tellectual deficit of twins is due to a deficit in the postnatal environment. Since the conclusion in question represents a common misuse and misinterpretation of hypothesis testing in statistics, setting the matter straight is of wider interest than as it pertains to factors in cognitive development. The mean level of intelligence of the surviving member of a twin pair when the other member died very early in development turned out to be about halfway between two expected values: the mean for single-birth individuals and the lower mean for normal twins. Record *et al.* compared the mean in their data with the single-birth mean and were unable to reject the null hypothesis. Thereupon they accepted that hypothesis. If they had compared the mean of their experimental group with the expected value for normal twins, they would also have been unable to reject the new null hypothesis. Obviously both null hypotheses cannot be correct. The solution is also obvious: withhold judgment until more data can be gathered.

LLOYD G. HUMPHREYS
Department of Psychology, University of Illinois at Urbana-Champaign, Champaign 61820

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1. R. C. Record, T. McKeown, J. H. Edwards, *Ann. Hum. Genet.* **34**, 11 (1970).

We thank Humphreys for his attention to our article on cognitive performance in Warsaw schoolchildren. He makes a point entirely peripheral to the results of our study in Warsaw. However, the result of Record *et al.* (*1*) that he chooses to criticize is an important issue of substance because it sustains the view that family microenvironment is a determinant of IQ. We therefore reviewed their original article.

First, Humphreys is mistaken when he states that the IQ of single survivors of twin pairs is "about halfway between two expected values: the mean for single-birth individuals and the lower mean for normal twins." The actual data are as follows:

Category	Number	Standardized mean IQ
A. Single survivors of twins	148	98.8
B. Surviving twin pairs	1,924	95.2
C. Singletons	41,195*	99.5

*Estimated from (*1*), table 2.

Single survivors of twin pairs score only 0.7 IQ point less than do singletons, and 3.6 points more than surviving twin pairs, which is by no means halfway between the 4.3 points separating singletons and surviving twin pairs.

Second, by our calculations Humphreys is also mistaken in his computation of the statistical significance of these results. As a preliminary step, we examined the statistical power of each comparison. We assumed a standard deviation of 15 throughout. In the comparison of categories A and B, the power to detect a significant result (for a two-tailed test, given the observed difference of 3.6 IQ points) is 83 percent.

In the comparison of categories A and C, given the difference of 0.7 IQ point, the power is less than 25 percent. Nonetheless, the two comparisons have similar power when (with the same numbers, standard deviation, and significance level) they are applied to observed difference of the same size. Thus the test of the two hypotheses, that singleton survivors of twins do not differ from singletons while pairs of surviving twins do so differ, is fair with regard to power.

Record *et al.* made no mention of significance tests, and it is incorrect for Humphreys to say they "were unable to reject the null hypothesis. Thereupon they accepted that hypothesis." We can agree with Humphreys that there is no statistically significant difference between category A (single survivors of twins) and category C (singletons), using the *t*-test. Contrary to Humphreys, however, we *do* find a statistically significant difference between category A (single survivors) and category B (twin pairs) at the 5 percent level. Therefore it seems to us that any need for more data to support this result does not stem from the statistical reason that Humphreys gives, but from the logical reason that a unique and important result should be tested by replication.

MERVYN SUSSER
Gertrude H. Sergievsky Center, Faculty of Medicine, Columbia University, New York 10032
ZENA A. STEIN
Brain Disorders Unit, New York State Psychiatric Institute, and *Gertrude H. Sergievsky Center*

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Women and *Science* Editorials

Publicly, most scientific organizations are committed to integrating women into professions which, until now, have been dominated by men. Women often claim

that barriers to fulfillment of this goal are so insidious that programs that focus solely on hiring must fail. One commonly cited obstacle is the "old boys network," which provides scientists with those informal supports and contacts so crucial to success.

The AAAS is ostensibly committed to the advancement of all scientists, male and female. Its failure to understand the meaning of such a commitment to women, however, is reflected in its failure to assign weekly *Science* editorials to women. While the request to write an editorial from an organization as influential and prestigious as the AAAS may only reflect the editor's contacts, it serves to enhance the power and status of the author in the scientific community. Women's exclusion from this process is manifested in the disturbing observation that, in the last 25 issues of 1978, a sample likely to be representative of most issues, not a single woman authored a *Science* editorial.

Attainment of affirmative action goals, limited as they are, appears easy in comparison to obstacles such as this. The manner in which the AAAS selects editorial writers requires immediate revision so that women may participate on a regular basis.

ROCHELLE SEMMEL ALBIN
18-5 Bay Street,
Cambridge, Massachusetts 02139

Alaska Lands Bill

In his report on the visit to Alaska of Secretary of the Interior Andrus (News and Comment, 11 Aug. 1978, p. 506), Luther J. Carter shows a bias that is common in contemporary reporting on natural resource controversies.

That bias is reflected in the tacit or implied assumption that only the directly affected industries have any reason to oppose the establishment, in mineralized or petroliferous areas, of parks and wilderness areas in which exploitation of mineral and oil resources would be prohibited.

The desire of the mining and oil industries to protect their pecuniary interests through "political muscle" exerted by "lobbyists" (in common usage a pejorative term, whether or not Carter means it that way) is cited as a political obstruction to implementing the goals of preservation. The estimated value of specific mineral deposits is given in dollars, not in reference to annual domestic consumption and production of the commodities to be produced. For the most part, statements made for the production side of the argument seem carefully placed in a frame of industry interest, while those on the preservation side are placed in a frame of national interest.

There is nothing new about this. That's what's discouraging about it. Our professional informers, even when given the opportunity, do not seem to recognize that the conflicts between production-consumption and preservation-simplicity are in each of us, albeit in different proportions; that there are important national—not just corporate—interests involved in a political decision to ban mining and oil production in a promising region; and that weaving straw white hats and black hats may entertain, and even sometimes advance a decision, but does not inform.

The Alaska lands bill argument does not appear to me as simple as either Secretary Andrus or Carter appear to believe it is.

EARL COOK
College of Geosciences, Texas A&M University, College Station 77843

The News and Comment article "Andrus in Alaska: A tour of the wild estate" mentions that "the Porcupine caribou herd, . . . with its some 120,000 animals, is now the largest herd in North America." This is incorrect. The George River herd of the northern Ungava-Labrador peninsula, with more than 150,000 caribou, is the largest in North America, if not the world. A census of the herd was last taken in 1976, and the annual net increment is calculated to be nearly 18 percent; thus the present population may exceed 210,000 animals.

STUART LUTTICH
Wildlife Division,
Department of Tourism,
Post Office Box 376, Goose Bay,
Labrador A0P 1C0, Canada

Collector's Issue?

With all the commotion (Letters, 1 Dec. 1978, p. 930) about the "e" missing from the cover of the 10 November 1978 *Science*, no one has pointed out that the same cover is also misnumbered (4365 instead of 4368). Perhaps that particular issue should be designated a "collector's item."

TIMOTHY NG
Department of Horticulture, College of Agriculture, University of Maryland, College Park 20742