## England and America are two countries separated by a common language George Bernard Shaw

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Shaw intended a bit of whimsy when he noted the difference in language between America and England. However, different meanings and connotations for words have been turned into a weapon in the war against scientists and their science. Has ideology triumphed over humor? Read on — this is no "trick"!

An American visiting Britain soon learns that different words refer to the same activity or item — for example, *football* is *soccer*, *subway* is *the tube*, *toilet* is *the loo*, and the *trunk* of an automobile is the *boot*. In addition, some American/British words have identical meanings but different spellings — behavior/behaviour, criticize/critise, plow/plough, program/programme, check/cheque, airplane/aeroplane.

More important in some misunderstandings is the difference in attitude between any two cultures – such as politicians and scientists. A member of the State of Virginia legislature has pre-filed a bill to classify natural gas (coal-bed methane especially) as a renewable energy source. Renewable resources are normally replenished through natural processes and are created as fast as they are consumed. However, the time factor – millions of years – must be considered in classifying natural gas as a renewable resource. The legislator should have consulted the Natural Renewable Resources Foundation or a natural renewable resource scientist in an academic institution – or a dictionary. Humankind is facing hard times that will surely worsen if politicians ignore definitions agreed upon by mainstream science and used by major dictionaries. In these dangerous times, the meaning of words cannot be distorted or used carelessly. Definitions do change, such as the definition of "middle-class" (Whitehead et al. 2010), but the new definitions will survive only if they are reached by consensus and are not used to placate a special interest group (Editorial 2010).

Scientific publications are designed to minimize misunderstandings of words, but scientists may then be attacked for using "jargon." Climategate is a superb example of an attempt to discredit scientists and their science. The controversy is based on

a set of over 1,000 private emails and many other documents that were stolen or leaked from the University of East Anglia's . . . Climate Research Unit in November 2009. . . . Selected contents of the emails were used by some to suggest that scientists had been manipulating or hiding data, had been working together to frustrate people requesting access to the data and to prevent journal papers they disagreed with from appearing (Carrington 2010).

Extensive examination and analyses of the emails have comprehensively debunked the claims and accusations of the climate deniers. The detailed investigations showed no significant effect on the conclusions of mainstream science about human effects on Earth's climate. Global climate change, if it continues at its present rate, is almost certain to produce climate changes so severe that humankind will probably be unable to cope with them effectively.

The total number of emails and other documents may have had four or five that looked suspicious/inappropriate/questionable. One involved the use of the word *trick*. British scientists used the word *trick* to denote an ingenious way of overcoming a problem. The climate change deniers interpreted the word as meaning either, at best, *mischievous* or, at worst, *deceptive*. Since Americans and British sometimes have different meanings for the same word, an objective, non-ideological analysis of the different meanings for the word *trick* was in order. Instead, a rush to judgment occurred. The qualified climate scientists had to spend

<sup>&</sup>lt;sup>1</sup> *Trick* is used here as the word misinterpreted in Climategate.

<sup>&</sup>lt;sup>2</sup> I am indebted to Richard Rusk for calling this editorial to my attention

inordinate amounts of time responding to accusations that lacked robust supporting scientific evidence. Climate change scientists should be able to devote all their time and energy to gathering and analyzing evidence on this complex, multivariate problem, not explaining or justifying their word choices. In addition, climate scientists and those in related fields of science should be aware that their emails may be made public by illegal hackers and should be as vigilant in these exchanges as they are in articles in peer-reviewed, scientific journals.

Humankind cannot afford another "Climategate." A preliminary assessment of the dangers of a now probable global surface mean temperature of 4°C and beyond has recently been published (Tyndall Centre 2010). The dangers are many, and time to gather additional, relevant, scientific evidence is short. Above all, humankind should aspire to leave a habitable planet for future generations. The ideological attacks on scientists and their scientific research on global climate change are a major obstacle to achieving that compassionate goal!

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