



*A plea for James Watson*

# The DNA Doctor

During the last months James Watson, once co-discoverer of the DNA structure, has been massively criticised for his statements on the intelligence of African blacks. Hubert Rehm comes to his defence.

**J**ames Watson, co-discoverer of DNA structure and ex-chancellor of the Cold Spring Harbor Laboratory, has recently received a lot of bad publicity for an interview he gave to one of his former protégées, which appeared in the *Sunday Times* October 14, 2007. The text over which he has been attacked and which lost him his position at the Cold Spring Harbor Laboratory is as follows:

*He [Watson] says that he is "inherently gloomy about the prospect of Africa" because "all our social policies are based on the fact that their intelligence is the same as ours – whereas all the testing says not really", and I know that this "hot potato" is going to be difficult to address. His hope is that everyone is equal, but he counters that, "people who have to deal with black employees find this not true". He says that you should not discriminate on the basis of colour, because "there are many people of colour who are very talented but don't promote them when they haven't succeeded at the lower level". He writes that, "There is no firm reason to anticipate that the intellectual capacities of peoples geographically separated in their evolution should prove to have evolved identically. Our wanting to reserve equal powers of reason as some universal heritage of humanity will not be enough to make it so.*

*When asked how long it might take for the key genes in affecting differences in human intelligence to be found, his "back-of-the-envelope" answer is 15 years."*

Most newspapers interpreted that Watson was saying that blacks are less intelligent than white people. Headlines read: "DNA Discoverer: Blacks Less Intelligent Than Whites" or "Dr James Watson says: Black People are Less Intelligent than Westerners".

## Which scientific basis?

On October 18th, Watson apologised during an appearance at the Royal Society in London. "To all those who have drawn the inference from my words that Africa, as a continent, is somehow genetically inferior, I can only apologise unreservedly." "That

is not what I meant. More importantly from my point of view, there is no scientific basis for such a belief." Watson continued, "I cannot understand how I could have said what I am quoted as having said."

## Bushman versus engineer

Indeed there is no scientific basis for the implication that Negroes (that is what Watson meant) are less intelligent than other people. With "testing" Watson probably refers to IQ-tests and the finding that black Americans on average often obtain 10 to 15 points less than white Americans. This difference was pronounced when African Negroes were compared. However, a lot of people, me included, doubt that the IQ-test really measures "intelligence". The IQ-test gives a number but what does it mean? Furthermore, all IQ-tests are culture-biased. I am not aware of a test, which is able to reliably compare the intelligence of a Kalahari bushman with the intelligence of a French engineer. Put both in the Kalahari Desert and only the bushman will survive. Out of stupidity?

If you read Watson's remarks carefully, he does not say, Africans are less intelligent. He says their intelligence is different. Indeed, the sort of intelligence a bushman needs in the Kalahari or a Massai herder draws from on the East African plains should be different from the sort of intelligence an engineer needs in a Renault car plant. Each man had different training and therefore, each is better at different things. 85 points scored by a bushman in a test devised for Westerners may mean something different than 100 reached by a London clerk and almost certainly one could devise an "intelligence test" which would result in reversed scores. Intelligence testing is "soft science", the realm of psychologists, and I wouldn't like to bet one Euro on the validity of any of them.

Nevertheless, the statement that culturally and genetically different groups may also differ in cognitive abilities is a trivial one. At least in the sense that members of different groups perform on average better in one cognitive ability and worse in another. Since the brain is a complicated organ with countless cognitive abilities, it seems difficult to speak of general superiority or inferiority (and also of "general intelligence"). Did Watson speak in this sense? Most likely.

Watson seems to believe that these "intelligence or cognitive differences" are genetically based. This is possible, even likely, but there is no solid evidence for it. Differ-



James Watson riding the beast

ent training, social status, nutrition and upbringing can also account for the differences. American blacks form the lower stratum of American society and Sub-Saharan Africa is the poorest continent. Some declare the one to be the result of the other, but who's the chicken and who's the egg? Watson's statement is therefore a hypothesis, which might turn out to be true or false.

But is not forming hypotheses the very basis of science?

Watson seems to have made some trivial remarks regarding cognitive abilities – or at least remarks that can be interpreted in a trivial sense – and brought forward a

hypothesis, which is not out of this world. In turn, he was fired from his job and ostracised by the scientific establishment. In a strangely scathing *Nature* Editorial from October 25th 2007 entitled “Watson’s folly”, his remarks are referred to as distasteful, unpalatable, crass and beyond the pale. Sydney Brenner accused him of *hubris*: self-confidence and arrogance that leads to disastrous retribution (*Science* 318: 1245-46). The Federation of American Scientists said that Watson “chose to use his unique stature to promote personal prejudices that are racist, vicious and unsupported by science.” The Cold Spring Harbor Laboratory board found Watson’s remarks offensive and scientifically incorrect. How could they say this, when nobody knows what Watson really meant and the most likely interpretation of his words is trivial? Or did they know what Watson meant? Then they should argue scientifically. Astounding is that nobody from the scientific establishment came to Watson’s rescue. This is difficult to understand and displays an element of cowardliness. Obviously, Watson did not keep to his own rule: “Be sure you always have someone up your sleeve who will save you when you find yourself in deep shit.”

