

THE BISHOP OF OXFORD: NOT SO SOAPY†

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The great debate of 1860 is remembered chiefly for the victory of Huxley over Wilberforce. But does Wilberforce deserve to be remembered as a failure?

Bishop Samuel Wilberforce was nick-named “Soapy Sam” because of his slippery debating skills, and almost every biologist knows of one of the occasions on which he displayed them. It was in June 1860 at the Oxford meeting of the British Association for the Advancement of Science, seven months after the publication of the *Origin of Species*. Two of the listed papers referred in their titles to Charles Darwin’s theory, and Wilberforce, the country’s staunchest defender of Anglicanism against the Oxford movement, felt he must take the opportunity to confront the threat that evolution now posed to his Church. He did so in a half-hour speech following one of the Darwinian papers, and in it he attacked the whole basis of evolutionary thought. Near the end he put a question to T. H. Huxley. “If any one were willing”, he asked, “to trace his descent through an ape as his grandfather, would he be willing to trace his descent similarly on the side of his grandmother?” When Huxley replied that an ape would be a preferable ancestor to man who twisted the facts and hid behind empty rhetoric, an era changed; biology had dared challenge religion, and biology had won. Wilberforce never entered the fray again, and Christianity shifted to accommodating rather than fighting Darwinian thought.

Today ‘Soapy Sam’ is ridiculed as a symbol of antediluvian intransigence in a thousand different accounts of the Oxford debate. But Wilberforce’s reputation may be unfair, blackened to make an easy villain in the history of the search for truth. Remarkably, there are no contemporary accounts of what was said at the British Association meeting: all the speeches cited nowadays are quoted from the memory of those who attended, so accusations of the Bishop’s ignorance and shallow thought are based on hearsay evidence, often from prejudiced witnesses. Unless new records are found we will never know how much of Wilberforce’s notoriety was earned, or whether it has itself become a convenient and shallow orthodoxy.

But there is ample room for question. Several of the Bishop’s sermons and essays show he was far from ignorant, and he was known to his peers as an ardent naturalist. More important, though, he wrote a long critical essay on the *Origin* for the *Quarterly Review*, which even Darwin acknowledged as “uncommonly clever: it picks out with skill all the most conjectural parts, and brings forward well the difficulties”. The essay was published after the BA meeting but had been completed a month before, as the Bishop recorded in his diary. It seems likely, therefore, that his speech would have drawn extensively on this article. If so, our view of Wilberforce as an unreasoning bastion of prejudice is best judged from what he wrote.

The Bishop began his review with several pages of delightful praise for “Mr. Darwin’s characteristic excellences”. He loved the accounts of strange animals and plants. But the *Origin* was not only fact. “When we turn, with Mr. Darwin, to his ‘argument’, we are almost immediately at variance with him. It is an argument that the essay is put forward; as an argument we will test it.”

The test began with a consideration of natural selection, one of Darwin’s most revolutionary contributions. Here again, surprisingly, Wilberforce congratulates the author. “Now all this is excellent. The fact are all gathered from a true observation of nature, and from a patiently observed comprehension of their undoubted and unquestionable relative significance.” He thought the discussion of natural selection “one of the most interesting parts” of the book, and except for carping that Lucretius had said it before Darwin, he found no problems: “The action of such a law as this is clear and indisputable.” Where, then, did Wilberforce disagree?

The critical point was the next step. Darwin argued that natural selection was responsible for change: species were constantly improved, and thus evolved. To Wilberforce this was a double affront. It not only conflicted with the religious concept of creation, but it suggested that species were imperfect, and this was “a dishonouring view of nature”. Arguing for natural selection solely as a stabilising force that would keep species perfect, therefore, Wilberforce took Darwin to task for his view that maladaptation was a common phenomenon. Here his arrow found its mark. Though modern biologists would hardly write so vividly many would have taken his side when the Bishop wrote:

Mr. Darwin . . . finds one of (his) “inexplicable difficulties” in the fact, that the young of the blackbird, instead of resembling the adult in the colour of its plumage, is like the young of many other birds spotted, and triumphantly declaring that “no one will suppose that the stripes on the whelp of a lion, or the spots on the young blackbird, are of any use to these animals or are related to the conditions to which they are exposed”, he draws from them one of his strongest arguments for this alleged community of descent. Yet what is more certain to every field-naturalist than this alleged uselessness of colouring is one of the greatest protections to the young bird, imperfect in its flight, perching on every spray, sitting unwarily on every bush through which the rays of sunshine dapple every bough to the colour of its own plumage, and so give it a facility of escape which it would utterly want if it bore the marked and prominent colours, the beauty of which the adult birds needs to recommend him to his mate, and can safely bear with his increased habits of vigilance and power of wings.

Other examples were cited: the stripes on different

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†This article first appeared in *New Scientist*, London, the weekly review of science and technology. (Volume 83 number 1167, pp. 450 and 451, 9 August, 1979.) It is used here by permission.

species of horses, the fights between mother and daughter bees, the wasteful quantities of pollen produced by fir-trees. Apparently maladaptive, the existence of these and other characteristics was attributed by Darwin to the failure of natural selection, and Wilberforce's protests show clearly that he believed natural selection to be a more powerful force than Darwin allowed. To the Bishop natural selection maintained adaptation, and perfect adaptation reflected God's perfection. It was the imperfection of Darwinian natural selection, rather than its overwhelming power to affect species, which worried him.

