ALBINOS WITH NORMAL OFFSPRING

To the Editorial Committee of the

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DEAR SIRS—I should like to add a few remarks to Mr. Trevor-Roper's article in your February number about a very interesting pedigree, in which two generalized albinos had three children with normal pigmentation and even dark brown irides (*British Journal of Ophthalmology*, 36, 107).

This case report is as yet unique and may be explained in one of the following ways:

(a) The father is a case of albinoidism or of incomplete generalized recessive albinism, having slightly darker hair than the wife. The stroma of his iris has no pigment (?) and his hair colour is nearly white, because he belonged to a very fair blue-eyed normal type to which the albinoidism gene was added. The mother is a case of complete generalized recessive albinism combined with genes for dark complexion. If this were true, it would be proved that recessive albinism and recessive albinoidism are not situated at the same locus of the chromosome and are therefore not polyalleles.

(b) One of the parents is a case of dominant complete albinism and the other a case of recessive albinism, and their gene deficiencies occupy different loci. This hypothesis is not very probable because no child has inherited this dominant gene nor was there an affected person among the ascendants of either of the parents. It cannot quite be excluded, however, for the parent with dominant albinism may be the result of a mutation and it is only accidental that this has not been transmitted to one of the children.

(c) Both parents suffer from complete recessive albinism, due to different genes, which possibility is already known in plants and animals.

(d) The paternity is dubious. I think this may be excluded as this possibility was not mentioned at all.

In any event, the science of genetics is much indebted to Mr. Trevor-Roper, though geneticists will not easily agree with the suggestion that the Mendelian laws have been violated. I might add that I have found in the Netherlands very few exceptions to the rule that heterozygotes for albinism have a translucent iris (partially or totally). This has been verified by many contemporary workers, but is difficult to demonstrate in dark brown irides.

Yours faithfully,

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