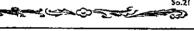
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## ALL MEN ARE UNEQUAL

## "The Facts Are Pretty Obvious"

-savs DR. I. L. G. SUTHERLAND in this condensation of last week's talk in the Winter Course series from 3YA

mine contradicts several very pronouncements. American Declaration of Independence, written by the great Thomas Jefferson, declared it to be a self-evident truth that "all men are created equal." This same pronouncement was made by the authors of the French Revolution and included in the famous slogan, "Liberty, Equality, Fraternity." The idea of human equality has been one of the most influential notions in the modern world: no doubt about that. What then is the truth of the matter? With the aid of a little elementary psychology and elementary biology it is now a very simple matter to demonstrate that all men are unequal. What becomes then of the famous revolutionary idea? Is it just a romantic myth?

There is another possibility. The word equality may have several meanings; it may have too much meaning, or too many meanings for one word to carry conveniently. And this is actually the case. Equality is one of those big and significant words, like freedom and justice, which are almost too rich in meaning, so that distinctions have to be made. But equality has a most significant meaning, in spite of the many facts of in-equality. Now the facts of inequality are pretty obvious. Men are not equal, nor women either, in height or weight, or strength or beauty, or in intelligence or mental powers generally. And every type of inequality in body and mind

Family

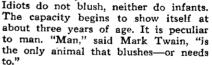
7ES: unequal. All men are un- which is ours by inheritance is heightequal. Now this statement of ened by unequal environment and opportunity.

### What Makes You Blush

Let us make some distinctions here and begin to look more closely at the facts. The American Declaration of Independence stated that "all men are created equal": that is, are equal by inheritance. Since Thomas Jefferson's day a great deal has been learned about human inheritance. Ideas about heredity, or what we are born with, used to be a matter of speculation or even superstition, as well as including some truths of common observation, which were, however, unexplained. To-day, genetics, or the study of heredity, is a special branch of science which is very active. Let me try to sum up a few of its important discoveries. It has become clear that nature compels variation and inequality. Differences dependent upon heredity show themselves at birth and become more

apparent as development proceeds-differences in skin, e y e s, ears, hair. teeth, blood, handedness, intelligence, and so on even down to the liability to blush.

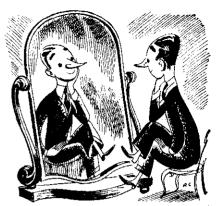
An unusual tendency to blush is a well-known family trait, connected with a delicate adjustment of the small arteries in the skin and the nervous system.



## Packets of Genes

What is it that makes human beings inevitably so various? Well, apart from differences of ancestry it is a direct result of the two-parent mode of propagating the species. We know that the inheritance of a child, or of any living thing for that matter, consists finally of a large number of pairs of packets containing complex chemicals called genes. The genes determine unborn differences. Now each parent has a full set of the pairs of packets. The child for its development needs only one set of pairs. Its set is drawn at random, save that one packet is taken from each pair possessed by each parent, and the manner of drawing makes a difference. It is obvious from this that there are many thousands of different ways in which the child's set may be made up, each yielding a child of different characteristics, though the ancestry is the same. There is no way of controlling the combinations that are to enter into a child of given parents, and there is no prospect that there ever will be.

This process sees to it that very few human characteristics breed true. It is



. . There has never been anyone else exactly like you"

a fact that two brothers, or a brother and a sister, are more alike than two children taken at random. This is because they possess the same ancestry. But they also differ a good deal through the chance combination of characters from their two parents. It follows from all this that every human being is unique. Think about yourself. In the whole of the history of the world there has never been anyone else exactly like you, and in the whole of time to come there will never be another. This I suppose, is what is called a solemn thought, though I'm not sure whether it should make us feel proud or humble. The only way to get rid of inequalities and to produce similar individuals would be to use some other method of propagation: some method other than the two-parent method. This can be done with plants, but not so far with animals. It is, in fact, now extensively used with plants. A seedling tree is thought to be a good one. It is therefore multiplied, not by allowing it to flower and seed, that would mean variations, but by cutting and grafting. The trees derived in this way are all extraordinarily alike, because they are really sections of a single tree. The usual process of propagation and the inevitable differences it produces have been side-tracked. The several million trees of Cox's Orange Pippin in the world are really a single individual. If one were allowed to flower and seed there would be differences at once.

## **Human Beings from Cuttings?**

As yet we cannot propagate human beings from cuttings. King Solomon's suggested experiment in this direction was abandoned, you will remember, because of opposition from the mother of the subject. The idea of propagating human beings from cuttings is rather intriguing. From whom would we cut and graft and why? But until the art of tissue culture has developed very considerably it is, perhaps fortunately, out of the question. Hence, as one authority states, "so long as bi-parental inheritance is kept up, the variety, the surprises, the perplexities, the melodrama, that now present themselves among the fruits of the human vine, will continue."

Curiously enough, however, Nature occasionally carries out King Solomon's experiment and so produces a few exceptions to the almost universal law of difference. At about four births in every 350, twins are produced. Now twins may

(continued on next page)



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