

A Discourse on the Method

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Descartes did not approve of thick books. It is enough to read the first few lines and look at some of the pictures to get a clear idea of what the message is of the author. Why go through the trouble of reading it all? Descartes asks. Consequently his 'Discourse' is a very thin book, further divided into six different parts. Furthermore it is not densely written but rather chatty in tone, no doubt adhering to a tradition of the day, when presentations tended to be conversational. Yet, Descartes is a constrained writer, dispensing with flowery languages, extended metaphors and luxuriant digressions. He strives for simplicity and economy in this writing in order to achieve clarity.

What is the book about? It is not about presenting an explicit method of scientific inquiry, because Descartes is of the opinion that such methods cannot be taught but have to be discovered, but to announce that such a method exists and the author has been using it to achieve many interesting results. His approach is very much inspired by the rational axiomatic method pioneered by the Greek as to geometry. Thus his strategy is to lay sound foundations and build up knowledge piecemeal starting with the simple and proceeding with small steps, just as in a mathematical deductive proof. Although Descartes does refer to experiments the guiding principle is rational insight through clear and distinct concepts. It is characteristic of Descartes attitude, that the latter may appear in a dream and then be fully legitimate, in particular form the basis of a correct mathematical proof, while the sensory impressions conveyed by a dream are fallacious. Now for this to work on an objective level one must assume that the rational ability is shared by all human beings. Descartes has been accused of inconsistency on this account because he speaks about the various mental capabilities of different people, how some are more stupid than others (and somewhat coquettish he brings forward his own mental limitations, knowing quite well that he considers his mind to be superior to most others). This criticism is unfair and misses the point. Just as we may claim that all men are equal yet admit that there are vast differences between them in intellectual and moral capacities. In the mental capability there are many things that enters, such as sustained reasoning, power of imagination, motivation and interest, which differ widely between people. What he means is that all people are when all is said and done susceptible to rational argument and especially to the appreciation of clear and distinct concepts. This ties up with the falsification criterion of Popper that presupposes some common level of rational inquiry at which such can be enacted,

Descartes doubt, his refusal to accept anything on authority, except that of his reason, is well-known. Skepticism was of course not new to his age, but had a long tradition, and Descartes motivation was moral not one of any principle, he did not approve of skepticism as an end in itself, which it easily degenerates into. Famous is his *cogito ergo sum*, which made such an impression on me as a teenager. Incidentally the Latin version is an affectation, Descartes wrote his Discourses in the vernacular, although its commercial success was

only due to its Latin translation. Thus it should really be quoted in the original French *je pense, donc je suis*. From a purely logical point of view, it has been dismissed as circular thinking, i.e. assuming what you what to prove. Descartes dismissed attempts to translate his reasoning into formal syllogisms, as the academic establishment demanded (just as it would react today to new thinking), as being not only unnecessarily cumbersome but actually misleading. He remarked, correctly so in my opinion, that the force of his argument went deeper than logic, or at least its formalized aspect, it was a case of a clear and distinct concept, immediately intelligible as a clear and vivid concept to anyone with a rational capacity. After all formalized logic is built on an underlying rational intuition, which by itself cannot be formalized, and actually predates logical thinking and is not a consequence of it.

Easy as it is to accept the existence of a thinking, doubting self, harder it is to follow Descartes in his leap of faith, proving the existence of God by rational thinking. The argument is very close in spirit to the classical ontological belief in God, a proof which is often associated with the name of Anselm. Basically it is about perfectness and its existence because of it being perfect. One wonders whether Descartes really believed in it or whether it was a cynical ruse on his part. Or if he believed in it, this was due to rational belief or merely a case of emotion, being terrified lest of holding heretical views. But once this is settled, the foundation is laid, and Descartes can proceed.

Like people of the past his interest ranged widely. He was set to tackle a large project, which ultimately would provide secure knowledge on matters of medicine, meaning the knowledge of how to treat diseases and stave off old age, thus proclaiming the goals of health and longevity. To that effect the author includes in his account a rather lengthy explanation of the working of the heart and the vascular system, acknowledging Harvey¹ but giving the impression that he has found it out on his own. The upshot is that the physical body is but a machine. He reminds the reader how much can be done with just a few parts, as has been demonstrated by skilled artisans and machine designers, just imagine what can be done with all the moving parts that constitute the body. However, the soul cannot be so mechanized, pace the modern attitude of people in artificial intelligence, who produces arguments very similar to those of Descartes. In particular a monkey could in principle be constructed mechanically and we would be unable to distinguish it from the real thing. This is a claim very similar to that of Turing, that an artificial intelligence that could not be distinguished by humans from human intelligence, would be truly intelligent (as well as by the same token conscious). However such a machine would be as little able, as the monkey to produce speech. Now Descartes makes a distinction between the anatomical ability to produce speech and the drive to communicate. Birds can produce sounds, sufficient for any purpose of communication using language, but do not do it nevertheless unlike people who are deaf and dumb invariably find out ways to communicate. His further argument is that people, even stupid ones, are able to produce such a variety of utterances, that there would not be any space in the body for, if pre-stored. The argument is interesting but of course fallacious.

Why did Descartes make such a stir? Had this book been published today, it would of course have been considered slight. One needs of course to put him in a so called his-

¹ Descartes differs a bit from Harvey, and where they differ Harvey is right.

torical context. Scholastic philosophy and theology still dominated the world of thought. Aristotle dominated the science of the day. But the times were heady, due to the heliocentric view that challenged theological authority. Some people paid with their lives for their convictions, others like Galileo chickened out and came to some sort of terms with the ecclesiastic authorities. Descartes was terrified, even if he mostly resided in tolerant Netherlands (and the Catholic power in France was curtailed compared to in Spain and Italy). While the contributions of Descartes in Natural Science were overrun and shown to have been wrong, those in mathematics were of lasting value. Descartes was no fool, no mere rhetorical windbag. His reliance of the intellect (which did not preclude experiments, but such have to be conceived rationally and interpreted likewise) would of course make way for the Enlightenment, and it is as such, as an enlightened predecessor he is now honored.

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