

EDITORIAL

Cartesian Spirituality and its Present Impact

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Descartes continues to be a point of intellectual transition for the entire Western world. His mathematical researches enabled us to combine algebra and geometry and led to among other things the possibility of a serious natural science of physics developed by Galileo and especially Newton. Without Cartesian coordinate geometry it would have been difficult to have conceived of mathematizing curves of the kind necessary in physics and to have grasped the importance of the slope of curves which Newton and Leibniz characterized in their invention of the infinitesimal calculus, the centerpiece of mathematical physics for the three centuries after Descartes.

But while we certainly think of Descartes as a pathbreaker in giving us a way of approaching the systematic description of the natural world by offering us a new "idea of nature," the other side of his impact was the development of a new picture of ourselves and our place in nature and in heaven. The primary three notions that have defined the thought of the West since the Greeks are: God, nature and humankind. Humankind was conceived in Greek thought as part of the living order of nature. Wherever there was movement there was life. So the motions of the stars, planets and the sun or the plants and the animals were all seen in Greek cosmology as part of the living order of things. God and humankind were thought of as part of that living order. Christianity added the notion of the spiritual embodiment of our own species and the notion—never clear in earlier Hebrew thought—that there was a separable spiritual part of ourselves, our souls, that were not dependent on the material order and could, in principle, live forever.

But it was Descartes who—partly in opposition to a tendency to the neglect of Christianity in his time—offered a clear approach to the separation of the spiritual and the material parts of the human being. This Cartesian separation of the human person into a material body following the laws of nature and entirely separate spiritual being or soul capable of free will and able to control the material body of that human being permitted the development of the kind of natural science we associate primarily with Galileo and Newton. As part of this picture, the old Greek notion that wherever there was motion there was life, was overturned by Descartes. Nature as well as the non-spiritual part of humankind were now to be conceived as entirely under the control of blind, natural forces of the kind that Newton's three laws of motion exemplify. No longer was either nature in movement or the whole of ourselves conceived of as "living" beings. Indeed, while life remained something of a puzzle well into our own time, it was after Descartes conceived of motions as essentially mechanical

(physical and chemical) processes that our astonishing achievements in natural science have occurred.

For Descartes, animals other than ourselves are to be conceived as entirely mechanical beings, as he argues in the last few pages of his *Discourse on Method*. Human beings, however, are possessed of a rational soul as well as a mechanical body and thus possess the power of intelligent speech, which is dependent on that rational soul. Thus he tells us that were there machines that acted like humans we could always tell by two tests that they are not really like us. First “it never happens that [such a machine purporting to be human] arranges its speech in various ways in order to reply appropriately to everything that may be said in its presence, as even the lowest type of man can do.” And the second difference is “that although machines can perform certain things as well as or perhaps better than any of us can do, they infallibly fall short in others, by the which means we may discover that they did not act from knowledge, but only from the disposition of their organs.” He goes on to say that “by these two methods we may also recognize the difference that exists between men and brutes.”

Descartes follows this discussion with a claim that the “rational soul” could not be derived in any way from the power of matter but must be expressly created and that it is not “sufficient that it is lodged in the human body like the pilot in his ship, unless perhaps for the moving of its members, but that it is necessary that it should also be joined and united more closely with the body in order to have sensations and appetites similar to our own and thus form a true man.” From these considerations, he tells us we are led to the view that “our soul is in its nature entirely independent of body, and in consequence it is not liable to die with it. And then, inasmuch as we observe no other causes capable of destroying it, we are naturally inclined to judge that it is immortal.”

There is some evidence that this Cartesian picture is still strongly with us. In our own time the great linguist and philosopher at MIT, Noam Chomsky, argued that the best picture we have of our linguistic powers is a Cartesian one that requires that we distinguish radically between our mental powers and our physical powers, while considering our linguistic powers a part of those mental powers. The telling virtue of our linguistic powers is that from very little exposure to language as learners we can nonetheless produce in principle and understand in principle an indefinitely large number of sentences. We have absolutely no idea how to embody this in any physical system.

On the other hand, Alan Turing, writing seven or eight years before Chomsky, suggested in his “Computing Machinery and Intelligence,” published in 1950 in the British philosophy journal *Mind*, that it ought to be in principle possible to program a computer in such a way that were we to interrogate it and a human being on practically any topic, it would be indistinguishable from ourselves. There is some evidence for Turing’s view—namely, that chess programs (Deep Thought) have been devised to beat the world chess champions

and a program (Watson) has been equally devised to play the television answer and question game *Jeopardy* better than the champion human players so far. On the other hand we have no programs that can do everything that humans can do and we still send humans into space, because their intelligence and rational powers are still the best we have to handle all the problems one might encounter there. That is essentially Descartes' view.

One of the features that will be noticed in all of the essays that follow in this special issue is that the authors necessarily talk of spirituality with little ease. There is a reluctance to embrace the Cartesian picture that suggests that spirituality is about this human soul that is entirely separate from the human body, a special creation. Instead terms like "love," "kindness," "caring," "thoughtfulness," "mindfulness," and the like, are used throughout to stand proxy for the notion of spirituality of the Cartesian kind that no longer seems easy to express convincingly. In so far as this is a permanent shift in our collective thinking, it seems to me to be very important.

One of the recent developments in research into human thought and action is the attempt to tie the study of what actually happens in our brains when we think and act in everyday contexts. Perhaps the most interesting of recent research is that associated with Stanislaus Dehaene, a professor at the College de France and the director of the Neuroimaging Unit in Saclay, France. His recent book entitled *Consciousness and the Brain: Deciphering How the Brain Codes our Thoughts* is a serious attempt to go beyond Descartes and argue that our entire conscious life is a consequence of complex activity in the brain with no need for the hypothesis of a separate mental substance or soul. If Dehane and our present authors in this volume prevail in their thinking we are moving into an era beyond Descartes in which we have room for spirituality no longer tied to Descartes' separation of the human being into a mechanical and a spiritual part. The new spiritual human being may well be conceived as a very complex being—much more complex than any of our machines or our animal friends—but one who possesses important qualities that neither of them are likely to possess or need to possess.

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