

contrast to Dr. Visscher, I do not believe that the "future of experimental medicine is in jeopardy" as a result of promotion of the "alternatives" concept. Quite the contrary, full acceptance of "alternatives" could lead to valuable and exciting new perspectives for old problems.

Advocacy, Objectivity and the Draize Test

Peter Singer, Editorial Advisory Board

As Michael Fox and Andrew Rowan made clear in the first issue of this journal, a workable blend of scientific objectivity and humane advocacy must be achieved if the journal is to realize its objectives. The current campaign against the Draize eye test challenges scientists to combine objectivity and advocacy, and provides an opportunity of demonstrating how these often contrasted stances can be united.

Now that more than three hundred organizations have joined the coalition against the Draize test led by New York activist Henry Spira, and full-page advertisements have appeared in the *New York Times* and other major newspapers, most readers of this journal must be aware of the campaign; but for those that are not, the story can be briefly told. The Draize eye test is the routine use of the eyes of conscious, unanesthetized rabbits to test every substance which may be hazardous to human eyes. The chemical is poured in one eye of each rabbit by pulling the lower lid away from the eyeball to form a cup. The eyes are examined for injury at 1, 24, 48 and 72 hours, and sometimes also after one, two and three weeks. The official U.S. government guide describes some of the reactions as "ulceration of the cornea; opacity of the cornea; inflammation of the iris; hemorrhage; gross destruction." The object of the campaign against this test is to persuade the cosmetics industry to put up one hundredth of one percent of its gross income for a cash program to develop an alternative to the Draize test. (For Revlon, one of the industry leaders, this would mean a tax deductible contribution of \$150,000.)

That there is cause here for advocacy on behalf of animals, anyone whose ethical principles extend to nonhuman animals will see at once, but that scientific objectivity can in this context be combined with advocacy may take a moment longer to appreciate.

Scientific objectivity comes into this campaign with respect to three different questions: Is the test painful? Is the test reliable? Is the test unavoidable?

Some scientists will balk at the idea that the painfulness of a test is a matter for scientific observation. Admittedly, we cannot measure the subjective feeling of pain in rabbits — or in humans, for that matter. But that is no reason to take refuge in behavioristic evasions like describing the rabbits' reactions to having chemicals placed in their eyes as 'aversive behavior.' That animals like rabbits feel pain in these circumstances is not only common sense, it is also the simplest hypothesis which explains the behavior we observe; behavior which includes, as the official Draize test guide notes, squealing, jumping and attempts to escape.

The test is painful. Is it reliable? Carrol S. Weil and Robert A. Scala, writing in *Toxicology and Applied Pharmacology* (19:276-360, 1971) found considerable var-

iation in the results reported from different laboratories testing the same substance. In a 1974 court case, the Food and Drug Administration was unable to show that the Draize test was appropriate for evaluating safety, or that the results of tests on the eyes of rabbits can be extrapolated to humans (USA vs. Beacon Castille Shampoo No 71-53, Northern District Court, Ohio). In this situation it is the role of scientists to read the relevant reports and evidence, which are not readily accessible to the general public, and to explain their significance.

Finally, is the test unavoidable? The late Dr. D.H. Smyth, a recent chairman of the British Research Defence Society, and therefore anything but an anti-vivisectionist, wrote in his book *Alternatives to Animal Experiments* (Scolar Press, London, UK, 1978) that it should not be difficult to find nonanimal alternatives to the Draize test since this is a "relatively circumscribed problem." Eighteen months ago Henry Spira presented Revlon with a scientific paper by Dr. Leonard Rack on possible leads toward an alternative to the Draize test; more recently Andrew Rowan has outlined further possibilities. Here again is an area in which a scientist, making an objective assessment, seems likely to reach conclusions which will contribute toward the elimination of a major form of animal abuse.

Some scientists may believe that standing up and publicly stating their views on these issues could, in the context of the current campaign, damage their reputation for objectivity among their colleagues and with the public at large. They should reconsider. There is nothing in the notion of scientific objectivity which demands silence when speaking the truth will aid ruthlessly exploited creatures who cannot speak for themselves.

Draize Test Campaign Update: As of 22 May 1980, the following developments on the Draize eye test had occurred — either as a result of the current campaign or on the initiative of the companies and agencies concerned.

- The Consumer Product Safety Commission, which is responsible for enforcing the regulations of the Federal Hazardous Substances Act (including a Draize eye irritancy test requirement) has declared a 90-day moratorium on all of its eye irritancy testing while investigations are conducted into the possibility of using local anesthetics to reduce the animals' suffering.
- The Interagency Research Liaison Group has produced a final document setting out guidelines for acute toxicity testing which include a revised eye irritancy procedure. The test is based on the Draize method, but local anesthetics are permitted if they do not interfere with the evaluation of irritancy.
- On April 25, Avon produced an update on animal testing which included the following points: Avon has not used stocks to hold the rabbits since 1965. Since March of 1980, new guidelines have been in force in Avon's laboratories which require greater use of local anesthetics and the dilution of test substances. Avon is also studying ways to reduce the overall number of Draize eye irritation tests.