or needs is worth even the smallest amount of animal suffering or exploitation, then balancing competing interests requires the application of technical knowledge and expertise as well as academic sophistry. Increasingly, animal welfare groups are acquiring that expertise and formulating sophisticated policies on animal exploitation by society and the extent to which it can be justified. The formation of the Institute for the Study of Animal Problems is an obvious example of this trend and clearly demonstrates that The Humane Society of the United States (which conceived the idea of a scientific institute and obtained the necessary funds) per-
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to debate issues of mutual concern in a constructive and nondogmatic or judgemental fashion. Sixth, it should act as a focus for information on legislation and regulation and provide government officials with an ever increasing body of reliable data on which to base decisions and the drafting of regulations. Seventh, the subscription rate should be low enough to encourage individual subscribers. And last, but certainly not least, the journal should provide data which allows commercial organizations to reconcile their requirements (equated with human needs for the sake of the present argument) with the needs of animals, thereby increasing humanity’s harmony with the ‘natural’ world.

Journal Format

In order to satisfy the above requirements, we decided to base the Journal on the flexible formats established by the major general science publications — namely, Science and Nature. As you will see in this issue, the Journal contains a number of sections which will, it is hoped, satisfy the different goals outlined above. The editorial pages will contain by-lined items on a wide variety of issues by members of the Editorial Advisory Board and Editors. These items will be modified only to the extent necessary to conform to the Journal’s stylistic standards. The news and review pages will contain a wide range of articles covering all types of animal welfare issues. Much of the material for these pages will come from articles published in a broad spectrum of academic journals. The Journal will also include comment pieces from individuals who wish to address or debate a particular welfare issue.

The sections for review and original articles will contain full length papers, subject to review by outside referees. These papers will review established knowledge in a particular area, examine the scientific data supporting a certain point of view, or report on the results of research investigations. As support for the Journal grows, it is planned that a section for short communications will be developed in order to disseminate the results from significant research projects as quickly as possible.

The Journal will carry book reviews, meeting announcements and reports from relevant conferences as well as letters from readers expressing diverse points of view. The legislation/regulation section will report on government initiatives from all over the world, and where appropriate, feature detailed analyses of topical issues.

It is hoped that a wide range of well-written and well-reasoned articles dealing with animal welfare issues will be represented. This leads to one final point which should perhaps be addressed in this first issue of the Journal namely, the relationship between scientific ‘objectivity’ and advocacy.

Animal Welfare Science and Scientific Objectivity

Scientific objectivity is a valuable concept when training aspiring scientists and a useful goal to bear in mind when conducting research. But under closer examination, objectivity proves to be an illusion. All experience, whether of meter readings in a laboratory or falling in love, is affected more or less by subjective judgments, and there is no convincing reason why so-called exact knowledge ob-
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received from readers and on the quality of items submitted for publication. The format and content are not immutable — in fact, a number of relatively new ideas for an academic publication are being explored. Your suggestions will be vital in helping to produce a quality, comprehensive and responsive Journal. Ultimately, success will depend on the extent to which the perceived or actual needs of the potential readership can be met. Your active participation in determining those needs is essential.

Michael W. Fox
Andrew N. Rowan
Editors-in-Chief

References


Toward a Science of Animal Welfare

It would be difficult to overestimate the significance of medical research, especially in the past 100 years, for the relief of human suffering. Many of the infectious diseases such as diphtheria, whooping cough, tetanus, poliomyelitis and smallpox are either entirely preventable or have been virtually eliminated. Surgical techniques inconceivable even twenty years ago are almost commonplace today. Life expectancy in this country, while not the highest in the world, is higher than it has ever been. In addition, many animal diseases such as canine distemper, rabies, or feline panleukopenia, are now preventable by vaccines developed in research laboratories.

The research which has been the basis of most of this progress was usually carried out in animals. Indeed, without animals, mankind would either not have the knowledge gained from their use or the knowledge would have to have been gained in some other way — human experimentation, research on other forms of

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tained by the ‘scientific method’ should always claim precedence over other sorts of experience (Dixon, 1976). Scientists who claim total objectivity should be treated with caution and their work subjected to even more careful scrutiny than usual since prior experience and personal bias are bound to influence research planning and conclusions. How else can one explain the occasional very bitter arguments over two conflicting hypotheses and the frequent but less heated disputes in academic forums where the protagonists have access to the same set of data.

