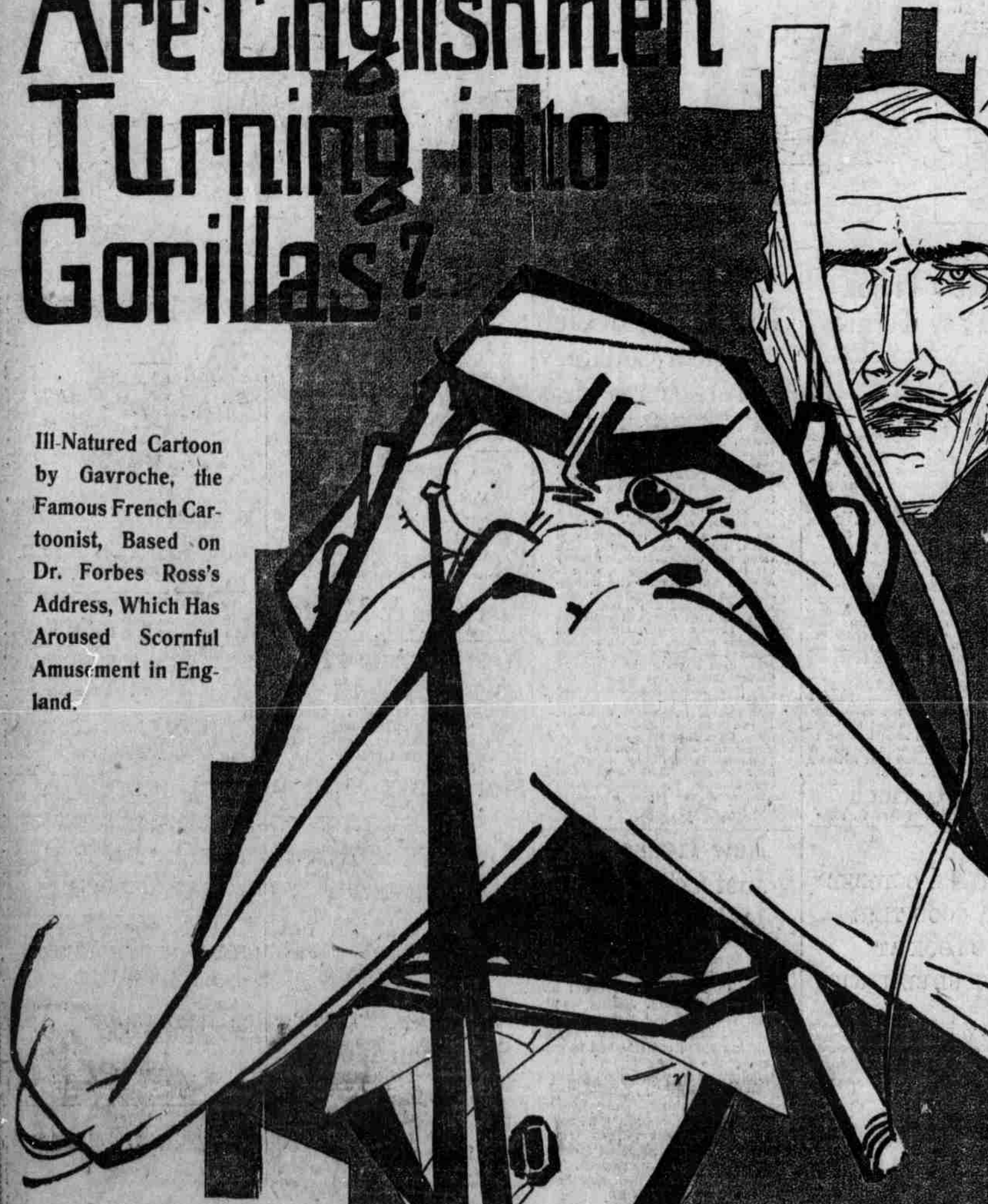


Copyright, 1912, by the Star Company. Great Britain Rights Reserved.

## Are Englishmen Turning into Gorillas?

Ill-Natured Cartoon by Gavroche, the Famous French Cartoonist, Based on Dr. Forbes Ross's Address, Which Has Aroused Scornful Amusement in England.



WILL the Englishman of 2,000 years from now look like a depraved gorilla?

Doctor Forbes Ross, a distinguished English physician and scientist, has predicted that he will. This prediction couched in remarkably picturesque and entertaining language was recently made before a scientific London audience. It has aroused widespread interest and not a little amusement. The most interesting passages from this entertaining address are printed elsewhere on this page.

