Is Nature Our Birthright?

Nancy Heneson
The issue of stress effects has already been mentioned with regard to the study by Faupel and his colleagues. However, there are many such studies and there are probably few researchers who do not recognize that stress can adversely affect experimental results. Dr. W. Isaac (University of Georgia) discussed this issue at the 1979 annual conference of the American Association for Laboratory Animal Science, but argued that “we have not been concerned with behavioral variables, even though we give it a great deal of lip service and write regulations dealing with behavioral variables.” He noted that there is little reinforcement for studies on the effects of environmental variables and no real commitment to attempt to control for them. A recent study on the response of rats to the stress of handling (moving the cages about) reports that a wide variety of metabolic and endocrinological parameters were markedly affected (Gärtner et al., 1980). The authors note that “experiments or sampling procedures must be performed within 11 seconds of first touching the animals’ cage.” This is important for most of the endocrine characteristics and for all plasma values which are linked with circulatory change, capillary permeability, energy and mineral metabolism, and acid-base balance. If the experimenter is unable to perform the procedures quickly enough, “he must explain in detail how the stress due to manipulation influences the characteristics being studied” (Emphasis added.)

While this may be interesting, and the possible implications for results from past research disturbing, what does it have to do with animal welfare? Opponents of animal research commonly charge that experiments are repeated endlessly, while scientists argue that one must check the results of other research. But it is clear that a large amount of research is done without adequate control of the variables described above. This means that much of it may have to be repeated merely to control for proper variables. While it may not be legitimate for animal welfare advocates to call for an end to all duplication of animal research, it is certainly legitimate for them to demand that scientists consider proposed research protocols far more carefully and that they take into account the factors mentioned above. Too many scientists follow, either wholly or in part, the dictum “Why think when one can experiment?” Such an approach is neither good economics nor good science. It has absolutely nothing to do with academic freedom, only with academic license. Some would argue that the peer review system will prevent poorly planned research from being funded. But this is not necessarily true since the peers reviewing the research proposals are, by definition, guilty of the same omissions. Why should they pick up on a fault which they do not recognize in their own research? Of course, there will be some research projects which need not be concerned about environmental or chronobiological factors, but animal researchers should argue why they do not need to control for such variables, rather than the reverse.

The above proposals to take these additional variables into account will, no doubt, be perceived by many as irksome and unnecessary, but anyone interested in both promoting good science and preventing unnecessary repetition of animal research should demand much increased control. Blind empiricism should be forced out of biomedical laboratories, and we should instead strive toward the sort of research that was undertaken by Charles Nicolle, the French bacteriologist (Zinsser, 1940):

Nicolle did relatively few and simple experiments, but every time he did one, it was the result of long hours of intellectual incubation, during which all possible variants had been considered and were allowed for in the final tests. Then he went straight to the point, without wasted motion. That was the method of Pasteur, as it has been of all the really great men of our call-

References


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On December 2, 1980, former President Jimmy Carter signed into law the Alaska National Interest Lands Conservation Act, which will protect 104 million acres of federal land in Alaska (although mineral surveys will be allowed on protected areas where there may be oil and gas). In the words of former Interior Secretary Cecil Andrus (DOI News Release, 2 December 1980): “This law is the culmination of a nine-year national effort to protect the awesome wonders of our largest state as a part of a great legacy of beauty and nature that is the birthright of every American.”

Webster’s Third New International Dictionary (1976) defines “birthright” as a “right, privilege or possession to which a person is entitled by birth (as an estate or as civil liberty guaranteed under a constitution).” Leaving aside in this case the fact that dictionary definitions are often inadequate conveyors of a word’s subtler connotations, the use of the legalistic term “birthright” in connection with beauty and nature reified as land bears closer examination, not only for its lexical peculiarity, but in its role as the linguistic vessel for transmission of a long-cherished idea. The concept of nature as something to which we (especially Americans) have a right, something that is our “legacy” or our “national heritage,” manifests itself in the arguments of both developers and conservationists, hunters and trappers and animal protectionists. It has been used to justify manipulation, exploitation and destruction of life as well as to bolster efforts to establish parks, wilderness preserves and wildlife refuges. That such contrary attitudes toward the land and all of its inhabitants should be rooted in some of the same ideological soil is neither surprising nor illogical when one considers that the idea of rights, privileges and possessions presupposes the idea of ownership; ownership implies power, and power can be wielded either to the subjective benefit or detriment of the parties involved, including in this case that which is owned. Whether ownership adopts the philosophy of ruthless exploitation, benevolent stewardship, or some torturously reached compromise between the two, follows from and is secondary to the deeply-ingrained idea that nature belongs to the human species.

By virtue of the Alaska Lands Act, some land in Alaska now belongs to the federal government, some to the state and some to native Alaskans. If someone, anyone, native Alaskan subsistence hunter, oil developer, or Washington environmental
lobbyst stands on Alaskan land, surveys its beauty, and is overwhelmed with a sense of legacy, birthright or national heritage, should these emotions be construed as the justification of how we live on and with the land? One could simply ask of the Secretary Andrus of waging poetic—after all, the law is an end product of nine years of Realpolitik and not the spontaneous expression of an intuitively-felt relationship to nature. Yet the idea is so widely held and its implications are so various, that it is hardly ever called into question as an assumption. Indeed, it is treated as a guiding principle: Zoos are justified on the grounds that we must preserve wild animals for our children to see, that what was our possession must be theirs as well. Strip mining, shale oil extraction and clear-cutting of forests are justified (formerly tacitly, now under Secretary Watt with a kind of bellicose glee) on the grounds that the land must give up what it holds to us because the land is ours.

