

DISCOURSE ON METHOD

(SELECTION)

René Descartes

It is difficult to exaggerate the importance of René Descartes (1596-1650) to the history of modern science and philosophy. It was Descartes, for instance, who developed analytic geometry, the mathematical key to the development of modern physics. One of the earliest of Descartes' publications, written in French, was his Discourse on Method for Conducting One's Reason Rightly and for Searching for Truth in the Sciences, published in 1637. This short work was divided into six parts, and served as a methodological preface for three treatises on optics, geometry, and meteorology. Part Five of the Discourse summarizes a longer work of his, Le Monde (The World), that he was about to publish five years earlier, but then suppressed after news reached him of Galileo's trial in Rome. Here Descartes develops a mechanistic view of nature, including the claim that all animals (other than human beings) are nothing more than divinely crafted machines. In the following brief selection from Part Five, Descartes gives an account of the two tests that determine whether or not a being has a rational soul.

If there were such machines having the organs and the shape of a monkey or of some other nonrational animal, we would have no way of telling whether or not they were of the same nature as these animals; if instead they resembled our bodies and imitated so many of our actions as far as this is morally possible, there would still remain two most certain tests whereby to know that they were not therefore really men. Of these the first is that they could never use words or other signs arranged in such a manner as is competent to us in order to declare our thoughts to others: for we may easily conceive a machine to be so constructed that it emits vocables, and even that it emits some correspondent to the action upon it of external objects which cause a change in its organs; for example, if touched in a particular place it may demand what we wish to say to it; if in another it may cry out that it is hurt, and such like; but not that it should arrange them variously so as appositely to reply to what is said in its presence, as men of the lowest grade of intellect can do.

The second test is, that although such machines

might execute many things with equal or perhaps greater perfection than any of us, they would, without doubt, fail in certain others from which it could be discovered that they did not act from knowledge, but solely from the disposition of their organs: for while reason is an universal instrument that is alike available on every occasion, these organs, on the contrary, need a particular arrangement for each particular action; whence it must be morally impossible that there should exist in any machine a diversity of organs sufficient to enable it to act in all the occurrences of life, in the way in which our reason enables us to act.

By means of these two tests we may know the difference between men and brutes. For it is highly deserving of remark, that there are no men so dull and stupid, not even idiots, as to be incapable of joining together different words, and thereby constructing a declaration by which to make their thoughts understood; and on the other hand, there is no other animal, however perfect or happily circumstanced, which can do the like. Nor does this inability arise from want of organs: for we observe that magpies and parrots can utter words like ourselves, and are yet unable to speak as we do, that is, so as to show that they understand what they say; in place of which men born deaf and dumb, and thus not less, but rather more than the brutes, destitute of the organs which others use in speaking, are in the habit of spontaneously inventing certain signs by which they discover their thoughts to those who, being usually in their company, have leisure to learn their language.

This proves not only that the brutes have less reason than man, but that they have none at all: for we see that very little is required to enable a person to speak; and since a certain inequality of capacity is observable among animals of the same species, as well as among men, and since some are more capable of being instructed than others, it is incredible that the most perfect ape or parrot of its species, should not in this be equal to the most stupid infant of its kind or at least to one

that was crack-brained, unless the soul of brutes were of a nature wholly different from ours. And we ought not to confound speech with the natural movements which indicate the passions, and can be imitated by machines as well as manifested by animals; nor must it be thought with certain of the ancients, that the brutes speak, although we do not understand their language. For if such were the case, since they are endowed with many organs analogous to ours, they could as easily communicate their thoughts to us as to their fellows. It is also very worthy of remark, that, though there are many animals which manifest more industry than we in cer-

tain of their actions, the same animals are yet observed to show none at all in many others: so that the circumstance that they do better than we does not prove that they are endowed with mind, for it would thence follow that they possessed greater reason than any of us, and could surpass us in all things; on the contrary, it rather proves that they are destitute of reason, and that it is nature which acts in them according to the disposition of their organism—just as one sees that a clock made only of wheels and springs can count the hours and measure time more accurately than we can with all our powers of reflective deliberation.