The basic idea of Dr. Ross's address is that owing to the stress of taxation, the lack of food and the material difficulties of existence, only the most animal type of Englishman will be able to survive. There will be no room, no means of subsistence for the higher type of man, the inheritor of culture and civilization, who requires abundant means and favorable surroundings for the development of his powers.

The survivor will be a man who needs only food and none of the higher things. He will be an animal who possesses the greatest ability to grab his food quickly, and is not at all particular about its quality. In Dr. Ross's words he will be a "creature of primordial qualities and primitive instincts." That means that he must be of the gorilloid type.

Some nervous Englishmen are now picturing their descendants as a lot of ape-like creatures sitting in the ruins of Westminster Abbey and listening to a large ape dancing and howling in place of the impressive services that are now held in that historic shrine. The entertainment enjoyed by these creatures would resemble the beating upon a drum-like cake of earth, that is now said to give pleasure to small parties of African gorillas.

Doctor Ross has a well-established scientific reputation, but his address must be regarded as containing large elements of sarcasm and exaggeration; his reference to the taxation policy of the present Government as leading to the degeneration of the race is evidently a violent and unscientific exhibition of political feeling. It is not from the extinction of the upper social classes that England is most in danger of degenerating. The intelligent skilled workman is as high a type of civilization as any. The failure of the means of subsistence must tend to the extinction of that type of workman and his replacement by a more primitive creature.

In predicting that the failure of the means of subsistence, the harder conditions of the struggle for life may lead to a degeneration of the race, Dr. Ross is following well established scientific principles. There are many cases of animal genera which have suffered extinction or have undergone profound modification as the result of the failure of the food supply. Many races of mankind have certainly suffered extensive changes and degeneration from the same cause. The absolutely barbarous and ignorant natives who now linger in Yucatan are descendants of the Mayas, who once covered Mexico with splendid temples and cities. Their degeneration is attributed partly to the failure of the water and food supply.

The most interesting instance of the

change in an animal race owing to lack of food is to be found in the white ants known as termites. William Morton Wheeler, Ph.D., professor of Economic Entomology in Harvard University, deals with this point in the course of a long and very interesting article called "Notes About Ants and Their Resemblance to Man" in the National Geographic Magazine.

Professor Morton says in his introductory remarks that the ants have solved all the economic and political problems which man has to encounter. Hence it is not surprising that they should help us to understand why Englishmen may change into gorillas as the result of inability to make a good living.

We must remember that a hard but successful struggle for a living raises us in the scale of evolution, but an unsuccessful one makes us degenerate.

Now the white ants change a certain proportion of their population into sexless workers, according to the food supply. The less food there is the more of these workers there are. They are dreary, joyless creatures, underfed, having just sufficient strength to drag them to their work.

True, to become a hopeless worker is not the same thing as becoming a gorilla, but the case of the ants does show how the food question may modify a race, and it is the food question which, according to Doctor Forbes Ross, is going to modify Englishmen.

"The white ant queen," says Professor Wheeler of Harvard, "lays a small batch of eggs and cares for them till they hatch as helpless, grub-like larvae. These she feeds with her saliva, but as the supply of this is meagre, the larvae grow slowly, pupate prematurely, and emerge as very small and feeble workers. They nevertheless at once set to work to expand the colony by opening up a gallery to the out-

side world and go forth to forage. They bring in food to their starving mother and henceforth spend their days in foraging, enlarging the nest by excavating additional galleries and chambers, and in rearing the successive broods of larvae from the eggs which the queen is now able to produce in quantities.

"The larvae are fed more abundantly as the numbers of workers increase, and, therefore, develop into larger and more vigorous individuals. As time goes on and at the proper season, male larvae appear and develop, and the female larvae are so well fed that they can develop beyond the worker stage and become queens.

"With the appearance of these sexual forms the colony has reached maturity, and although it may persist for many years it merely repeats each year this same cycle of feeding and rearing as great a number of individuals as possible on the amount of food which the workers can secure.

"The queen may live a dozen years or more, and each worker may live three or four years, but the males usually live only a few weeks and die after the nuptial flight, being exhausted and knowing neither how to feed themselves nor how to return to the nest.

"Most extraordinary during the development of the ant colony is the behavior of the workers, for though sterile and under ordinary circumstances, unable to lay eggs, they nevertheless exhibit all the other maternal instincts in an exaggerated degree. The worker, as we have seen, is a form produced by inadequate nourishment. It is a hunger form so injured to long fasting during its larval life that even when it reaches matur-

ity it seems to prefer to starve, for though greedy to fill its social stomach with liquid food whenever there is an opportunity, it dispenses this store most generously to the larvae and its sister ants and permits very little of it to pass the valve into the individual stomach, only enough, in fact, to maintain healthful activity.

