

Comment and analysis

Don't vote for ignorance

When the next US presidential debate airs, voters should swiftly reject any candidates who flaunt their scientific illiteracy, says **Lawrence Krauss**

“Science is not mere storytelling. It makes predictions that help us to control our destiny”

WHEN 10 Republican candidates for the next US president were asked in their first Presidential Debate in May whether they believe in evolution, three of them – Kansas senator Sam Brownback, Arkansas governor Mike Huckabee and Colorado representative Tom Tancredo – answered no. This might shock many *New Scientist* readers, but among the US public a common reaction has been “who cares?”

In a poll conducted at about the same time, over half of respondents said it didn't matter to them what candidates think on the issue. In the most recent debate in June, Huckabee added: “It's interesting that that question would even be asked of somebody running for president. I'm not planning on writing the curriculum for an eighth-grade science book.”

With the next debate looming on 5 August, I would like to explain to Huckabee and the other presidential candidates why it is vitally important what they think about evolution, and why any candidate who rejects it should be swiftly rejected by US voters.

The question probes far more than each candidate's knowledge of biology. It gets to the heart of their overall scientific literacy, and the manner in which they will make decisions about important issues facing the country.

Let's take scientific literacy. Huckabee, for example, openly stated that he does not know if the Earth was created in six days, 6000 years ago. This represents a remarkably open mind in the face of overwhelming evidence that it was not. This point is no more unresolved than the question of whether the Earth is round, or whether it goes round the sun.

If a potential president is unwilling

to accept the fundamental results of chemistry, physics, biology, astronomy and geology, all of which tell us that a six-day creation is incompatible with everything we know about the world, and all the principles on which we base modern technology, then how can that individual be expected to assess the complex scientific and technological issues that will form the basis of US policy over the next eight years? Those who reject evolution owe the country an answer to that in the upcoming debate.

There is also the question of leadership. The US remains at the forefront of the technological world thanks to generations of scientific leadership. As many have pointed out, this is now in jeopardy, in part because the country is not doing a good enough job of educating the technical workforce needed to man the economic engines of the 21st century.

Sadly, the views expressed by these candidates reflect those of a large fraction of the US population, which in numerous surveys has stated its belief that God created humans in their present form less than 10,000 years ago. The future president must help lead here. If we are to “leave no child behind”, as the title of the famous 2001 Act put it, we must remember that the purpose of political leadership is not to vindicate ignorance but to overcome it.

Finally, and most fundamentally, there is the distinction between beliefs and evidence. Three candidates have spoken in the debates so far to explain their views on evolution: Brownback, Huckabee and Arizona senator John McCain, who had stated that he believes in evolution but later congratulated Huckabee on his statements, including that “if anybody wants to believe they are descendants of a primate they are

certainly welcome to it”.

All three answered the evolution question as if it was a religious point, rather than a scientific one. Huckabee and Brownback phrased their answers as if to say, “if species evolve, then God could not have been part of the picture”. In an opinion piece Brownback wrote in *The New York Times* to clarify his position, he stated that while it is possible for evolutionary theory to add to human knowledge, any aspect of it incompatible with the truth of creation must be automatically rejected.

Whether or not a person believes in God is a personal matter. In contrast, the biological relationships between modern humans and earlier hominid species are what they are, independent of those beliefs, and the way to discover them is through the scientific method – by observations and experiments. Similarly, to understand any aspect of how the world works, we must rely on what the evidence tells us, regardless of whether or not we believe that God started the whole thing.

The candidates' confusion on this matter is serious, and we should worry about it a great deal in a would-be commander-in-chief. Whether the issue is descent of species, weapons of mass destruction or human-induced global warming, we may believe what we want, but if we ignore the evidence we can be wrong in ways that can have manifest and serious consequences.

Science is not mere storytelling. It makes predictions that help us to control our destiny. The actions of the president and indeed any politician should be based on the best possible evidence, not a priori beliefs, whether they are ideological or religious. Our future depends on it.