The Janus-faced quality of the idea of owning nature reveals itself most clearly, however, in the opposition to such dominionistic attitudes. Those who view the role of human beings as stewards rather than rulers of nature have interposed moral responsibility between our undeniable power to alter and destroy the environment (habitats and species) and the indiscriminate wielding of this power for economic gain, in the pursuit of knowledge, or in the name of an ideology. The distinction between these two approaches to nature lies in each demanding a different set of choices with different outcomes. The philosophy of benevolent stewardship, esthetically preferable though it may be, is still sets human beings apart from and above the rest of nature by virtue of their ability to make moral decisions.

The U.S. Endangered Species Act, in some ways a legislative model of benevolent stewardship, mandates the use of all possible methods to conserve species that are determined to be threatened with extinction. But what happens when these methods, in the judgment of the interested party, succeed, i.e., bring the population back to a level where it is no longer "threatened"? The pendulum is then allowed to swing in the other direction, as illustrated by the recent decision of the U.S. Department of Interior to lift the 6-year ban on commercial importation of kangaroo products. A DOI press release dated 28 April 1981 states: "The decision was based on evidence that the three largest kangaroo species have reached healthy numbers and are being properly managed in Australia." However, the evidence was apparently not convincing enough for the DOI both to open the kangaroos to trade and to remove them from the official list of threatened species, a contradiction which has caused much ire and frustration among animal welfare and conservation groups. Yet even if data could be gathered that would satisfy everyone that the kangaroos are not presently threatened with extinction, it would not change the fact that built into the Act is the idea of manipulation and control of species for human self-interest, be it motivated by economics or moral philosophy.

It is of course impossible to escape the notion of self-interest in our relationship with nature. In fact, it is "unnatural," if one understands (and, one is forced to say nowadays, believes in) evolution. However, there is no real justification for either dismissing this as stewardship or perverting it into dominionism. Every organism has an impact on the environment, and it is not only idealistic but biologically nonsensical to argue that we should leave everything alone. However, when decisions on policy are made which direct the future use of land, plants and animals, at least let the rationale not be shrouded in a popular but essentially false equation of nature with a possession, a legacy or a right. What we do to or for the land, we do out of self-interest, enlightened or not, and not to fulfill an inherited right. There are some things, no matter to what degree we enslave them, that can never be truly owned.

Sea Turtle Excluder Device

The world’s seven species of sea turtle have been in trouble the last few decades for a number of reasons and from a number of causes. Turtles are slaughtered for their meat, skin, shells, and other "products"; their eggs are poached and their habitat threatened. Conservation of the sea turtle has to be a global effort, not only because the turtles distribute themselves across thousands of miles, but also because their economic value has thrust them onto the international wildlife market. However, local problems also exist, such as the one affecting three species of sea turtle and the shrimping industry along the South Atlantic and Gulf coasts of the United States. Trawls designed to catch shrimp have also been netting and drowning loggerhead sea turtles, as well as some Kemp’s (Atlantic) Ridleys and greens (the most endangered species of sea turtle).

In November 1979, experts gathered at the State Department in Washington, DC to discuss strategies for conserving the sea turtle. One workshop, led by Milt Kaufmann, President of Monitor International (a consortium of environmental and animal welfare groups), concentrated on the problem of incidental catch of sea turtles by shrimp fishermen. According to Kaufmann, the shrimping industry had been denying for years any relationship between the drowning deaths of otherwise uninjured sea turtles and trawling operations in the vicinity. The workshop ultimately produced an official recommendation to establish an observation and salvaging network for the turtles so that hard data on mortality could be collected to clarify anecdotal information and the resultant accusations and denials. By August 1980, at a meeting of conservationists, fishermen and state and federal officials in Charleston, South Carolina, a spokesperson for the shrimping industry was ready to agree to the existence of a correlation between trawling activity and sea turtle mortality. (Data taken in 1980 revealed that 2,085 sea turtle carcasses washed ashore along the Gulf and South Atlantic coasts 2-4 days after the completion of shrimping operations in the area.)

At this same meeting, participants reached a consensus on the best methods for retrieving netted sea turtles, and highly specific emergency regulations for fishermen on resuscitation were later published. However, attempting to resuscitate captured turtles before putting them back into the sea is at best a last-ditch measure to counteract rather than solve the problem, i.e., the unintentional capture of the turtles by the trawl nets. The National Marine Fisheries Service (U.S. Department of Interior) has been working on several approaches to conserving, protecting and restoring sea turtle populations for the past six years. In addition to its efforts to acquire basic information on the life history of the sea turtle, designates critical habitats and establishes restricted fishing areas, the NMFS has also directed research into and development of "excluder gear," structural modifications which can be added to shrimp trawls to make them turtle-proof. With one failure behind it (an "excluder panel" that excluded shrimp as well as turtles), the NMFS has gone on to develop and perfect the Turtle Excluder Device (TED), in essence a trap door set in a frame constructed of galvanized pipe which is placed inside the trawl at the intersection of the trawl body and bag. When a turtle or other large object enters the bag, it strikes slanted bars that are joined to the frame, and is forced toward the hinged trap door, which opens when a pre-set tension is exceeded. Turtles are thus released into the sea, while shrimp, being small enough, pass through the bars and remain in the bag.

Field tests of the TED in the South Atlantic during 1980 produced impressive results. Cooperating vessels