(21 July 1972, p. 228) fulfills neither requirement and is, therefore, less acceptable as anthropology. The following points should be considered.

Lomax and Berkowitz add factors to their analysis until the results conform to their model. One cannot help but wonder what the results would have been if one more factor had been added, or if human communication had been the first factor to be analyzed.

An alternate hypothesis for the similarities found between cultures is that they represent ecological adaptations to roughly similar environments. This hypothesis was not suggested, and certainly not tested. The climatic similarities which exist between Patagonia and the North American Plains would certainly suggest to ecologists that they look for similar adaptations. No contact would be necessary.

An association of human subspecies with culture types is unacceptable, not simply because of sociological pressures present today, but because there is no support for the statement.

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Wolfe seems vaguely to resent the use of computers in our work, although comparison and clustering of such multiparameter profiles (for example, the sets of norms that structure culture) is otherwise impractical. He doubts the validity of anthropological data in general, and our methodological rigor in particular, without specifying his standards of validity or rigor, or saying where we failed. This seems an unfair tactic.

He confounds our specialized use of the term "factor" with *vector* (or index) when he charges us with adding "factors . . . until the results conform to their model." Actually, we *discovered* the cultural "factors" (sets of similarly acting vectors are indices of social and communication structure), by means of cluster analysis of the reliable scalar indices available to us for a large sample of world cultures. The results of many other trial runs with somewhat different groups of indices were strikingly similar—about 14 main factors of social and communication structure involving the indices always showed up.

Our finding is that these 14-plus factors are sufficient to describe the main variations in human culture patterns. Operations with measures of other kinds of human performance (such as dance, speech, and breathing rate) reveal similar geographic distributions. It seems likely that (i) every cultural tradition consists of a stylistic core that is reinforced in every aspect of cultural activity; and (ii) these dynamic culture styles have continuous distributions. Ultimately these regional styles are hooked into environment, but it is eminently clear that environment biases rather than forms culture style. The successful interzone migration of cultures is proof of that.

The environment, Earth, has not changed drastically in the last 20,000 years, whereas in that time the human race has developed many cultural styles that differ from each other as profoundly as do the subspecific habits of other kinds of animals. Our finding that these cultural styles have clear-cut geographical distributions, which account for the fact of human history, reinforces the main thesis of anthropology. In man, culture (inherited, learned norms and skills) replaces genetic inheritance and enables human societies to adapt more flexibly than animal groups. In this (metaphorical) sense, human subspeciation *is* cultural. In fact the key element seems to be man's keen esthetic sense of the culturally appropriate, which provides the baseline for cooperative endeavor in all human societies.

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Doctorate Output

I wish to note for the record a regrettable error in my article "Shifts in doctorate output: History and outlook" (9 Feb., p. 538). In table 2 of the article, the University of Pittsburgh should have been listed as a public university, and among the 60 universities ranked highest for the article.

The University of Rochester should be counted as granting about 2.6 doctorate degrees in 1969 for every 1 in 1960, rather than the 3.6 multiple shown in the article. The 3.6 figure resulted from an unusually low number of degrees granted in 1960 and an unusually high number in 1969.

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