### Senile? No!...

Can one really believe that a man risked fame, reputation and job for the sake of a casual remark? Why? Watson was 79 years old when he gave the *Sunday Times* interview. Was it due to an ageing brain? Was it the fun of provocation? Was he taking a stand against political correctness and a ban on free thinking (*Denkverbote*)?

Recently, I read a short, well-written book from the Hungarian chemist Istvan Hargittai, “The DNA Doctor, candid conversations with James Watson”. Driven by the urge to discover the ingredients, which make a good researcher, Hargittai has conducted several interviews with famous scientists. Here Hargittai reports on three conversations he and his wife, Magdi, had with Watson in the years 2000 and 2002.

One of the definite messages in Hargittai’s book is clear: Watson is not senile! This is in accord with the impression one gets

from the long interview Watson had given to the *Sunday Times*. There, one reads, “His comments, however, although seemingly unguarded, are always calculated”. This is corroborated by Hargittai: “[...] however shocking he may appear at times, Watson knows exactly what he can say publicly – like fat women have better sex lives – and what he cannot (about politics and religion, for example).”

### ... Arrogant? Neither!

Is Watson arrogant as Sydney Brenner wrote? Hargittai asked Watson, “What would be your longest ranging impact?” His answer was: “Probably my books. The discovery of DNA was just waiting to be made; it was not a difficult thing, any good chemist should’ve arrived at the answer pretty fast. Rosalind Franklin was a physical chemist; she really wasn’t a complete chemist. Pauling just goofed beyond any reason; it was crazy. Any good chemist should’ve found the structure of DNA. But The Double Helix was probably unlikely to have been written by anyone beside myself.”

Is this the answer of an arrogant person? In fact, all of Watson’s answers in Hargittai’s book have an air of modesty. And please remember, Watson never co-authored papers with his students if he hadn’t made a personal contribution – a deeply modest behaviour. I am not sure, whether those snapping at his heels, come anywhere close to this degree of modesty.

It is worth noting that Hargittai’s book contains several remarks by Watson about Sydney Brenner. One of them is straightforward, “Sydney is not a nice person”.

In “The DNA Doctor” Watson speaks on intelligence and genetics. It is difficult to differentiate between intelligence and motivation, he explains, and it is difficult to define intelligence without proper knowledge of how the brain works. This is in accord with my interpretation of his statement to the *Sunday Times*: If it is difficult to define intelligence – which is true – it is also difficult to make a statement about it. All you can do is bring up trivial assertions like “intelligence traits in genetically different populations are likely to be different since the

brain is a delicate organ whose functions are influenced by a lot of genes”.

A major trait of Watson’s personality seems to be his loathing of hypocrisy, especially when it takes the form of political correctness. “Today it is religiously important to be politically correct”, he told Hargittai. Moreover, Watson provokes with a sense of conviction, “If you move toward the centre, you are not serving your function as an intellectual”.

I believe, Watson made his remarks not out of senility or arrogance but out of contempt for political correctness and the underlying cowardliness. He was the right man to do so. Who else but Watson, a rich man with no further ambitions for personal gain, can be so outspoken against the powerful? Watson seems to have decided that it is more important to fight the “thought police” than to issue careful scientific statements.

### A doubtful apology

That’s not a problem, however, one aspect I find difficult to comprehend in Watson’s attitude is: If you put up a hypothesis, which provokes people, you cannot just say, I have been misinterpreted and withdraw. Even less so if you offer such a doubtful apology as Watson has done, by saying “I did not mean it” in one sentence and “I cannot understand how I could have said what I am quoted as having said” in the next. You have to discuss the issue; you have to show the evidence upon which your hypothesis is based. Instead of saying “I did not mean it” Watson should have said exactly what he meant.

Hargittai, the author of “The DNA Doctor”, agrees, “The attacks against him have been overblown, and really missed the target. Instead of a candid discussion, any meaningful discussion was aborted or abandoned. His having withdrawn indiscriminately what he had said instead of elaborating, added to the damage.”

I recommend Hargittai’s book and I recommend taking a closer look at what Watson actually said.

My immense respect for Watson has certainly not been swayed.