vious. Even a cursory reading of the "Kallikak Family"[5] or "Feeble-Mindedness" would have shown them that intelligence tests were in constant use.

Perhaps it is possible to regard these glaring errors as natural mistakes; but it is difficult not to feel that some, at least, result from wishful thinking.

In these days, one can not read everything. But if one feels it necessary to publicly criticize, it would seem that he should be sure that he understands what he is condemning. This would be not only for his own protection, but for the far more important consideration, the preservation of truth and the advancement of science.

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THE GRAYING OF HAIR

DR. ALEŠ HRDLIČKA'S[1] recently publicized explanation that as one of the functions of the hair is to excrete melanin, graying of the hair is, therefore, a quantitative expression of the total amount of melanin to be excreted by the body, which in some way, not explained, depends on the metabolism. Thus, according to Dr. Hrdlička, graying is an automatic expression of the dying fires of metabolism, and no drug or chemical can be expected to have more than a temporary effect.

The color pattern of the hair is not only generally, but also somatically inherited. If this were not so we might be startled to find our leopard losing her spots and the tiger his stripes. Moreover, we would be at a complete loss to explain the white tips on black fox fur or the reverse on ermine.

That the coloring of the hair is functional in character and not automatically dependent on some generalized bodily change or growth is most clearly shown by the fact that certain animals, as the Arctic fox, change the entire color of the hair from winter to summer season, which is coupled with the moulting function; also shown in birds, like the ptarmigan. Moreover, in birds, and to some extent in mammals, the pattern of the hair coloring changes with sex activities, remarkably confirmable by experiment. In humans, both the hair coloring and its time-duration is a hereditary matter and independent of general health, virility or age.

Moreover, much evidence goes to show that melanin formation is a local matter. Commonly, for example, one finds the scalp hair white over the site of a former injury, although there is a good hair growth continuing. This is also true in other pigmented tissues, such as the skin. Pregnancy, lice, irritation, etc., cause marked localized pigmentary changes. On the other hand, as yet unknown factors cause marked patch withdrawal of pigmentation (Vitiligo) peculiarly striking in colored people. The Negro's hair grays with age; his skin doesn't, which fact I find impossible to coordinate with Dr. Hrdlička's idea of general melanin excretion.

While sex seems to play an important role in hair coloring, nevertheless, albinos breed quite freely, as laboratory rats and mice amply demonstrate.

That the matter is not a simple concomitant of growth or nutrition is well illustrated by the fact that the "bald" area rarely becomes markedly gray primarily, and often completes its own peculiar function without any graying whatever. The lateral margins of the scalp, on the other hand, most commonly gray first and they, on the contrary, rarely become bald.

All the above facts are but a small selection of the large number illustrating the same matter; namely, that while there are many outside controls reacting on the actual machinery of pigmentation, nevertheless, this is a separate entity. Moreover, each cell shows a quantitative difference in its reactivity to such controls so that hairs growing side by side may show very marked pigmentary contrasts. Such facts leave little doubt that the fiber pigmentation is a special function, and unless this be a solitary exception to the general rules of physiology, it is capable of being altered in a quantitative manner by pharmacological agents.

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SOME FACTORS AFFECTING APPLE SCALD DISEASE

THE scald disease of the apple is a storage disorder which causes tremendous wastage in storage wherever apples are stored the world around. The cause of this disease was found by workers in the U. S. Department of Agriculture to be accumulations of certain volatiles around the fruit in storage.[1] They devised a method of control in which these volatiles were absorbed by paper wraps impregnated with mineral oil.

Two years' results on the Rhode Island Greening variety indicate that coating the fruit with a wax emulsion (Brytene 489 AM) gave considerable promise in scald control. On prematurely picked apples, the wax treatment did not give as good control as the oiled paper treatment, but on pickings made at the normal time it gave as good control as oiled paper. Waxing has the advantage over the oiled paper treatment in that it keeps the fruit in a more green, crisp

5 Henry H. Goddard, "The Kallikak Family." Macmillan. 1912.

1 *Jour. Am. Med. Asn.*, March 14, 1942, p. 918.

1 C. Brooks, J. S. Cooley and D. F. Fisher, *Jour. Agr. Res.*, 18: 211–240, 1919.