

## Comment

## **Advice and dissent**

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Former US President George W Bush was not a man given to irony. Yet, asked where he got his information, he replied, "The best way to get the news is from objective sources. And the most objective sources I have are people on my staff."

Sadly, for the United States and for the world, he was not being ironic - he actually believed what he said. The notion that people close to the king typically try to remain close to the king by telling the king what he wants to hear does not seem to have occurred to that remarkably unreflective man.

Woe betide the courtier who troubles his or her monarch with unpleasant realities. Professor David Nutt must now understand this principle better than anyone. Until a few weeks ago he was the chairman of the UK's Advisory Council on the Misuse of Drugs (ACMD) - an independent expert body that provides scientific advice to the British government on drug-related issues, including recommendations on how to classify the dangers of cannabis (marijuana), ecstasy, and other drugs of abuse. On 30 October 2009, David Nutt was summarily fired by the British Home Secretary, Alan Johnson, for giving the government advice and then criticizing it for not taking it.

That advice concerned the thorny issue of reclassification, of cannabis in particular. Few subjects illustrate the divide between conservatives and liberals more starkly than drugs, and cannabis is the drug that provokes the most heated debate. People may argue about whether all drugs should be legalized, but they generally agree that heroin and cocaine are dangerous substances that can have severe psychotropic effects. Cannabis, however, is viewed so differently by liberals and conservatives that one's opinion on its harmful effects could serve as a shibboleth for distinguishing the two philosophies. Most liberals consider marijuana a relatively harmless recreational drug, along the lines of alcohol but less addictive and not so socially damaging, whereas most conservatives regard it as a tool of the devil - a drug that, in addition to producing all manner of terrible side-effects, is guaranteed to lead its user down a slippery slope to more dangerous drugs.

In Britain, cannabis was originally classified in 1971 in The Misuse of Drugs Act as a Class B drug. The category was created specifically for cannabis and some other drugs (such as amphetamines) as a compromise between those who thought cannabis was as dangerous as heroin (Class A) and those who thought it was a 'soft' drug like the benzodiazepines (Class C). After several abortive attempts to reclassify it, marijuana was officially downgraded to Class C in 2004 after a recommendation by the ACMD. These classifications can have significant consequences: if cannabis is a Class B drug, people convicted of possessing it could, in principle, face up to 5 years in prison, compared to a maximum of 2 years if it were Class C. In 2008, however, the then Home Secretary Jacqui Smith rejected the advice from the ACMD to keep cannabis at Class C and moved it back to Class B, despite the council's extensive review of evidence concerning its long-term effects, including any link to mental illness.

David Nutt, who was appointed chair of the ACMD in 2008, reacted angrily to this decision. In October, in a lecture given at Kings College London on a briefing paper prepared for the London-based Centre for Crime and Justice Studies, he publicly accused ministers of "devaluing and distorting" the scientific evidence over illicit drugs by their decision to reclassify cannabis to Class B against the advice of the ACMD. In deciding to speak out, he was probably also stung by the government's decision, in February of this year, to veto another ACMD recommendation, following a review of 4,000 papers on the subject, that the drug ecstasy be downgraded from Class A. His public criticism of the government was rapidly followed by his dismissal from the ACMD by Alan Johnson, a government action that has ignited a firestorm of editorials and comment, including predictable references to the Catholic Church's prosecution of Galileo in 1633 (for a set of links, see http://www.guardian.co.uk/uk/david-nutt).

No one questions the government's legal right to sack someone they appoint; at issue here is the cause. It cannot be a question of competence: David Nutt is certainly well qualified. A professor at both the University of Bristol and Imperial College, London, he is a specialist in the psychopharmacology of depression, addiction, insomnia and other psychiatric disorders. The stated reason for his dismissal was that, by going public with his dissent, he made it impossible for the government to send a clear and consistent message about drugs to the public.

A number of people agreed with that decision. In an opinion piece in The Telegraph on 7 November, Alasdair Palmer wrote, "Prof. Nutt isn't a martyr to science who lost his job merely for confronting the government with incontestable facts. He was sacked because, as Mr Johnson insisted, 'he cannot be both a government adviser and a campaigner against government policy'." He goes on to say that "Prof. Nutt's views on policy matters ... are not straightforward inferences from the scientific facts ... the harm that cannabis can cause in teenage brains is a good reason for, as the government says, 'erring on the side of caution' and classifying cannabis as a Class B drug, with heavy penalties for those convicted of possession. The science does not force you to that conclusion - but then it does not force you to the conclusion that cannabis should be downgraded to Class C."

But many scientists were appalled by the government's actions. Two members of the ACMD immediately resigned in protest, and three more have resigned since, raising the possibility that the committee might no longer have enough expertise to do its job. And a week after Nutt's dismissal, more than 20 academics, including Martin Rees, the President of the Royal Society, sent the government a set of guidelines that they say "would enhance confidence in the scientific advisory system and help government to secure essential advice." The guidelines assert that "disagreement with government policy and the public articulation and discussion of relevant evidence and issues by members of advisory committees can not be grounds for criticism or dismissal." When scientific advice is rejected, they said, the reasons should be described explicitly and publicly.

