

## A Devil's Chaplain

*R.Dawkins*

November 7 - 14, 2004

This is a collection of essays. As such it does not avoid the typical pitfalls of such collections, namely unevenness, repetitiveness and lack of thematic unity, although the latter is attempted by more or less appropriate groupings. Furthermore essays, unlike books, do not usually allow the sustained argument, thus reading through a collection, you are constantly forced to continually start again. This, however, has also its advantages, at least for those of limited attention spans. If something bores you, chances are that the next issue will make up for it.

Dawkins has been along with his almost contemporary Stephen Gould the foremost popularizers of Science during the last twenty years. Dawkins achieved preeminence already back in 1976 with his 'the Selfish gene' when he drastically, too drastically according to his detractors, laid bare the principles of evolution. Gould on the other hand came into the public eye by his monthly essays in the Natural History magazine in the late seventies. Collections of essays that were collected and resulted eventually into ten volumes. Both of them have acted as prophets of Darwin, extolling the virtues of Science and scientific thinking in general and evolution in particular, trying to explain to the public the simple, yet intricate and so often misunderstood, principles of natural selection. Both of them has thus been actively engaged in the crusade against superstition and pseudo-science. In spite of (or maybe because of) their common goal they have not been exactly comrade in arms. There are distinct temperamental differences. While Gould appears like the simple boy caught up with the wonders of the natural world extolling its complications and intricacies, Dawkins on the other hand seems to suffer a little from physics envy, eager to make of the traditionally 'soft science' of Zoology a hard-nosed unsentimental inquiry of basic simplicity and mathematical inevitability. Thus his tendency, in the eyes of the more traditional, to be unwarrantingly reductionistic and genetically deterministic. Not surprisingly one section of essays is devoted to interchanges with Gould introduced by a joint letter advising against debating with creationists (a letter drafted and written on the initiative of Dawkins but not signed by Gould due to his death) and continued by a collection of reviews of Goulds essays. From this it is not crystal clear exactly what the quarrel between the two really consisted in, apart from an exasperation on Dawkins part as to the lack of intellectual clarity and rigor displayed by Gould. The notion of 'punctuated equilibria' does not really have much content when scrutinized, and in 'Wonderful life' Gould allows himself to be carried away by his enthusiasm. It simply is misleading to think of the Cambrian explosion as a big radiation of evolutionary possibilities randomly funnelled into the less varied display of todays world. Dawkins of course agrees with Gould that there is no such thing as progress in evolution, not only not in the sense of the striving for man, because evolution is blind and without purpose and strives after nothing, or at least not nothing measured by man; on the other hand with a less anthropocentric notion of progress, Dawkins claims there has been. Dawkins also, I suspect although he does not

admit so in print, finds the verbal turgidity of Golds later prose distasteful and prefers the old essays with greater emphasis on the wonderful facts out of a naturalists sketch-book than the pretentious philosophizing of the latter.

Dawkins is a smart guy and he has little patience for the empty sophistry of Post-modernists (one of whose gods he mistakingly identifies as Popper in an initial essay) of which he, rightly, perceives as not much more than hot air. But of course there is a residue of not just hot air, and this is the most disturbing part of all. But his real hatred he reserves for religion. And it is here the drawbacks of a collection become particularly manifest. His rage against religion and the stupidity of its superstitions, based not on reason but on tradition and revelations, is of course understandable. He is particularly good at scoffing at the purported convergence between science and religion, incidentally also proposed by Gould. But when the same arguments and the same rage occurs again and again, it degenerates to the beating of a dead horse, maybe satisfying for the killer but tedious for the on-looker. And religion is not only superstition, although it cannot be excised from its practice, but seems to pander to some real psychological needs the nature of which remains closed to the mind of Dawkins. And more seriously to blame religion for all the misery of the world seems to me simplistic and too much of fashioning a dragon out of straw.

