response was conditioned by following the passive lifting of the leg with food. The experimenter, by mechanical means, produced the response in the initial training trials. In the experiment which I reported, lever pressing was conditioned by following its operant occurrence with food. (ii) Konorski's animals were restrained in a stand. My animals were in an experimental space with freedom of movement. (iii) The relationship between operant and respondent behavior was studied with regard to a specific schedule of reinforcement—fixed interval. It is conceivable that the nature of the relationship will be found to be a function of the different reinforcement schedules—that is, "facts which are generally known by those concerned in the given subject" may not be general facts.

I was pleased to find that Konorski had read my paper in *Science*, or the reprint which was sent to him unsolicited. I have always found the published reports of Konorski's experiments most interesting and was grateful for the opportunity to discuss them with him personally on two different occasions, once in Baltimore, Maryland, and once in Bloomington, Indiana.

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**Reference**

1. J. Konorski, *Conditioned Reflexes and Neuron Organization* (Cambridge Univ. Press, London, England, 1948). pp. 2-232.

## Wildlife Ranges in Alaska

I have tardily read a news note [*Science* **132**, 1878 (1960)] dealing with Alaskan wildlife ranges. It is unfortunate that so respected a publication should inadvertently be a tool for propagating misinformation concerning these national wildlife ranges.

First, I would like to observe that Canada has expressed only opposition to the establishment of comparable ranges in the Yukon Territory adjacent to the Arctic Wildlife Range of Alaska.

Second, I would like to point out that the ranges are not needed for the protection of "Arctic caribou, grizzly bears, Dall sheep, moose, and marine mammals, whose numbers are dwindling," as reported in the published news note. Many of these species are probably as abundant as ever before in the history of white man's occupancy of Alaska.

Alaska's caribou, sheep, and moose populations are all at high levels of abundance, and even the most intensively hunted populations around human population centers are being maintained or increased under the state's

management program. We recognize that grizzly bears are not compatible with land development by human beings, but even these animals are certain to maintain their numbers over most of Alaska with the protection and management being afforded them by the state.

The question as to whether or not there was justification for establishing additional, enormous wildlife ranges in Alaska does not, therefore, hinge on the welfare and continued abundance of certain species of game animals, but is rather tied in much more closely with the issue of whether federal or state control of huge parcels of land is the more desirable.

Federal control of vast areas in Alaska precludes implementation of Section 4, Article 8 of the Constitution of the State of Alaska, which reads: "Fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State, shall be utilized, developed and maintained on the sustained yield principle, subject to preference among beneficial uses."

It is the contention of many Alaskans that absentee authorities, which so long directed the destiny of Alaska as a territory, are less apt to provide the wisest possible management of the state's resources. It is, furthermore, certain that Alaskans above all others cherish and wish to preserve their wild and renewable resources, including the wilderness aspect of Alaska.

In view of these considerations I suggest that the pros and cons concerning establishment of these new wildlife ranges in Alaska are somewhat complex, and that more is involved than the protection of certain animals, as implied in your news note.

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## Quantum Mechanics and Freedom

The article by S. S. Kety, "A biologist examines the mind and behavior" [*Science* **132**, 1861 (1960)], points out correctly that in order to grasp a biological problem the investigator has to understand the necessity of using various approaches in both the methodological and the conceptual sense, because a biological structure is a composite of different levels of organization. Kety errs, however, when he brushes away, as irrelevant to the problems of mind and behavior, the principle of indeterminacy of quantum mechanics and the acausal character of the elementary quantum processes, by assumming that the source of this principle and of the acausality of elementary quantum processes is the clumsiness of our instru-