Ironically, Nutt's sacking took place just days after the British government had issued a statement about the importance of independence in scientific advice that said, in part, that scientists should not be criticized for publishing scientific papers or making statements as professionals, independent of their role as government advisers. So why was David Nutt sacked, really?

My guess is that it had relatively little to do with the issue of scientific independence and a lot more to do with the peculiar nature of drugs as a political and social lightning rod. Few issues, short of abortion, raise the moral outrage of the Right as reliably as a suggestion that we should go softer on those who use certain drugs. Governments advocate such positions at their peril. Facing a hostile electorate because of the financial crisis, together with a strong challenge from a reinvigorated Conservative Party, the Labour government of Gordon Brown probably felt it could ill afford to be seen as being anything but hard-line on any drugs issue at this time. Not firing Professor Nutt, they obviously thought, would send a mixed message to the voters about their confidence in their drugs policy.

Regardless of the underlying motives, this case should have a powerful resonance in the United States. For 8 of the past 9 years, the American government deliberately misrepresented and ignored scientific advice whenever that advice contradicted the ideology of those in power. It routinely put poorly qualified scientists and even nonscientists in 'scientific' advisory positions, so long as they passed the litmus test of political and religious attitudes. The government edited scientific data and conclusions out of reports, and persecuted government scientists who questioned its policies. So bad was the situation that, when he was elected, President Barack Obama felt the need to address this problem publicly in both his Inaugural Address on 20 January 2009 ("We will restore science to its rightful place") and in a speech he gave before the National Academy of Sciences on 27 April ("...we have watched as scientific integrity has been undermined and scientific research politicized in an effort to advance predetermined ideological agendas").

Ignoring and marginalizing science has a long, sorry history in the United States. One of the main reasons for the failure to develop a firm policy on the climate crisis can be seen in the persistent tendency of several administrations to find that handful of scientists who disagreed with the majority opinion and listen only to them. Confronted with scientific evidence that one of his cherished beliefs was simply not supported by the facts, President Ronald Reagan would simply dismiss it by saying, "Oh, I don't think that's true." The Eisenhower and Truman administrations stocked their scientific advisory boards with physicists who shared their militaristic, coldwar anti-communist philosophy, and in some cases persecuted those (J Robert Oppenheimer, for example) who begged to differ.

The tension between scientific advice and policy advice remains strong. I believe that it is the function of a scientific adviser to any government to provide advice purely on scientific matters. Your job, in other words, is to tell your bosses what the data say. If the data are relatively unambiguous and there is good consensus on their interpretation, that needs to be said. If there are reasonable opposing conclusions that are supported by reliable measurements, it is important to see that those views are aired. But a scientist has to be careful about advocating a particular policy in response to the science. If science can say that there is a probability that a particular policy would have severe negative consequences, it is essential that governments be told that. But in general, policy is a matter not for scientific advisers but for politicians.

Politicians, we are constantly told, acquire and retain power by deceit and salesmanship, and frequently are contemptuous of the people they profess to serve. But, true as that cliché might be (and happily there are some notable exceptions), it is their job to get something done, and getting something done frequently requires making compromises that appall or offend the scientist. A good politician usually keeps his or her options open. I agree completely with the guidelines proposed by the 20 academicians in Britain, which state that scientific advisers should not be dismissed for public criticism of policy decisions - but I would issue a caution to those advisers who contemplate doing so.

Scientific advisers should be free to air their views, and not just on matters of science. But they need to understand the consequences. Politicians are naturally suspicious of anyone with an agenda, and not being reluctant to spin the facts if it serves their purpose, they are quick to believe that others will do so as well. If scientific advisers seem to be advocating particular policies, their scientific objectivity will come into question, regardless of the solidity of their conclusions. David Nutt was right to criticize a policy decision that he felt went against the science. But it led to his being removed from a position where he might have been able to influence such policies in the future. If we want governments to learn to trust scientific advice, we have to ensure that such advice is seen to be objective, as

well as actually being so. In his position, would I have done what Professor Nutt did? Probably, but with one significant difference: I would have resigned before going public with my criticism, thereby establishing the separation between my duties as a scientific adviser and my duty as a concerned scientist to speak out about a flawed policy. I also think the Labour government overreacted, and in so doing turned a debate about drug safety into one about the independence of scientific advice and the limits of dissent. Instead of looking tough on drugs, they came across as being afraid of the truth.

We as academics cannot give the advice governments need to hear if we are seen as just another political faction with its own (usually liberal) agenda. The great strength of science is that its conclusions are evidence based. Scientific advice, like Caesar's wife, must be above suspicion. If we appear to stray, we lose.

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