

I am aware of the rather "heavy" nature of the accompanying table, but the matter is one of much importance and entirely dependent on observed facts, therefore I think you will consider it worthy of the space it will occupy. I have condensed it as much as possible, and have, to the best of my knowledge, selected the most trustworthy and longest continued records at present in my hands.

Having thus placed the data before your readers, it seems undesirable to occupy space with remarks as to my own opinion on the evidence; but I cannot help thinking that it is quite clear that the question must not rest where it is. The evidence is no doubt conflicting; but I cannot think that it is chance alone that has given us. (from Table I):—

Maximum sunspot years	1837	1848	1860	1871?
Heavy rainfall "	1836	1848	1860	1872
Amount of rainfall	33'49	35'98	33'34	? 34
Per cent. above average	19	28	18	? 20
Minimum sunspot years	1833	1844	1856	1867
Small rainfall "	1834	1844	1858	1868
Amount of rainfall	24'52	23'72	22'79	? 28'8
Per cent. below average	13	16	19	+ 2

Almost identical results are given by Table II.

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#### MAX MÜLLER ON DARWIN'S PHILOSOPHY OF LANGUAGE \*

IN a lecture recently delivered in connection with the Liverpool Literary and Philosophical Society, Prof. Max Müller addressed himself to the phase of Mr. Darwin's theory, which deals with the possibility of the higher animals acquiring the faculty of articulate speech. He first cleared the ground by some general remarks on the previous phases of this old, old controversy touching the origin and destiny of man, referring to the contention between the Materialists and the Idealists, and to the durable impression left upon this controversy by Kant's wonderful "Criticism on Pure Reason," lamenting that Mr. Darwin and his followers should disregard the important conclusions resulting from previous controversies on this subject, and proceed as if their theory of evolution were new. Materialism, he said, is everywhere in the ascendant, while Idealism is almost become a term of reproach. In this riddle of mind and matter, the world is the theatre of a struggle for the primacy of mind over matter. But when the evolutionists contend that the development of the mind of man out of the mind of an animal is a mere question of time, the Professor felt inclined to treat the idea with impatience. Animals must be animals so long as they lack the faculty of abstracting general ideas. Darwin says: "I believe that animals have descended from at most four or five progenitors, and plants from an equal or lesser number. Analogy would lead us one step further, namely, to the belief that all animals and plants have descended from some one prototype. All organic beings have descended from some primordial form into which life was breathed by the Creator." Prof. Max Müller inferred that these four progenitors may be intended for the Radiata, Mollusca, Articulata, and Vertebrata; and said that Mr. Darwin holds firmly that man has been developed from some lower animal, that all animals have been so developed from the lowest to the highest order of organism, and that there is nothing peculiar in man which cannot be explained from germinal seeds or potential faculties existing in lower animals. This question of the descent of man may be called the controversy of the nineteenth

century, and requires the whole knowledge of the century to answer it adequately. The lecturer, confining himself to the evolution theory as it affects language, essayed to show that between the language of animals and the language of man there is *no* natural bridge, and that to account for human language such as we possess would require a faculty of which no trace has ever been discovered in lower animals. If, as Mr. Darwin begs us to assume, there were a series of developments graduating insensibly from ape to man, it would of course be impossible to fix a definite point where the ape ended and the man began; but he asks us to assume that which does not exist, and without evidence to support this, of which there is none, the theory remains only a theory. Indeed, said the Professor, whenever the distance between two points in the chain of development seems too great, we are told again and again that we must only imagine a large number of intermitted beings representing gradations insensibly sloping up or sloping down, in order to remove all difficulty. So it is in the case between the monkey and the man. This point was illustrated most appositely by reference to the Hindoo notion that man is descended from the spirit of the Creator, through a series of links now extinct, the first descendant being 9-10ths God and 1-10th man, the second being 8-10ths God and 2-10ths man, and so on till man became 10-10ths man and ceased to be of the essence of the Great Spirit. Mr. Darwin's fallacy, he said, lurks in the very word "development," for the admission of this insensible gradation through a series of organised beings would eliminate not only the difference between ape and man, but likewise the difference between peat and coal, between black and white, between high and low—in fact it would do away with the possibility of all definite knowledge. Mr. Darwin admits that articulate language is peculiar to man, but contends that animals have, in a lower stage of development, the identical faculties necessary to the invention of articulate expressions. To this he replied that no development of mental faculties has ever enabled any animal to connect one single definite idea with one single definite word. He gave various illustrations of the essential difference between the expression of emotions and the expression of ideas or abstract conceptions, and argued at length as to the impossibility of mere emotional signs and sounds developing into articulate speech; and he ridiculed the notion that the materials of language being given, all the rest was a mere question of time, a natural gradation from the neigh of the horse to the poetry of Goethe. Man and animals possess emotional language in common, because man is an animal; but animals do not possess rational language, because they are not man. This distinction between emotional and rational language, so far from being fanciful and artificial, is radical, as proved by various evidence, especially by the testimony of pathology in reference to certain brain diseases. Rational language is to be traced back to roots, and every root is the sign of a general conception or abstract idea of which the animal mind is incapable. Mr. Darwin has said there are savage languages which contain no abstract terms; but the names for common objects, such as father, mother, brother, &c., are abstract terms, and unless Mr. Darwin is prepared to produce a language containing no such names, his statement, said the lecturer, falls to the ground as the result of a misconception of the real nature of a general idea as distinguished from an emotion. This phase of the controversy lies within the Professor's peculiar domain, and he was able to entertain his audience with technical illustrations that in ordinary hands must have proved tedious, but in the hands of the most accomplished linguist of the day proved a source of wonder and amusement to his hearers. He concluded as he had begun, by maintaining that language is the true barrier between man and beast.

\* The following extracts have been forwarded to us by the lecturer, and are taken from the *Liverpool Gazette*.