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David Hume and Erasmus Darwin's *Zoonomia*

In a recent, comprehensive paper on the *Dialogues Concerning Natural Religion*, Michael Morrisroe, Jr. argues that Hume's primary purpose was to communicate his vision that the universe "... is neutral to all systems of cosmogony." Neither the mechanical design of Cleanthes nor the organic, generational alternative of Philo represents Hume's position in the *Dialogues*. According to Morrisroe, the opinions of these characters as well as the vivid imagery enumerating the evils of the world are simply rhetorical devices that Hume uses to get across his Pyrrhonism to an unsympathetic audience.¹

At least one of the early readers of the *Dialogues* got the point of the terrible neutrality of the universe, and also inherited from Hume the evasive manner of disguising this vision behind conventional pieties. Erasmus Darwin's encyclopedic medical treatise, *Zoonomia* (1794-96), which includes anticipations of his grandson's theory of evolution, refers to the *Dialogues* and apparently seems to accept Philo's organic hypothesis:

The late Mr. David Hume, in his posthumous works, places the powers of generation much above those of our boasted reason; and adds, that reason can only make a machine, as a clock or a ship, but the power of generation makes the maker of the machine; and probably from having observed, that the greatest part of the earth has been formed out of organic remains; as the immense beds of limestone, chalk, sandstone, ironstone, coals, from decomposed vegetables; all which have been first produced by generation, or by the secretions of organic life; he concludes that the world itself might have been generated, rather than created; that is, it might have been gradually produced from very small beginnings, increasing by the activity of its inherent principles,...²

What makes this speculative writing interesting as literature is that Darwin seems now and then to be troubled in the Humean manner by what might be called the ontology of his explanations; and this produces even in his scientific prose a comic tension, which is usually pointed out as characteristic of his more notorious poems. He is trying to give a step by step "human" explanation of something that he knows


is too complex for human simplification, and thus unexplainable. He believes in the organic, description-defying reality of the phenomena that makes his own efforts puny and absurd. When this comic dilemma surfaces in Darwin’s highly speculative science writing, the writing comes alive, both as science and as human voice in the face of something far greater than science or humanity.

For example, his theory of animal motion sounds like a reiteration of the familiar distinction between spirit and matter, common in western thought. In one passage, he even speculates that his theory may be a new argument for the existence of individual immortality. But even though he toys with the notion of individual immortality, he refuses to commit himself to the idea. Undoubtedly, life goes on and animal motion does exist generally as a force in the universe, but such an existence is terrifyingly different from what individuals come to think of as their own individual immortality. Thus Darwin’s thinking does play with the notion of “spirit,” but his honesty keeps it a strangely materialistic kind of spirit. The passage in question is a good example of Darwin’s continual comic, Pyrrhonian stance of holding back a bit from the full implications of his thought:

Nor is this theory [of immaterial forces] ill supported by analogy, since heat, electricity, and magnetism, can be given to or taken from a piece of iron; and must therefore exist, whether separated from the metal, or combined with it. From a parity of reasoning, the spirit of animation would appear to be capable of existing as well separately from the body as with it.

I beg to be understood, that I do not wish to dispute about words, and am ready to allow, that the powers of gravity, specific attraction, electricity, magnetism, and even the spirit of animation, may consist of matter of a finer kind. . . . By the words spirit of animation or sensorial power, I mean only that animal life, which mankind possesses in common with brutes, and in some degree even with vegetables, and leave the consideration of the immortal part of us, which is the object of religion, to those who treat of revelation.

Darwin’s speculative writing, like all science, invents models; it tries to describe coherent systems for all movement over time and space. Such descriptions, even though they may work beautifully as mechanical systems for describing and predicting phenomena (i.e. science), invariably are terrifying because, insofar as they work, they engulf the describer. Darwin’s descriptions hint strongly at the fact that there is a kind of human absurdity that appears when the implications of thought are followed very far. For example, any theory of evolution must celebrate the death of individuals because without death

there could be no improvement. Darwin's description of death is consistent with his theory of animal motion and is, in fact, a beautifully written description although somewhat macabre in its cool detachment:

On considering this subject [death] one should have imagined at first view, that it might have been easier for nature to have supported her progeny for ever in health and life, than to have perpetually reproduced them by the wonderful and mysterious process of generation. But it seems our bodies by long habit cease to obey the stimulus of the aliment, which should support us. After we have acquired our height and solidity we make no more new parts, and the system obeys the irritations, sensations, volitions, and associations [these are the sub-categories of what he calls animal motion] with less and less energy, till the whole sinks into inaction.  

Even more disturbing to our usual notions of human worth and individuality, however, is Darwin's blandly matter-of-fact speculation, which reminds us of Hume's discussion of personal identity at the end of *A Treatise of Human Nature*, that there can be no such thing as a unique individual:

Owing to the imperfection of language the offspring is termed a new animal, but is in truth a branch or elongation of the parent; since a part of the embryon-animal is, or was, a part of the parent; and therefore in strict language it cannot be said to be entirely new at the time of its production; and therefore it may retain some of the habits of the parent-system. 

The dilemma of the speculative thinker, or scientist, who wants to give comprehensive descriptions that may, in a sense, cost him his individuality is similar to the psychology of the stammerer. As well as being a speculative thinker, Darwin also had a stammer. He could accurately describe the psychology of the stammerer, in an earlier section of *Zoönomia*, but he could not cure himself (possibly for that very reason: he knew the comprehensive description):

On this circumstance [trying too hard] depends the impediment of speech before mentioned; the first syllable of a word is causable by volition, but the remainder of it is in common conversation introduced by its association with this first syllable acquired by long habit. Hence when the mind of the stammerer is vehemently employed on some idea of ambition of shining, or fear of not succeeding, the associations of the motions of the muscles of articulation with each other become dissevered by this

4. Ibid., p. 467.
5. Ibid., p. 480.
greater exertion, and he endeavours in vain by voluntary efforts to rejoin the broken association. 7

The stammerer cannot relax and let himself stammer, in which case he might improve. He has to try, quite humanly, not to stammer, which makes him stammer. Similarly, in the explanation of phenomena it is perhaps better to relax and to try a few things at a time (in the tradition of Locke, Hume, and all subsequent positivists) rather than to try too hard to invent comprehensive models, which will necessarily be mechanical. But the human spectacular is, of course, human and so he must use models, just as the stammerer wants to shine. Thus Darwin’s longest look of the most comprehensive models, animal motion and generation, is provocative, thrilling, and at the same time valiantly Pyrrhonian in its attempt to be comprehensive.

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