

have-nots, and roads to open new areas to productivity; (ii) find democratic formulas to institute land reform in countries where 100 families own 95 percent of the productive land; and (iii) obtain technical aid from the advanced countries and long-range, low-interest loans for broad economic development?

To formulate realistic policies of assistance, it is essential that the experts stop reading government reports, which are invariably colored by national pride, and go, instead, to see for themselves, not Buenos Aires, Caracas, or Quito, but the "people" in the "real countries." Policies based on expediency will bring only disaster.

L. A. ROMO

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Racial Differences

The recent letter of Leon S. Minckler [*Science* 133, 202 (20 Jan. 1961)] on racial differences points out the need for distinguishing between the scientific problem and the applications to daily life.

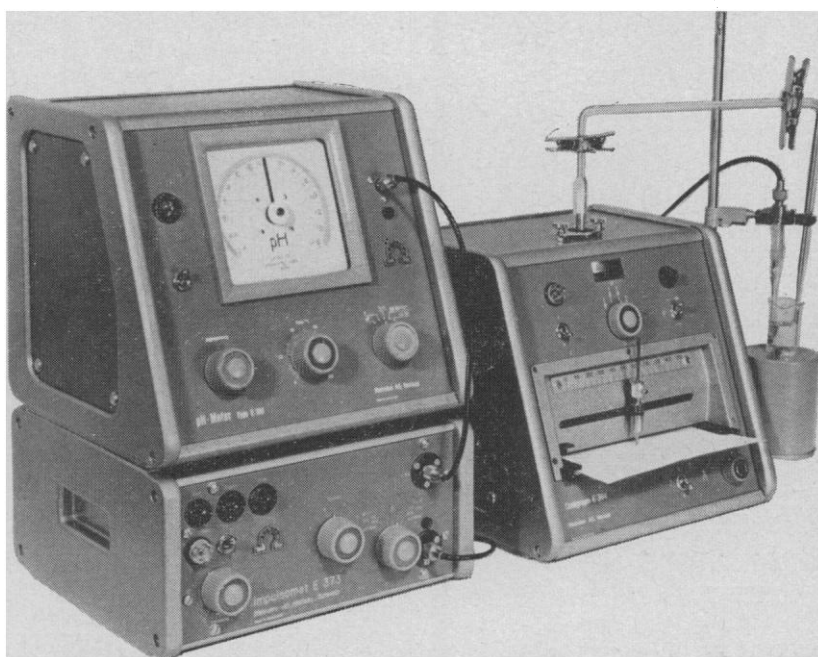
With regard to the scientific problem, Minckler admits that H. E. Garrett's opposition to the "equalitarian dogma" is probably justified, although the examples he gives have not been adequately studied. Concerning the problem of intelligence, with which Garrett is primarily concerned, nothing is said. Yet this is the crucial problem of the equalitarian dogma. For the results of mental tests almost invariably indicate significant differences in favor of whites, yet are disregarded by upholders of the dogma, who believe the differences to be due to differences in environment. What makes the problem especially difficult is (i) that we do not know how unfavorable an environment must be to stunt mental growth, and (ii) that, as Shuey has shown, the differences are greater at the upper socioeconomic levels, where the stunting effects should be the least.

As for the problem of application, I do not believe that Garrett or any other responsible psychologist would use racial differences as an "excuse for intolerance or discrimination." While Minckler does not give any example of his contention, it is probable that he refers to the question of school segregation, as that is central to the question of racial mental differences. But this problem is not as simple as it appears to be at first sight. For it is assumed that segregation is discrimination in favor of the whites, whereas the possibility that segregation could also help the Negro is entirely overlooked. Where

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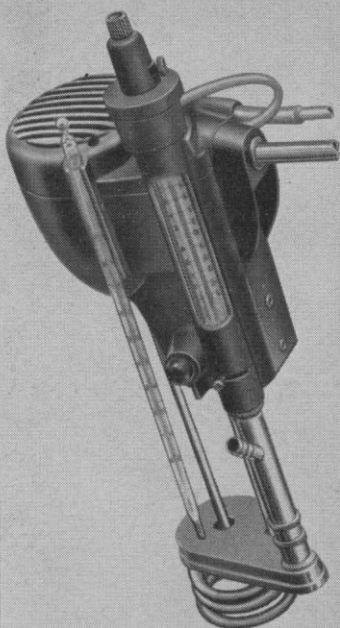
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differences do exist, to force Negroes to meet white standards is to do them no favor. Up north, both as student and teacher, I have been impressed by the Negro's difficulty in meeting white standards. I do not believe that the lower standards down south are the result of poorer teaching by Negroes. Teaching ranks relatively high as a profession among southern Negroes, and the teachers I have met appear to be eager to raise the position of the Negro by way of education.

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Literature Citation Counting

If one relies upon the enumeration of literature citations to identify significant research [J. H. Westbrook, *Science* **132**, 1229 (1960)], one should be reminded that this technique could be considered a special case of the more general opinion polls which so frequently are called into service to analyze economic and political aspects of our society. The pollster classifies and enumerates subjective opinions. Objectivity is introduced into the poll to the extent that opinion sampling is randomized. The more random the sampling is, the more objective will be the conclusion, and the more uncritical, by whatever criterion, will be the selection of opinions upon which the conclusion is to be based.

Thus it would appear that the enumeration of literature citations of a particular research article would represent the current value judgment of the pedestrian researcher in this particular area of research. Past experience has shown that favorable "average judgment" may lag decades behind the publication of brilliant but radical ideas.

Let us suppose that a scientist knew that he was to be rated according to the frequency with which his publications were cited. He might be extremely reluctant to enter any except the most popular areas of research. Such a system might be more vicious than that of rating him on the basis of the number of his publications.

Judging the merit of a scientific publication ultimately requires a subjective evaluation. Why place greater reliance on the "average judgment" than upon the judgment of those whose wisdom is most respected? To do so is to emphasize past accomplishment rather than potentialities for the future.

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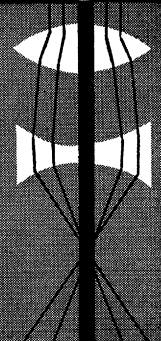
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