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"The clash between science and religion in Darwinism has usually been exaggerated"



To celebrate the Darwin Year, on 2009, Dr Hochadel reflected on the repercussions of Darwinism in its day and how it still influences our perception of our own nature. Oliver Hochadel holds a doctorate in the History of Science from the Centre of History of Science Studies (CEHIC) and specialises in the history of paleoanthropology in the late 20th century. Precisely for this reason, he is well aware of the development of the concept of human evolution throughout history, and he is an expert in the "Darwin case" and the exhibitions held at natural history museums and zoos. He is also a scientific journalist and the co-editor of the popular science magazine "Heureka".

Oliver Hochadel is a German historian of science who is currently working at the UAB's Centre of History of Science Studies. He has recently coordinated a variety of lectures at our university as part of the Darwin Year 2009, which paid tribute to the English naturalist whom Hochadel has

studied in depth and whose historical and social context he is well acquainted with. Hochadel graduated in history, philosophy and german literature. He has also been lecturer in the universities of Vienna, Bremen and Regensburg.

-What did we celebrate during the Year of Darwin?

-In 2009 we celebrated two things: the bicentennial of Darwin's birth in 1809 and the 150th anniversary of the publication of his seminal work, *The Origin of the Species*, in 1859. I think this is a great chance to take stock of Darwin's conception of his theory of evolution, because it profoundly changed the way we think about our own life and about evolution in general.

-What did the emergence of Darwin's theories mean in his day?

-It is difficult to overstate the impact of Darwin's theory of evolution. There had been a longstanding debate on the origins of man, on how we are related to simians, on whether we are just another species on the planet like any other. This debate was exploited in politics and society, so scholars began to interpret all of history in evolutionary terms. For example, they used it to justify colonialism, as it was obvious that evolution existed and it warranted white man's superiority to others. There was also a debate about social Darwinism in which these social theories were applied to justify citizens' superiority or inferiority. In this way, politics was naturalised.

-How was the relationship between simians and humans viewed back then?

-In the mid-19th century, when Darwin's theory of evolution was being openly debated, suddenly simians in particular took on a new meaning, because according to Darwin and his followers, we are related to them. In other words, when people went to the zoo and watched the simians and monkeys displayed in their cages, they saw them differently because, through either newspapers or books, they were aware that according to Darwin's theory we were closely related to them, and they wondered, "Oh! Those are my relatives?" All of this was captured humorously by the graphic artists in their comics and caricatures, and people laughed about it all; however, this approach through the press and humour was particularly popular as it helped to spread the idea that we humans are not so different to other species and that we descend from lower beings. This also took place in museums, where desiccated animals and even desiccated people from other cultures were displayed; everything was seen from a different perspective after Darwin's theory of evolution was published, and people grasped that everything was related and that species did indeed evolve.

-Is it accurate to use the term "Darwinian revolution?"

-The Darwinian Revolution is a historiographical invention of the mid 20th century. It really applies to the "new synthesis", that is the merging of Darwin's theory of evolution with the new science of genetics in the 1930s and 1940s. In the 19th century nobody spoke of a Darwinian Revolution. And as recent research has shown: we tend to overestimate the impact Darwin had. Theories of evolution were being discussed long before Darwin's *Origins* appeared. Also the likeness of man and ape was a trope already in previous centuries.

Obviously I do not want to diminish the importance of Darwin's work. Yet I think people at the time were less shocked about the idea that we might be related to monkeys than we might think. We also tend to think of a big clash between science and religion when we hear the word evolution. Yet again, this is much more so the case in the 20th century, the fierce debate between creationists and modern biology really only started in the 1980s with some forerunners in the 1920s. In the 19th century many writers were quite good in harmonizing Darwin's new theory with their religious beliefs. This was also the case in Spain.

-You have studied the exhibitions at natural history museums and zoos at length, and one of the subjects you studied was a case that had huge repercussions in Spain, known as the "Negro of Banyoles".

-The "Negro of Banyoles" was exhibited in the Darder Museum in Banyoles for almost 85 years. Today, the fact that this African man's cadaver was displayed may seem very distasteful to us, but in the years spanning the 19th and 20th centuries it was common to find this kind of exhibition in other museums around Europe. Obviously, back then people were not sensitive to the fact that exhibiting human cadavers, dead people, is a highly suspect practice. This is because the racist discourse of these displays were also quite prominent, as they generally showed black people and represented an inferior being, as an ancestral form of the human race that had not evolved as much as the so-called "white race" had.

In the late 20th century, obviously this was no longer acceptable; in the 1990s there were widespread protests against the "Negro of Banyoles" exhibition at the Darder Museum. The corpse was finally returned in 2000, and what remained of him (a few bones) was buried in Botswana, where a French naturalist (although this is somewhat disputed) had extracted the corpse to take to France back in 1830. It ended up in Barcelona in the 1880s, brought here by Francesc Darder. Surprisingly, the skin of the "Negro" is currently in Madrid, and his spear and clothing are still in the possession of the Darder Museum in Banyoles.

-How can we judge this scientific attitude today?

-We have to be aware that 19th century scientists and their audiences operated in a different milieu and had values that were quite distinct from those of today (we should recall that slavery still existed in some parts of the world). When we look at Darwin, we find him in the midst of all these struggles and debates. He and his family were acknowledged enemies of slavery; as we have read in Darwin's diaries, on his journeys around the world he was disturbed by how the slaves were treated in Brazil and other parts of South America. But this does not mean that we should think that he is so similar to us, even though he might seem to resemble us, because we do not share the same scale of values.

Therefore, I think that it is important to understand that values and the way we understand things change over time, and that they are historically determined. Even the values we have today in 2009 will not remain the same. Who knows how future generations will judge events like the "Negro of Banyoles", displays of human bodies... at least I hope that we don't go back to the past and see such horrible deeds repeated.

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