There were other grounds for arguing that natural selection was conservative. Wilberforce drew attention to the fact that varieties produced under domestication tended continually to revert to type, and he argued that this was because any change from the type brings disadvantages as well as benefits. "Correlation is so certainly the law of all animal existence that man can only develop one part by the sacrifice of another. The bull-dog gains in strength but loses in swiftness; the greyhound gains in swiftness but loses in strength . . . hence it is that Nature, according to her universal law with monstrosities, is ever tending to obliterate the deviation and to return to the type."

The evidence fitted, and the argument seemed fair. Nowadays, of course, the fallacy is clear: although natural selection is often conservative it becomes a force for change when environments change. Wilberforce never discussed environmental change, perhaps because he saw the problem. But Darwin failed to stress its importance (though he clearly understood its significance), and some of his statements were confusing at the very least. Summarizing the *Origin*, for example, Darwin wrote: "As natural selection works solely by and for the good of each being, all corporeal and mental endowments will tend to progress toward perfection." This implied that species are continuously being modified, as unacceptable view today. Wilberforce's defense of species constancy forces a more critical approach.

Hitting hard at the admitted imperfections of the geological record, citing organs with no related forms, and arguing that the occurrence of sterile hybrids showed species to be truly independent, Wilberforce went on to claim that Darwin's theory was based on "the merest hypothesis", supported by the most unfounded assumptions". Ultimately, he contended, evolution was an intuitive idea which was attractive principally because it explained the puzzle of apparently unreasonable homologies, like the pentadactyl limb whose essential architecture does not vary from mouse to whale. As Darwin put it, "Nature is prodigal in variety, but niggard in invention. Why, on the theory of creation, should this be so? Why should all the parts and organs of so many independent beings, each supposed to have been separately created for its proper place in nature, be so commonly linked by graduated steps?" Darwin thought evolution the only reasonable answer, but Wilberforce had the Church's solution, one which he had outlined in a sermon to the Royal Society in 1856. For him, the marvellous intricacy of taxonomic relationships was designed by God as a demonstration of His power. Life was a massive jigsaw puzzle reflecting his

genius, and in particular, man "bears witness in his own frame to the law of order which pervades the universe . . . [passing] in the earlier stages of his being through phases of existence closely analogous, so far as his earthly tabernacle is concerned, to those in which the lower animals ever remain." With an answer like that up one's sleeve, who needs evolution to explain homology?

It was a narrow, anthropocentric argument, and it lost, but in making it Wilberforce faced the facts. "We have no sympathy with those who object to any facts or alleged facts in nature or any inference logically deduced from them, because they believe them to contradict what it appears to them is taught by Revelation." He took Darwin's arguments seriously, he correctly judged the power of natural selection theory, and he rightly pointed out that Darwin shifted unrigorously between adaptive and ancestral explanations of puzzling characteristics. Fighting for the view that species are perfectly adapted Wilberforce took a remarkably modern stance. Even if that view was forced on him by his Christian beliefs he deserves to be remembered as more than the broken pillar of the Church.

Still, he was on the wrong side, just as he was in several of his theological encounters, and history knows him as the loser. Did the defeat embitter him? His attitude is sometimes portrayed as pompous and rather ill-humoured, but there is little evidence for this and an entirely different picture comes from his delightful portrait of A. E. Knox. Knox was a naturalist who eulogised the joys of fishing in his *Autumns on the Spey*, published in 1872. Wilberforce wrote a long and friendly review of the book, and he showed his appreciation of Knox's enthusiasm for his sport with a charming idea surely recalling his question to Huxley of twelve years previous.

"If Mr. Darwin's theory should ever be established", he wrote, "there can be no doubt that Mr. Knox will be found to have descended, not from any prick-eared, tree-inhabiting monkey, but probably after the fewest interstitial gradations from some grand and venerable heron."

Perhaps the years had mellowed him but equally, perhaps this was his natural style, and he wasn't such a dinosaur after all.

Editor's note: Readers of the *Quarterly* may not agree with all of the conclusions of this article, but they will no doubt find the facts presented of much interest.

It is possible that Wilberforce really asked a serious question, which, as suggested, was garbled in the re-telling? Darwin, at times, made much of hybrids. Was the original question maybe something like: "Since so much is made of hybrids, is it maintained that man arose as a cross between an ape and something else? If so, what was the something else?"

This article points out the great importance assigned, in Darwinian thought, to changes in environment at the right time. Is that point one calling for critical examination? For instance, would animals really change under such circumstances, or would they either migrate or die out?

Incidentally, it is said that Huxley was not always so fortunate in his debates. In debating later with Kelvin, on the age of the Earth, he is said to have remarked: "You do not understand my geology and I do not understand your physics." Thereupon Kelvin replied: "On the contrary, I do understand the geology; and you could understand the physics if you would put your mind to it."