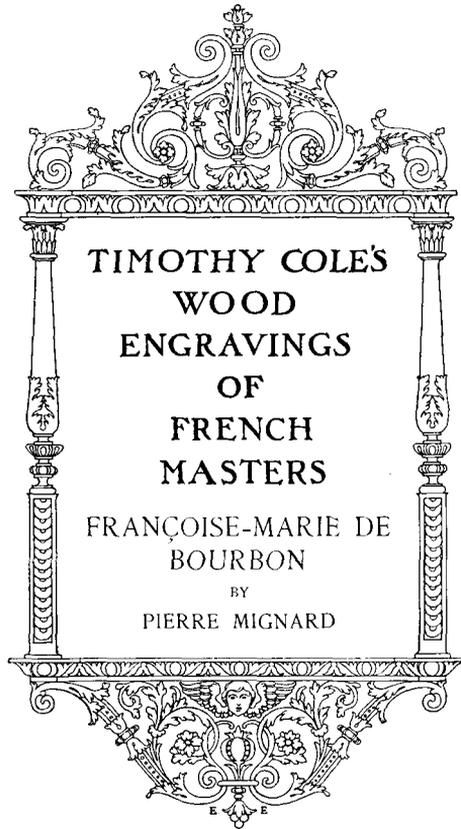




From the painting at Versailles. See "Open Letters"

FRANÇOISE-MARIE DE BOURBON. BY PIERRE MIGNARD

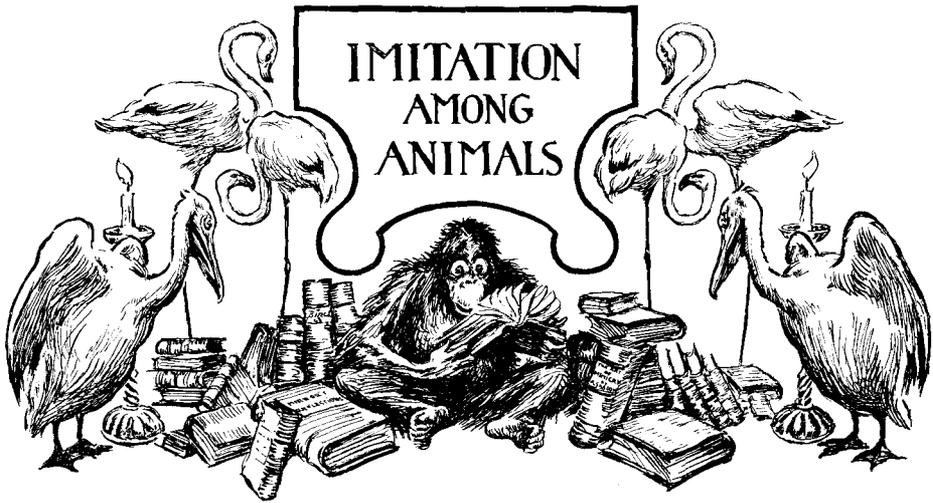
(TIMOTHY COLE'S WOOD ENGRAVINGS OF FRENCH MASTERS- XI)



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FRANÇOISE-MARIE DE
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Do Animals Imitate One Another Voluntarily?

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OF late years, the discussion as to the faculty of imitation in animals has waxed warm on the part of those who have observed the animals in a state of nature, either casually or with system. Meantime, some of the psychologists have taken up the subject with scientific precision. These scientific observers are cautious as to final conclusions, but their experiments are of a nature to interest the general public, and some of the results already attained are surprising. Nowhere have certain observations been carried on with greater thoroughness than at Harvard University, and *THE CENTURY* has been glad to obtain the privilege of publishing papers by Professor Yerkes and other experimenters.—*THE EDITOR.*

WHEN we attempt to discuss imitation, we are confronted by a serious difficulty. The word lacks singleness and precision of meaning. I need quote only a few of the scores of definitions which have been formulated to prove that it would be absurd for me to plunge into a discussion of the subject of imitation among animals without first making clear what I mean by imitation. One writer, using the word in a large sense, holds that imitation among organisms is adaption to changing environment; another, in a somewhat narrower sense, defines it as any thought or action which tends to reproduce a copy; and a third, by limiting the application of the term to imitation of other beings in contrast with imitation of one's self, is enabled to define it as the performance in thought or action of what comes through the senses or through suggestion from another individual.

In this article I purpose to use imitation in the third of these senses. It is the performance by one creature of what it sees or hears or in some other manner perceives another creature to do. Imitation of self is excluded from consideration. But even this rather narrow definition would not enable us to confine our attention to a simple and homogeneous group of phenomena, for animals may have several different manners of imitating.

That many animals imitate one another instinctively and habitually is a matter of common knowledge, and it is quite unnecessary to present examples of these kinds of behavior. That any animal other than man imitates voluntarily, with purpose and intent, is extremely doubtful from the point of view of many students of animal psychology. I shall therefore make it my task in this article to present the answer which the scientific investigation of animal