Dawkins is noted for the concept of a 'meme'. Originally this was meant as an afterthought, a kind of appendix to attach to the Selfish gene, in order to illustrate something else than DNA on which the winning principles of natural selection could act. After all the question of what is life, as asked by Schrödinger, can in a terrestrial setting be answered fairly simple - DNA. But the emergence of the DNA self-replicating molecule clearly is a fortuitous development on our planet, and if life would emerge on other celestial bodies, its basis could be quite different, which leads us to the tricky question of what is life really, as exemplified by the mission of the Viking Mars lander in the mid 70's and the practical problems of testing for the presence of it. However, the notion of meme, has since its introduction, been developed, and Dawkins notes with ill-concealed pleasure (reminiscent of the delight displayed by a Mandelbrot) its many references on the web. Part of the reason for this is the emergence of the personal computer, its linking and its great memory capacity, enabling the spread of the so called computer virus. On such things Dawkins is quite knowledgeable, it obviously being quite congenial to his thinking, and he likens memes, or at least some of them, to computer viruses, living in and being transmitted between human brains. The enthusiasm of such an idea should be tempered by its affinity to the basic philosophy of the Post-modernisms, putting everything on an equal footing, equally spurious. So not only does this translate into a powerful indictment against religion and other irrational superstitions threatening to take control over brains, it also threatens the legitimacy of science itself, because after all how do you draw the line between the good program and the malicious virus? Dawkins is not so naive not to alert himself to this, but his remedy ranges from the feeble reference to reason to the somewhat more cogent argument of a science being a large self-supporting and self-generating network of memes. This also points to one of the basic weaknesses of the concept of a meme, namely what constitutes its basic units. After all, like the concept of a concept, it works on all levels, a collection of mutually supporting memes, forms a meme by itself. Leaving aside the in-

evitable fuzziness of the notion of a meme, Dawkins presents a simple but very instructive simile. He refers to his being taught to fold a Chinese Junk as a child, and how this skill was spread around in his school. He present the thought experiment of having say twenty pupils succesively copy a picture of a Chinese Junk. Chances are that at the end of this experiment of whispering the final illustration would bear little likeness to the original. One can see this as an illustration of the power of evolution to mould, but this is not a good metaphor for Darwinian evolution but rather for the more unstable Lamarcian one. A better illustration of the former would be that the rules of the folding of a Junk would be transmitted. Such rules would be 'digital' in nature, like that of the genetic code, and as such much more stable. The actual junks that would be displayed would vary according to the skills of those articulating the rules, but we would not expect a steady degeneration of Junks, chances are that the last Junk would be as faithful an interpretation of the rules as any others. It is the code that is transmitted and copied, not its results. It is the genotype that is being handed down over generations, not the phenotype.

Darwin is the God of all later naturalists, and few men in science appear more sympathetic. None of the rancour, greed and jealousy of a Newton, Darwin is modest and hardworking, maybe not brilliant in the sense of capable of swift abstract thought, but stubborn, systematic, unflagging in his devotion, fuelled by the most sacred of instincts, that of boundless curiosity. In the end Darwin turns out always to have been right (with a few irrelevant exceptions). Darwins main idea, so deceptively simple, may have been the, and here the biologists tend to stick their necks out, most important scientific idea ever. Dawkins wonders why such a simple idea took so long to be formulated. Maybe, because it is rooted not in an abstract realm, but in the diversity of the natural world. The idea, which does away with the notion of conscious design, and explains how complexity can arise out of almost literally nothing, has ramifications way beyond the context into which it was discovered and developed. Darwin has rather grown in importance in recent decades than retreated, as more and more is discovered bearing him out. As to heroes, scientific and otherwise, you can do much worse.

On a more personal level the author has included a few eulogies of recently departed friends. The novelist and avid science-reader Douglas Adams meeting an untimely death from a heartattack in his Santa Barbara Gym, and the most brilliant evolutionist of his generation - William Hamilton, a most unworldly and excentric scholar, once again displaying the ultimate charms of an academic. Modesty and originality, both in work and everyday life. Hamilton the reckless bicyclist fit above his years, the sufferer of many an accident.

Visits to ancestral Africa, where Dawkins incidentally was born and spent his first few precious years, conclude the collection. The Leakeys make their appearance, as do the couple Hamiltons the guardians of Elephants, and down in Botswana, an American woman with three kids living it out in the bush. There is a tendency to gush in those final essays, especially in the very last, fashioned as a letter to his ten-year old daughter (of whom he admits having seen so precious little, puzzling in the light of the fact (not explicitly contradicted) that he is still living with her mother).

And conclusion? A collection obviously is not meant to have one.

November 15, 2004 **Ulf Persson:** *Prof.em, Chalmers U.of Tech., Göteborg Sweden* ulfp@chalmers.se