"Ants are, therefore, the most thoroughgoing of communists, to whom individual possession as such has no meaning beyond its benefit to the community as a whole.

"But even the worker's sterility, which has given certain individualistic thinkers such bad dreams, is neither fixed nor irrevocable. If the colony has a very abundant food supply, or if its queen dies, the small, undeveloped eggs which are always present in the ovaries of the worker, may grow to full size, be deposited and developed normally, though always or nearly always into male ants, because they are not fertilized. Thus the joys of maternity may fall to the lot of the worker, though

"Ants are, therefore, the most thoroughgoing of communists, to whom individual possession as such has no meaning beyond its benefit to the community as a whole.

"But even the worker's sterility, which has given certain individualistic thinkers such bad dreams, is neither fixed nor irrevocable. If the colony has a very abundant food supply, or if its queen dies, the small, undeveloped eggs which are always present in the ovaries of the worker, may grow to full size, be deposited and developed normally, though always or nearly always into male ants, because they are not fertilized. Thus the joys of maternity may fall to the lot of the worker, though

less abundantly and less frequently than to that of the queen."

Observation by naturalists among the mammals indicate that if man degenerated through the narrowing of the means of subsistence, he would revert to some earlier type in the history of the race. Mongrel dogs, ill kept and not trained to do certain things like the best breeds, revert to something like the wild dog of the African forest.

Evolution teaches us that man was evolved from a creature akin to the ape, who vanished from the earth countless ages ago. Toward this type the English scientist argues that his race is reverting.

Dr. Forbes Ross, Distinguished Scientist, Pictures His Overtaxed Countrymen Reverting to a Primitive Simian Type with the Food-Grabbing Instinct Predominant

### The Scientist's Strange Prophecy

By Dr. Forbes Ross.

THE average Englishman's face in two thousand years will be that of a typical criminal. It will be a typical criminal face because the tendency of nature is to improve, but the tendency of modern methods is the reverse. The reasons for this forecast are, firstly the tendency of the better classes to curtail their numbers; second, the tendency of the more dissolute and less intelligent to mul-

tiply out of all proper proportion. The face of the average Englishman will be that of a typical criminal with prognathous jaws, receding forehead, broad, flat nose, well marked canine teeth, small eyes, short neck, head set well back between the shoulders and a depraved gorilla countenance. The nation is being propagated mainly by those who retain their primordial qualities and primitive instincts. Therefore, we must go back to the gorilla type of humanity. The better class of



The Ancestors of Man Just Before We Assumed the Distinctly Human Shape, Drawn by Heppenheimer, of Munich.

tiply out of all proper proportion. The face of the average Englishman will be that of a typical criminal with prognathous jaws, receding forehead, broad, flat nose, well marked canine teeth, small eyes, short neck, head set well back between the shoulders and a depraved gorilla countenance. The nation is being propagated mainly by those who retain their primordial qualities and primitive instincts. Therefore, we must go back to the gorilla type of humanity. The better class of

as a criminal should be tried as a weak character.

During some time of its existence the human being goes through all the phases of animal creation. First he is a mass of protoplasm; then he is little better than a sea anemone; then he is practically a fish with gill clefts; then a chicken; then he assumes mammalian form with Simian outlines and a long tail; then the tail gradually leaves him and at birth we have a human being. There is a decided resemblance between the human face and that of many animals. There is a bird-like face, a sheep-like face, a cow-like face, a horse-like face and a Simian face. The human face is, therefore, a composite of all other faces below man in creation, but the human face is an advance on the face of the gorilla. The lower animals have large jawbones upper and lower, that project a great distance beyond their eyes and, therefore, beyond their brain, but when we reach man, we find that forehead, eyebrows, jaws and chin are all in the same perpendicular line. The only feature of the face projecting beyond that line in a typical cultured human face is the nose. The eyes and nose of mankind are quite correctly placed because mankind has assumed an erect position. The eyes look forward because man, unlike the crab, is a creature that progresses in a forward direction. Man and the apes are the only living creatures who can keep their face forward when looking aside. The horse, sheep and cow have to turn their heads round to look at anybody.

The degenerate man of the future will keep his eyes in the same position because that will enable him to catch his food most effectively, but the noble perpendicular line of forehead and chin will be replaced by the receding forehead and projecting jaw of a gorilloid creature.



The Ladder of Evolution from the Lowest Type of Monkey Through the Baboon, Orang Outang, Chimpanzee, Gorilla and Gibbon to Man. Dr. Forbes Ross Believes the Englishman Will Descend This Ladder. Above is the Skull of the Galley Hill Englishman, Who Lived 50,000 Years Ago, Showing Ape-Like Lines Compared with Those of the Modern Man in Outline.