

Bad Science

Why you should question everything in the media

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Science has become one of the most respected disciplines with good reason. The benefits of science are all around us: improved health, faster travel, the ability to predict weather, modern communications, the list is long.

The widespread acceptance of science has been accompanied by a loss of the skepticism on which science is based. As a result, there is now blind acceptance of anything that is promoted as science and the public is ignorant of the extent to which this is being exploited.

This talk addresses some of the most prevalent abuses that are now occurring in science. These include:

- About one third of all “peer reviewed” journals are fake
- Fraudulent data has become an epidemic in science.
- Exaggerated, sensationalized conclusions in scientific papers are common.
- The peer review process is not always rigorous or may be non-existent.
- Computer based analysis is routinely abused to generate false positives
- Much of the science today cannot be reproduced

The problem only gets worse in the media. Most scientific articles are not written by scientists but by publicists. Their goal is to promote the image of their scientific institutions even if it means exaggerating or even misrepresenting scientific findings . Journalists rarely check the validity of scientific claims in press releases received from the publicists. It is therefore not unusual to find that scientific articles in the media do not vaguely resemble the original paper on which they are based.

The result is that the public is being fed a steady diet of exaggerated, sensationalized and false information and no scientific claim in the media should be accepted until it is validated.