several of these tests with those given by the anomaloscope and concluded that the series devised by Ishihara was the most satisfactory.

I recently used this test to investigate the incidence of color-blindness among American Indians of the Southwest as well as in a group of Negroes in New Haven. The results obtained are set forth below in comparison with those published on Europeans by von Planta[2] in Germany, and on white Americans by Miles[3] at Stanford University and Haupt[4] at Baltimore. The figures in the table are based on the Ishihara test and refer only to males.

COMPARATIVE TABLE

Race	Investigator	Number tested	Frequency of color-blindness	Percentage
White (Europeans and Americans)	von Planta	2,000	159	7.95
	Miles	1,286	106	8.2
	Haupt	448	35	7.8
American Indians	Clements	624	12	1.9
American Negroes	Clements	325	12	3.7

The percentages of color-blindness among the three widely separated groups of white males closely approximate each other. Taking the three groups together, the actual percentage of the defect among the 3,734 individuals tested amounts to 8.04 per cent. One case in Miles's group was totally color-blind, but all the rest were red-green blind.

Of the 624 Indian males tested, 392 were full bloods, among whom were found eight cases or 2.0 per cent. of red-green blindness. Of these eight cases, six qualified as completely green-blind according to the test while the other two were red-blind. Among the 232 mixed bloods, three cases or 1.2 per cent. of red-green blindness occurred. Two of these were completely green-blind and one was red-blind. In addition, one case of total color-blindness was discovered in the mixed blood group. This case exhibited concomitant symptoms of poor central vision, marked photophobia and nystagmus. A group of 202 Indian females was also tested, but no case of color-blindness was found.

Of the 323 Negro males tested, 205 were probably full bloods. Seven cases or 3.4 per cent. of red-green blindness appeared. Five of these cases were complete green-blinds and the other two were red-blind. Among the 118 obviously mixed blood Negroes were five cases or 4.2 per cent. of red-green blindness, four cases being green-blind and one red-blind.

Miles states that the proportion of green-blindness to red-blindness in the group he tested was approximately 3 to 1. This ratio holds for the group of von Planta where the percentage of green-blindness was 5.75 and that of red-blindness 2.2. In my own results, 2.7 per cent. of the Negroes were green-blind and 0.92 per cent. were red-blind. In the total group of Indians, 1.2 per cent. were green-blind while 0.48 showed red-blindness. Apparently the approximate proportion of 3 to 1 for these two types of color-blindness holds for each of the three racial groups.

The above results seem to indicate that racial differences in color-blindness do exist. In the case of the white groups, the nature of the sampling and the large number of individuals indicates that the incidence of the defect for white males may be rather confidently set at about 8 per cent. The Indian testees were drawn from several different tribes and probably constitute a fairly representative sample. While tests on a larger group might give an incidence somewhat different from that stated here, there can be little doubt that the frequency of color-blindness among Indians is much less than among Caucasians. The Negro sample is too small to do more than indicate the probability that the incidence of color-blindness among Negroes falls somewhere between that for Caucasians and Indians.

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[3] W. Miles, "One Hundred Cases of Color-blindness Detected with the Ishihara Test," *Journal of General Psychology*, 2: 535–543, 1929.

[4] Quoted by Miles, *op. cit.*, p. 538.

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