We want to thank Robert T. Jordan for calling attention to the following incorrect statement in our article: "The institutions are listed in the order of the Knapp and Greenbaum indices of productivity." The title of our Table 1, however, is correct: "Distribution of male and female National Merit Scholarship students among institutions ranked high in the production of scientists and scholars." This table head indicates the basis for ordering the institutions.

The sentence immediately following the incorrect statement is accurate as it stands; the "70 percent of the 216 male students" refers to the number of the ten *most* productive institutions (California Institute of Technology excluded) listed in the Knapp and Greenbaum volume.

Needless to say, we would like to avoid giving the reader a basis for inaccurate interpretation, and we believe that the article does not imply that there are differences in quality among the institutions listed in Table 1. We avoided making any qualitative comparisons among these schools, since our purpose was simply to present differences between the students who entered a group of more productive institutions and the students who entered a group of less productive institutions.

There would be no point in computing the statistical significance of the differences in numbers or proportions of National Merit Scholarship students attending the institutions listed in our Table 1. This would obviously be irrelevant.

For the purpose of simplicity, we included in our Table 1 only those of the 50 highest-ranking institutions in the Knapp-Greenbaum list in which one or more of the 1956 National Merit Scholarship students happened to be enrolled. We see no reason why a careful reader would find any implication concerning the relative quality of institutions in this table.

Knapp and Greenbaum did not include Swarthmore and Grinnell in their final list for females because the two institutions did not have 400 graduates over the period of the study. We included these two colleges in our Table 1 for the following reasons: (i) the number of graduates from these institutions approached the Knapp-Greenbaum criterion figure of 400 (397 for Swarthmore and 372 for Grinnell) and far exceeded the figure for most of the other institutions; (ii) the Knapp-Greenbaum indices of the number of female scholars per 1000 graduates [Knapp and Greenbaum, *The Younger American Scholar* (1953), appendix 1, p. 103] placed these two institutions second and third, respectively, following only Bryn Mawr in order of rank; (iii) both institutions ranked high on the indices for male graduates.

We believe that the text made it clear that the data were for one year only, since it was stated that "the sample . . . consisted of all the winners and a 10-percent sample of those who received certificates of merit (the near-winners) from the National Merit Scholarship Corporation in the spring of 1956."

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Salivary and Motor Conditioning

I was greatly astonished when reading a report by Martin M. Shapiro published in *Science* under the title "Respondent salivary conditioning during operant lever pressing in dogs" (*1*). The result obtained by the author, as formulated in the abstract, runs as follows: "Respondent salivary conditioning was found to occur during operant

lever-pressing conditioning, the occurrences of the two conditioned responses being positively correlated."

The method of combining the salivary (type 1) with the motor (type 2) conditioned response used by Shapiro was first described by Konorski and Miller as early as 1930, in French, under the title "Méthode d'examen de l'analysateur moteur par les réactions salivo-motrices" (*2*). Since that time a great number of experimental studies have been published in which this method was used in various experimental conditions. Although extensive monographs dealing with our prewar studies of this subject were published only in Polish (*3*) and Russian (*4*), references to these and other papers, as well as the general description of the facts obtained, were presented not only in my English monograph concerning conditioning (*5*) but also in various American papers and monographs by Razran (*6*), Hilgard and Marquis (*7*), and others. After the war all papers of our laboratory were published in English in *Acta Biologiae Experimentalis*, a journal easily available in America. The method is also used in several Russian laboratories.

It is really regrettable that facts which are generally known by those concerned in the given subject are published among the papers reporting new scientific achievements.

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1. M. M. Shapiro, *Science* **132**, 619 (1960).
2. J. Konorski and S. Miller, *Compt. rend. soc. biol.* **104**, 909 (1931).
3. ———, *Foundations of the Physiological Theory of Acquired Movements* (Ksiaznica-Atlas, Warsaw, Poland, 1933) (in Polish).
4. ———, "Conditioned reflexes of the motor analyzer," in *Trans. Physiol. Lab. of I. P. Pavlov* (1936, vol. 6, pp. 119–288) (in Russian)
5. J. Konorski, *Conditioned Reflexes and Neuron Organization* (Cambridge Univ. Press, London, England, 1948), pp. 267 ff.
6. G. M. S. Razran, *Psychol. Rev.* **46**, 445 (1939).
7. E. R. Hilgard and D. G. Marquis, *Conditioning and Learning* (Appleton Century, New York, 1940), pp. 429 ff.

Konorski has raised the question of the extent to which my report in *Science* was a new contribution to the study of the relationship between operant and respondent conditioning. Unfortunately, particularly in psychology, even minor differences in experimental procedure seem to make quite a difference both in the results obtained and in their interpretation. There are major differences between the procedures used by Konorski in his studies and those used in my series, of which the report to which we are referring was the first publication. (i) In the work described by Konorski (*1*), a leg-lifting

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