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For the full text of this licence, please go to: http://creativecommons.org/licenses/by-nc-nd/2.5/ Stephen Fletcher, "DNA", in *Letters to the Editor*, The Times Literary Supplement, No. 5566, 04 Dec (2009), page 6.

## DNA

Sir, – The belief that we share this planet with supernatural beings is an old one. Students of magic and religion have identified innumerable varieties of them – gods, devils, pixies, fairies, you name it. A familiar motif is that they operate at the very fringes of perception. While the scullery maid sleeps, they are busy in the kitchen making the milk go sour. For a society with no concept of bacteria, this is, perhaps, a forgivable conceit. But for a modern university professor to take this idea seriously is, I think, mind-blowing.

In the recent TLS "Books of the Year" (November 27), Thomas Nagel recommends Stephen C. Meyer's Signature in the Cell: DNA and the evidence for Intelligent Design. "Intelligent Design" is of course a code phrase to obscure a malicious and absurd thesis; namely, that a supernatural being has interfered in the evolution of life on this planet. If Nagel wishes to take this notion seriously, very well, let him do so. But he should not promote the book to the rest of us using statements that are factually incorrect.

In describing Meyer's book, Nagel tells us that it "... is a detailed account of the problem of how life came into existence from lifeless matter – *something that had to happen before the process of biological evolution could begin*" (my italics). Well, no. Natural selection is in fact a chemical process as well as a biological process, and it was operating for about half a billion years before the earliest cellular life forms appear in the fossil record.

Compounding this error, Nagel adds that "Meyer takes up the prior question of how the immensely complex and exquisitely functional chemical structure of DNA, *which cannot be explained by natural selection because it makes natural selection possible*, could have originated without an intentional cause" (my italics again). Again, this is woefully incorrect. Natural selection does not require DNA; on the contrary, DNA is itself the product of natural selection. That is the point. Indeed, before DNA there was another hereditary system at work, less biologically fit than DNA, most likely RNA (ribonucleic acid). Readers who wish to know more about this topic are strongly advised to keep their hard-earned cash in their pockets, forgo Meyer's book, and simply read "RNA world" on Wikipedia.

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