In scientific research, objectivity is not the critical factor underlying quality work. This place is held by self-knowledge and self-criticism so that researchers are aware of their prejudices and thoroughly analyze the assumptions on which hypotheses are based. Such awareness is ‘scholarly’, not ‘objective’, and we should strive toward a scholarly approach in which coherent reasons can be given why certain results are accorded more weight than others. Objectivity is important, but it can become a barrier to good science when pursued with single-minded purpose and at the expense of less ‘objective’ but no less important data. Such objective research produces “inert knowledge” (Mayer, 1980) and could lead to the patently absurd but, according to calculations, aerodynamically correct conclusion that bumble bees cannot fly.

The difference between ‘objectivity’ and scholarship is of more than passing interest to the Institute for the Study of Animal Problems. It has been argued that given why certain results are accorded more weight than others. Objectivity is important, but it can become a barrier to good science when pursued with single-minded purpose and at the expense of less ‘objective’ but no less important data. Such objective research produces “inert knowledge” (Mayer, 1980) and could lead to the patently absurd but, according to calculations, aerodynamically correct conclusion that bumble bees cannot fly.

The Institute’s work will inevitably be based on the premise that scientific research can help society to improve its treatment of animals and reduce the moral tensions which currently exist. The work of animal scientists is not denigrated because their research is based on the assumption that productivity can be improved, but this assumption is no less subjective than those of the Institute. There are certainly many dangers involved in having ethical concerns underpinning the Institute’s scientific program, but if scientific data is misused to support an advocacy position, then it is hoped that such abuse will be pointed out and the argument documented. The Institute is concerned about possible conflict between its ethical position and academic scholarship and will be watching carefully for unwarranted influence.

Conclusion

There are many uncertainties in establishing a new journal, not the least of which is the question of whether enough individuals and institutions are sufficiently interested to pay the subscription price. We consider that there are in fact, a large enough number of people who would be interested in an academic journal covering animal welfare science in the broad-based manner described earlier. However, finding and reaching those individuals is not easy. The Bulletin of the Institute has been distributed to well over five thousand individuals and yet there are probably ten times as many who might have been interested in receiving it. We therefore need the assistance of our readers to promote the Journal among the global community of researchers and others interested in animal welfare science.

The success of the Journal will also be heavily dependent on the input
life (e.g. plants), contemplations, or sudden insight. As a result of all this, criticism of all or some aspects of the use of animals in research has usually fallen on deaf ears.

However, the increasing use of animals in research has been challenged by persons and organizations (often indiscriminately called “antivivisectionists”) ethically or otherwise opposed to this practice. The various arguments used by either critics of all or some animal use or by scientists will be familiar to most readers. Often, these arguments are based on assertion, and are won or lost on the basis of glibness or emotion (e.g. puppies vs. leukemic children); they can be said to suffer from a lack of facts.

Short of the abolition of the use of animals in research, what is urgently needed is an expansion of the body of knowledge concerning animal requirements for space, social interaction, and other environmental components on the one hand, and on the other, an increasing realization by scientists that in certain fields, animals may no longer be the best means of obtaining scientific information. Since nonanimal techniques are also usually less expensive, attempts to develop them scientifically have potential for cost-effectiveness (as long as their results are acceptable).

In other words, we need to supplement the bodies of information called laboratory animal science or laboratory animal medicine with what the Institute for the Study of Animal Problems has called “animal welfare science.” In so doing, the ways of maintaining animals in laboratories can only be improved. If, as well, animal replacement techniques can be developed that really do replace certain animal uses, then perhaps scientific, humane, and probably economic aspects of research will have been enhanced.

Veterinarians in laboratory animal medicine, scientists conducting research, technicians responsible for animal care, and all others involved in the use of animals in research are asked to consider some of these problems and to develop scientific solutions. Finally, reference should be made to the fact that some animal experiments involve the experience of pain and discomfort by the animals. Surely, ways must be found to continue to improve the systems designed to reduce these types of experiments to the true minimum.

This new journal is an attempt to provide a forum for scientifically acquired information which bears on the sorts of animal problems in research referred to above. I hope that members of the scientific community will give it a chance to fill a role in the evolution of ever improving animal care and use in research.

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