

[The following is excerpted from Richard Dawkins' book *A Devil's Chaplain* without permission. Misspellings and other mistakes in this text are mine (I have cut-and-pasted it from a rather poorly edited e-book). -SLB]

Unfinished Correspondence with a Darwinian Heavyweight

The following correspondence was never completed and now, sadly, it never can be.

9 December 2001
Stephen Jay Gould Harvard

Dear Steve

Recently I received an email from Phillip Johnson, founder of the so-called 'Intelligent Design' school of creationists, crowing in triumph because one of his colleagues, Jonathan Wells, had been invited to take part in a debate at Harvard. He included the text of his email on his 'Wedge of Truth' web site, in which he announced the Wells debate under the headline 'Wells Hits a Home Run at Harvard'.

http://www.arn.org/docs/pjweekly/R_weekly_011202.htm

The 'Home Run' turns out to be NOT a resounding success by Wells in convincing the audience, NOR any kind of besting of his opponent (Stephen Palumbi, who tells me he agreed to take part, with great reluctance, only because somebody at Harvard had ALREADY invited Wells and it was too late to do anything about that). There is no suggestion that Wells did well in the debate, nor even any obvious interest in whether he did. No, the 'Home Run' was simply and solely the matter of being invited by Harvard in the first place. These people have no hope of convincing reputable scientists by their ridiculous arguments. Instead, what they seek is the oxygen of respectability. We give them this oxygen by the mere act of ENGAGING with them at all. They don't mind being beaten in argument. What matters is that we give them recognition by bothering to argue with them in public.

You convinced me of this years ago when I phoned you up (you have probably forgotten this) to ask your advice when I was invited to debate Duane P Gish. Ever since that phone call, I have repeatedly cited you and refused to debate these people, not because I am afraid of 'losing' the debate, but because, as you said, just to appear on a platform with them is to lend them the respectability they crave. Whatever might be the outcome of the debate, the mere fact that it is staged at all suggests to ignorant bystanders that there must be something worth debating, on something like equal terms.

First, I am interested to know whether you still hold to this view, as I do. Second, I am proposing that you might consider uniting with me (no need to involve others) in signing a short letter, say to the New York Review of Books, explaining publicly why we do not debate creationists (including the 'Intelligent Design' euphemism for creationists) and encouraging other evolutionary biologists to follow suit.

Such a letter would have great impact precisely because there have been widely publicised differences, and even animosities, between us (differences which creationists, with extreme intellectual dishonesty, have not hesitated to exploit). And I would not suggest writing a long disquisition on the technical differences which remain between us. That would only confuse the issue, make it harder to agree on a final draft, and lessen the impact. I wouldn't even mention our differences. I suggest a brief letter to the editor, explaining why we do not engage with 'intelligent design' or any other species of creationists, and offering our letter as a model for others to cite in refusing such Invitations in the future. We both have better things to do with our time than give it over to such nonsense. Having just reached my sixtieth birthday (we are almost exactly the same age) I feel this keenly.

Steve replied on 11th December 2001, a warm and friendly email enthusiastically agreeing that a joint

letter was an excellent idea, and saying that he'd be delighted to join me as the sole other signatory. He agreed that the *New York Review of Books* might well be the best place, and proposed that I should write a first draft. I reproduce that here, exactly as I sent it to him for his approval.

14 December 2001

Dear Editor

Like any flourishing science, the study of evolution has its internal controversies, as we both know. But no qualified scientist doubts that evolution is a fact, in the ordinarily accepted sense in which it is a fact that the Earth orbits the Sun. It is a fact that human beings are cousins to monkeys, kangaroos, jellyfish and bacteria. No reputable biologist doubts this. Nor do reputable theologians, from the Pope on. Unfortunately, many lay Americans do, including some frighteningly influential, powerful and, above all, well-financed ones.

We are continually invited to engage in public debates against creationists, including latter-day creationists disguised under the euphemism 'Intelligent Design Theorists'. We always refuse, for one overriding reason. If we may be allowed to spell this reason out publicly, we hope our letter may be helpful to other evolutionary scientists plagued by similar invitations.

The question of who would 'win' such a debate is not at issue. Winning is not what these people realistically aspire to. The coup they seek is simply the recognition of being allowed to share a platform with a real scientist in the first place. This will suggest to innocent bystanders that there must be material here that is genuinely worth debating, on something like equal terms.

