

How, indeed, could the common and universal notions about the stupidity of donkeys ever have originated. A sheep, if you will, is stupid, and so is a rabbit; but I doubt whether there is really in all nature a more careful, sensible, intelligent, and wide-minded brute than the common donkey. I have always admired the genuine penetration of those South American mountaineers who told Mr. Darwin that they would give him the "most rational" mule on which to cross a dangerous pass of the Andes. They knew the capacities of the mule; and I have no doubt they knew those of the donkey too. The fact is, every one who has watched donkeys closely must have noticed innumerable proofs of their unusual mental gifts. They stand, with the horse, the elephant, the camel, and the monkeys, at the head of the animal world, intellectually considered. (Dogs, of course, I put out of consideration, as products of direct human teaching). But donkeys are the final flower of long ages of native evolution, the natural head and crown of one great line of mammalian development. To doubt their intelligence is to impugn the whole conduct of nature, to upset the entire system of evolutionary psychology off-hand. Donkeys cannot help being clever, because they are the final survivors in the struggle for existence in one of the most specialized, most highly developed, and most dominant mammalian stocks. They do not represent mere stranded and struggling relics of older types, like the very silly kangaroos, and ant-eaters, and hedgehogs, which drag on a miserable existence behind the times in out-of-the-way holes and corners of the earth; they are one of the finest developments of one of the most successful branches of the great progressive ungulate tribe. I feel a genuine respect for every donkey I meet when I remember that it was the mere accidental possession of an opposable thumb that gave my ancestors a start over his in the race for the inheritance of the earth towards the very close of the tertiary period.

Of course everybody knows the wonderful pedigree of the horse and donkey family, which has been discovered imprinted upon the later formations of America by Professor Marsh, and reconstructed for us in full by Professor Huxley. The horses are an extremely aberrant form of the ungulate tribe, and their very earliest recognizable ancestor must have had some points of resemblance with the tapirs, some with the pigs, some with the deer—nay, some even with the prototype of the lemurs and of man himself. In the lowest eocene beds of New Mexico, Professor Marsh has found the first shadowy forerunner of my donkey—an equine quadruped which he has appropriately called *cohippus*, with five toes to each hind foot, and probably to each fore foot as well. Already, however, this very vague progenitor of the horse family had begun to develop towards the distinctive peculiarity of his race—the solid hoof, adapted to free scouring over open grass-grown plains; for one of his five toes is, even at this early period, only in a rudimentary condition. In the higher eocenes of Wyoming and Utah, we get a rather more horse-like creature, *orhippus*, a big as a fox, with four toes to his front feet and three to his hind feet. Then, only about a million years or so later, in the miocene of Oregon and Nebraska, we find two more specialized equine animals, *mihippus* and *meshippus*, as big as a sheep, with three hoofed toes on the front feet, of which the middle one is distinctly the largest, being, in fact, the forerunner of the one final hoof in our own horses. In the pliocene, again, we come upon the bones of *hipparion* and *protohippus*, as big as this donkey, with one stout middle toe, much like our modern horse's hoof, and a lateral one on each side which does not reach to the ground. Side by side with these very horse-like forms occurs another even more specialized type, *pliohippus*, in which the lateral toes have become reduced to mere splint-bones, as in our existing species. Here, we have all often been told, we