At the moment of writing, the leading 'Intelligent Design' website reports a debate at Harvard under the banner headline 'Wells Hits a Home Run at Harvard'. Jonathan Wells is a creationist, incidentally a long-time devotee of the Unification Church (the 'Moonies'). He had a debate last month against Stephen Palumbi, Professor of Biology at Harvard University. 'Home Run' might seem to suggest that Reverends (sic) Wells scored some kind of victory over Professor Palumbi. Or at least that he made powerful points and his speech was well received. No such claim is made. It doesn't even seem to be of interest.

The 'Home Run' turns out to be simply the public demonstration at Harvard that, in the words of the website's author, Phillip Johnson, 'This is the sort of debate that is now occurring in universities.' There was a victory, but it occurred long before the debate itself. The creationist scored his home run at the moment the invitation from Harvard landed on his doormat. It came, by the way, not from any biological, or indeed scientific, department, but from the Institute of Politics.

Phillip Johnson himself, founding father of the 'Intelligent Design' movement (not a biologist, nor a scientist of any kind, but a lawyer who became a mid-life born-again Christian), wrote, in a letter of 6 April 2001, which he copied to one of us:

It isn't worth my while to debate every ambitious Darwinist who wants to try his hand at ridiculing the opposition, so my general policy is that Darwinists have to put a significant figure at risk before I will agree to a debate. That means specifically Dawkins or Gould, or someone of like stature and public visibility.

Well, we can condescend too, and we have the advantage that evolutionary scientists don't need the publicity such debates can bring. In the unlikely event that a significant argument should ever emerge from the ranks of creationism/'intelligent design', we will be happy to debate it. Meanwhile, we shall cultivate our evolutionary gardens, occasionally engaging in the more exacting and worthwhile task of debating each other. What we shall not do is abet creationists in their disreputable quest for free publicity and unearned academic respectability.

In all humility, we offer these thoughts to our colleagues who receive similar invitations to debate.

Unfortunately, Steve never got around to revising the letter, which therefore lacks the stylish panache which his dexterous touch would have lent it. I received one further email, apologizing for the delay and hoping to deal with the matter soon. The subsequent silence, I now realize, coincided with his last illness. I therefore offer my draft, imperfect as it is, in the hope that it may go some way towards conveying the message which I originally learned from him many years ago. It is my sincere hope that he would have approved the content of the letter, but of course I cannot be sure.

To close this section on a note of such concord may seem puzzling. Given that Steve was as much a neo-Darwinist as I am, what did we disagree about? The major disagreement emerges clearly out of his last big book, *The Structure of Evolutionary Theory*, which I had no opportunity to see until after his death. It is appropriate, therefore, to spell out that issue here, and it also, as it happens, forms a natural bridge to the next essay. The question under dispute is this: what is the role of genes in evolution? Is it, to use Gould's phrase, 'book-keeping or causation'?

Gould saw natural selection as operating on many levels in the hierarchy of life. Indeed it may, after a fashion, but I believe that such selection can have evolutionary consequences only when the entities selected consist of 'replicators'. A replicator is a unit of coded information, of high fidelity but occasionally mutable, with some causal power over its own fate. Genes are such entities. So, in principle, are memes, but they are not under discussion here. Biological natural selection, at whatever level we may see it, results in evolutionary effects only insofar as it gives rise to changes in gene frequencies in gene pools. Gould, however, saw genes only as 'bookkeepers', passively tracking the changes going on at other levels. In my view, whatever else genes are, they must be more than bookkeepers, otherwise natural selection cannot work. If a genetic change has no causal influence on bodies, or at least on something that natural selection can 'see', natural selection cannot favour or disfavour it. No evolutionary change will result.

Gould and I would agree that genes can be seen as a book in which is written the evolutionary history of a species. In *Unweaving the Rainbow* I called it 'The Genetic Book of the Dead'. But the book is written via the natural selection of randomly varying genes, chosen by virtue of their causal influence on bodies. Book-keeping is precisely the wrong metaphor, because it reverses the causal arrow, almost in Lamarckian fashion, and makes the genes passive recorders. I dealt with this in 1982 (*The Extended Phenotype*) in my distinction between 'active replicators' and 'passive replicators'. The point is also explained in David Barash's superb review of Gould's book.

Book-keeping is perversely — and characteristically — a valuable metaphor precisely because it is so diametrically back to front. Not for the first time, the characteristic vividness and clarity of a Gouldian metaphor helps us to see vividly and clearly what is wrong with the Gouldian message -and how it needs to be reversed in order to get at the truth.

I hope this brief note will not be seen as taking advantage to get the last word. *The Structure of Evolutionary Theory* is such a massively powerful last word, it will keep us all busy replying to it for years. What a brilliant way for a scholar to go. I shall miss him.